A.I.D. INTEGRATED LOW COST DELIVERY SYSTEM PROJECTS

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AID INTEGRATED LOW COST DELIVERY SYSTEM PROJECTS:
Health, Nutrition and Family Planning

Volume I:
Project Summaries

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FOREWORD

The Agency for International Development is actively working to encourage and promote expansion of integrated health delivery systems in which health, nutrition and family planning play important and even co-equal roles world-wide. Within AID, however, professional and technical functions are dis-integrated into separate organizational entities. This volume represents an illustration of growing integrative collaboration in which the Office of Health, the Office of Nutrition, the Office of Population of A.I.D. and the Office of International Health of D.H.E.W. are working together for common purposes. Integration at the field or operations level are sometimes more easily brought about than at headquarters level.

Dr. Baumslag and her colleagues have produced the first of several planned documents which will be useful to those who wish to obtain a synoptic picture of A.I.D.-supported integrated health delivery systems at a single point in time.

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PREFACE

One fourth of the world's population (one billion men, women and children) have no access to any health care whatsoever. Another billion have only the most rudimentary and ineffective care. Less than 10 percent of the 80 million children born each year in the world receive immunizations against preventable disease. In several African countries 50 percent of all children born continue to die before age 5.

Until the advent of the basic needs strategy for development assistance, health improvement did not have a high priority in development aid to the Third World. Less than 5 percent of bilateral development assistance in 1975 went for health improvement projects. In 1976, the United States Agency for International Development (AID) spent $54 million for health assistance, a figure which has increased to $135 million for fiscal year 1979.

The most rapidly growing category of health assistance is the development of low cost health delivery systems which bring together health services, family planning and nutrition interventions, areas nominally separate in AID, but integrated in these projects. Integrated services can be more effective than separate health, nutrition or family planning projects. The Narangwal Study showed that increased food for children without action on sanitation,

parasitic infestation and contagious diseases will show little impact. A second example of the efficiency of the integration of health, nutrition and family planning is the fact that it now appears that the perception of improved child survival, due to better health and nutrition, is a key precondition to the acceptance of family planning on the part of the rural poor in developing countries.

In 1977 integrated low cost health delivery system projects accounted for 27 percent of AID health funds. This percentage has grown to 43 percent for fiscal year 1979. Asia contains almost two thirds of the population of all countries which receive health assistance from AID, but Asian countries will receive only 45 percent of AID's health assistance funds. Relative to its population, Africa will receive the largest proportion (one third) of AID health funds.

The focus in integrated low cost health delivery system projects is on the rural areas of developing countries because medical services world-wide, and particularly in developing countries, have grown mainly in urban centers rather than in rural areas where the majority of the population lives. For the period 1968-74 the ratio of doctors to population in urban areas of developing countries in Africa, Asia and Latin America averaged one physician to every 47,000 people.

AID is providing technical assistance, financing, or training in the development of 45 integrated low cost delivery projects in developing countries. This volume summarizes 39 of these projects based on information contained in AID Project Identification Documents (PID's) and Project Papers. About 2/3 of these projects were scheduled to have begun before the current fiscal year (f.y. 1978). The balance are due to begin this year or in f.y. 1979. While this volume presents the project summaries, a companion second volume will examine in more detail nutrition interventions planned in these projects as well as make detailed comparisons on the populations targeted, manpower to be used and anticipated results.

Two thirds of the integrated projects summarized in this volume target the population of a region or sub-region in the developing country rather than the population as a whole. The assumption is that if the value of low cost rural health delivery can be demonstrated in one part of a country, it will be extended to other regions of the country. Taken together, these projects specify a target population of 45 million people.

Volume Two will examine in more detail the strengths and weaknesses of the integrated low cost delivery system

projects summarized here. Examination of the project description shows that the nutrition component in some of the integrated low cost health delivery projects are weak. Some projects have no nutrition components. Iron deficiency anemia is the most prevalent single nutrient deficiency, particularly among pregnant and lactating women, infants and children, yet iron supplementation is mentioned in fewer than five projects. Breast feeding is the cheapest and most effective nutrition intervention for infants, only 6 projects give the promotion or encouragement of breast feeding a major role.

Many of the projects summarized here mention nutrition education but remain vague on target groups, the content of the educational messages, or how nutrition education will be carried out. Iron deficiency anemia, vitamin A deficiency blindness, and goitre caused by a lack of iodine in the diet, are common deficiency diseases in many developing countries. However, supplementation of diet with iron, iodine, or vitamins, plays little role in the majority of the low cost health delivery system projects described in this volume. Measles and other preventable contagious diseases cause high mortality among children in developing countries. Immunization campaigns play a major role in

about two thirds of the projects summarized here.

The number of tasks expected of the lowest level health worker seems disproportionate, especially in the case of the volunteer village workers. Most of the nutrition intervention tasks mentioned in these projects are delegated to the lowest level worker with the least education, training or pay. Besides implying a low priority to nutrition intervention, this practice risks over-burdening low level health workers with too many tasks.

The technique of using health auxiliaries to provide preventive health care and simple curative services to rural populations has worked on a small scale in projects sponsored by private voluntary organizations. Using health auxiliaries to provide accessible low-cost integrated health services has also worked in a research setting, such as Narangwal in India, where organization, training, and monitoring have been excellent. What is new about the projects described in this volume is that integrated low-cost health services will be delivered on a large scale by health auxiliaries at the initiative of governments, in a setting where many of the personnel, training and organizational issues remain to be worked out. On this large scale, many of the projects described here represent bold new attempts to provide all people with health care.

AID INTEGRATED LOW COST DELIVERY SYSTEM PROJECTS

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AID INTEGRATED LOW COST DELIVERY SYSTEM PROJECTS IN AFRICA*

* PID'S HAVE NOT YET BEEN COMPLETED ON PROJECTS IN KENYA, ZAIRE AND GHANA

CAMEROON

Project Title and Number: MEDCAM I, 631-0016 (PID Stage)

Project Cost : $14.9 million grant (Total Project Cost--$9 99 million

Project Life : FY 1979 - FY 1983

Target Population : Not Estimable

Area Coverage : National

Project Purpose :

Extension of Rural Health Services through training and support of middle level health workers and village health workers to provide total country primary health care coverage.

Health Component:

MEDCAM I will primarily train MEDEX-type intermediate level practitioners who will subsequently train and supervise village level health workers. Directly related to the development of a national training and support system will be the provision of health manpower planning expertise to the Ministry of Health.

MEDCAM will help Cameroon establish a national, three-tiered health manpower infrastructure of doctors, intermediate health personnel, and village health workers, who will apply a health team approach. The Project willtrain intermediate workers at 2 centers in Yaounde and Douala. The intermediate level worker will have one year of training composed of didactic, practical, and preceptorship. To capitalize on the increased availability of physicians trained by the University Center for Health Services, (CUSS) MEDCAM will incorporate supervisory training of intermediate health workers into the University's curriculum.

Health facility construction, equipment and maintenance, transportation facilities will be financed by the Project. A detailed description of these activities is not outlined in the PID document.

Nutrition Component:

Intermediate level health workers will be trained to provide basic nutrition services.

Population Component:

Intermediate level health workers will be trained to deliver family planning services.

Project Outputs:

(1) Collaboration in the development of a comprehensive national health manpower plan which will establish the civil service structure and long-range training objecties of the health personnel infrastructure.

(2) Establishment of the training and support systems for both intermediate and village level workers.

(3) Development of a full series of competancy based training modules required by the intermediate and village level trainees as follows:

	1979	1980	1981	1982	1983	Total	Annual Rate
Medex, Yaounde Province	25	50	100	100	100	650	200
Medex, Douala Province	0	25	50	100	100		
Village Health Workers (CHW)		125	375	750	1000	2250	1000

(4) After area assignment, each intermediate level worker (Medex) will train and supervise approximately five village health workers.

(5) Provision of the facilities and equipment necessary to extend the impact of the present Cameroon health system to the rural areas.

(6) 480 Person-Months of participant training in health planning, health services administration, epidemiology, health education.

Project Inputs:

The total estimated cost of the MEDCAM I project is $99,893,000. AID's contribution of a $14,893,000 grant represents 15% of the total. Of the total grant, $3,420,000 will be for U.S. direct hire or contract personnnel, $3,981,000 for commodities, $3,672,000 for training, $3,610,000 for construction and $210,000 for other costs.

The host country contribution of $85,000,000 represents the Ministry of Health's total five year budget ($78,000,000) plus the five year input from the Ministry of Education through the University of Health Sciences (CUSS) ($7,000,000) over the life of the project. The GURC contribution includes salaries of local employees, investment and and operating costs of the health system.

While other donors are making valuable contributions to Cameroon in the health sector with which the MEDCAM Project will be integrated, direct other donor input into the MEDCAM Project is not foreseen at this time. A list of AID inputs follows:

Personnel:		$ 3,420,000
(1)	Contract Technicians for 5 years (7) 420 PM x 7,000 per PM	2,940,000
(2)	Consultants (short-term) 60 for 1 month 60 PM x 8,000 per PM	480,000
Training:		$ 3,672,000
(1)	Long-term out of country - 20 for 24 mos.	408,000
(2)	Short-term out of country - 40 x 1600 per PM	64,000
(3)	650 intermediate level health workers - 1 year @ 250 per PM x 12	1,950,000
(4)	Village health workers - 2250 for 2 mos. 4500 PM x 250 per PM	1,250,000
Commodities:		$ 3,981,000
(1)	Vehicles: 48 four-wheel drive vehicles @ 12,000 each	576,000
(2)	Motorcycles: 650 @ 740 each	480,000
(3)	Medical Equipment (non-consumable) for health centers and health posts: 218 @ 1,000 each	218,000
(4)	Office Equipment (non-consumable), typewriters and copying machines for training centers	217,000
(5)	Garage Equipment and Supplies: 10 garages x 18,000 each	180,000
(6)	Spare parts, petrol oil, lubrication for 48 vehicles and 650 motorcycles for 5 years: 48 vehicles @ 1,000 per year (48,000) x 5 years	690,000
(7)	Medical Equipment and A-V supplies, training materials (books) for health training centers 10 centers @ 2,000 per centers	200,000
(8)	Medical Bag and Diagnostic Equipment for 650 "Medex" (including microscope) @ 800 ea.	520,000

(9)	Village Health Worker Medical Kits: 2250 @ 400 ea.	$ 900,000
Construction:		$3,610,000
(1)	Repair/construction of 116 Elementary Health Centers (EHC) @ 10,000 ea.	1,160,000
(2)	Repair/construction of 34 developed health centers (DHC) @ 15,000 ea.	510,000
(3)	Repair/construction of 12 Divisional Center for Preventive Medicine (DCPM) @ 15,000 ea.	180,000
(4)	Repair/construction of 36 Maternal Child Health Centers (MCHC) @ 10,000 ea.	360,000
(5)	Repair of 20 Divisional and Sub-Divisional Hospitals (rural) @ 40,000 ea.	80,000
(6)	Ten Motor Vehicle Maintenance Garages @ 6000,000 ea.	600,000
Other Costs:		$ 210,000
	"Medex" and VHW Conferences 4 @ 15,000 ea	60,000
	Health Education and Public Information Campaign (Multi-Media)	150,000
	TOTAL:	$14,893,000

Host Country and Other Donor Activities:

Every activity undertaken in the health sector by Cameroon or any of the other donors relates directly to the MEDCAM Project which, through addressing intermediate level and village level health manpower development, will deal with every aspect of the provision of basic health services in a low-cost system aimed primarily at the 70-80% of the population who now do not have access to the government delivery system.

In addition to AID, WHO, UNDP, UNICEF, CIDA, IDRC, IBRD, SIDA, EAC, FED, FRG, Switzerland, Belgium, China and many others, including numerous private voluntary organizations, are providing support to the Cameroon health sector. MEDCAM will capitalize on the current AID/CUSS project by creating a new relationship between AID and CUSS which (a) utilizes CUSS graduates in directing the attention of CUSS's activities more toward the provision of team delivered rural health services, and (b) draws CUSS and the Ministry of Health into a closer collaborative relationship.

Issues:

The major assumptions upon which the successful implementation of the MEDCAM Project depends are the capability of existing health system in Cameroon to undertake, with external assistance, a major expansion designed to bring basic health services to all the people of Cameroon. Related to this is the assumption that the enthusiasm shown by government officials will be translated into subsequent Cameroonian participation in the leadership of the Project.

It is assumed that the Ministry of Public Health will use the MEDCAM Project as a key element in its effort to make basic health services accessible to all Cameroonians. It is also assumed that the CUSS training center will demonstrate its continued support of the Project by serving as the institutional base for MEDCAM.

The MEDCAM training personnel are to become part of the CUSS, and the CUSS is expected to endorse the intermediate health worker graduates. It is also assumed that it will be possible to work out a combined government subsidy and direct village support system which will be able to provide village health workers with a standardized financial incentive sufficient to maintain them (while not placing an unacceptable burden on either the government or the villagers).

Other basic assumptions, applicable to most health training apply also to MEDCAM. These include the assumptions that (1) the host government will continue to place a priority on the development of health services; (2) qualified candidates will be available for training; and (3) medical technology will advance sufficiently to permit the system to deal with the ever-changing pattern of diseases encountered in the Cameroonian people.

Realistic Alternatives:

The alternative approaches to the development of an appropriate low-cost rural health services delivery system include several types of projects AID and other donors are currently trying without the desired effect. These include development of pilot or demonstration projects which attempt specific or pan-sectoral programs in a limited context. These programs usually benefit from such high concentrations of personnel and materials that whatever successes or realized cannot be expected to be reproduced in other parts of the country.

Another alternative is a vertical intervention, such as an intense eradication project, aimed at a specific priority health problem. Again, such projects usually require heavy investment and externally supplied infrastructure to succeed and have not usually created an indigenous capacity to deal with other, similar, disease problems.

A third alternative is a large, multidonor effort which addresses all of the aspects of an integrated, comprehensive national health services system simultaneously with each donor dealing with specific, defined areas of the problem. While this appears attractive in theory, the difficulties inherent in achieving the necessary cooperation and coordination among donors have repeatedly proven to be difficult and often insurmountable.

Thus, the MEDCAM approach of addressing the entire health sector through a single point of entry offers an opportunity to make a major contribution to the development of health services in Cameroon, while not interfering with the activities of other donors nor depending upon them.

Source of Information:

Cameroon MEDCAM I Project Implementation Document

Project Name and Title: Basic Rural Health Services
655-0007 (PID stage)

Project Cost: $1.5 million grant (Total project cost -- $2 million)

Project Life: FY1979-FY1981

Target Population: 240,000 (80% of country's population)

Area of Coverage: National

Project Purpose:

To help the Government of Cape Verde (GOCV) expand and improve its capability to effectively deliver basic health services in rural areas.

Health Component:

a) Renovation, building, and staffing of basic rural health centers will be initiated.

Basic health centers will emphasize basic preventive activities using volunteer health educators. Immunization, basic medical consultations and medicines, basic dental assistance, sanitation, health education services will be provided. Additionally, small pharmacies will be established for first aid.

b) Rural health posts/maternity centers will be built and staffed by trained nurses and assistant nurses. The health posts will provide preventive and curative services. Traditional midwives will be employed by the MCH centers. The MCH centers will provide intensive short term health training for the midwives.

c) A volunteer community health committee will be established in each target community to promote curative and preventive health services.

d) A transportation system for the delivery of medical supplies will be established in the health centers and posts.

e) Health planners/trainers (18) will be trained under this Project.

Nutrition Component:

The health educators in the basic rural health centers will initiate nutrition education within the community.

Population Component:

The population component is not specifically defined although MCH services will be delivered in the health posts/MCH centers.

Project Inputs: See Table A-2

Project Outputs:

To attain the Project's purpose, appropriate technical, training, community development and other activities will be undertaken to achieve the following outputs:

- 14 basic rural health centers built and or renovated and staffed by trained paramedical personnel. These centers will emphasize basic preventive activities, for instance, using volunteer health educators to teach the population in target communities the basis of nutrition and sanitation. Additionally, small pharmacies will be established for first aid and treatment of easily identifiable illnesses.

- 40 rural health posts and maternity centers built and staffed by trained personnel. These posts/MCH centers will be staffed by a nurse or assistance nurse trained in curative and preventive medicine. The MCH centers would employ traditional midwives chosen by the population. They will receive intensive short term training on basic health matters.

- an established volunteer community health committee in each target community to support and promote the timely delivery of basic preventive and curative health services.

- an established system for the timely delivery of medical supplies and other supplies to each of the health centers and health posts in the target areas.

- service packages that will be provided to the target communities during the program period include:

  - immunizations
  - basic medical consultation and medicines
  - basic dental assistance
  - self-help sanitation and health education.

Table A-2: Financial Requirements ($000)

Source	AID Grant	Host Country	Total
Technical Assistance			
35 PM @ $10,000 per month	350		350
Commodities	920		920
Health Centers 14@ $30,000	(420)		
Health Posts 40 @ $5,000	(200)		
Medical Supplies	(300)		
Training (participants)	180		
18 - 1 PM @ $10,000			
Other Costs	50	500	550
	$ 1,500	$500	$2,000

Host Country Activities:

The GOCV will provide the necessary administrative and field supervisory personnel to carry out the project, in addition to the salaries of health promoters, nurses, etc. (at least 25% of the total project cost). The GOCV will contribute the land, personnel and logistic facilities for the Project.

Other Donor Activities:

The Spanish Red Cross has donated medicines, supplies and foodstuffs to GOCV for a value of approximately $40,000.

Prior UNICEF assistance included aid to the two nursing schools; vehicles for the health posts; basic equipment for seven first aid stations, 30 health posts, three polyclinics and four regional hospitals; materials, equipment and vehicles for seven social centers and sanitary education reproduction materials for the national health services. In 1977, UNICEF is continuing its assistance to the Ministry of Health and Social Affairs in community involvement programs. This will include training costs for the midwives, local volunteers for the village pharmacies and local health and nutrition educators. The supplies and equipment will also be provided by UNICEF to complement GOCV contributions for physical facilities and local personnel.

Issues:

Problem areas were not specified in the document.

Source of Information:

ape Verde Islands Basic Rural Health Services Project Implementation Document

CENTRAL AFRICAN EMPIRE

Project Title and Number:	Ouham Province Rural Health, 676-0002
Project Cost:	$1.7 million grant (Total Project Cost--$1.7 million)
Project Life:	FY1977-FY1980
Target Population:	Est. 350,000
Area of Coverage:	Regional

Project Purpose:

To develop a health management system at the prefectural level, maximizing effectivness of available public and private health resources. The management system will involve planning, administering, training for, and executing a program of rural health education, sanitation, and basic village health care.

Health Component:

To address the problems of limited administrative and planning capabilities the Ouham Province Project plans to initiate a prefectural (or province) administrative system for rural health planning, training, implementation, and evaluation. This will be achieved through the support and reinforcement of the newly established Prefectural Base Health Office (PBHO) which coordinates, designs and conducts training for Ministry of Health (MOH) personnel such as village health agents. In order to enhance the administrative/managerical capabilities of the new system, three candidates will receive master's level training in public health administration. Additionally, MOH personnel will participate in local and international conferences and receive managerial, administrative, and nonclinical outreach training.

The PBHO proposes to train personnel in the procurement and management of medical supplies, and will improve the drug distribution system. The PBHO will also implement a relevant health data collection and analysis system as an evaluation and information tool.

Responsibility for the development of a prototype rural health care delivery system, using village level health care agents (VLHCAS), rest with the PBHO. These voluntary agents (traditional healers or other villagers) will be chosen by the village or village development committee. The agents, once trained, should be capable of completing limited health tasks in the area of health education, MCH care, sanitation and basic preventive health services. Traditional birth attendants will receive training in MCH services.

PBHO coordinates the development of village health centers and health posts which will be the physical setting for many VLHCA activities.

All in-country training will be conducted at field locations, at community development centers, and the villages. Instructors are taken from the ranks of Peace Corps volunteers, AID technicians, and province personnel involved in the Project. Long-term health administration and health education training will be initiated in the Project for seven persons.

The PBHO is charged with the responsibility of developing health education techniques which facilitate community development programs including water supply, latrine construction, poultry and fisheries development, and related school curriculum development.

Basic community health education will be provided by primary school teachers. Workshops will be provided to groups of teachers from various schools over a 2-3 day period. Materials necessary to the community's instruction will be distributed in the prefecture. Additionally, to facilitate the continuous source of technically trained staff, four health educators will be trained.

A system of vehicular maintenance and repair is to be established through a satellite maintenance center and central garage. This program will be organized so that three mechanics and one supervisor are trained each year at each center (a total of 18 garage mechanics and six supervisors).

Nutrition Component:

The VLHCAs will be capable of providing MCH and nutrition services. The Project will fund two training programs for traditional birth attendants in infant and child care and feeding practices.

Population Component:

Since the current government and traditional values emphasize fecundity the introduction of contraceptive practices aimed at reducing the birth rate would be socially inappropriate and politically unacceptable. However, health post nurses and assistant will be encouraged to attend Community Development Centers in order to maximize the dissemination of birth and MCH care techniques and information.

Project Outputs:

The Project's Logical Framework document defines the project outputs as follows:

a) A prefectural administration system for support and supervision of rural health planning and evaluation with;

- administrative manuals developed;
- data collection and analysis system established; and
- health development plan for Ouham completed.

b) A system for the delivery of village level health education and rural sanitation with;

- 60 active village health committees established;
- 50 primary schools with health education programs established;
- distribution system for the health education materials established; and
- at least 40 village health committees will have completed water source protection tasks.

c) A system for delivery of village health care services with;

- 1,000 birth attendants and traditional healers attending MCH workshop; and
- 20 VLHCAS identified by community and trained.

d) A system for vehicle maintenance with;

- 10 mechanics trained.

Project Inputs:

AID project inputs include long term and short term technical assistance; training (participants, long and short term); commodities (vehicles and medical supplies and equipment); construction materials (health posts and centers); educational tools, and vehicle maintenance.

Peace Corps project inputs include ten volunteers (two mechanics and eight health workers). Other activities of the Peace Corps will be explained in the section "Other Donor Activities ", See Table I.

Host Country Activities:

The GOCAR's involvement in this Project will heighten with the establishment of the PBHO, which will coordinate the administration and management of the Ouham health care system. Through PBHO clinical services, training, and pharmaceutical management and administration will be enhanced, as well as, the service delivery capabilities. These responsibilities will be carried out over a three-year period with the aid of an AID technician.

Other Donor Activities:

The Peace Corps is providing two volunteers to facilitate the work of other volunteers at the village level, and to provide logistic and technical support as needed. For example, the Peace Corps volunteers could help local health post personnel develop community health behavior and practice surveys. The volunteers could be used as mobile coordinators between project sectors and locations to address field communications problems.

Table I: Summary Cost Estimate and Financial Plan

(US $ 000)

SOURCE	AID FX	AID LC	COCAR FX	COCAR LC	PEACE CORPS FX	PEACE CORPS LC	TOTAL. FX	TOTAL. LC
Long-term Advisory Services	378	126		99	115	115	493	340
Short-term Advisory Services	70	14					70	14
Training	123	162		24			123	186
Commodities	270			439			270	439
Construction		250						250
Basic Health Services				161				161
Sub-Total	(841)	(552)		(723)	(115)	(115)	(1006)	(1440)
Inflation	100	50		108	25	25	125	183
Contingency	50	100		100	25	25	75	225
TOTAL.	998	702		931	165	165	1163	1156
TOTAL. FX + LC	1,700		931		330		2,964	

AID and the Peace Corps are contributing to a UNDP-financed Community Development Program under the Ministry of Social Affairs. Community development agents are trained in the Program during FY 1976 - FY 1978 and 24 of these agents will work in the Ouham Province. The AID/GOCAR Ouham Rural Health Project will work closely with these agents in the establishment of village health committees and the initiation of sanitation projects and health education activities. In addition, project personnel will provide continuous in-service training in health estension work for the agents.

AID and the Peace Corps have also initiated a well-drilling program in Ouham Province to alleviate the water shortage situation. The AID Rural Health project will complement the well project through its health education activities which are partly directed at the value of potable water and sanitation.

AID and UNDP are jointly financing a seed stock production project to facilitate GOCAR efforts to increase food production. In Ouham agricultural extension agents, community development agents, and project health educators will work together to maximize the village's acceptance and utilization of the new seed types.

In addition to the many AID-financed projects in Ouham Province, PAHO and the Peace Corps maintain a fish station in Bouar, which will be expanded later to Ouham Province. The health education element of the AID/GOCAR Project in Ouham Province will enhance the impact of the availability of new sources of fish protein upon the population's nutritional status.

UNICEF has tentatively agreed to reequip the Bangui vehicle maintenance facility and to create satellite facilities in the cities of Bossangs and Bombari (the latter in Basse-Kotts Province). Peace Corps or possibly another United Nations volunteer agency will supply a master mechanic for Bungui and two other mechanics for the satellites.

The Ministry of Education and UNESCO have activated schools for the promotion of collective project activities, of which four are located in Ouham Province. The objective of these schools is to establish curriculum relevant to the village environment. Two community development agents are currently in Sumbre Commune of Ouham Province promoting nutrition and agricultural programs. Because of these programs, Sumbre Commune would be an ideal setting for the development of VLHCAs.

Issues:

The Project Paper suggests several problem areas: (a) continued availability of host country and donor funds; (b) continued cooperation and support of Project by GOCAR; (c) availability of participants qualified to meet VLHCA and other paramedical training qualifications; (d) the feasibility of linking this Project with other project activities planned

by foreign donors; (e) continued acceptance of the roles of the traditional birth attendants and VLHCAs; (f) continued recognition of the unique contributions of the traditional healers in the village; (g) the community's continued use and maintenance of the necessary managerial/administrative communications and feedback to insure Project success once donors funds are withdrawn; (h) appropriate professional challenges offer to the auxiliary workers which will continually renew their dedication to the rural areas (i.e. upward mobility); and (i) availability of Peace Corps volunteers.

Source of Information: Central African Empire Ouham Province Rural Health Project Paper

Project Title and Number: Danfa Rural Health/Family Planning, 641-0055. This Project is a three-year grant extension of the Danfa Rural Health/Family Planning Project funded in FY 1970-FY 1975.

Project Life: FY 1976 - February 1979.

Project Costs: $3.03 million (Total Project Cost for FY1970-79 equals $9.1 million) See section "Project Inputs"

Target Population: Not defined

Area Coverage: Regional

Project Purpose:

1. Investigate factors associated with health and family planning.

2. Strengthen institutional capacity of Ghana Medical School to conduct research and train health workers.

3. Demonstrate several cost-effective health care systems to include family planning as an integral component.

4. Transfer research information to operating agencies.

Health, Population and Nutrition Components

Many activities undertaken in the original five-year Danfa Project have been under way since 1970. Some demographic and survey activities are nearly complete (in fulfillment of Purpose (1)). During 1970-1975, the Danfa program in the field has provided some health services and trained health workers at various levels, but primarily it has focused on training staff and carrying out research in rural health and family planning delivery. The final three-year period which is funded in this Project grant will permit additional training, data gathering and analysis, operational research, and institutional development. In this phase of the Project AID contract technical services with the University of California at Los Angeles (UCLA) will be provided to assist the Department of Community Health in carrying out its research into the factors affecting the delivery of health and family planning services, training of Project personnel, and manpower development.

The operational research and epidemiological investigations implemented in the Project are planned to take place in three separate geographical areas of Ghana. Models which represent a realistic situation in significant

sectors of rural Ghana are planned. In each of the three model areas surveys, studies and other data gathering activities continually add to the existing data base on health problems. Model I is an area served by a health center (the Danfa Rural Health Center) with a staff of community health nurses, nurse midwives, sanitarian, dispenser, and midwife assistants. The health center is headed by a superintendent and supported by a cadre of craftsmen and laborers.

The health center runs an outreach program consisting of three satellite clinics, operating once a week. The Project paper indicates that the center and satellite clinics provide curative and preventive care, including well-baby clinics and disease prevention. Community-based health education assistants are trained in environmental sanitation, family planning, nutrition, first aid and community organization.

Each participating village within the Model I service area selects the village health aides to receive training in the basics of midwifery, child care and development, sanitation, first aid and family planning. The health center staff and health education assistants serve as technical resources and medical suppliers for the health aides. Traditional birth attendants have been trained to provide midwifery services (including antenatal and post-natal care) and family planning services.

Family Planning Component (Model I)

Family planning is a major component of the comprehensive service program in Model I. This service, offered on a weekly basis at the health center, is one aspect of the MCH program at each of the satellite clinics. As previously stated, traditional birth attendants (TABs) are encouraged to promote family planning. Selected TABs under supervision distribute contraceptives.

The existing program of fixed clinics with wayside village stops operated by the mobile family planning team has been continued, but at a later point the clinics will be phased out. A further effort to increase the availability of contraceptives is planned through the use of commercial outlets and petty traders.

Model II (Masaman Rural Health Post) represents those geographical areas in Ghana which are served by small health posts operated by local authorities. These posts have limited outreach programs and concentrate on curative services. The post operates with two paramedical staffs. The Danfa Project adds a team of health education assistants based in the villages who administer the same services described in Area I (plus first aid). The TBA training program is also to be added in Area II. A different scheme for resupply and supervision is planned in Area II, since the health infrastructure is not complex.

Family Planning Component (Model II)

Daily family planning services are planned at the health post in Area II. Village-based contraceptive supply systems employing volunteers are to be established to distribute contraceptives. The volunteers will be supervised and supplied by the health education assistants. Commercial sales of contraceptives will be through commercial outlets and petty traders. The mobile family planning team continues to operate initially, but will be gradually phased out.

Model III (Obom Rural Health Post) examines an area which relies on a Ministry of Health operated health post. A system of community health aides similar to Area I is proposed for Area III. A health education assistant or similarly trained person acts as a permanent technical consultant to the post. The health education assistant is based at the health post rather than the village as in Models I and II.

Family Planning Component (Model III)

The health post in Model III offers daily family planning services. Community health aides are trained and encouraged to promote family planning. The aides also resupply the community with contraceptives. As in Models I and II, a mobile family planning team continues to operate, but will be phased out as the village-based program starts. Experimentation continues in all models with simplified drug lists, task analysis and allocation, and staff composition to determine systems of cost effective health care.

Institutional development (as outlined in Purposes 2, 3 and 4) is a continuous process of the Danfa Project through formal training of personnel and demonstration programs. Specialized formal training is proposed to develop skills in health and family planning program design and implementation. Overseas training at the Masters level is planned for 6 persons during 1976-1978, in addition to the staff previously trained at the Department of Community Health. In-service training for Ministry of Health (MOH) and National Family Planning Program (NFPP) personnel includes management and administration of rural health programs curriculum. Project staff will lecture and develop training curriculum for professional, para-professional, and auxiliary personnel. Family planning, nutrition, environmental sanitation are subject areas to be included in the curriculum designed by the Project staff.

The actual production and dissemination of information to principal operating agencies (Project Purpose (4)), e.g., Ministry of Economic Planning, Ghana Medical School, Ministry of Health, National Family Planning Program, will be conducted by a newly established Danfa Project Information Unit. The maintenance of formal links with these operating agencies will facilitate the flow of information.

Project Outputs:

1. Outputs related to Project Purpose I:

   definition of health and health-related characteristics of rural population for purposes of planning and evaluation;

   identification of the characteristics and determinants of health and family planning-related behavior;

   examination of the physical and social environment and interpretation of the relationship of these factors to health and health-related behavior.

Outputs related to Project Purpose II:

a. expanded awareness of medical students and post-graduate physicians on the special problems of delivering health care and family planning services in the rural environment;

b. doctors and other professional personnel trained for effective management of a rural health district;

c. development of strategies for training professional, paraprofessional, traditional and volunteer health workers in rural health care;

d. in-service training program for health workers from outside the Danfa area; and

e. trained specialists in the field of competence required to develop the full range of capabilities needed in the long-range teaching/research programs of the Department of Community Health.

Outputs related to Project Purpose III:

a. systems for increased accessibility of health and family planning services;

b. methods which demonstrably increase community participation in the health care system,

c. service models which increase the effectiveness of human, physical and financial resources,

d. methods for improvement of health care,

e. methods for improvement in environmental sanitation, and

f. methods for improvement of nutritional status in rural communities.

4. Outputs related to Project Purpose IV:

a. systematic information flow to appropriate Government agencies,

b. established Danfa Project Information Unit, and

c. production of monographs, professional articles, book chapters, operational planning guides, etc.

Project Inputs:

	FY 73 $ (WM)+	I.Q. $ (WM)	FY 77 $ (WM)	FY 78 $ (WM)	FY 79 $ (WM)
I. U.S. Inputs ($000)					
A. Personnel					
1) Salaries of UCLA (Personnel at UCLA)	128(108)	44(27)	140(88)	244(102)	127(36)
2) Salaries of UCLA (Personnel in Ghana)	161(62)	34(11)	117(34)	15(2)	—
3) Local Hire in Ghana	6(—)	2(—)	7(—)	1(—)	1
Sub-Total	296(170)	80(38)	264(122)	260(104)	128(36)
4) Personnel Allowances/ Fringe Benefits	135	29	110	50	21
Total Personnel	430	110	374	310	149
B. Equipment/Supplies	59	-	41	24	1
C. Travel/household storage and removal expense	49	5	55	47	53
D. Local Currency Costs Travel, gas, equipt. maintenance, etc.	56	15	95*	85*	25*
E. Other Direct Project Costs	109	34	92	123	76
F. Participant Training	30(36)	8(12)	20(28)	50(53)	50(53)
G. Indirect Costs	143	34	125	111	49
TOTAL U.S. BUDGET	877	205	801	665	377

FY 76-79 Cumulative Total			3,035
FY 70-75	Direct Project Costs	,097	
FY 71-75	PL-480 Title I 104(h) Local Currency	,467	
FY 70-75	Contract Expenditures	2,788	3,352
	Total U.S. Costs		$6,387

*University of Ghana administered.
+ Refers to work-months

GOG Inputs**	75/76	76/77	77/78	78/79	Total
1. Staff budget of Community Heatlh	¢ 125	¢ 130	¢ 140	¢ 150	
2. Reoccurring Danfa Operational budget	289	300	310	350	
3. Maintenance and transport	78	83	89	64	
Total budget:	¢492 $428)	¢ 513 ($446)	¢ 539 (469)	¢ 464 ($403)	¢ 2.008 ($1.746)
		Prior years			(0.765)
					($2.511)

Other Donor Inputs

UNICEF				
In-service Training (Est.)	$ 50	$ 75	$100	
Commodity Support (Est.)	25	25	25	
	$ 75	$ 100	$ 125	$ 300

** Does not include such items as staff salaries for personnel seconded from government agencies.

Host Country Activities:

The Project is administered by a joint arrangement between the University of Ghana Medical School and University of California at Los Angeles (UCLA). The Danfa Ghanian co-director is responsible for technical direction of all activities including those undertaken by UCLA and GOG staff who work on the Project.

The University of Ghana provides matching and complementary staff personnel to the UCLA staff with a view toward carrying on the research as the UCLA staff is phased out. Emphasis is placed on strengthening the framework of research and training for internal expansion and improvement of research capabilities and training capacity. Ghanian personnel are being trained either locally or abroad to carry out the research programs.

The Ghana Medical School will be ready to assume responsility for the pharmaceutical and other supplies (a storekeeper will be appointed). The School also assumes the administrative functions and budget concerned with the Project when UCLA is phased out. The Medical School will also appoint a person to be in charge of vehicle maintenance. The Project Paper indicates that the medical school has taken over all other functions except those related to UCLA personnel and support in Fiscal year 1977.

Other Donor Activities:

The UNICEF (United Nations Childrens Fund) in FY 1976 provided in-service training and commodity support for the Project. See the section on project inputs for financial data.

Issues:

1. The GOG (Government of Ghana) will assign high priority to improving health services in rural areas and is prepared to allocate the necessary resources and skilled manpower.

2. Experience and data from the Danfa Project will provide sufficient flexibility to test a wide range of alternative interventions and is applicable to other parts of Ghana.

3. Improved rural health will result in greater acceptance of family planning.

4. The MOH, NFPP and other agencies will assist and support the testing/demonstration activities in the Project and will follow-up (after Project completion) with appropriate activities which would facilitate the development of low cost health delivery systems.

5. The principal foreign and national operating agencies will coordinate among themselves, the health, family planning and other research activities important to the administration and management of the Project.

6. Financial inputs from foreign and host country agencies will continue throughout the Project.

7. Socioeconomic and cultural biases against health/family planning interventions will be negated in such a way as to facilitate community acceptance of the Project and Project personnel.

8. Sufficient professional and financial rewards will exist in the rural research areas to motivate the auxiliary personnel to perform their assigned tasks.

9. Supervision of health/family planning personnel exist at all levels of the health system.

10. Other issues important to the effective delivery of health services in the Project's research models could be delineated. However, since this is primarily a research endeavor, these issues can be better identified with site visits.

Source of Information:

Danfa Rural Health/Family Planning Project Paper.

LESOTHO

Project Title and Number:		Rural Health Development, 690-0058
Project Cost	:	$3.2 million grant (Total Project Cost--$4.9 million
Project Life	:	FY 1977-FY 1981
Target Population	:	1.1 million (based on 1978 population projections) rural inhabitants
Area Coverage		National

Project Purpose:

Phase I - To upgrade the planning, administrative and management competence of the Ministry of Health (MOH) to the level required to develop and maintain a national health services delivery system.

Phase II - To establish and institutionalize new health worker cadres (MEDEX and Village Health Workers) required for the rural component of a national health services delivery system.

Health Component:

Phase I of the Project will (a) develop the general systems necessary to establish and maintain the health services delivery network and (b) set the stage for the initiation of the Nurse Clinician Training Program.

At the end of Phase I an external evaluation will assess the value of continuing to Phase II. If the evaluation indicates continuation to Phase II, the Project technicians will continue to work in the technical areas they concentrated on in Phase I. If the evaluation suggests that the Project technicians do not proceed to Phase II, the evaluation team will determine whether (a) further Phase I development continues; (b) if the project should be modified; or (c) the Project should be terminated.

Paramedical Training Program

The training of physician-extender personnel such as Nurse Clinicians (NC) Nurse Assistants (NA) and Village Health Workers (VHW), using the MEDEX concepts, will commence in Phase II. Generally, the Nurse Clinician is able to diagnose and treat the health problems of the rural patients; provide and supervise the preventive and promotive aspects of health care; and provide direction and supervision for activities for the Nurse Practitioners, Nurse Assistants (NA) and VHWs. The NA carrys out basic nursing procedures; provides curative services for 10-15 uncomplicated problems commonly present in outpatient facilities;

and performs essential preventive and promotive activities. The 10-15 problem illnesses were not specified.

The VHW provides preventive and promotive services, but will also be capable of providing curative services for 7 uncomplicated problems common to outpatient facilities. Again, the 7 problem illnesses were not delineated. The proposed VHW will service the Rural Health Center (RHC) and cover 5-10 villages (of 1,000 persons or less). The RHC, either a government or non-government facility, is peripheral to and operated by a Health Service Hospital (HSA). The VHW will refer patients to the RHC for higher levels of service delivery. The RHC is staffed by a Nurse Clinician and Nurse Assistant. The NC technically supervises the VHW and NA.

A model of the proposed three-tiered health delivery system appears below:

Level	Supervisory Personnel	Population Coverage
Level 3 (HSA Hospital)	Primary Care Physician	50,000-100,000
Level 2 (Rural Health Clinic)	Nurse Clinician	5,000-10,000
Level 1 (Villages)	Village Health Workers	1,000 or less

Upon satisfactory completion of Phase I preparations will begin on the development of paramedical training programs in Phase II. Short-term consultancies will be financed by the Project to facilitate curriculum development and tutor training. Queen Elizabeth II Hospital will serve as the training center for the NCs. Physicians are the initial NC tutors in Phase I, but Nurse Practitioners will later serve in this capacity.

NC training will consist of 4 months of didactic, problem-oriented curriculum followed by a practical preceptorship of 8 months. General management of the RHC will be one of the curriculum components stressed in the program.

The VHW will be selected by their respective villages based on advice from RHC and HSA personnel. The 3-month training period (didactic and preceptorship) for the VHWs will take place at the RHC and will be carried out by the NPs. In the field the NC will be responsible for supervision of the VHW.

This AID/COL Project will provide one year of funding to the Private Health Association of Lesotho (PHAL) for the continuation of their NA training program in 3 mission hospitals. The PHAL's program in practical nursing provides presently employed ward attendants and aides with additional skills to carry out nursing procedures usually performed by trained nurses.

To prevent the deterioration of skills and increase the competencies of the paramedical personnel, a program of continuing education is included in this Project. The MEDEX modules to be employed in the Project set the stage for the methodology to be employed in continuing education.

Planning/Administration Activities

In response to the Ministry of Health's (MOH) planning needs this Project will train one additional planner to be assigned to the MOH Planning Unit. An Administration/planning technician will also be assigned to the Project to assist the Assistant Secretaries for Administration and Planning. Training will also be provided to these agencies. Consultants, on a short-term basis, will be provided in technical areas.

During Phase I the MOH Planning Unit will specifically (a) assess the basic record collection system; (b) take an inventory of existing health personnel and facilities; (c) complete a health personnel and staffing analysis. At the end of Phase I, the evaluation team will assess the progress made, and if successful the MOH in Phase II will initiate an epidemiology survey at the village level (target population is not specified in Project Paper). The MOH Planning Unit will culminate its activities with the completion of the health sector portion of the Third Five-Year Development Plan in 1980.

The Project will also provide a Management Specialist on a long-term basis. The key output in Phase I will be the completion and adaptation of organizational and operational recommendations which will define the supervisory relations of MOH personnel. Similar management systems evaluation and development activities will be undertaken in the areas of transportation and communications, accounting, and records management. To address the MOH shortcomings in administration, in-country participatory training will be given to MOH personnel in management, health administration, health manpower, training, procurement, accounting, and sanitation sciences. In Phase II support systems development will largely consist of continuing and refining efforts to upgrade those initiated in Phase I.

Nutrition Component:

A. The Village Health Worker will be trained in basic MCH preventive tasks such as the weighing of children to detect clinical malnutrition and methods of safe food storage.

B. The Nurse Clinician, as a result of MEDEX training, will be capable of gathering baseline nutrition data from the community. Community health education duties of the NC will stress the development of kitchen gardens, proper weaning diets, usage of existing wild foods, diets of pregnant women and preschool children. Often MCH program responsibilities of the Nurse Clinician include the development of infant and preschool clinics to assess child growth and development patterns.

Population Component:

A. The Village Health Worker, in conjunction with other health related duties, will be capable of dispensing family planning materials.

B. The Nurse Clinician (NC), as a result of MEDEX training, will be capable of providing family planning education and counseling. The NC will gather data on family planning practices, plan and implement family planning programs, and dispense contraceptives.

Project Outputs:

Phase I -- Trained Administrative and Management Personnel

13 Basoths will have initiated long or short-term training in health related administration and management. They will be assigned to MOH.

Organizational/Operational Support Systems Recommendations

MOH adopts support systems recommendations.

MOH Planning Unit

Development of MOH Planning Unit, staffed by two Basotho trained in this project.

Five-Year Development Plan

Completion of the Health Sector portion of the MOH Third Five-Year Development Plan. Basic data collection, research and preliminary analysis will be undertaken during Phase I.

Phase II -- Training Program

A. Development of Nurse Clinicians in a 12-month training program who are capable of using a modularized, problem-oriented curriculum to train the village health workers in preventive/promotive tasks.

B. Nurse Assistants (130) in a training program sponsored by the Private Health Association of Lesotho (PHAL), will replace those nurses being trained and upgraded to the new role of Nurse Clinician. Nurse Practitioners (55) and Village Health Workers (104) are developed, capable of health promotion and providing curative health in the rural areas by the end of Project funding.

Project Inputs and Host Country Activities

The following inputs are required to produce the outputs outlined above:

U.S. AID

A. Technical Assistance/Field ---------- $1,411,000

The Project will provide 15 staff years of long-term technical expertise and 48 staff months of short-term consultants as described in Table 1. Job descriptions of the long-term technicians are included in Annex VII of the Project Paper.

B. Technical Assistance/Backstop ---------- $ 705,000

As this project will award an institutional contract, backstop support will include the services of a director, coordinator, administrative assistant/secretary, staff trips, and administrative overhead. Job descriptions of the Director and coordinator are also included in Annex VII of the Project Paper.

C. Training ---------- $ 411,000

Training will include 19 study years of long-term and 24 months of short-term in-country courses in health planning and administration, one year of funding for the Nurse Assistant Training Program (PHAL Contract), and observation tours to Korea, Thailand, and other countries for key MOH officers to examine the operation of similar rural health delivery systems.

D. Commodities ---------- $ 504,500

Commodities include three vehicles and training and office supplies and equipment and contraceptives.

E. Local Costs ---------- $ 213,000

Included under Local Costs are housing (3), secretaries, in-country travel, vehicle operations and office expenses. Again, the financial "Explanatory Notes" provide more detailed descriptions of these items (see Project Paper).

Total: $3,245,000

Government of Lesotho (GOL)

The GOL will provide 14 percent of total project costs during the life of the project. The local costs indicated below represent largely trainee salaries and other training program costs. Contributions will also be provided for participant trainees, office space for the U.S. technicians and two houses now occupied by U.S. technicians on a closing out project.

A.	Local costs of the Nurse Clinician Training Program ----------	$ 234,000
B.	Local costs contribution to Nurse Assistants Training Program ---------	$ 87,600
C.	Local costs of the Village Health Workers Training Program ----------	$ 17,000
D.	Support to Participant Trainees ----------	$ 53,000
E.	Office space and housing ----------	$ 31,600
F.	Distribution of FP Supplies ----------	$ 258,000
	Total:	$ 681,200

Private Health Association of Lesotho (PHAL)

PHAL will continue to support the Nurse Assistants Training Program until the end of the project. The Association's total estimated inputs will be $94,000, representing largely the costs of trainee

allowances, personnel, and training facilities. AID will contribute to the program during the first project year, and the GOL will continue to fund the program at about the same magnitude as that of AID until the end of the project.

Other Donor Activities:

Aside from PHAL, other donor agencies were unable to make firm commitments to this project at the time the design team was in Lesotho. However, a number of activities are planned for the near future which will complement this project's efforts. Principal contributors and a brief description of their proposed activities are presented below:

A. African Development Bank

Consideration is currently being given to the construction of a modern 800 bed hospital complex to serve as a national referral center for the health delivery system.

B. World Health Organization (WHO)

Two nurse tutors for the Queen Elizabeth II Hospital School of Nursing in the fields of psychiatry and general nursing are being provided. Fellowships for sixteen public health nurses over a period of four years are being financed by WHO. Other assistance provided includes grant-in-aid, supplies and equipment and vehicle maintenance.

C. U.N. Capital Development Fund (UNCDF)

Three hundred thousand dollars for sanitation improvement to 600 primary schools. The project is presently awaiting the recruitment of a sanitation supervisor.

D. United Nations (UN)

The UN is financing one hundred and ninety thousand Rand for building rural health clinics in four districts. It is expected that Nurse Clinicians trained under the Lesotho Rural Health Development Project will help supply nurses for the clinics (UNFPA). A physician is expected by December 1976 to monitor the rural health clinic building program and the UNCDF primary school sanitation

project (UNDP). Recruitment is under way for a health statistics advisor to upgrade the biostatistics unit in the MOH (UNDP).

E. U.N. International Children's Educational Fund (UNICEF)

In the past, UNICEF has been one of the main suppliers of equipment, drugs and miscellaneous supplies to the health service. In a recent survey UNICEF, through the combined effort of various GOL and other donor agencies, identified needs amounting to $296,000 over the next 5 years to meet the ongoing requirements of the rural population within the UNICEF focus of specialization, the mother and young child. Should these funds, or any part of them be forthcoming, effective utilization of the funds will be tied into some of the considerations of this Project.

F. Oxford Fund for Famine Relief (OXFAM)

OXFAM plans to install piped spring water in several districts. Volunteers will train villagers to maintain the system after installation under a cooperative self-help program. The Village Development Committee,headed by chiefs or head men, will coordinate this activity with OXFAM and the Lesotho Community and Rural Development Agency. OSFAM is also active in supporting the Lesotho Flying Doctor and in upgrading rural clinics.

G. United Kingdom

The United Kingdom's major efforts in Lesotho are directed towards rural development. Of two million Rand available, R300,000 or $345,000 is earmarked for investment in building or improving rural health clinics.

H. European Development Fund (EDF)

An unspecified amount of EDF funds is designated for rural infrastructure development. These will likely be used, in part, to construct new rural health clinics or improve existing ones.

I. Total

The roughly estimated other donor total is $900,000.

Issues

A. GOL Commitment

Over the project period a number of health sector activities are planned, most notably the construction of an 800 bed modern hospital complex in Maseru to replace the facility at Queen Elizabeth II Hospital. Reaction to this proposed hospital is divided. On the one hand, it is seen that this facility could place strong demands on Lesotho's financial and personnel resources, and would likely detract from the government's objectives to expand and improve rural health services as envisaged in the Second Five-Year Plan.

However, GOL officials are adamant that there would be no diminution of inputs and active concern in reference to the Rural Health Program. It has been pointed out that the new facility would not be supplementing the Queen Elizabeth II Hospital, but would replace the Queen Elizabeth II, en toto, with the old facility to be converted to non-medical uses. Moreover, expansion to the proposed bed facility would be phased over a period of several years with no direct demands being put on the outputs of this Project.

Assuming that the development of a new hospital complex in Maseru would be compatible with the availability of resources, and consistent with the health needs of the entire Basotho people, it is felt that this does not pose a serious threat to the success of the Project. Nevertheless, it is important to insure that the glamour of a new modern hospital complex does not overshadow the more demanding needs of the Government to provide health services to the rural areas where the great majority of the population lives.

B. MOH/PHAL Coordination and Cooperation

Recognizing the significance of PHAL in providing health services to Lesotho's rural areas, it is essential that close coordination and cooperation exist between the MOH and PHAL in all phases of project development and implementation. The valuable knowledge and experience that PHAL personnel have gained over the years cannot be discounted and must be utilized to the maximum extent possible.

C. Availability of Personnel

Although hospitals and clinics are presently understaffed and overworked, it is essential that nurses be released

from their present duties to enter the Nurses Clinician Training Program. Training programs have been scheduled in order that Nurse Assistants trained through the PHAL Nurses Assistants Course can be available to relieve nurses released for NP (Nurse Practitioner) training.

D. Professional and Social Acceptances

Closely linked with issue C above, is the need for physicians, administrators, and other health personnel to accept the short-term sacrifices resulting from personnel being sent off for training and appreciate the long-term benefits that the "physician extender" training program entails. The social and cultural acceptance of the new health worker cadres will also be critical to project success.

E. Willingness to Work in Rural Areas

The GOL must insure that adequate financial and professional incentives exist to encourage all health workers to work and remain in Lesotho's rural areas. Steps are being taken now to provide salary incentives to workers in rural areas and other donors plan to build new clinics and upgrade existing ones in the near future. It is also important that rural clinics and volunteer Health Workers receive adequate support from the district and central levels to enable them to perform their duties and derive the personal satisfaction necessary to promote improved performance.

Source of Information: Lesotho Rural Health Development Project Paper

LIBERIA

Project Title and Number:	Lofa County Rural Health, 669-0125
Project Cost	$2,59 Million Grant (Total Project Cost--$5.6 million)
Project Life	FY 1975 to FY 1979
Area Coverage	Regional (Lofa County has an estimated 155,000 residents)

Project Purpose

The purpose of the Lofa project is to develop, test and institutionalize in Lofa County a network of health posts, health centers, country hospitals and ultimately the JFK National Medical Center, to deliver improved health services to the residents of Lofa County through the utilization of trained paramedical personnel.

The Problem

While malaria and gastrointestinal diseases are the most common in Liberia, the Liberians are victims as well of the full range of diseases associated with unhygienic conditions, lack of sanitation, and poor diet. Liberia's public health system is severely strained to meet even the most basic demands of the population. In rural areas such as Lofa County, where there are fewer physicians, facilities, drugs, and access to health services, even basic health care, is denied to most. The following are indicative facility/personnel statistics comparing the U.S. and Liberia:

	U.S.	Liberia	Lofa County*
Beds Per Population	13.5 per thous.	1.7 per thous.	.0025 per thous.
Physicians Per Population	1/613	1/9600	1/38,750
Nurse/Dress Per Population	1/107	1/200	1/2,200

*Estimated

Even these statistics, however, do not give a clear picture of the true health situation in Liberia. They fail to reveal the government hospitals and clinics throughout Liberia operated at substandard level due to limited manpower resources, inadequate financial and logistical resource, and a maldistribution of personnel and facilities. Among the major disease problems are malaria, intestinal worms, dysenteries, diarrheas and enteritis of infancy, filariasis, schistosomiasis, avitaminosis and anemias.

It was estimated in 1970 that 43% of all deaths were children under one year of age, giving an infant mortality rate of 137 per thousand live births. Rural infant mortality was computed to be 158 per thousand versus 82 per thousand in urban areas. In summary, the health conditions of the Liberian population are substandard. Infant mortality is high and the resistance of the human hosts to disease is low as a result of malnutrition and poor diets. Climatic conditions favor disease vectors. Poor hygiene contributes to the health problems of the country.

Health Component:

Some health activities in the Project are outlined below. The current status of the activities is not known.

(1) Training of administrative paramedical skilled and semi-skilled personnel to operate the rural health posts and centers and hospitals in Lofa County. Curriculum concentrates on preventive medicine, e.g., health education, immunization, environmental sanitation, nutrition, and family planning, and curative services. A task analysis prior to the initiation of the training program determined the specific tasks for which the paramedics would be trained and utilized.

Specialized training programs were proposed in the Project Paper for senior positions in the health centers, midwives, empirical midwives, health education and private Liberian physicians.

(2) On-the-job training for counterparts of AID-provided advisors.

(3) Development of a medical record system for the NMC (National Medical Center).

(4) Development of health-related sample surveys at health posts, centers, and hospitals.

(5) Development of a supervisory system in all unit components of the Project.

(6) Establishment of a systematized immunization program at the health post, center and country hospital levels of the Project. Emphasis is on children less than 5 years of age.

(7) Development of potable water supplies and sanitary latrine facilities in all health posts and centers and in villages through self-help programs.

(8) Construction and rehabilitation of medical facilities, participating in the Project (establishment of 10 new facilities and renovating 20 existing facilities). Previously, there were 43 health structures designated as "clinics" which are being revamped into 53 health centers and 20 health posts in Lofa County.

(9) Design of new supply and transportation networks reportedly includes: (a) radio communications between NMC, MOH, health centers and health posts to handle medical communications; (b) effective commodity procurement and distribution; and (c) transportation for Project personnel and non-ambulatory patients.

(10) Implementation of an evaluation system which provides for: (a) annual evaluations to permit Project adjustments; (b) end-of-project evaluation; (c) long-term evaluation/ measurement of Project impact; and (d) on-going Project evaluation through an effective feedback mechanism.

The following discussion outlines the proposed health delivery system:

The health posts (30) service 4,000 to 5,000 people and is staffed by 2 health assistants. The training for the health assistant is a 24 month program. They are capable of diagnosis and treating certain common illnesses and emergencies and providing preventive health education, family planning information/education and non-clinical family planning services. More critical health problems are referred to health centers. One health assistant concentrates on preventive services at the village level; the other works at the post in providing curative services (these positions are rotating).

A health center (5) exists for every 4-6 health posts and is staffed by 9 professional paramedical personnel; 1 health team leader (medical assistant with administrative training), 1 medical assistant (registered nurse with practitioner - oriented training), 2 midwives, 1 health assistant, 2 nurses (practical nursing training plus public health orientation), 1 sanitarian, and 1 laboratory technician. These centers provide comprehensive services and supervise the health posts. The centers provide outpatient medical care, health education sanitation education, immunizations, limited minimal in-patient services and family planning education services. The center has other personnel such as lab technicians, administrative clerks and drivers.

The county hospitals (2) supervised the operation of the health centers and handle cases referred by the centers. The hospital maintains a diet section and a group of midwives in addition to regular staff.

The NMC is the source of specialized medical services not available at Lofa County hospitals. The NMC through the newly established radio communications network can communicate with field health personnel in the health centers and posts. The storage facility for the drug supplies required in the Project is located in the NMC - operated supply warehouse (the two supply stores will be segregated).

Population Component:

The Project Paper indicates that family planning services are in place at all Lofa County health units once specialized training and commodities have been made available. The Project provides a Family Planning Generalist to introduce family planning information/education, contraceptive services, training and family planning survey techniques to all levels of the Project.

The Project also furnished family planning training for health center midwives. These midwives function as the more technically competent local workers.

Nutrition Component:

The paramedical workers in the Project have been trained to provide nutrition services and nutrition education.

Project Outputs:

Six specific project outputs have been identified in the PROP. They are:

1. Personnel system developed and paramedical personnel trained.
2. Birth, death disease reporting systematized.
3. Increased numbers of local country residents immunized.
4. Sanitary water and sewage facilities available at health posts and centers.
5. Medical, health and family planning education and services available to Lofa County residents and all mothers delivering at health centers and county hospitals.

6. Measurable declines in fertility and mother and infants' mortality and morbidity rates.

In addition, it is implied that a project output will be a demonstrable pilot rural health project for Liberia that is replicable throughout the country.

Project Inputs

Four major categories of project inputs by USAID are anticipated. They are: four full-time advisers plus a part-time systems analyst and additional short-term consultants as required.

A. Four full-time Advisers

1. Health administrator

2. Teacher/trainer as counterpart to director of school of physician assistants

3. Family planning generalists

4. Supply and logistics specialist.

5. Social science research/systems analyst on scheduled intermittent basis (14 man months)

6. Short-term consultants (4 man months)

B. Participant training in the U.S. and third countries

C. Vaccines

D. Equipment and Supplies

In addition, the Government of Liberia is expected to supply counterparts to the four full-time advisers, in-country training, drugs, offices and warehouse personnel, gasoline, and oil.

Exhibits A and B provide a detailed listing of financial project inputs and commodities to be used in the Project.

Host Country Activities:

The MOH (Minstry of Health) is responsible for the Project in its entirety, including recruitment, assignment and promotion of all program personnel in

the country, coordination of donor inputs, periodic evaluation and adjustment of the program and securing the operating budget. Administration of the Project is the responsibility of the MOH's Bureau of Medical Services.

Other Donor Activities:

Other donors such as CARE, UNICEF, and others will supply vehicles and maintenance, well drilling rigs, vaccines, construction materials and supervisory assistance in construction. Extensive lists of the supplies to be included with the project are contained as an Appendix to this Report. It should be noted that it would be more useful to obtain information on the specific functions of the rural health workers as opposed to obtaining information on the specific functions of the rural health workers as opposed to extensive lists of the number of trash can liners and sutures available.

The Peace Corps and MOH are developing a similar pilot rural health care delivery system. The Peace Corps' project is not in Lofa County, but regular exchange of project data and information should occur.

The Curran Lutheran Hospital at Zorzar provides support services to the Project.

Issues:

Some assumptions and issues pertinent to the design and implementation of the Project are:

(1) Continued financial and logistical support by GOL (Government of Liberia), AID, and other foreign donors.

(2) Family planning services must remain a priority and receive support at all levels of the GOL.

(3) The Project task analysis identifies the appropriate levels of personnel and tasks to be performed.

(4) The GOL will be capable of assuming responsibility for the provision of all funds necessary to support the continuing costs of the Project, once foreign funding is withdrawn.

(5) The local residents of Lofa County will have continued interest in the services provided by the Project.

(6) Cooperation and coordination of the various activities of foreign donors and GOL Ministries exist in the Project.

EXHIBIT A -- FINANCIAL SUMMARY: TOTAL LCRH COSTS

		Year 1	Year 2
I.	DRUGS	$ 91,000	$ 97,400
II.	EQUIPMENT AND SUPPLIES	135,660	46,493
III.	VACCINES	43,000	50,000
IV.	PERSONNEL SERVICES	292,305	321,536
V.	ADVISORS AND CONTULTANT SERVICES	320,000	352,000
VI.	VEHICLES AND MAINTENANCE	113,900	26,840
VII.	CONSTRUCTION AND RENOVATION	148,120	47,180
VIII.	TRAINING	141,300	158,100
IX.	FAMILY PLANNING	140,000	50,000
X.	CURRAN LUTHERAN HOSPITAL	130,000	130,000
XI.	CARE	35,000	15,000
XII.	PROJECT CONTINGENCIES	72,766	60,546
	TOTALS Years 1 & 2	$1,663,051	$1,355,095
	TOTALS Years 3 & 4	$1,301,670	$1,288,119
	TOTAL PROJECT COST	$5,608,135	

LIBERIA

Project Name and Title: Integrated National Health System Support
669-0144 (PID Stage)

Project Cost: $4.1 million grant (Total Project Cost --$4.1 million)

Project Life: FY1978-FY1982

Target Population: Not Estimable

Area of Coverage: National

Project Purpose:

Establish a rural directed, integrated national health system assisted by an institutional linkage between U.S. medical center and Liberian JFKNMC (John Fitzgerald Kennedy National Medical Center) supported by a National Health Council ensuing coordination and effective utilization of all health services in Liberia.

Health Component:

This project proposes the establishment of a contractual institutional relationship between JFKNMC and a major U.S. medical center and support for a National Health Council to integrate the components of Liberia National Health System. The exchange relationship will prepare NMC to enhance its "outreach" function by increasing its capacity to provide supervision, training, and management skills and resources.

The cooperating U.S. institution and NMC will technically gain from the exchange of students and faculty. Score and specialized experts in all phases of hospital educational and research areas will be available to Liberia on a short and long-term basis.

It should be stated that in the past U.S. assistance for the NMC has consisted of construction of the JFK Memorial Hospital plus technical assistance in administration, management, clinical services, nursing services, engineering and maintenance, pharmacy and health manpower training, and the provision of supplies and equipment.

Nutrition Component: Not Defined.

Population Component: Not Defined.

Project Outputs:

The National Health Council will be the mechanism through which the GOL (Government of Liberia) will establish its national health policies.

The sister institution relationship, by providing a demand responsive source of technical assistance, will be the means through which the GOL can implement these policies and achieve the project purpose.

Starting from the resource foundation already laid by the earlier NMC project endeavors, the major outputs summarized below will provide additional subsistence to national health manpower resources which support the national health system, and independent operation of the system. These outputs will faciltate the:

a) upgrading of health teaching through exchange instructors, more public health-related curriculum, and closer ties to the rural health delivery system;

b) operational logistic system through the consulting of advisory services of procurement, purchasing, storage, distribution, accounting, transport, disbursement, and improved overall management expertise;

c) strengthen national health outreach by creating a two-way flow of support and supervision from the national center to the country's centers and clinics and the referral of the most serious cases back to the national center;

d) trained professional personnel through the in-country and U.S. on-the-job training resulting from the exchange of skilled personnel between the U.S. and Liberian sister institutions.

Examples: Specific health manpower trained as project output:

- public health officers
- environmental health officers
- paramedical workers
- nurses
- financial management officers
- physicians
- laboratory technicians

Trained middle management personnel

- equipment operation
- equipment maintenance
- supply and logistics
- laboratories
- housekeeping
- supervisors
- in-country in-service training programs
- exchange in-service and post-graduate programs

Project Inputs:

Through an AID-funded contract with a U.S. medical center, the U.S. inputs would include (See Table A-1):

Long-term technicians

- financial management/hospital administration.
- maintenance
- engineering

Short-term visiting field technicians to conduct annual in-service training programs

- laboratories
- medical records
- housekeeping
- dietary
- procurement
- nursing

U.S. on-the-job training to build on NMC in-service training programs

- laboratory
- medical records

U.S. specialized professional training of trainers, one year program to develop cadre of trainers to assure continuous supply of health professionals

- public health
- environmental health
- financial management
- physicians
- technicians

Commodities (modest and limited - see budget)

- audio-visual training aids
- medical education equipment (lab and classroom)
- hospital equipment
- transport vehicles
- laboratory and limited research equipment
- limited specialized diagnostic equipment
- specialized drugs and medication

Table A-1

ESTIMATED LIFE OF PROJECT COSTS

United States assistance ($000)	FY 78	FY79-82	Total All Years
1. Contract			
Technicians			
long-term	442	2,160	2,602
short-term	122	367	489
Sub-total	564	2,527	3,091
Training			
U.S. on-the-job	10	39	49
Academic-sister institution	31	175	206
Other Costs	25	28	53
Sub-total	66	242	308
2. Commodities	370	301	671
3. Evaluation		30	30
Grand Total	$1,000	$3,100	$4,100

Host Country Activities:

The GOL will continue to cover the full operating costs of JFKNMC, medical training institutions, and existing health care systems from its annual budget. In addition, it will pay the transportation and salary costs of participants.

The GOL will also take the necessary steps to establish and support the National Health Council. These steps were not specified.

The GOL contribution will be well in excess of the minimum required 25% of total Project cost.

Other Donor Activities: Not Defined.

Issues:

1. The possibility of encouraging a further commitment to JFKNMC by responding affirmatively to the GOL's current request must be weighed against the need to keep the NMC complex viable and supporting the national health system.

2. An agreement must be reached by all parties to extend a full range of activities and effort to communities and facilities outside of the larger Monrovia and Montserrado Counties at the beginning of the Project. A true sharing of all the resources provided or generated by the Project must be a prime requirement for operation, performance, and evaluation.

3. Qualified Liberian trainees may not be available.

4. Transportation and communications system must improve during the life of the Project.

5. Additional health manpower generated by the Project must be effectively absorbed into the national health system.

6. The National Health Council must have the authority to resolve interinstitutional conflict.

7. No interruption in U.S. or Liberian financial and philosophical support of the Project.

8. Smooth, non-competitive interacting functioning between the major institutions of this Project will be a major management requirement of the National Health Council. A minimal managerial style will be necessary to permit the autonomy and independence demands to the member institutions while at the same time applying sufficient direction and regulation to coordinate their roles to achieve the overall objectives of the Project.

9. The benefits of the exchange between the Liberian and U.S. institutions must be clearly delineated and actively pursued to maintain equilibrium of effort.

10. The U.S. institution and NMC will be capable of providing the mutually desired technical expertise.

Source of Information:

Liberia Integrated National Health System Support Project Implementation Document.

MALI

Project Title and Number: Rural Health Services Development, 688-0208

Project Cost: $3.89 million grant (Total Project Cost--$4.8 million)

Project Life: FY1977-FY1980

Target Population:

This project will be targeted on a demonstrational basis into three of Mali's six regions. No specific level of population has been identified.

Area of Coverage:

In each of the three regions selected, full demonstration project services (i.e., training and supervision of village health workers) will be developed in all villages within one Arrondissement (20 to 40 villages). However, medicines and supplies will also be provided to all of the other Arrondissements within the same Cercle (of which there are 6-8 Arrondissements).

Project Purpose:

The projects purpose is:

1) To design, implement and evaluate the demonstration rural health system which will:

   a. bring health services to the village level, emphasizing health promotive and disease preventive activities;

   b. be integrated with other community and economic development activities, especially agricultural production and education;

   c. have annual operation costs of US$2 or less per capita (in order to make GOM expansion and replication of such services financially feasible); and

2) To achieve GOM adoption of the demonstration project as the basis for a national, rural health system and to assist the Ministry of Health in preparing to implement such a system on a nationwide basis.

The Problem:

The health problems of Mali are typical of those of other Sahelian West Africa. There are high levels of morbidity and mortality from infectious and parasitic diseases, especially in combination with early childhood under- and malnutrition. These are reflected in the most recent estimates of infant mortality (rate of 188), and a crude death rate of 25.9. In addition to nationwide major diseases burdens from gastrointestinal and respiratory/skin infections other problems include childhood communicable diseases, Malaria, Tetanus, Schistosomiasis, and Leprosy. Further, some of Mali's most potentially productive better watered areas are a major foci of onchocerciasis.

Nutrition Component:

The village health worker will perform the following nutrition and nutrition related functions:

A) Community diagnosis and evaluation (ongoing).

1. Continuious census of births, deaths, migrations, marriages.
2. Birth Weights.
3. Age specific death and fertility rates.
4. Parity and gravidity of pregnant females.
5. Weight and/or arm circumference of infants and young children by age and sex.
6. Feeding and weaning practices.

B) Health promotion and disease prevention.

1. Simple infant and newborn care.
2. Breast-feeding and supplementation.
3. Weaning and transition foods.
4. Child spacing and family planning advice.
5. Improved food production.
6. Iron supplements in pregnancy.
7. Referrals to Arrondisement or Cercle level of:
   a) abnormal pregnancies;
   b) failure to thrive infants;

C) Direct diagnosis and treatment (Also includes Health Education)

1. Simple early treatment of diarrhea.

2. Home treatment of early malnutrition.

Health Components:

In addition to the nutrition and health activities listed above the village health worker will also perform the following functions:

A) Community Diagnosis and Evaluation (ongoing)

1. Health and family planning utilization by age, sex and type of service.

2. Simple diagnostic categories by age and sex, (for example diarrhea, fever, respiratory or skin ailments, abnormal delivery, trauma, hemorrage, tetanus, etc.)

3. Vaccination status.

B) Health Promotion and Disease Prevention.

1. Child spacing and family planning advice.

2. Hygiene in the home.

3. Safety in the home, fields, and villages.

4. Village hygiene (water and excreta, vector control).

5. Vaccination.

6. "Nivaquinization" of infants, young children, and pregnant 2omen (Malaria supression).

7. Tetanus vaccination of pregnant women in Third Trimester.

8. Sterile razor blades and cord ties for village midwives.

9. Also refers to Arrondisement or Cercle level:

a) severe, acute and chronic illnesses;

b) trauma; and

c) contraception.

C) Direct Diagnosis and Treatment (also includes Health Education)

1. Simple treatment of respiratory infections.
2. Simple treatment of skin infections.
3. Malaria (oral treatment feasible in most cases).
4. First-aid.
5. Follow-up and assure treatment of chronic diseases.
6. Distribution of appropriate medicines.

Population Component:

Population activities are integrated to both health and nutrition activities specifically health education and demonstration of:

a) health education and demonstration of child spacing and family planning advice;

b) diagnosis and evaluation of health and family planning utilization by age, sex, and type of service;

c) referrals for contraceptive treatment; and

d) follow-up contraceptive supply.

Project Outputs:

The major project output of the Mali Rural Health Service Developme Project will be:

a) establishment of demonstration projects;

b) the training of health workers at the village, Arrondissement, Cercle and regional level;

c) five persons trained and returned to key Ministry of Health positions (trained in U.S. for one year each at Master of Science and MPH levels;

d) community diagnosis reports for project zones;

e) replicable initial and continuing interventions; and

f) reports on progress.

Demonstration projects will be established in one Arrondissement (40 villages, 20,000 people) in each of the three selected regions. In addition, two health workers will be trained at the village level, three at the Arrondissement or sub-district level, one at the Cercel level and one at the regional level for a three year total of 240 village workers, nine sub-district workers, three district level workers, and one regional level worker.

Project Input:

Host country activities and other donor activities:

The present technical assistance grant will provide a total of 3.89 million dollars in AID health funds over the life of this pilot project. U.S. contribution by year (subject to the availability of funds) is as follows:

FY 1977:	$460,000
FY 1978:	$1,126,000
FY 1979:	$1,415,000
FY 1980:	$889,000
TOTAL	$3,890,000

The project agreement will contain Malian counterpart contribution of $870,500 (18%) of the total project) which consists primarily of personnel costs and present level medical supply costs. (In addition, the purchase of $90,500 worth of seven land rovers and 30 mobilettes.) Other donors are not interested in providing funding because of their heavy involvement in other sectors or other geographic areas in Mali.

Issues:

Among the issues that must be addressed in a rural health service delivery project of this variety are the following:

a) Selection and training of health workers for the rural health system.

b) Supervision of village health workers.

c) Systems required for the back-up and support of rural health workers, (i.e. information system).

d) Central level project activities (i.e. infrastructure support).

e) Personnel requirements of the project.

f) Integration of the project activities with other rural development activities.

g) Evaluation and measurement of the project effects.

h) The feasibility of nationwide expansion.

Each of these issues must be planned accordingly for optimal implementation of the program.

Additional Information Required:

It will be necessary to investigate the logistical and geographic role of the village health workers in delivering health services. Whether the worker is stationed at a health post, community level, home-visiting or regional outpost is not clear from the project paper. The level of education for the village sub-region and regional health workers has not been adequately defined. The amount and level of training as well as specific task analysis needs to be addressed.

Source of Information: Mali Rural Health Services Development Project Paper

NIGER

Project Title and Number: Improving Rural Health, 683-0208

Project Life: FY1978-FY1982

Project Cost: $13.5 million grant (Total Project Cost--$105 million)

Target Population: 3,500 villages (est. 39% of rural population)

Area Coverage: Regional

Project Purpose:

To establish a viable rural health delivery system which demonstrates the value of prevention, early diagnosis, timely curative intervention and proper referral.

Health, Nutrition and Population Components:

This Project proposes to assist the Ministry of Health (MOH) to develop its volunteer village health team (VHT) program. The VHTs are composed of 2 health matrones (midwives), 2 secouristes (village leader, holy man, etc.), and an administrative committee. The community-selected VHT members are trained and supervised by dispensary nurses. The secouristes and matrones provide minor first aid and disease prevention services. The matrone performs her traditional midwife role with the addition of new medical techniques. The dispensary nurse serves as the technical consultant and resupplies their pharmacies.

The Project in collaboration with the GON (Government of Niger) over a five-year period will concentrate on the training of these previously described VHT members. The necessary support, physical, and personnel infrastructure, will be provided to the VHTs. Project activities that will be carried out include:

(1) Third country training in theory and technology of rural health delivery systems for ministerial level personnel, medical instructors and health logistics/maintenance personnel.

(2) In-country training and retraining for prospective and bona fide VHT members. These workers will provide simple preventive, promotive, and curative services. For example the VHTs will establish village health/nutrition education programs in the health centers and rural dispensaries.

(3) In-country academic training and continuing education for health personnel at all levels of the delivery system.

(4) Training of certified (1 year program) and state (3 year program) nurses from ENICAS (National School for Certified Nurses and Social Aides) and ENSP (School of Public Health) respectively. These nurses will be responsible for the treatment, training, and supervision of village health workers.

(5) Field training experience in rural medicine for medical students from ESSM (National School of Medical Science) to facilitate the development of skills in non-urban health services delivery.

(6) Environmental health worker training programs (1 year program) in the ENICAS.

(7) Instruction and technical consultation in the areas of auto mechanics, medical equipment repair, manpower development, environmental sanitation, health administration and planning, and epidemiological surveillance.

(8) Procurement of vehicles for supervisory purposes and other supportive activities (such as distribution of goods).

(9) Construction and renovation of health centers and rural dispensaries.

(10) Upgrading of medical supply distribution system.

(11) Mobile health units staff by VHT members will enhance their diagnostic and communicable disease prevention capabilities.

Project Outputs:

Training

(1) 1,500 VHTs trained (total of 6,000 persons) and 13,500 VHWs retrained.

(2) Academic health training for 25 teachers, senior MOH officials, and logistic/maintenance personnel (at a rate of 2 teachers, 2 MOH officials, and 1 maintenance person per year of the Project). These new teachers will be stationed in the ESSM and NICAS.

(3) 1,100 persons participated in MOH continuing education conferences and seminars.

(4) 40 certified nurses, 20 state nurses, 35 medical students, 15 environmental health workers in technical training each year of the Project.

(5) 5-10 trained MOH specialists in specific health or related areas (using American Consultants as short-term teachers).

(6) 25 medical equipment technicians and 50 automechanics trained by short-term consultants.

Institutional Support

(1) 200 mobylettes for supervisors and 42 functioning 4-wheel drive vehicles for better supply distribution which also facilitates: (a) a 45% increase in supervisory visits in health centers and dispensaries; and (b) a 10% increase in operational efficiency in all vehicles.

(2) 2,700 VHTs equipped with drugs, supplies and educational materials.

(3) 250 functioning health facilities with sanitation improvements.

(4) 220 existing health facilities with new equipment or furnishings.

(5) 7 new dispensaries and 2 new department health centers in Zinder and Agadez which are functioning.

(6) Health/nutrition education programs provided by 2,700 VHTs and 220 health centers and rural dispensaries.

(7) Mobile health units immunizing 100,000 persons per year.

(8) At least 35% of rural population provided with sanitary education programs.

Project Inputs:

Training ($4.7 million)

(1) Funds will facilitate retraining for all VHTs every two years in addition to: (a) specialized training for senior MON personnel; (b) continuing education for MOH personnel (120 persons for 10 days per year) and 2 departmental conferences per year (100 persons per department for 4 days per year), and (c) academic training for 100 state nurses, 200 certified nurses, 75 environmental health workers, and 175 medical students.

TABLE L

Budget - Improving Rural Health
(In $000)

Category	Years					
	1	2	3	4	5	Total
Human Resources						
1. Training						
a. 3rd country participant	50	55	60	66	73	304
b. In-country continuing education for MOH personnel	57	63	69	76	84	349
c. VHT - training	180	198	218	240	264	1,100
VHT - retraining	150	231	324	429	546	1,680
d. ENICAS	80	88	97	105	115	485
e. ENSP	50	55	60	66	73	304
f. ESSM - Rural Health	50	55	60	66	73	304
g. Environmental health - ENICAS	30	33	36	40	44	183
2. Technical Assistance						
a. Auto Mech. Trainers	130	288	316	346	190	1,270
b. Med. Equipment Repair Trainer	65	144	158	173	95	635
c. Sanitary Engineers	130	288	316	346	190	1,270
d. Short term consultants	100	55	60	66	73	354
Sub-total - Human Resources	1,072	1,553	1,774	2,019	1,820	8,238

Budget - 2

($000)

	Years					
	1	2	3	4	5	Total
Institutional Support						
1. Transport						
Vehicles - 4-wheel drive	158	92	326	112	438	1,126
Mobylettes	110	22	145	27	29	333
2. Equipment & Supplies						
Dispensary & Health Center Equipment	141	116	60	60	-	377
Drugs for VHTs	65	99	126	158	197	645
Vaccines	-	220	442	245	293	1,200
Educational & Audio Visual Equipment	20	36	32	28	46	162
Laboratory and Cold Chain Equipment	-	100	-	-	-	100
Local Office	34	19	20	21	21	115
3. Construction & Reconstruction						
Departmental Hdqs.	310	-	-	-	-	310
Equipment for Med. Equipment Repair & Garage	40	-	-	-	-	40
Dispensaries	-	263	289	33	24	609
Sanitation Improvements	50	80	61	67	28	286

Technical Assistance for Institutional Support System
(3.5 million)

(2) Long and short-term technical assistance in the following areas is funded by the Project: (a) 2 MOH auto mechanics to establish garage maintenance and repair services; (b) 1 medical equipment technician per year in the Zinder and Agadez department centers; (c) 2 sanitary engineer teachers per year to develop MOH environmental health programs; and (d) short term consultants to provide logistical, administrative, etc. support.

Institutional Support System ($5.3 million)

(3) This Project funds: (a) all VHT drugs and equipment for medical kits and educational and autovisual materials , and (b) materials to renovate 220 health facilities, environmental sanitation improvements in 250 health facilities, 7 new dispensaries, and 2 new departmental health centers.

Resources to Link Various Levels of the Health System
(est. $2.4 million)

(4) Vehicle (48 four-wheel drive vehicles and 100 mobylettes) will be used to transport goods and provide transportation for supervisory visits from departments to health centers, rural dispensaries, and villages.

(5) two garages and medical repair workshops at the department health centers will be developed.

(6) The Project also funds mobile health units with vaccine sufficient for 100,000 persons per year and lab and cold chain equipment.

See . Table L for a detail time frame of project inputs.

Host Country Activities

The MOH and other GON agencies have been deeply involved in Project design and implementation. Daily supervision of activities are responsibilities of the MOH. The Project Manager will be responsible for the annotation and approval of all U.S. inputs into the Project.

Other Donor Activities:

Foreign aid in the health sector plays an important role in the Nigerian budget. In 1976 an estimated $13.6 million was derived from external aid

to Niger. About one-half of the $13.6 million was allocated to projects affecting rural areas. Many projects being financed by external donors will require coordination with the activities of this Project. For example, the assistance of France to the Mobile Medicine program in Niger will mean that France should be consulted about any equipment purchases which are designed to maintain the cold chain. The Peace Corps involvement in nutrition education could be extremely useful in assistance with designing visual aids and development of a nutrition program for village matrones. A detailed analysis of foreign donor activity is outlined in Table M.

Issues

(1) Continuous financial support and interest of AID and GON in the Project are essential elements.

(2) The extensive financial input of other foreign donors in the national health budget indicates that their support influences the programming direction of GON in rural health development.

(3) The varied foreign donor interests in health development must be coordinated at the national and regional levels to avoid duplication of programming efforts.

(4) GON health services for the Niger nomads is practically nonexistent. The VHT concept with some changes could be extended to the nomadic zone; however the GON is opposed to "special treatment" for the nomads. Thus, an important section of the rural population will not be fully integrated into the Project.

(5) Local community interests in the delivery of rural services through the VHT concept must be maintained for Project success. This is particularly significant since the volunteer village health workers in the Project are selected by the community.

(6) The recurring costs of the Project are quite high and are of major concern to Niger where donor assistance and large numbers of expatriate personnel are necessary to sustain the health delivery system.

(7) There are certain qualitative and quantative restraints with central MOH personnel which limits the necessary daily technical support which are MOH responsibilities in the Project.

TABLE M

OTHER DONOR PROGRAMS - HEALTH SECTOR

1. Health Projects in Rural Areas

A. Bilateral

Project Activity	Funding Source	Amount 1976 ($)	Total Amount /Funding Period/	Description
Basic Health Services Delivery Project	Africare	118,000	2,800,000 /FY 1977-79/	Personnel to be provided include 1 epidemiologist, 1 surgeon, 1 public health physician, 1 OB/GYN, 1 automechanic specialist, and 1 medical equip. repair technician. The surgeon, OB/GYN, automechanic spec. & Med. equip. trainer will be based in Diffa.
Sponsorship of Conference on Family Health Care	USAID		25,000 /Jan. 1977/	Conference held in Niamey focused on how to effectively deliver health services to rural areas.
Primary Health Care Delivery	Peace Corps	174,573	219,840 (1974-1979)	Two nurse educators, nine laboratory technicians, 16 health nutrition educators
Rural Health Project Tahoua Dept.	Fed. Rep of Germany	833,333	7,500,000	Personnel (5 doctors 1 mechanic) commodities, (4 Landrovers, drugs for rural dispensaries, provided in Tahoua Dept. mainly mobile medicine) staff, equip., tech. assistance, scholarships, construction (4 medical centers, 20 dispensaries).

TABLE M (Continued)

OTHER DONOR PROGRAMS - HEALTH SECTOR

1. Health Projects in Rural Areas

A. Bilateral

Project Activity	Funding Source	Amount 1976 ($)	Total Amount (Funding Period)	Description
Rural Health Care Assistance	Belgium	485,486	1,087,424 (1976-1982)	A medical team, 3 doctors, one auto-mechanic trainer, and drugs for rural dispensaries in Dosso
Asst. to Ministry of Health	Netherlands	47,000	80,000	Medical personnel consisting of two doctors provided for the Niamey Dept. (working in rural areas only)
Medical Asst. in Tchintabaraden/ Tahoua Dept.	OXFAM	36,080	36,080 (1976)	Two nurse/midwives provided for training in Tchintararaden Arrondissement
Assistance to Med. Center, Zinder	SUCO	998,896	3,999,896 (1976-1979)	Tahoua Dept. Two nurse educators, 1 lab technician, commodities.
Training of Secouristes/ Matrones	OXFAM	30,080	30,080 (1976)	Financing part of training costs for VHTs
Assistance to Galmi Hospital	SIM	305,868	N.A. (indefinite)	2 doctors, 4 nurses, 1 dentist/oral surgeon, 1 dental hygeinist
Asst. to Leprosy Hospital in Maradi	SIM	15,570	N.A. (indefinite)	Personnel (4); equip, for operating rooms
Assistance to Guescheme Hospital	SIM	305,868	N.A. (indefinite)	Four nurses, equip. for operating rooms

TABLE M (Continued)

Health Projects in Rural Areas

A. Bilateral

Project Activity	Funding Source	Amount 1976 ($)	Total Amount [Funding Period]	Description
Dispensary at Goudel	EEM	6,056	17,896 N.A.	1 nurse, drugs, & supplies
Dispensary at Karma	EEM	3,750	N.A.	1 nurse, drugs and supplies
Sub-total		4,310,560	122,796,216	

TABLE M (Continued)

B. Multilateral

Project Activity	Funding Source	Amount 1976	Total Amount (Funding Period)	Description
Construction of Medical School, Univ. of Niamey	ADB	4,800,000	4,800,000 (1976)	Construction materials and labor for bio-medical science building and administrative block
Health Facilities Construction	FED	1,361,779	3,429,530 (1972-1977)	Funds have been provided for the National Public Health School Building in Niame and Hospitals at Maradi and Zinder
Health Science School/Niamey	ADF	24,197	66,234	Funds have been used to expand buildings at the Health Sciences School, Nat'l School of Public Health
National School of Public Health/Niamey	UNDP	164,612	565,110 (1972-1976)	Funds were used t provide personnel training material and laboratory supplies
Hospital Assistance	WFP	150,518	1,816,800	Provision of food for hospitalized patients at the National Hospital in Niamey and Zinder respectively
Assistance to the Faculty of Medical Sciences, Univ. of Niamey	WHO	308,100	796,000 (1975-1979)	Two midwife instructors have been provided
Scholarships for Health Science Study in Europe	WHO	66,200	488,300 (1975-1978)	Scholarships for graduate study in Europe
Sub-totals		6,875,406	11,961,974	
Other Donor Assistance (health sector)		7,602,768	15,287,901	

TABLE M (Continued)

II. Health Projects in Urban Areas

A. Bilateral

Project Activity	Funding Source	Amount 1976	Total Amount (Funding Period)	Description
Basic Health Services Delivery Project	AFRICARE (OPG)	432,000	2,800,000	An epidemiologist has recently been appointed in charge of epidem. lab. for MOH. A public health physician is participating in curr. design for VHT training
Improvement of Water Supplies	Fed. Rep. of Germany	236,962	481,927 (1973-1977)	Loan for improvement of water supply and sanitation facilities in Niamey, Maradi and Zinder
Medical and Hospital Equipment	USSR	14,400	NA (1975-1979)	Medical personnel and hospital equipment for Niamey and Maradi
Assistance to Hospitals Niamey and Maradi	People's Rep. of China	44,000	44,000 (1976)	22 Physicians
Sub-total		727,362	3,325,927	

TABLE M (Continued)

Health Projects in Rural Areas

B. Multilateral

Project Activity	Funding Source	Amount 1976	Total Amount (Funding Period)	Description
Onchoceriasis Control 1/	AID/WHO/ UNDP/IBRD	89,130	6,000,000 (1974-1979)	To assist in international efforts to free the zone of Say of Oncho
Strengthening of Health Delivery Systems 2/	USAID/WHO	355,935	2,477,551 (1973-1980)	Technical assistance in health planning, management, epidemiological surveillance; vaccines
Health Facilities Construction	FED	1,067,741	3,168,000 (1972-1975)	Funds have been used for the construction of arrondissement medical centers and semi-urban dispensaries
Dispensary Construction in Rural Areas	FED	1,081,412	33,600,803	Dispensaries will be constructed throughout the country and wells enclosed
Food for Maternal/Child Health Centers in Rural Areas	WFP	100,518	1,116,800	Food aid
Drugs for Rural Dispensaries	UNICEF	6,500	24,000 (1975-1977)	Drugs and supplies
Sub-total		2,701,236	46,387,154	

1/ Regional Project - Niger portion only

2/ " " " " " , rural services

SENEGAL

Project Title and Number: Rural Health Services Development, 685-0210

Project Cost : $3.3 million grant (Total Project Cost--5.0 million)

Project Life : FY 1977 - FY 1980

Target Population : 2,884 villages (in the Sine-Saloum Region)

Area Coverage : Regional

Project Purpose :

To create within the Sine-Saloum Region a network of staffed village health posts supported by local communities and to strengthen a backstopping system for secondary health posts supported by the National Government (GOS).

Health Component:

The project in general proposes the creation of low cost community supported rural health delivery system instituting the following directives:

(1) completing the infrastructure for the delivery of health services;

(2) training a new health worker (village health workers) and recycling existing MOH personnel;

(3) establishing a comprehensive supervisory system:

- among the existing personnel of the Region;
- through technical supervisory links between health posts and villages;
- through civic and financial supervision of the village health worker (VHW) by the villages and their representatives;

(4) providing health supplies, storage facilities, and establishing A resupply system supported by the villages

(5) providing transportation mechanisms for the technical support system;

(6) obtaining budget support and investments from external sources on a diminishing basis.

More specifically the Project is designed to:

- Create a cadre of village health workers (VHW's) and a network of village health huts (VHH), where basic health services (first-aid , environmental sanitation, (latrines, refuse pits drainage) simple health and nutrition education, and preparation for vaccination campaigns) will be provided and vital statistics collected. Cases requiring medical attention will be referred to the health posts and department health centers. MOH personnel will also train VHW's at these posts.

- Upgrade and expand the secondary health posts (HP) in the Region (rehabilitate 58 existing posts and constructing 15 new ones) so that the NHW's will be adequately backstopped and there will be one secondary post per 10,000 to 12,000 inhabitants (or 9-14 VHHs).

- Organize a system of monthly surveillance and technical supervision of the village health workers by incorporating an "Itinerant Agent" to work out of secondary health posts.

- Establish the capacity within the rural community to maintain needed stocks of drugs and medicines.

- Provide technical assistance to the Governments of Senegal (GOS) Ministry of Health in project planning, implementation and evaluation.

- Coordinate the establishment of VHH's with UNICEF's creation of village pharmacies and rural maternity centers.

- Develop Rural Community Councils to assure community involvement in the Project through their selection of VHW's, construction of VHH's, and management of the drug resupply system.

- Develop a transportation system for the health posts workers.

The major emphasis of the Project will be placed on the training of VHW and the in-service training of the HP staff. Additional training will be provided via the Khombole School and others to increase skills.

Nutrition Component:

Nutrition education and related MCH services are provided by the village health workers in the health huts. The health posts will offer additional services and education activities through the health post matrons and itinerant agents.

Population Component:

The village health workers, health posts matrons, and itinerant agents offer promotional services in the area of family planning. The posts and huts will also provide related MCH and midwifery services.

Project Outputs:

At the end of the Sine-Saloum Project the following activities will be completed:

(1) The Rural Community Councils will have selected 1800 village health workers and installed a functioning mechanism for their remuneration by the villagers;

(2) 600 health huts will have been constructed by the rural communities;

(3) Village Health Workers (1800) will have received preliminary training and refresher courses;

(4) A total of 21 new health posts (including 6 programs by GOS) will have been constructed, staffed and equipped;

(5) All Health Post Chiefs and itinerant workers will have received in-service training or recycling which will enable them to instruct and monitor VHW's, a total of 237 medical and paramedical personnel;

(6) Supplementary equipment will have been purchased and provided to health posts and health huts;

(7) Horses and buggies (76) will have been provided to health posts for transportation purposes and will be maintained by villagers;

(8) Regular medicine and drug re-stocking, as well as the maintenance of horses and buggies will have been undertaken by the Rural Community Councils;

(9) The Khombole Sanitation School will have been supplying at least 18 graduates per year;

(10) A baseline survey of the health conditions in the villages to facilitate project evaluation;

(11) Renovation of 58 Health Posts will have been completed;

(12) Training manuals for VHW prepared in 3 languages;

(13) 76 Rural Community Councils receive literacy training;

(14) Regional MOH supervising and teaching team in operation.

TABLE 8: SUMMARY COST ESTIMATE AND FINANCIAL PLAN (S.U.S.)

Cost to USAID	FY - 77	FY - 78	FY - 79	FY - 80	TOTAL
A. Training	4,540	55,670	35,790	58,430	204,430
B. Training materials	15,320	22,020	21,210	2,800	62,750
C. Equipment	127,370	140,470	39,340	6,000	363,230
D. Medicine	175,000	280,000	145,000	-	600,000
E. Vehicle o - m	5,670	22,800	27,940	22,420	57,330
F. Per Diem	3,720	15,200	22,380	27,360	77,160
G. Construction	32,790	150,750	205,420	447,390	836,350
H. Expatriates	21,000	30,000	220,000	35,000	306,000
I. Evaluation	10,000	-	10,000	10,000	30,000
Cost to USAID	449,010	756,710	717,280	653,420	2,581,420
10%contingencies	44,901	75,671	71,728	65,342	258,142
Cost with contingencies	493,911	832,381	789,008	724,262	2,839,562
Inflation 20% annually	-	166,476	157,801	144,852	469,129
Total cost to USAID	493,911	998,857	946,809	869,114	3,308,691
Cost to Peace Corps	8,500	12,750	17,000	17,000	55,250
Total Cost to U.S.	502,411	1,011,607	963,809	886,114	3,363,941
National Counterpart costs					
A. Ministry of Health	47,770	136,280	302,030	404,800	889,730
B. Promotion Humaine	6,480	24,400	23,040	20,240	74,160
C. Community participation	-	48,200	34,360	136,300	239,360
Cost to GOS and communities	54,250	248,880	408,880	541,340	1,252,250
Inflation allowance, 10% annually	5,420	49,730	122,690	216,460	394,350
Total national counterpart cost	59,670	298,880	531,870	757,800	1,647,600
Total Project Cost	562,081	1,310,267	1,495,479	1,643,914	5,011,541

National participation 33% of total Project cost.

Project Inputs

Table B provides a summary of AID and host country project input costs. Appendix D in the Project Paper thoroughly defines U.S. costs for construction, training, equipment and supplies, staffing and operational support.

AID project financing provides the following:

Construction, Equipment and Supplies

(1) Construction of the renovation of 58 existing Health Posts.

(2) Construction of 15 new Health Posts, including housing for the chef de poste and the itinerant worker.

(3) New construction and renovation of the Khombole School.

(4) Equipment for 79 existing and new Health Posts.

(5) Equipment and initial stocks of medicines for 600 health huts.

(6) Financing of the purchase of 17 light vehicles.

(7) Financing of the purchase of 76 horses and 76 buggies.

(8) Financing of the purchase of 6 audio-visual kits.

(9) Financing of the purchase of cement and materials required for construction of 600 health huts.

(10) Financing of the production of 1800 VHW manuals.

(11) Financing of literacy manuals and teaching materials.

Logistics

(1) PH animation travel expenses.

(2) PH literacy travel expenses.

Training

(1) In-service training program executed by Supervisory Team based at Kaolack.

(2) PH literacy training

(3) Short-term contract personnel (2-3) in: Training Design, Training Extension Work, and Curriculum Development. These inputs are for the Khombole school.

(4) Training stipends for 20-30 students for Khombole.

(5) Expense for VHW's during training (Meals).

Evaluation

(1) Financing of sociological survey at project inception to gather baseline data.

(2) Funding of independent Evaluation Team.

Staffing

(1) Funding of project manager 3.5 person-years

(2) Funding of public health advisor to be based in Kaolack 3.5 person-years.

Host Country Activities

Host Country activities are described below in terms of the functions of the participating governmental agencies. In accordance with the GOS "Administrative Reform" policy, the project will be initiated and evaluated at national level but implemented and controlled at the regional level. The first proposed step is to organize a Regional Execution Committee at Kaolack for the implementation of the Project. The administrative procedures will be established by the Governor of Sine-Saloum and national agencies' representatives. The routine administration and implementation will be performed by the project management or delegated to appropriate regional level governmental agencies.

Promotion Humaine (PH) is the Senegalese ministry responsible for community development activities. Promotion Humaine will have the following roles within the Project:

- animation of Rural Community Councils to assure their active participation in the Project;
- literacy courses for Rural Community Counselors;
- demonstration in nutrition concepts.

The animation of Community Councils will be performed through a series of assemblies spread over 2-3 months according to a program established by project management. To this end, Promotion Humaine will field in each Department a full-time itinerant team consisting of two adjoints de animation, who will visit each Rural Community Council at least twice a month and will visit village assemblies as required, under supervision of the PH Regional Inspector. As a result of the PH animation each Rural Community will accomplish the following actions before the start of the Village Health Worker training program.

- indicate to the project their health priorities and expectations of what the VHW are to do:

Because these support functions are essential in all health program activities, they are considered to be "horizontal" in nature, benefitting each of the categorical (vertical) programs noted in 1.a.(4), as well as the PHCP.

b. Project Outputs

Assistance in developing selective support components, such as manpower training or logistics and supplies, would have distinctive outputs for the selected components, such as:

(1) improved management capability for the national health program,

(2) well-trained manpower for all or selective program components, depending on the scope of the inputs,

(3) efficient data collection/analysis system capable of serving all components of the national health program,

(4) at least minimally adequate training service facilities.

The weakness in this approach is that although it would strengthen the MOH capability to conduct operational activities in one or two areas, the program could not become functional for lack of other viable program components. For example, construction of service facilities would be of little value without trained personnel to man the facility, or without the drugs and supplies essential for delivery of services.

and staff 6 new HP's which it has previously programmed for the Region. The Project framework envisions the construction of 15 additional HP with housing, financed by AID, to be staffed by the MOH. The implementation of the renovation and construction activities are to be carried out by the Rural Engineering Service (Genie Rural) of the Sine-Saloum Region.

The MOH will facilitate and authorize the purchase of medicines by the Rural Community Councils for restocking of the health huts.

The MOH provides a Project Co-Director who collaborates with the AID financed project manager and other appropriate regional authorities. The MOH will also provide and employ a Kaolack-based Regional Teaching and Supervising Team composed of 1 graduate nurse, 1 trained midwife, and 1 Khombole trained sanitarian. The Regional Supervisory Team will implement the in-service training or the HP personnel.

The MOH health post personnel will train the VHWs selected by the villagers. One staff member of each health post will be an Itinerant Worker (usually the Khombole graduate sanitarian) or in some cases a matron. The itinerant worker's job will be to travel at least twice a month to the 9-14 village health huts in a radius of 3-15 kms to supervise VHW activities.

In each of the six departments in the Project, the MOH will provide a Departmental Supervisory Team composed of 1 male Registered Nurse and 1 female Registered Nurse or midwife. These will be assigned from the existing staff of the MOH Department-Level Health Centers. The Departmental Supervisory Team will assure (1) correct training for VHWs by the Health Post Staff (participating in the instruction themselves as necessary) and (2) adequate monitoring of the VHWs by the Health Post itinerant workers.

The Khombole Sanitation School, provides one year training in sanitary engineering. The renovation and expansion of the Khombole School is an inseparable part of the Project and will train a sufficient number of itinerant workers to staff the Health Posts in the project area and insure effective training and supervision of the VHW. Furthermore, without an increase in the number of itinerant workers, there will be little possibility of expanding the Rural health system initiated by the Project to other regions of Senegal, one of the Project goals. The Khombole School was designed for 76 students, but never equipped for that number. With relatively minor construction (two additional classrooms), renovation, and furnishings, it will be able to house 40 students.

The expansion of Khombole will alleviate pressure on St. Louis School enabling it to produce annually about 10 additional auxilary nurses, which are equally necessary to assure staffing of the new health posts to be constructed by the Project. The two-year curriculum will be designed to produce individuals optimally trained to fulfill the role of the Itinerant Worker in the Project.

The Khombole student body of 40 will consist of a first year intake of about 22 students and a second year intake of about 18 students.

No inputs will be invested in any community unwilling to shoulder the responsibilities of arranging remuneration of the VHWs, construction of a health hut, and a village medical sales operation. Each village to be provided with a Health Hut will select:

(1) A First-aid man who will dress wounds and administer medicines for the more common ailments (malaria, diarrhea, eye infections, anemia);

(2) A women who will assist village women during pregnancy, at delivery and with family and child care;

(3) A young man who will organize sanitation activities (latrines, refuse pits, drainage, ditches, etc.)

The initial stock of medicines provided by the project to the Health Huts will be sold to villagers at cost (25 FCFA per visit). The Rural Community Council will collect the monies thus obtained and once or twice a year shall place (through the Sub-Prefect and Prefect, with approval of the Regional Medical Officer) a restocking order with PHARMAPPRO, the national medicine distribution agency. PHARMAPPO has a plan for installing regional outlets, including one in Kaolack to facilitate the distribution of medicines. In case the required medicines are not available at PHARMAPPRO, the Rural Community Council will be free to purchase from private pharmacists. The Council may vote monies obtained from rural taxes to augment receipts from Health Huts. The Rural Community Councils will assure the follow-through of their constituencies of the activities they are expected to undertake, such as the renuneration of the VHWs, the maintenance of the Itinerant Agent's horse, and maintenance of the VHH.

Other Donor Activities:

The Peace Corps plans to provide 6 volunteers (one per Department). Each volunteer will collaborate with the PH animation team and the MOH Supervisory Team of the Department to assure the effective animation of the Rural Community Councils, training of the VHWs and organization of the VHH restocking supply channels.

This project will be coordinated with other rural health projects in Sine-Saloum:

(1) UNICEF- completing projects in cooperation with WHO that strengthen basic health services at the health province level.

(2) Ecumenical Project (Nganda) - Catholoic-financed project, local in scope, which aims at general health and sanitary improvements as well as a variety of homemakers skills.

(3) TCIDA (Gossas) - Provides technical advisors and doctors to health centers in the Gossas Department.

Issues:

Issues raised about Project inputs and outputs by the Project Logical Framework include:

- Willingness of MOH to assign to the Sine-Saloum Region newly graduated nurses and itinerant agents to complete the Project staffing;

- Medicines are always available from PHAEMAPPRO or private pharmacists;

- MOH capable of allocating budget to complete staffing of existing health posts, for staff of new posts, regional supervision team, and expanded Khombole operating costs.

- Rural communities capable and willing to compensate VHWs through monetary or other means;

- Promotion Humaine is effective in its motivation and training of rural community counselors in basic literacy;

- Peace Corp volunteers are available as requested;

Other issues pertinent to the initiation and completion of the Project involve the (a) availability of qualified applicants for the paramedical training programs; (b) continuous AID funding; (c) continued interest and motivation within the rural communities to participate in the Project and to follow-up with appropriate activities when donor funding is withdrawn; (d) prevalence of adequate supervision at all levels of the delivery system; and (e) managerial and administrative capabilities of the regional infrastructure in the area of health system development.

Source of information:

Senegal Rural Health Services Development Project Paper.

SUDAN

Project Title and Number: Health Services Delivery System, 650-0021 (PID Stage)

Project Target Population Covered: Not defined.

Project Life: FY 1978 - FY 1982

Project Costs: $21.8 million grant (Total Cost-~~22~~ 22.1 million)

Project Purpose:

The purpose of the project is "to improve/strengthen the rural health delivery system of the Sudan by provision of basic health care services to the rural population of Sudan on an expanded and more equitable basis."

Area Covered:

Rural population nationwide.

Problems

The health care system in the Sudan suffers from many of the problems being experienced by other developing countries. There are high mortality and morbidity rates, high endemic disease incidence and prevalence rates, severe shortages and a maldistribution of health manpower, and inadequate health facilities and services. Currently the financial and human resources are not available in the Sudan to respond to the increasing demands being placed upon the health care system.

Communicable diseases emanating from poor environmental sanitation comprise the principal health problems of the Sudan and absorb the bulk of public health expenditures. Other avoidable diseases account for the next largest category of health sector burden. The total incidence of these conditions constitutes a serious drain on productivity, output and development.

Malaria is the single most prevalent communicable disease, afflicting upwards on one-quarter of the population. An increasing portion of it is man-made. Gastroenteritis accounts for over one-quarter of the most common non-accident hospital admissions. Its true incidence, both alone and as a complicating factor of other diseases, is several times greater; and the economic cost of treatment and lost productivity from gastroenteritis, while difficult to determine, is certainly considerable. Man-made bilharzia, a by-product of irrigation and careless sanitation, is spreading rapidly with development - as is the cost of efforts to control it.

Malnutrition and anemia account for one-fifth of the ten most common non-accident admissions to hospitals to hospitals in 1974. Malnutrition

afflicts mainly infants and children. In Khartoum Providence, which has the lowest reported rate of malnutrition in the Sudan, one-third to one-half the pre-school children examined in a recent survey suffered observable protein-calorie malnutrition. The indirect economic burden of infant malnutrition is evidenced in irreversible impairment of mental development affecting motor functions and sensory perception, physical retardation, learning difficulties, and complications with normally controllable infections which can render them lethal.

The health resources available to improve health and nutrition status are qualitatively mixed, most often inadequate, and in any event maldistributed. While the physician/population ratio for the Sudan is higher than in most African countries, half the physicians reside in Khartoum and Gezira Provinces. Southern and western provinces are disadvantaged in every category of health resource. The south particularly lacks infrastructure, planning and administrative expertise, and logistical support necessary even to absorb enough resources to bring that region to the level of northern provinces.

Health, Population and Nutrition Components:

No specific breakdown of the health, population, and nutrition components of the Sudan Rural Health Delivery System project are identified. Only a very general and vague description of the problems encountered in Sudan that may be ameliorated are given. These are addressed by the specifics of AID financing as shown below: (See alternative plans, Appendix A.)

a. Technical assistance in:

   1. Administrative planning/management
   2. Manpower training
   3. Health information/data systems
   4. Logistics and supplies; procurement/distribution
   5. Health education
   6. MCH/Nutrition/Family Planning
   7. Endemic disease control
   8. Environmental health

b. Commodity support for:

   1. teaching materials and audio-visual aids
   2. drugs and pharmaceuticals
   3. transport and spare parts

c. Block Grants for:

1. the north, to cover costs to construct and equip specified training/service facilities, and storage facilities for drugs and pharmaceuticals; and to procure transport and spare parts, drugs and pharmaceuticals.

2. the southern region to renovate or construct and equip 10 or 12 Primary Health Care complexes.

The exact number of facilities to be constructed or renovated and their utilization will be determined during Phase I for actual construction in Phase II.

Project Outputs:

Project outputs will include:

a. trained health workers in the Primary Health Care Program, especially at the intermediate and village levels;

b. participant training completed for key health personnel;

c. a cadre of qualified trainers for long-term assignment to basic and refresher training activities;

d. facilities constructed in project target areas and adequately equipped/supplied to provide basic rural health services and to function as field training areas;

e. an operational logistics/supply system providing cold chain facilities and adequate distribution of vaccines, drugs, and pharmaceuticals;

f. integration of appropriate components of endemic disease control activities in the PHCP;

g. immunization program in operation;

h. a reliable transport maintenance system.

Project Inputs:

AID has proposed a six-year health sector program estimated to cost $21.8 million. AID will provide 171 persons-years of technical assistance, $2.8 million for participant training, $1.05 million in commodity support and $4.5 million for construction and equipment. The

project will be carried out in two phases. Phase I covering the first two years, will concentrate on strengthened health infrastructure, on manpower training and first stage expansion of the integrated rural health delivery system. Phase I activities will provide lead time to develop appropriate techniques and methodology needed for effective conduct of Phase II years three through six.

Of interest are the following quantitative indicators of project achievement:

a. increased number of people utilizing peripheral health facilities;

b. number of children immunized against preventable childhood diseases;

c. improved nutritional status of mothers, infants and pre-school aged children;

d. decrease in cases of severe diseases, such as malaria, bilharzia, sleeping sickness, gastroenteritis;

e. better collection of vital statistics -- births and deaths - and reporting of communicable disease outbreaks;

f. number of PHC units constructed by the GOS and dispensaries constructed or renovated measured against phased program targets.

Issues:

See Appendix A.

Source of Information:

Sudan Health Services Delivery System Project Implementation Document.

APPENDIX A

Alternative Approaches

The alternative approaches described below represent a broad spectrum of intervention, from a highly complex, comprehensive health sector approach to a less complex, highly specific categorical approach.

1. Comprehensive health sector approach

   a. Definition/Description

   A comprehensive health sector approach would identify and address the priority health needs of the Sudan. It would strategically support all components of the National Health Program and thus move the program at an accelerated pace toward health goals established by the Government for its third development period, 1977-1984. The Ministry of Health would be in a much better position by 1984 to maintain and operate the infrastructure required to meet the continuing rural health needs of the Sudan.

   Program Components would include:

   (1) The Primary Health Care Program (PCHP) designed to expand basic promotive, preventive and curative services to the rural population.

   (2) Endemic Disease Control Programs with administrative and operational direction from the national level for control of major diseases such as:

   (a) Malaria

   (b) Bilharzia

   (c) Onchocerciasis

   (3) Communicable Disease Control campaigns directed from the national level for diseases preventable through immunization, such as:

   (a) Measles

   (b) Polio

(c) Diptheria

(d) Whooping cough

(4) Maternal & Child Health/Nutrition/Family Planning Services directed by the MOH as a vertical national program. This approach would use national resources to address problems of malnutrition in mothers and children, prenatal care and family planning.

(5) Development of national and regional health infrastructure, and supportive services; e.g., manpower training, logistics/supply, information/data systems, essential for efficient/effective implementation of components of the comprehensive health service programs.

The comprehensive health sector approach would require comparatively large inputs of AID health sector funds. Technical assistance would be needed in the disciplines of:

1. administrative planning/management
2. manpower training
3. health information/data systems
4. logistics and supplies: procurement/distribution
5. health education
6. maternal and Child Health/Nutrition/Family Planning
7. endemic disease control
8. environmental health

b. Project Outputs

The comprehensive health sector approach would be the most demanding of the various alternatives in donor inputs, but could be expected to produce maximum outputs.

(1) A strong health infrastructure at national, regional and local levels, characterized by:

(a) good administrative/management capabilities

(b) well trained health personnel

(c) efficient transport/logistic/supplies systems

(d) functional information/data base, useful in program planning/evaluation

(e) adequate facilities for training for delivery of rural health services, and for required supportive services (lab/X-ray/dental).

(2) An efficient Primary Health Care delivery system, expanded to reach the rural poor in all areas of the Sudan (a goal given top priority by the Government).

(3) Effective endemic disease control programs for:

(a) Malaria

(b) Bilharzia

(c) Onchocerciasis

2. Primary Health Care Approach

a. Definition/Description

As noted in (1), the PHC Program is designed to expand basic promotive, preventive and curative health services to rural areas of the Sudan, using a network of dispensaries and rural health units manned by para-professionals (medical assistants, nurses and village health workers), with patient referral, as necessary, to rural/district hospitals.

The PHCP would require essential infrastructure and supportive services, but would exclude categorical, nationally directed programs; e.g., malaria, bilharzia, onchocerciasis control. (Basic elements of communicable disease control, MCH/Nutrition/FP, and environmental health/water supply activities should be viewed as part of the PHCP; i.e., services the PHC complex should be able to render routinely in a village-based health delivery system.)

b. Project Outputs

(1) An infrastructure necessary for conduct of the PHCP.

(a) Manpower trained to deliver basic rural health services (medical assistants, nurses, village health workers)

(b) Training/service facilities required for preparation of PHCP health workers and for delivery of basic rural health services.

(c) An efficient distribution system for drugs and pharmaceutical supplies within the PHCP.

(d) An efficient system for collection/analysis of program data/vital statistics.

(2) A properly staffed/strategically placed PHCP could be expected to have certain immediate/short-term benefits reflected by:

(a) better attendance at PHC facilities of rural poor in need of health/medical care,

(b) better reporting of morbidity/mortality statistics, and

(c) more adequate referral of patients needing hospital outpatient/inpatient care.

This approach would not assure strengthening of infrastructure at the national, MOH level and thus might result in a weakened, less effective infrastructure for the PHCP.

This approach would result in little if any outputs in the vertical programs; e.g., malaria/bilharzia control, and environmental health.

3. Geographic/Pilot Area Approach

a. Definition/Description

In this approach, AID would support one or two health delivery service areas of limited size, such as one Province in the north and one in the southern region, for the planning and implementation of comprehensive rural health services. This approach would include elements of the Primary Health Care Program, plus endemic disease control and other vertical-type national programs.

The pilot area approach would be implemented as a health sector activity alone, or could be developed in a broader integrated rural development scheme, involving the agriculture, education and/or other sector programs.

b. Project Outputs

As a micro-scaled version of the country-wide Primary Health Care Program, the geographically limited approach would be expected to result in the same kind/quality of outputs described for the PHCP.

If this approach were developed as one component of an integrated rural development scheme, it could have further outputs such as:

(1) better planning for broad family oriented services that would improve socio-economic status

(2) more efficient use of limited national resources.

However, the geographic/pilot area approach could be ineffective unless it were to have access to adequate support services such as logistics/supplies procurement and distribution, information/data collection backstop services, or lacking such support, could develop its own systems.

4. Categorical (Vertical) Approach

a. Definition/Description

In this approach, AID would assist in the planning, implementation/evaluation of one or two so-called categorical (vertical) programs, national in scope, such as:

(1) malaria control

(2) bilharzia control

(3) onchocerciasis control

(4) communicable disease control - childhood immunization campaign

(5) MCH/Nutrition/FP services

(6) environmental health - water supplies, and waste disposal programs.

Project Outputs

For the categorical programs assisted, outputs would include:

(1) better technology/methodology for conducting the programs chosen,

(2) manpower trained to provide efficient services,

(3) decline in number of cases (e.g., endemic disease, communicable disease, and malnutrition).

The categorical/vertical approach would strengthen the infrastructure required for a specific program, but would have little, if any, impact on MOH capability to deliver rural health services in the PHCP or other unassisted program components.

5. Functional (Horizontal) Approach

a. Definition/Description

In the functional approach, AID would limit its assistance to development of one or two selective support components, such as:

(1) administrative planning/management

(2) manpower training

(3) transportation/logistics/supplies - procurement, distribution

(4) information/vital statistics/program data base

(5) facilities construction; i.e., training/service centers, PHC complex dispensaries and satellite units in villages.

Project Title and Number:	Manpower Training Program for Maternal and Child Health Aides, 621-0121
Project Life:	FY1973-FY1982
Project Cost:	$10.8 million for FY1973-FY1982 AID project inputs ($3.5 million for FY1978-FY1982 project inputs).
Target Population:	13 million (90% of rural population)
Area of Coverage:	National

Project Purpose:

This project is to assist the Government of Tanzania to achieve an institutional capability to provide comprehensive maternal and child health (MCH) and spacing services to the rural population as integrated parts of the Ministry of Health (MOH) rural health program.

Health, Population and Nutrition Components

Through FY1976, obligations under this Project financed the construction and equipment of 18 MCHA (maternal and child health aides) training schools, technical assistance, training, and equipment for rural health facilities. Fourteen of the eighteen training centers planned have been opened and are presently training MCHAs. Six schools have graduated a total of 161 MCHAs who are presently delivering health services in comprehensive MCH services.

The MCHAs have been trained to render services in health education including child spacing; organize and deliver MCH and child spacing services; and provide instruction in nutrition. The training curriculum in the future will concentrate on skill development in delivering preventive and curative services for mothers and preschool children. Immunization and child spacing techniques will be significant elements in the new training curriculum. A simplified clinic service statistics system has also been incorporated into the MCHA curriculum.

The 18 MCHA training centers are located in regional or district headquarters where adequate housing for training staff is not available. Three professional staff members are assigned to each center. Original plans for the Project indicated that 64 housing outstations would be built; however this number has been reduced to 49. The difficulty in finding adequate housing has created a major problem.

Fourteen of the 18 training centers have started regular 18 month training programs in 1976. Six of these centers have completed a short, upgrading program for village midwives in 1975. The remaining four centers will be operational in 1977.

Currently the AID funds for the Project will involve the provision of expert assistance in MCH/child spacing planning, teaching and service delivery with the MOH. These technicians will assist the MOH in the supervision of the training centers. Short term consultants will be provided in various MCH and child spacing related areas including clinical service delivery, data systems, medical records, management information systems, and supply distribution systems.

Participant training will be increased in the second phase of this Project to reflect the need for trained MOH personnel. Emphasis will be on training nurses and health administrative personnel. This training will be primarily in the U.S. and will stress practical concepts that can be applied to Tanzania.

Commodities will be provided for use in service delivery aspects of the Project, such as classroom equipment including various visual aids; transport vehicles; contraceptives; MCH/child spacing kits including child and adult scales, kerosene refrigerators, sterilization equipment, needles, sphygmonometer, obstetric stethoscope, stethscope, syringes. The Project will also fund at a decreasing rate the recurring costs for the 18 training centers.

A survey conducted by AID and University of Dar es Salaam of the knowledge, attitudes and practice of child spacing is proposed for each of the MCH training centers now in operation. A study of this type would be useful in making future plans for the expansion of child spacing services. Other studies of the Project's impact on the death and birth rates, as well as infant and maternal mortality, would be appropriate.

Project Outputs:

In general terms the Project outputs to be achieved are:

1. MCHA Training Centers built and MCHAs trained.
2. Effective logistics/supply system in place.
3. Four MCH Zonal Centers for professional training established at the consultant hospitals (and regional and district MCH positions established).
4. Returned participants working in Project.
5. Effective training program for MCHAs developed for training centers and field training programs.

More specifically, at the end of the Project the following conditions will have been achieved:

1. 18 training centers have been completed with each site consisting of a classroom, demonstration clinic, student documitory, and three staff quarters. These centers will comprise the MCH training infrastructure for initial and continuing education in MCH and child spacing.

2. A training staff of MOH personnel has been identified and placed in the training sites (and training curriculum developed).

3. Over 2,200 maternal and child health aides (MCHAs) will have been trained and placed in the Government of Tanzania rural health delivery programs.

4. An MCH and child spacing supply distribution network will be operational throughout the country.

5. The MOH will have completed survey studies which will provide a firmer data base for further development and improvement of the MCH and child spacing programs.

6. Comprehensive MCH and child spacing services will be available to 90% of the country's rural population.

7. 21 professionals have received long term U.S. participant training and have been placed in teaching, supervisory and planning positions in the medical school, MOH, and Ministry of Finance.

Project Inputs:

AID has provided contract technical services, participatory training, commodities, capital construction and administrative services. Tables W and Y outline the AID and host country inputs.

Host Country Activities:

By 1980 the Government of Tanzania will have full financial responsibility for the operation of the 18 MCHA training centers. In addition, the Government of Tanzania will have assumed the recurring costs for the MCHAs after they have been placed in the field.

Other Donor Activities:

Other foreign donors will not financially contribute to this Project. However, contributions from foreign donors constitute the major portion of the Government of Tanzania health budget.

TABLE W: COSTING OF PROJECT OUTPUTS/INPUTS

(in $000 or equivalent)

Project Inputs	Project Outputs (Years)					
	1	2	3	4	5	TOTAL
AID Appropriated	6232	3053	686	834	48	10853
Other U.S.	-	-	-	-	-	-
Host Country	2364	77000	-	165	-	79529
TOTAL	8596	80053	686	999	48	90382

TABLE Y: SUMMARY COST ESTIMATE AND FINANCIAL PLAN

(US $000)

Source	AID*		Host Country		TOTAL
	FX	IC	FX	IC	
1.0. Personnel	970	-	-	21311	22281
2.0. Participants	625	-	-	165	790
3.0. Commodities	2433	-	-	19000	21433
4.0. Other Costs	6825	-	-	39053	45878
Inflation Factor	-	-	-	-	-
Contingency	-	-	-	-	-
TOTAL	10853	-	-	79529	90382

*Indicates actual obligations for FY 73-76 and planned obligations for FY 77-80.

Issues:

1. Since the Project's recurring costs are quite high ($?0 million) there is some doubt as to the Government of Tanzania's ability to fulfill its future financial obligations.

2. The Government of Tanzania's ability to make developmental improvements in the health sector is based primarily on huge foreign contributions. Thus, payment of recurring costs in this Project and other financial obligations in the social sector are based on external sources. The continued success of activities initiated by this Project may rely on the future financial interests of external donors.

3. The continuous support of the Government of Tanzania, and AID are important to the implementation of the Project.

4. The MOH has indicated that it will be able to absorb the newly trained MCHAs into the health system. Yet, the construction program for health centers and dispensaries has had financial problems thus limiting the number of field MCHAs positions. Funding by other donors may help to resolve this problem.

5. The MCHAs must maintain continual moral support from the community in order to function effectively.

6. The development of a viable transportation system, supervisory system, management information system, and supply distribution system are essential to the delivery of services by the MCHAs.

Project Title and Number: Basic Family Health Services, 660-0067

Project Life:

This review is based on a PRP rather than a PP since it has not yet been completed. However, based on talks with the Public Health Officer in Zaire, it appears as if the project will start in late FY 1979 or early FY 1980 and run for three years.

Target Group Coverage:

The project will provide basic family health services, including child care, family planning/maternity care, communicable disease control and primary medical care for about 1,250,000 people in areas that now have little or no health services. Project emphasis is on fertile women and children under five years of age. Other segments of the population will also benefit substantially from general health services available close to home and at low cost.

Project Purpose:

To develop basic family health services in five (5) zones covering a population of about 1.2 million as a testing model for a country-wide health delivery system.

Project Inputs:

USAID input of $2,685,000 includes approximately $1.4 million for technical services, $1 million for commodities, and $285,000 for other costs, including training. Local costs or GOZ inputs of $1.5 million includes approximately $400,000 for construction and/or renovations, $715,000 for operating expenses, $385,000 for other costs including in-country training. Start-up costs for each zone are estimated at $200,000 (equipment, transport, and initial supplies), $150,000 for construction/renovations and one year operating expenses. After one year, services will be self-financed from fees for services and drugs. By the end of FY '79 or early FY '80, the project will be operational in two zones; one urban and one rural.

Project Outputs:

By the end of FY '79 or early FY '80, there will be zone level basic health services in two zones. In all years, there will be five zone level basic health services. By late FY '79, there will be one zone level referral hospital renovated,equipped and a staff trained. There will be five in all years. By late FY '79, there will be twelve community health centers established or dispensaries renovated, but in all years, there will be 35. By the end of the first year of the project, it is expected that 100 Zairan staff will have been trained in-country and that in all years 500 will have been trained. It is also expected that there will be two professional staff trained in the U.S. by the end of the first year and six in all years.

Health, Population and Nutrition Activities:

There is very little description of nutrition/health/population activities per se. Population is discussed within the context of naissances desirables, the government program for wanted births. This is a somewhat more passive role than normal for population activities as it involves little outreach and consists mainly of making contraceptives available.

Nutrition activities are not discussed in detail either. There is currently an AID nutrition project being implemented in Zaire entitled Nutrition Planning. From talks with various AID officials and Government officials, it was ascertained that components of that project would be incorporated into the health activities at the village and dispensary level.

Integration in this project embodies three elements:

1) a mix of preventive and curative services;

2) a system of referral from the lowest level of care to the zone level hospital and;

3) coordination and linkage with other development activities such as agricultural projects.

The project plans to achieve integration as defined at manpower, structural and funding levels. The project will provide manpower training, assistance in reorganization of the system, and the funding source is a single one covering all aspects of the project.

Host Country Activities:

Discussions with the Public Health Officer indicated that the Government of Zaire would match the inputs of USAID. Following are the estimates of GOZ inputs in one of the zones:

1) construction and renovation: approximately $170,000;

2) for training: the cost of training supplies, equipment, and materials, travel and per diem for cadres of health personnel, salaries for Zairan trainers approximately $55,000;

3) commodities: beds, matresses, maintenance and repair on two vehicles for the life of the project and kerosene sterilizers come to about $35,000 - $40,000;

4) salaries: about $80,000;

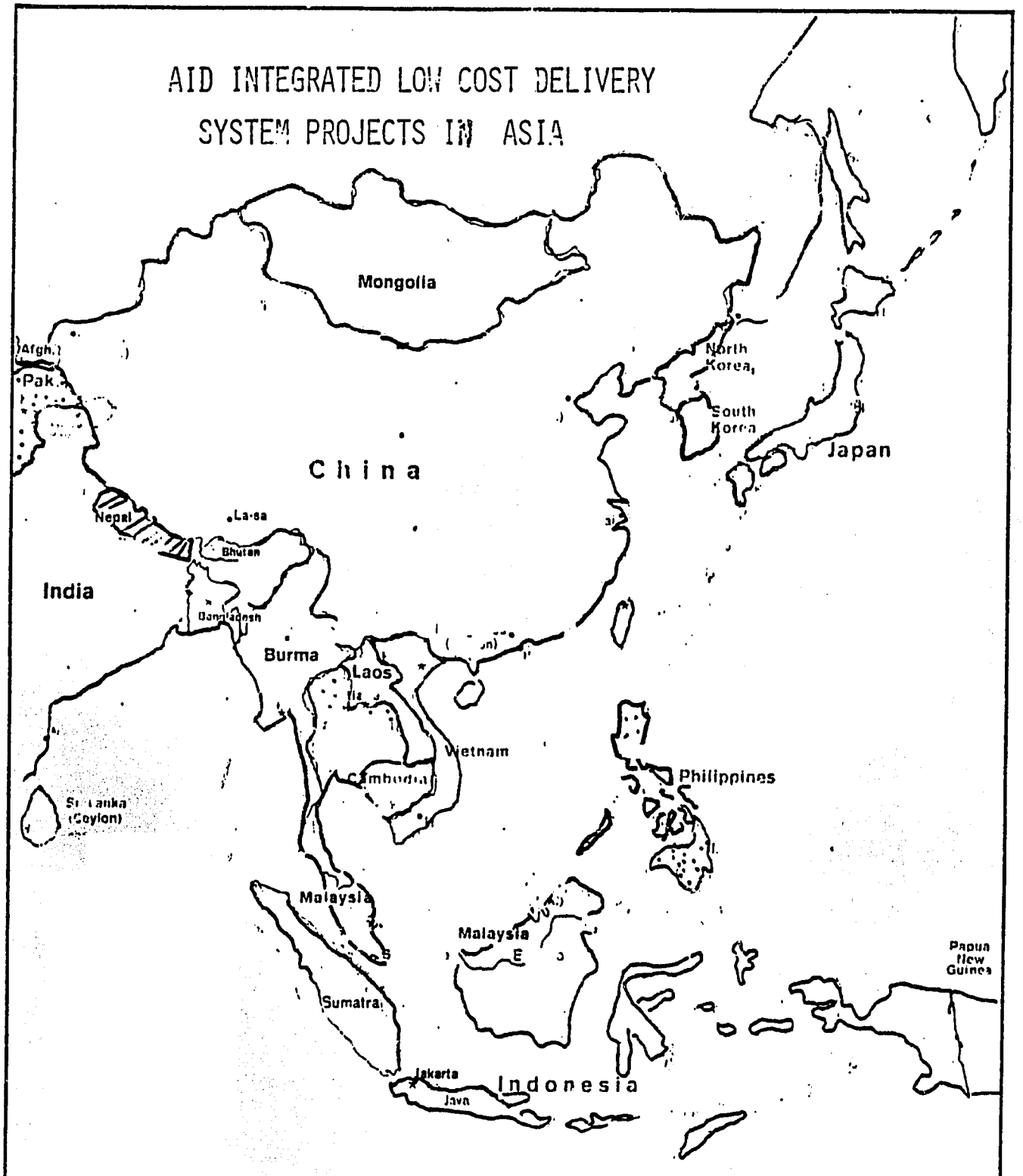
5) administrative costs: The Government of Zaire will pay the administrative support costs of personnel in the zone - about $23,000;

6) recurring costs: The Government of Zaire will pay the normal recurring costs of the health system such as for fuel, maintenance, and building and equipment depreciation, etc. - $66,500.

Other Donor Activities:

The area of health and family planning in Zaire is beginning to receive attention from other donors. The World Health Organization (WHO) has a program in Zaire and concentrates its efforts on five areas of activity - development of health services, communicable disease control, smallpox, training of health personnel and manpower, and fellowships. The proposed WHO budgets for Calendar Years 1975, 1976, and 1977 are $1,370,000; $1,430,000; and $1,481,000 respectively. There are a total of 44 WHO personnel positioned for Zaire for the period of 1974-77. Approximately $25,000 per year is spent on fellowships. The IBRD carried out a water supply survey with WHO with selected areas of Zaire in 1973 and is currently considering a project in this area.

Source of ;Information: (a) Zaire Basic Family Health Services Project Review Paper
(b) Steve Lucas HEW/OASH/OIH



Asia Integrated Health Nutrition Delivery Systems

REPUBLIC OF KOREA

Project Title and Number: Health Demonstration Loan, 489-0092

Project Cost : $5.0 million loan (Total Project Cost--$6.7 million)

Project Life : FY 1975 - FY 1981

Target Population : Not Estimable

Area Coverage : National

Project Purpose :

(1) Establish a Korea Health Development Corporation (KHDC) to plan, conduct, and evaluate low cost integrated health delivery projects directed primarily toward low income families.

(2) Initiate and manage successfully a multi-gun (country) low cost integrated health delivery demonstration and evaluation project(s), suitable as a model for subsequent replication. This project(s) should illustrate the principles, procedures, and benefits of health planning, service rationalization and cost-effectiveness, manpower optimization and assessment.

(3) Conduct research on national health development subjects relevant to expanding delivery capacity to low-income groups in order to assist the Government in formulating policies, plans, and programs in the health sector.

Health Component:

In fulfillment of Project purpose (1), the Project will assist in the creation of: the Korean Health Development Corporation (the semi-autonomous body to research and field test low-cost delivery systems); the National Health Council (a top level, interministerial group which will promote program evaluation and assist in the HKDC in Project development) and the National Health Secretariat (a professional staff concerned with macro-research, planning, and the overall project evaluation.) These government agencies will be concerned with the planning, implementation, and evaluating of low-cost health projects on a regular basis. The Economic Planning Board, the Ministry of Health and a U.S. AID Project Development Team will implement the Project.

The Korea Project, as outlined in Project purpose (2), will initiate and manage a multi-country low-cost intergrated health delivery demonstration and evaluation project. Basic health services provided in select villages and township will include, education health, and promotion, maternal and child health (MCH) as well as environmental health (i.e. sanitation) services. Cost-effective mixes of health personnel will be utilized to provide health services. The Project proposes that newly-trained or retrained primary health care workers (physician extenders) deliver these public health services.

Beginning in 1976, 12-15 candidates for physician extender training shall be selected for one year of training. These candidates will be placed in a single gun (Country) of some 200,000 population (13-15,000 persons per phsycian extender.)

According to the project paper, a feasibility study of the types of auxiliary workers needed to perform these health tasks will initially be developed (at least 3 auxiliaries per township is proposed.)

The Project also suggests the establishment of a health prepayment or an insurance scheme will be initiated in at least one demonstration area. Specific details of several prepayment schemes were provided.

Research on national health development, Project purpose (3), issues will be useful in assisting the Korean government agencies in formulating policies, plans, and programs in the health sector.

As an example of the type of health service to be provided in the KHDC demonstration projects is outlined below:

Problem	Alleviating Services
(1) High rate of common communible diseases preventable by immunization.	(1) A minimum coverage of 80% of target group via immunization for diseases prevalent in demonstration areas.
(2) High rate of infection and neonatal tentanus accompanying childbirth.	(2) Combination of (a) providing instruction and sanitary "delivery kit" to mother and attendant, (b) increasing access to professional pre-natal and midwivery service and (c) immunization (where appropriate).

Problem	Alleviating Services
(3) High incidence of water/air borne diseases	(3) Combination of (a) promulgation and enforcement of improve environmental sanitiation laws, (b) increase availability of potable water (e.g., via Sae Maeul or New Village Movement activities), and (c) increased educational effort on personal hygiene.
(4) Malnourishment among pre-schoolers.	(4) A combination of (a) instruction on increased home production/consumption or more nutritious foods (e.g. soybeans) (b) breastfeeding instruction, and (c) urging child spacing (where appropriate).
(5) Undesired pregnancies and births.	(5) Increase quantity and quality of family planning services at village level.
(6) Cost of professional health care too prohibitive for low-income families.	(6) Combination of (a) training and utilizing paramedics to reach more families and treatment at lower levels of health care system, (3) spreading of risks and costs via health insurance, (d) giving attention to preventive measures (by the individual and by health care providers) and (e) establish referral system to make better utilization of public hospital system.
(7) Emergency treatment not available at village level.	(7) Develop first-aid and emergency referral centers in cooperation with Mothers' Clubs, New Village Movement or other local groups. Upgrade training and practice standards of local druggists.

These basic services would constitute the key elements in the PCN (Primary Care Network) established in each demonstration area, although the delivery channels could be varied to test public-, private- or cooperative-based alternatives. Once the actual sites are chosen, the target population, the health resources, etc., can be assessed and specific performance standards and annual output targets established.

Population Component:

Basic services provided by the auxiliaries in the demonstration areas will include family planning and MCH services.

Nutrition Component

Basic services provided by the auxiliaries in the demonstration areas will incorporate nutrition and MCH services.

Project Outputs

The implementation of the Health Loan agreement will lead to these expected outputs:

1. A new semi-autonomous unit (KHDC) chartered, staffed, and functioning.

2. The creation of a National Health Council to guide the KHDC, and to engage Korean multi-sectoral decision-makers in the formulation of national health policy.

3. The establishment of a National Health Secretariat under the aegis of the Economic Planning Board (EPB) to perform staff functions for the Council, conduct health research and planning, evaluate the programmatic experiences of the KHDC, and distill policy-relevant materials from the KHDC and similar demonstration projects for the Council.

4. Primary health care workers trained or retrained and deployed equitably throughout project demonstration area(s).

Project Inputs

United States inputs for the Project Loan will include technical assistance (korean and external), project start-up and operational costs, and participant training (U.S. and third country). See Tables A-3 and A-4.

Host Country Activities:

The Ministry of Health (MOH) is the national agency responsible for national health planning, programming, and policy. However, other key government agencies will cooperate with the MOH in this Project endeavor.

Table A-3

Korea Project Budget Summary
(000's or equivalent)

		FY 1976	FY 1977	FY 1978	FY 1979	FY 1980	All Years
(1)	AID Appropriated Dollars by functional Appropriation Category						
(A)	Health and Population:	370	702	1249	1334	1345	5000
(B)	Total AID Appropriation Dollars:						
1.	Dollar Expenditures	111	285	277	121	66	862
2.	Dollars Converted to Local Currency	257	417	972	1213	1279	4138
	Total Loan:	370	702	1249	1334	1345	5000
(2)	Host Country, Total:	123	235	416	445	448	1667
(3)	Other Donors, Total:	-	-	-	-	-	-
(4)	Total Project Costs:	$494	$937	$1665	$1779	$1793	$6667

Table A-4

Costs of Korea Project Outputs
(000's or equivalent)

Project Costs	Project Outputs			
	KHDC	Demonstration Project	National Health Secretariat	Total
1. Direct Hire Personnel U.S. (Non-Loan Funded)	(240)			(240)
2. Other Technical Services (U.S. and Host Country contract services)	337	62	5	404
3. U.S. Commodities	30	450	8	488
4. Construction of small treatment facilities		120		120
5. External Training	67			67
6. Other Costs (Local Currency Costs)	947	4254	387	5588
7. Total	$1381	$4886	$400	$6667

The national government will initially institute Presidential Proclamations necessary to the establishment of the new national health agencies. The KHDC, National Health Council, and the National Health Secretariat will participate in all phases of Project Planning and programming. The MOH will create a health planning section and provide, training, abroad or in-country, for health planners. As the MOH develops its planning capabilities, it can expand its scope and range of activities and absorb certain planning and research activities of the Health Secretariat.

Other Donor Activities

The World Bank is presently negotiating a $20 million loan to the Ministry of Education for business and health education and training, of which approximately $4 million will be utilized for training allied health personnel. The latter is thus a complementary activity to the purposes of the AID health loan, since the Corporation will also seek to train and utilize these types of personnel in the demonstration area(s). However, there is no other involvement of foreign donors in the Project but there is considerable financial interest.

Issues:

The following is a list of issues raised by the Project Paper:

1. A detailed description is needed on the nature and frequency of reports required of each of the institutions involved in the design, implementation, evaluation and monitoring of the Loan Project.

2. The staffing of the KHDC should be proceeded by a thorough search for qualified Korean health workers who are not employed by the ROKG or providing health services to the people of Korea at this time. This search should include workers who have received advanced training abroad.

3. Additional clarification about the role of the KHDC in both the designing and implementation of the demonstration site(s) activities should be required.

4. Since certain activities relating to the AID Health Planning Project have been incorporated under the health loan, care must be taken in the final planning for the KHDC to insure that functions, i.e., training components, adminsitrative and clerical support staff, space requirements, and seminars are not significantly duplicated.

5. It is imperative that one full-time, direct-hire AID staff professional be secured for at least the first three years of the Project. The presence of such a professional on a day-to-day basis can make the difference in effective coordination and participation among all interested parties in the health sector.

6. It is expected that the KHDC will be successful in its endeavors to conduct demonstration project(s). This will probably attract domestic and international grants/ loans for similar projects within the Corporation.

Adequate legal provisions have to be made in the corporate charter to allow funding external to this loan, with the provision that the Corporation can undertake such activities to the extent that they are not detrimental to its central purpose.

A. The physician extender concept to be developed in the demonstration projects must emphasize the formulation of competent, (new and existing) workers trained to perform a mix of creative and promotive health tasks.

B. In the employment of the physician extenders allowances must be made for their continued need for supervision, referral resources, financial regards, and continuing professional growth (through continuing education, upward mobility, etc.)

C. The demonstration projects should be sensitive to the health needs and demans of the local communities.

Source of Information:

Korea Health Demonstration Loan Project Paper.

NEPAL

Project Title and Number: Integrated Health Services, 367-0227

Project Life: FY 1976 - FY 1979

Project Cost: $2.2 million grant (Total Project Cost--$27.9 million)

Target Population: The project is expected to cover the entire population of the country through organization of the basic health services (approximately 10 million persons)

Area of Coverage: National

Project Purpose:

This technical assistance project comprising approximately fifteen person years is to assist his Majesty's Government of Nepal (HMG), develop the management, control, and training capacity so as to organize and operate an effective Integrated Basic Health Services (IBHS) equitably distributed to the rural poor majority.

Health, Nutrition, and Population Components:

No specific delineation of health population and nutrition components is possible using this Project Paper.

The broad concepts which will be the future foundation for Nepal's national health program development were conceptualized in a Project Formulation (PF) planning exercise. The PF document was the result of a health planning workshop with participation from AID, GON (Government of Nepal), WHO (World Health Organization) and other donors in 1975. The PF document describes in detail an operational plan to phase health services into 810 equitably distributed health posts. It covers every aspect of program design, from the selection of health posts to staff recruiting, training and supervision; logistics, supply distribution; information systems; technical inputs; management and health outputs; evaluation; budget considerations; relationship to traditional healers; and inter-and-intra Ministry relationships.

The basic concepts developed by the formulation workshop can be summarized as: phased integration of vertical project activities (family planning/maternal and child health, malaria, leprosy, smallpox, tuberculosis) and staff (at field and district supervisory levels); thus

emphasizing high payoff interventions for high risk groups on an outreach basis with community support. Planning and implementation of these health activities are to be decentralized to the region and district levels.

(1) Each rural health post performs some range of vertical project activities plus some primary health care depending upon the complexity of service needed. Multipurpose workers recruited directly to the IBHS (Integrated Basic Health Service) and vertical project staff perform vertical project activities. Health care services have a preventive focus emphasizing family planning/maternal and child care, rehydration of diarrhea, health care, surveillance, recording of vital events, tuberculosis/leprosy treatment and followup, only minor first aid, environmental sanitation and nutriton education. District level supervision and control of health posts would begin with the health inspector.

Specifically, this AID Project concentrates on (1) technical assistance to HMG to develop its capacity to manage the previously discussed IBHS; (2) supervision and training of rural health workers; (3) development of relevant curricula and training of personnel trainers; and (4) evaluation or programs. Some of the Project activities include:

(1) Participate training in U.S. and third world countries for 12 health educators, 12 public health nurses, 3 health planners and 6 masters level professionals in public health. In-service training of personnel is also a feature of the Project. Local and U.S. currency fund these activities.

(2) It should be stated that IOM (Institute of Medicine of Tribhuvan University) trains much of the manpower required by the MOH (Ministry of Health). This Project will continue to work closely with the MOH in providing technical assistance in curriculum design, trainers training, and teaching methodology for the multipurpose paramedical workers in the areas of health, population, and nutrition.

Appendix A outlines the current and proposed relationships of the health workers in the IBHS. Within the rural health post the auxiliary health worker , auxiliary health midwife, health assistant are capable of planning motivation, . . contraceptive distribution, health/nutrition services, oral rehydration, education and treatment, protein-calorie surveillance, smallpox surveillance and vaccination, malaria detection;

tuberculosis and leprosy control, recording of vital events, environmental sanitation, community involvement activities, minor ailment treatment, maternal and child services and school health services. A more illuminating breakdown as to which worker would perform these tasks is not available in the Project Paper.

The relationships between the proposed workers and their newly defined tasks and the areas of curriculum design and trainer training (to be funded in this Project) are not fully explored in the Project Paper. This makes it difficult to specific what type of health, population, and nutrition components are funded by AID.

(3) Commodities for transportation, systems (vehicles), management information systems, and training.

(4) Technical assistance for the MOH in management areas such as drug procurement, training, survey techniques, systems analysis, budget information systems and program management and planning.

(5) Development of supervisory and evaluation systems for the IBHS.

Project Outputs

Two principal outputs from the project are:

(1) basic health servies management and control systems developed, and

(2) training of health workers meeting integrated basic health system (IBHS) needs.

Ten sub-outputs have been identified:

(1) Establish supervisory guidelines.

(2) Establish management information systems.

(3) Develop logisitics and supply systems.

(4) Increase Planning Cells (of MOH) capacity to program, track, plan, and do research.

(5) Analyze budget and personnel needs.

(6) Facilitate recruitment and training of health workers at IOM and in-service training.

(7) Technical assistance in curriculum design.

(8) Technical assistance in trainer training.

(9) Technical assistance in establishing teaching metholdologies

(10) Establish evaluation procedures.

Project Inputs

The AID inputs necessary to achieve the outputs include technical assistance from the following:

1. A management systems analyst to work with the Planning Cell and the Community Health and Integration Division (CH/I)of the Ministry of Health in developing management tracking systems.

2. A public health physician to work with CH/I in developing and testing IBHS management systems, survey designs and programs evaluation

3. A management training specialist to work with CHI in training of supervisory staff in field management systems, and to assist in their implementation and evaluation.

4. A paramedical training specialist to work with the CH/I training cell in curriculum design, trainer training, and teaching methododologies and to coordinate USAID Contract, short-term and other donor inputs in these areas.

In addition to these personnel requirements, commodity and other direct assistance go towards implementation of the management and training program with funds for printing of forms and manuals, training, surveys and research. Participant training emphasizes regional short-term practical experience. All assistance has been closely tailored to complement that of other donors. (See Table A)

TABLE A

PROJECT COST ESTIMATE *

TECHNICAL ASSISTANCE

Long-Term (Salary & Differential & Assignment Costs)	Person/months	Local Currency ($ equivalent)	U. S. Dollars	Total Dollar Value
Chief of Party	36		157,608	
Public Health Officer	36		149,995	
Management Training Specialist	36		138,575	
Paramedical Training Specialist	36		146.200	
Sub-totals	144			592,378
Short-Term				
Logistics/Supply	6		27,764	
Management Information	6		27,764	
Survey Design	6		27,764	
Drug Supply	4		18,508	
Curriculum Design, Trainer Training, and Teaching Methodology	18		73.200	
Sub-totals	40			175,000
Backstopping	54		80.480	80,480
Overhead (@ 65% of Salaries)			374,445	374,445
Total, Technical Assistance	238			1,222,303
PARTICIPANT TRAINING				
2 MPHs - US	24		23,000	
3 Johns Hopkins Health Planning-US	9		23,210	
4 M.A.T. in Public Health - US	96		93.333	
Sub-totals	129			139,543
12 Diploma in Health Education - India	144	36,000		
12 Diploma in Public Health Nursing - India	144	36,000		
Sub-totals	288			72,000
Total, Participant Training	417			211,543

* 10% inflation factor built into all costs.

	Local Currency ($ equivalent)	U.S.Dollars	Total Dollar Value
OTHER DIRECT EXPENDITURES			
Invitational Travel		10,000	
In-country Travel		20,000	
Post-Project Evaluation		20,000	
Other		6,700	
Sub-total			56,70
Special Studies and Research			
1. Models for Community Participation	24,870		
2. Role and Status of Health Workers	6,826		
3. Cultural Modules for Communication	1,149		
4. Changing Traditional Authority Structures	1,149		
5. Public Administration and CH/I Requirements	1,149		
6. Staff (Social Anthropology Expertise)	4,469		
7. Contingency Fund	5.000		
Sub-total			44,61
Management/Supervisory Network Training	120,215		
Management and Information Control System Development	80,430		
Management Control System Training	71,002		
Management Information System Training	71,002		
CH/I In-service Training and Research	30,000		
Incentives for Surgical Contraception	10,000		
Contractor Support	128.000		
Sub-total			510.64c
Total, Other Direct			611,961
COMMODITIES			
3 Vehicles		27,000	
Office Equipment		3,700	
Sub-total			30,700
Supplies, Manuals, and Printing for Management Information System	88,000		
H.W. Manuals, Teaching Aids	30.000		
Sub-total			118.000
Total, Commodities			148,700
CAPITAL EXPENDITURES *			
Construction of two AHW Schools	1,560,767		1,560,767
GRAND TOTAL	$2,306,028	$1,449,246	$3,755,274

* Approved separately as Capital Project.

Host Country Activities:

The Project is coordinated within two agencies. The technical assistance component is carried out with the Ministry of Health (usually the Planning Cell and the Directorate of Health Services are involved). Project control, implementation, integration and coordination of all inputs and evaluation is facilitated by these two agencies. The AID capital assistance program to construct two Auxiliary Health Worker Training School is a separate project administered by the IOM.

Other Donor Activities:

The participant training component of the Project supplement similar inputs from WHO and UNFPA (United Nations Family Planning Association). Extensive participant training offered by other donors are mostly in categorical fellowships (chemistry, tuberculosis, etc.) or observational tours.

In support of IOM paramedical training, the other donors in particular WHO, CIDA (Candian International Development Agency), UMN (United Missions of Nepal) and the Dooley Foundations are providing over 25 person-years of technical assistance in curriculum design, training of trainers, course content field training, and teaching methodology. IOM and IDRC (International Development Research Centre) is currently doing research in health worker task analyses, establishing the baselines of health care delivery, to determine the impact of health worker training on health care. IDRC also funds the health services delivery in three districts to be covered yearly.

The UNICEF, World Bank, AID, and UNDP (United Nations Development Program) fund a panchayat (province) based water program which increases access to safe water supplies.

Several donor programs to promote village health workers and community involvement in health are functioning in Nepal. The International Health and Development Trust has an MCH (maternal and child health) clinic in Dhorpatan. The UMN has established the Latipur Community health Program which trains unpaid women health aides to act as social links between professionals and villagers.

In addition, WHO funds a diploma level program offered 1977-1980 in medical sciences and general medicine. The program is intended to provide doctors trained to serve and lead Basic Public Health in Nepal, but with a lower academic level than candidates in other countries.

Other donor inputs will complement AID's commodity inputs. WHO provides commodities to the Planning Cell for their functions (wall charts, calculators, typewriters, etc.). UNICEF (United Nations Children's Fund)

UNFPA, Dooley Foundation and others are contributing drugs and equipment directly to health posts and district health offices. UNICEF supports refurbishing of the in-service training center at Pathlaiya and the furniture and equipment for the IOM auxiliary health worker training schools.

Issues

(1) Continued AID, GON and other donor financial support of this Project and other complement activities are essential.

(2) A better aspecification of the tasks to be performed by the paramedical health workers is necessary.

Additional Information Needed

Further detail would be desirable regarding the specific roles and components of health, population, and nutrition activities to be conducted by the various levels of health workers within the HMG health sector. As this project seems to be one of the furthest advanced in terms of integrating basic health services into already existing vertical programs, it would seem to be a prime candidate for field evaluation within the scope of this particular project. It would, therefore, be useful to obtain a copy of the project formulation document which contains much of the detail not contained within the project paper. Discussions might be initiated with individuals who have been involved with the planning process of the Nepal Integrated Basic Health Service project.

Source of Information: Nepal Integrated Health Services Project Paper

APPENDIX A

Manpower Training for IEHS

1. Categories of Workers and Sources

The following is a scorecard of health worker categories and their current and/or projected relationships:

a. M.O. - Medical Officer. Most work for Government since a legal limit on consultation fees (seven rupees per visit) makes full-time private practice less of a lure. Medical Officers will play a curative and administrative role at District and Regional offices and hospitals, curative at Zonal or Central hospitals, and administrative roles at the Central DHS office.

b. H. I. - Health Inspector. Recruited from the district supervisory staff of vertical projects; this person plays the key role in supervising and assisting health posts' staff from their inception. Some Health Assistants may become HIs.

c. H. A. - Health Assistant. A tenth grade finisher, certificate-level graduate of a two and a half year course from the Institute of Medicine. This person will be in charge of the health post providing curative and preventive services and supervision of the field workers. A dozen women are in the first IOM class of 108.

d. A.N.M. - Assistant Nurse Midwife. All are women, and eighth grade graduates. They are trained in one of several ICM ANM campuses. Currently most are serving in hospitals, and their curriculum reflects this. When ready to move to health post work (stage C and B), chaperoning during field work will be needed according to local cultural rules. Cultural resistances to women becoming ANMs is lessening but slowly in the more conservative rural areas. The ANM will provide a large portion of FP/MCH activities, and supervises JAHWs in this aspect.

e. A.H.W. - Auxiliary Health Worker. An eighth-tenth grade finisher, an auxiliary certificate-level graduate of the Institute of Medicine. Currently trained by a two-year curriculum which is being reduced to 18 and possibly 12 months. In the design of integrated health posts the AHW is a swing worker, putting in curative work at the health post and field work in communicable diseases. This person supervises the JAHW in the field. In a few areas, AHWs are distinguished with a parenthetical (C) for curative and are IOM trained, or parenthetical (P) for preventive and are experienced former malaria field workers with a higher salary. They argue about seniority.

f. S.A.H.W. - Senior Auxiliary Health Worker. An AHW or experienced compounder/dresser who has received a few months upgrading training in public health at IOM and is capable of acting as health post in charge.

g. J.A.H.W. - Junior Auxiliary Health Worker. In the initial development of integration, this worker was recruited wholesale, on a temporary basis at first, from the field level health workers of the vertical programs; but for a regular government position at lowest rank (non-gazetted officer, Class III) the Public Service Commission rules require an eighth grade education; many of the vertical program recruits have had only third to fourth grade training. Also, recruitment from NMEO and FP/MCH is blocked until at least the late 1970s, or 1980 as these programs expand. Hence, direct recruitment from local panchayats will be necessary. This may be an advantage as recruits will serve their home areas. The JAHW is to be the backbone of the outreach, contact philosophy of IBHS (successfully demonstrated by the NMEO workers who reached nearly 100% of their clients on a monthly or bimonthly basis). Training is provided by CH/I exclusively.

In the past decade about 6,000 paramedical health workers have been trained. But, disturbingly, a high attrition rate exists at all levels of training. The principal causes appear to be: insufficient salary, posting and transfer difficulties, and lack of opportunity for advancement. Many of the attrited end up in private clinics.

PAKISTAN

Project Title and Number:	Basic Health Services, 391-4150
Project Cost:	$25.3 million including $15 million AID loan during Phase I
Project Life:	Phase I: FY1977-FY1979. (Phase II represents a program life of eight years)
Target Population:	Phase I: 4 million persons (Phase II: 28 million persons)
Area Coverage:	Phase I: Regional (4 provinces)

Project Purpose:

To develop a functioning system of operational Integrated Rural Health Complexes (IRHCs).

Health Component:

During Phase I, the ground work will be laid for rapid expansion of rural health services which will take part during Phase III. Phase I of the project calls for the development of an integrated, three-tiered health delivery structure referred to as an Integrated Rural Health Complex (IHRC) and required infrastructure. The IRHC's are composed of: a) a Rural Health Center (RHC) staffed by both a male and female doctor as well as support staff to cover a catchment area of 50,000 to 100,000 people; b) a Basic Health Unit (BHU) staffed by two mid-level workers (8 months training), serving 5-10,000 people; and c) Community Health Workers (CHW) who will be under each BHU and serve in villages of approximately 1,000. To support these health complexes, the project will emphasize development and operation of required management and operations support systems, training personnel, planning, budgeting and accounting, communications, and supply and logistics.

RURAL HEALTH CENTER

The RHC is the home base for four other mid-level workers deployed on a floating basis to the BHU's to provide coverage when regular staff are on vacations or leave for illness or continuing education. The basic activities for the Rural Health Complex are:

- to provide primary care for its immediate surrounding area

- to serve as a referral center for all BHU's within its catchment area

- to function as a center for all local planning and management of preventive/promotive programs for its catchment area

- to provide first-line technical and administrative supervision for all the workers

- to be the first-line collection and collation point for information systems data including data on curative care, case finding and vital registration, immunizations, nutrition, ante-natal care and family planning activities

- to serve as the first-line drug and equipment warehouse for the BHU's.

Each RHC is linked with the district health officer through managerial control, technical supervisory relationships with district level people in personnel supervision, inventory control and information system management. Very little is mentioned about the specific activities that the RHC is capable of performing, i.e. primary care is mentioned as the activity but not the extent of care to be provided.

BASIC HEALTH UNIT

The BHU, serving 5-10,000 people, is staffed by two mid-level workers as well as support personnel (guard, sweeper, etc.) They are trained in curative and preventive care, perform disease-specific diagnoses and prescribe between 25 and 30 drugs. It is estimated that this worker can competently handle 90% of a doctor's routine case load. BHU staff activities are:

- to provide primary care for its geographical catchment area

- to serve as a referral point for the community health workers who live in the villages

- to plan and supervise curative/preventive activities of CHW's

- to supply CHW's with drugs and equipment

COMMUNITY HEALTH WORKER

The Community Health Worker (CHW) is the individual who brings the preventive and curative medical system to the village level. It might be noted here that this is the only category of worker in which the job delineations are more specifically defined. The CHW will be living in the village and will

be trained in basic preventive tasks such as seeking out pregnant women and carrying out simple "high risk" assessments as to which women need to see mid-level workers or doctors. She/he will be taught to recognize and treat some simple problems and taught to refer other problems. Through this, the CHW will gain credibility in the village and also reduce the work load on the Basic Health Units.

It has been determined that the support of the CHW workers would be an undue strain of the GOP's (Government of Pakistan) non-development budget. Therefore, several options have been developed and will be field tested in Phase I to determine the most feasible and easily administered method of community support for this type of worker. These include:

- capitation with the possible use of stamps to eliminate transfer of money at the village level;
- a revolving inventory scheme with initial medications being provided by the GOP and the worker selling these for a small profit;
- fee for service for curative care and piece work payment from the government for preventive care;
- a small area of direct government salary support;
- a totally volunteer system with medication and supplies provided by the government

The most successful scheme will be adopted widely during Phase II.

Throughout the IRHC, workers will employ risk analysis for establishing and treatment of their case loads. This involves concentrating energies on clients with more severe medical problems. For example, they would devote themselves more to the child who is the most severely underweight than the one who is marginally underweight. Daily visitation will provide both the child and mother with intensive curative and preventive care.

Preventive care in the IRHC consists of family visitations to those families with children 0-5 years of age and/or married women of childbearing age three times per year. The CHW, after 80-90 minutes of curative work, visits two houses a day where he/she does the following preventive tasks:

- weighs all children 6 months to 3 years with a portable scale to detect early malnutrition and refer cases to the BHU.

- ask if married women have missed their menstrual periods to detect early pregnancy (pregnancies are referred to the BHU)

- ask if there have been births or deaths in the family during the last four months and records these

- ask women if they would like to avoid pregnancy in the next four months and offers family planning services if desired

- gives DPT and BCG immunizations to children (possibly also polio if a thermus is available)

- ask if known tuberculosis cases are taking their medicine

The CHW also talks to mothers about feeding of young children, food storage and handling, child care, child spacing and personal hygiene and sanitation. The educational aspect of the CHW's work is supported by suitable materials. Other preventive work carried out by the BHU includes organization of a special care file where underweight children, mothers with high risk pregnancies, tuberculosis, and others are noted.

The CHW and the mid-level workers are recordkeepers. The supervisor at the IRHC has major collation and report generation responsibilities and spends about half of each day on them. The supervisor prepares reports on quality of care, health activities carried out (actual versus planned), drug and equipment status, and certain outcome such as number of family planning users, number of malnourished children who have improved, immunizations given, etc. These are reviewed by the doctor and certain information is forwarded to the district level.

TRAINING AND SYSTEMS SUPPORT

Currently curriculum materials are not available in Pakistan for training mid-level or community health workers. The project proposes the adaptation of model materials through the development of modularized competency-based training programs, in accordance with GOP wishes. These modules will be translated into Ordu as well as major dialects. After completion of curriculum development, there will be a tutor training program that will develop adequate numbers of capable tutors to staff the training schools. This will be carried out in two or three major cities in Pakistan. Exposure to modern pedegaggi, particularly the use of modularized curriculum materials, active participatory learning, and self-instruction will be given as well as work evaluation and quality control and competency certification.

The tutors, after their training, will then be employed in training units. There will be approximately 12 training units by the end of the first project year using the new modular curriculum developed and adapted

during the first six months of the project.

The period of training for mid-level health workers will be 18 months - class size will be 25 and new classes will start at 6 month intervals so that the output per training unit will be 50 mid-level health workers per year.

The community health worker training will take place at the Basic Health Unit and the Rural Health Center. Primary responsibility for training of these workers will be assumed by the mid-level health workers as one of their first tasks when stationed in the BHU. Since the major emphasis of these workers will be prevention/promotion, their initial training will provide them with the simple skills.

This project will attempt to strengthen the infrastructure to faciliate an expanded role in health delivery by:

- establishing within the Federal Ministry of Health a national, basic health services cell to provide overall coordination for the expansion of basic health services, for the development of new manpower, and for the strengthening of the support program;

- increasing technical skills through technical advisors and formal management training in primary school planning and operations as well as specialized technical support functions such as lingistics and supply, personnel, supervision, information system, communications and budget and financial control;

- developing simplified and appropriate manuals for primary health care management and operations, inventory control, and supervision, and developing an information system that aids decision making;

- using cost reimbursement financing based on mutually-agreed milestones to provide incentives for completion of critical project activities.

The functions of the MOH health services previously mentioned will include a) implementation of Federal policy and assisting the provincial health service coordinators in planning and programming all phases of the project; b) overseeing provincial progress in meeting all project targets including those for training, physical facilities and management infrastructure and c) communicating provincial progress and meeting targets to senior Ministry of Health (MOH) officials and to the AID project officer. The training functions include a) conducting training for mid-level

health worker teachers; b) conducting all training in primary health care system management; c) setting national standards for graduation for mid-level health worker schools; d) developing and adopting curriculum for mid-level health worker, community health worker, and primary health care systems management training; e) supply audiovisual and other educational support materials and providing technical advice and support to the provinces. MOH activities in operational research include a) conducting an ongoing manpower inventory for primary care and evaluating project progress through analyses of basic health services operations, including utilization patterns and determining efficiency of various manpower mixes; b) effectiveness of various program activities; c) an innovative support and managerial methodology; d) conducting ongoing economic analyses of current cost in revenues and developing forecast of future costs and revenues; e) developing a national health information system; and f) conducting research to set standards for activities of the primary health system.

The MOH communication functions will include a) planning and conducting mass media campaigns to support activities of basic health services system; b) conducting seminars on rural health for federal and provincial government and health officials; and c) developing support materials for communications campaigns. The MOH will become the focal point for long-term, sustained development of basic health services.

Seven major functional support areas have been identified as requiring special attention in strengthening the support capacity of the health system. These areas are operational, planning and management, logistics and supply, personnel, supervision, health information system, communications, and budget and fiscal control. Technical advisors will be provided in each area to develop methods to alleviate these problems. For example, to strengthen the logistics and supply system, the following activities will be accomplished: development of a simplified standard drug and equipment lists for health centers; training for logistics and supply specialists; inventory managers; and establishing standard operating procedures for the activities of the health centers and workers. Activities such as revising the personnel record system and training of personnel specialists are proposed to enhance the personnel system.

Nutrition Component:

The CHWs will be capable in Phase II of such tasks as weighing of children to detect subclinical malnutrition and keeping growth charts.

No other data is provided.

Population Component:

The CHWs will dispense family planning materials including oral contraceptives and condoms.

No other information on population activities is provided.

Project Outputs:

Table A provides a detailed outline of project outputs in Phases I and II.

Project Inputs:

During Phase I technical assistance is a substantial component of the Project. Long-term and short term consultants assist in training and management aspects of the Project. The AID loan finances all technical assistance except for two long-term advisors provided by the World Health Organization.

The remainder of the AID loan funds a percentage of all other project costs. This includes the financing of the upgrading of existing health facilities, training, recurrent costs and administrative costs of the NBHSC (National Basic Health Services Cell). Table B provides a detailed accounting of the Project imputs and costs.

The ability of the GOP to finance an expanded rural health system over the next five years depends on its commitment to establish and maintain rural health as a priority item in its budget. Over the FY1977-FY1980 periods, $770 million has been budgeted by GOP for the health sector. Annual Government health expenditures will increase from 3.1% to 3.6% of the total budget. A sufficient proportion has been allocated to finance both the development and non-development costs of an expanded rural health system. If the funds are not channeled into other areas, financing should not stand in the way of project implementation.

Over the first three years of the GOP's five year programming period (corresponding to Phase I of the project) about $106 million is budgeted for development expenditures; $83 million for construction and $23 million for training. Phase I of the Project calls for corresponding expenditures of $20 million and $1.8 million which are about 20% of the GOP health budget. When development expenditures required over the full 8 years of the project are compared to the GOP health budget for 5 years. GOP allocations are still more than sufficient to meet Project needs. Total project construction costs are $171 million (86% of the GOP health budget $200 million) and training costs for $24 million (or 53% of the bugeted $45 million).

Host Country Activities:

As a precondition to project support the GOP will establish the National Basic Health Services Cell, directed by the Deputy Director General of Health. The NBHSC maintains the responsibilities for Project implementation.

TABLE A

Project Outputs for Phases I and II

	PHASE I	PHASE II
1.0 Training Capacity		
1.1 Operational Training Division in MOH	1	1
1.2 Operation Training Units in Provinces	36	48
2.0 Training Outputs		
2.1 Trained tutors	108	144
2.2 Trained mid-level workers	810	9720
2.3 Trained CHW's	1350	43200
2.4 Trained Executive Managers	24	24
2.5 Trained DHO's, ADHO's	48	96
2.6 Trained Personnel Managers	65	65
2.7 Trained Drug and Supply Managers	65	65
2.8 Trained Budget and Financial Planners	65	65
2.9 Trained Information System Supervisors	60	108
3.0 Management Infrastructure		
3.1 Training Material		
1) Pakistan-adapted competancy-based curriculum for mid-level workers	1	1
2) Pakistan-adapted simplified competancy based curriculum for CHW's	1	1
3.2 Operations Manuals		
1) Preventive medicine operations at the RHC	1	1
2) Handbook of curative care for mid-level workers	1	1
3) Management of the RHC	1	1
4) Inventory and Supply Manual	1	1
5) Personnel Management Manual	1	1
3.3 Operational Research and Development		
1) Performance standards set	✓	
2) On-going manpower inventory	✓	✓
3) Utilization research study	✓	
4) Cost analysis study	✓	
5) Information System Design Study	✓	
3.4 Communications Support		
1) Minutes of radio time	945	Not yet quanti-fied
2) Pamphlets produced	100,000	
3) Posters produced	40,000	
4.0 Physical Outputs		
4.1 BHU's completed	329	2758
4.2 RHC's completed	36	363

TABLE A (Continued)

TRAINING CAPACITY OUTPUTS	PHASE I				PHASE II					
	01	02	03	Phase I Total	04	05	06	07	08	Phase I & II Total
Operational Training Division within Federal Ministry of Health Cell	1			1						1
Operational Training Units for mid-level workers within Provincial Ministries of Health	12	12	12	36						48

TABLE B : SUMMARY OF PROJECT COSTS

U.S. $ 000s

	Phase I					Phase II							
	01	02	03	01 - 03	% Total	04	.05	01 - 05	06	07	08	Total	% Total
I. Technical Assistance	587.3	607.7	571.9	1766.9	7.0	12.2		1779.1				1779.1	.7
Long term: USAID	320.0	320.0	320.0	960.0				960.0				960.0	
WHO	160.0	160.0	160.0	480.0				480.0				480.0	
Overhead	32.0	32.0	32.0	96.0				96.0				96.0	
Coordinator	15.0	15.0	15.0	45.0				45.0				45.0	
Short term	60.3	80.7	44.9	185.9		12.2		198.1				198.1	
I. National Center	123.3	111.8	110.6	345.7	1.4	97.8	87.1	530.6	78.6	140.7	71.2	820.5	.3
Start-up Costs	69.5	-	-	69.5		-	-	69.5	-	69.5		139.0	
Salaries	26.2	31.3	32.1	89.7		29.6	29.8	148.9	29.5	29.5	29.5	237.4	
Rent	3.9	7.8	7.8	19.5		7.8	7.3	35.1	7.8	7.8	7.8	58.5	
Office Supplies	1.5	3.0	3.0	7.5		3.0	3.0	13.5	3.0	3.0	3.0	22.5	
Transportation	5.8	11.6	11.6	29.1		11.6	11.6	52.3	11.6	11.6	11.6	87.1	
Communications	1.1	11.4	12.8	25.3		12.8	12.8	50.9	12.8	12.8	12.3	89.3	
Training	10.4	36.3	33.2	79.9		24.1	14.4	113.4	6.2	-	-	124.6	
Contingencies (10% total)	4.9	10.2	10.1	25.2		8.9	7.9	42.0	7.1	6.5	6.5	62.1	
I. Recurrent Costs	-	-	975.0	975.0	3.9	3112.6	6900.0	10987.6	12150.0	17808.8	23572.8	64519.2	25.0
RHCs			292.5	292.5		933.8	2070.6	3296.3	3645.0	5366.3	7020.0	19327.6	
BHUs	-	-	682.5	682.5		2178.8	4830.0	7691.3	8505.0	12442.5	16380.0	45018.8	
Equipment Replacement											172.8	172.8	
/. Total II and III	123.3	111.6	1085.6	1320.7		3210.4	6987.1	11518.2	12228.0	17949.5	23644.0	65339.7	
/. Training of Health Workers	127.0	447.0	1209.5	1783.5	7.1	2407.2	3502.0	7772.7	4626.1	5476.8	6001.0	23876.6	9.0
MLHWs	127.0	447.0	900.0	1474.0		1420.0	1815.0	4707.0	2013.0	2080.0	2080.0	10880.0	
MLHW Continuing Ed.	-	-	39.5	39.5		136.7	301.5	477.7	532.4	781.6	1027.3	2819.0	
CHWs	-	-	270.0	270.0		810.0	1350.0	2430.0	1890.0	2160.0	2160.0	8640.0	
CHW Cont. Ed.	-	-	-	-		40.5	117.5	158.0	190.7	455.2	733.7	1537.6	
I. Construction	576.0	6288.0	13548.0	20392.0	80.1	23270.0	31402.0	75064.0	33691.0	33296.0	29413.0	171458.0	65.0
RHCs	576.0	2172.0	4569.0	7317.0		7361.0	9355.0	24033.0	10065.0	9664.0	8466.0	52228.0	
BHUs	-	4095.0	8979.0	13075.0		15909.0	22047.0	51031.0	23626.0	23626.0	20947.0	119230.0	
. Total V and VI	703.0	6715.0	14757.5	22175.5		25677.2	34084.0	82836.7	38317.1	38766.8	35414.0	195334.6	
I. Evaluation	11.7			11.7	0.5		5.9	17.6	-	5.9	-	23.5	-
. Total (I+II+III+V+VI+VIII)	1425.3	7434.1	16415.0	25274.8	100.0	28899.8	41976.9	96151.5	50545.1	56722.2	59059.0	262476.9	100.0

The NBHSC will become the focal point for the long-term development of basic health services. The Cell will contain three divisions, training, operations research, and health education and communications.

At the regional level the provincial ministries and health departments will actively participate in project implementation. These provincial officials will assist the NBHSC in all phases of the Project such as construction of RHCs and BHCs; operating training units for mid-level workers; training of CHWs on a trial basis; establishing continuing education programs for workers; development of cost analysis studies; and standards setting for health facility management.

A major role in project implementation lies with the District Health Officer (DHO). Under policy directives from the province the DHO will implement the Integrated Rural Health Complexes in his/her district. The DSO will be responsible for drug and equipment maintenance, ensuring worker supervisory visits occur, data collection and analysis, and quality control for health services.

Other Donor Activities:

The World Health Organization will provide two technical advisors on a grant basis to the Project.

Issues:

(1) Continued AID and GOP financial support are essential elements to the implementation of Phase I and II.

(2) At the end of Phase I (prior to Phase II) and evaluation is advisable to gage the progress in reaching project goals.

(3) Coordination of project implementation activities performed by the MOH and provincial level officials must be maintained. The establishment of the NBHSC remedies this problem at the national level.

(4) The upward mobility prospects of the CHW and mid-level workers are not defined. The CHW and other health workers may leave the Project, if there are no chances for promotion.

(5) The development of appropriate educational materials and teaching methodology in Phase I for the health worker should be a pre-requisite to the continuation of the training component in Phase II.

(6) The extensive recurrent costs to the GOP for this Project post a serious threat to the financial support of Phase I. Unless some effective type of payment mechanisms is designed in Phase I (with regard to the CHWS), financial solvency of the Project is questionable.

PHILIPPINES

Project Title and Number: Panay Unified Services for Health (PUSH), 492-0312

Project Cost: $5.4 million loan and $.32 million grant (Total Project Cost--$9.7 million)

Project Life: FY1978-FY1982

Target Population: Residents (est. 340,000) of 600 barangays (villages)

Area of Coverage: Regional

Project Purpose:

To strengthen the regional health systems to deliver integrated services to the barangay level.

Health Component:

The Project requires the recruitment, training, equipping and deployment of 600 Barangay Health Workers (BHWs). The BHW must be a resident of the barangay, between 18-45 years old and have at least six years of formal education. The BHW must participate in a 6-week basic training course and a 2-week refresher course every six months to enable him/her to respond to simple medical problems and undertake preventive activities. The BHW will be under the technical and administrative supervision of the RHU (Rural Health Unit). Additionally, the BHW will be a salaried employee of the provincial government.

The BHW will be nominated by the barangay, endorsed by the Rural Health Unit and the Provincial Officer, and appointed by the Provincial Governor. These rural workers will be barangay contact points and facilitators for existing technical personnel such as sanitary inspectors, social workers, municipal population officers, nutrition workers, and general health workers in carrying out their responsibilities. Coordination of the use of BHWs in this manner will be maintained at the municipal level through the Rural Health Unit.

The control of the phased training effort will be handled by the training staff working under the supervision of the DOH's (Department of Health), regional training staff. The Regional Training Center will develop and operationalize a system for monitoring the training of BHWs and their

performance in the field in order to develop more effective training strategies. BHW training during the Project will take place in a training center to be established in Iloilo province. Curriculum will emphasize practical skills. During the first year of the Project, 50 BHWs will be deployed. The BHWs will be placed in clusters--one BHW to each of several neighboring barangays--to facilitate supervision, control, and evaluation.

Specific duties of the BHW are:

(1) The BHWs, with technical assistance from the sanitary engineer and the Provincial Engineering Office, will identify areas in the barangay where sanitation facilities need to be constructed or improved. They will organize the community, catalyze the efforts to obtain the commodities and expertise to construct or improve the water facility, and promote proper water handling and utilization practices. They will periodically monitor water quality and apply simple water treatment procedures, when necessary.

. They will campaign for sanitary water disposal and organize the community to obtain basic commodities and expertise for the construction of water-seal toilets for every household in the barangay. They will likewise provide practical advice on the proper handling of household refuse, fly and mosquito control, and other disease-causing nuisance in the barangay.

(2) The BHW s will identify and prioritize the targets of the barangay immunization program. They will spearhead the efforts to obtain technicians and supplies to achieve the objectives of the immunization campaign. Furthermore, they will identify the signs and symptoms of notifiable diseases, report and refer them for treatment and follow up these cases regularly. They will provide barangay level assistance to whatever disease-control campaign the RHU may be conducting in the barangay.

(3) The BHWs will be the first person to be consulted in the barangay if medical problems arise. They will screen patients and identify those that need immediate care and refer them to the nearest medical facility. They will follow up patients who are undergoing a prolonged treatment regimen to insure that medicines are being taken regularly and proper patient care is provided.

(4) The BHWs will keep records of vital events in the barangay like deaths and births and submit periodic reports of these to the RHS. They will maintain spot-maps which are graphic

portrayals of the households in the barangay to keep track of what is going on in the barangay. Individual family health folders will be kept and maintained which will contain records of illnesses, treatment received, and outcome of illness of the household members.

(5) One important function of the BHWs will be to organize the barangays and mobilize them into collective action to combat existing barangay health problems. They will provide assistance to the barangay in the identification of health projects, in the formulation of project plans, and in securing external assistance needed for project implementation. Group meetings with barangay residents will be utilized also as avenues for the dissemination of nutrition and family planning information and on the promotion of proper health habits and practices. A BHW Handbook will be developed to guide the BHS in the performance of his duties and responsibilities in the barangay.

Other activities funded by the Project include the construction of 280 functional drilled deep wells, 1200 shallow driven wells, improve 5400 open dug wells, and construct 40,000 water-sealed toilets.

With its intention to make modern medical care more accessible to the rural poor, the PUSH Project will provide assistance in the organization of village drugstores which will enable project barangays to have a more adequate supply of commonly used drugs at a price they can afford. The village drugstores envisioned for PUSH will be owned, operated and managed by the barangay itself. Under the leadership and initiative of the BHW, the barangay will develop its own accounting, pricing and resupply system and arrangements for the custody of the drug supply. The Rural Health Units will provide continuing technical supervision in the process, especially on the nature of the drugs that the barangay needs to stock. After showing evidence that the barangay has organized itself, a $100 worth of drug supply will be provided by the project to the barangay as a starting capital. Depending on the preferences of the people, a small mark-up may be charged on the purchase cost of the drug to cover operational expenses and to generate funds to finance other community health projects. A total of 600 of these drugstores will be organized under this project.

An estimated 100 Rural Health Units in the four provinces in Panay will be supplied with vaccines in support of the DPT and BDG immunization drive under this Project. Anti-Tb drugs will also be aupplied for the treatement and control of tuberculosis in the project areas.

Four Provincial Health Laboratories, one in each of the four Panay provinces will be equipped to perfrom such project support services as water analysis including bacteriological examination and sputum examination for the early detection of tuberculous cases.

Population Component:

The BHWs will provide information on the different forms of contraceptives available in the locality, motivate potential contraceptive users, refer acceptors to appropriate agencies, and resupply on-going users with the required commodities. If family planning programs do not exist in the barangay the BHW will try to initiate one.

With the efforts of the BHWs and together with the National Family Planning Outreach Program, this project will establish a total of 600 barangay the BHW will try to initiate one.

Nutrition Component:

The BHW will periodically weigh and keep records of the weights of children at most 6 years old, in order to prioritize the targets of the barangay nutrition program. They will provide barangay residents with basic information on nutrient requirements, common food sources of essential nutrients, and proper infant feeding techniques. They will assist in the barangay food production campaign in coordination with other agencies, and in the food distribution program. The BHW will initiate and conduct barangay feeding programs for the first and second degree malnourished children, and refer to rehabilitation children with third degree malnutrition.

In every contact with villagers the BHS should attempt to motivate the people to adopt proper nutrition practices. The BHW should not duplicate but support the services of the barangay nutrition worker who may be deployed by the Philippine Nutrition Program coordinated by the National Nutrition Council. If a nutrition program has not been established, the BHW should organize one.

With the BHWs in place and in coordination with the Philippine National Nutrition Program, this project will establish a total of 600 barangay nutrition outreach service points, which will be expected to provide nutrition services and commodities to an estimated 10,000 malnourished children.

Project Outputs:

(1) 600 BHWs recruited, trained and deployed.

(2) 1,200 shallow driven wells and 280 drilled deep wells constructed and functional; 5,400 existing shallow dug wells improved.

(3) 40,000 water-sealed toilets constructed.

(4) 100 Rural Health Units supplied with BCG and DPT vaccines and drug for treatment of tuberculosis; 600 barangay drug stores organized, supplied and functional.

(5) Family planning outreach services and supply points established in 600 barangays.

(6) Nutrition outreach services established and functional in 600 barangays, providing nutrition services and commodities to 10,000 malnourished children.

(7) 4 Provincial laboratories provided with equipment for water analysis, sputum and other examinations.

Project Inputs:

A total funding input of $9.7 million is required to achieve the desired outputs in the 5-year implementation of the project. The funding requirement will be derived from the following sources:

USAID Loan	-	$5.4 M	(56%)
USAID Grant	-	.4 M	(3%)
GOP Counterpart	-	3.0 M	(31%)
Beneficiary Counterpart	-	1.0 M	(10%)

Table I summarizes the allocation of the financial input for the different components of the project. The Financial Section and the financial tables in Annex B of the Project Paper provides a more detailed discussion on the budgetary requirements of the project and the bases of the cost estimates. An estimated $.509 million worth of PL 480 food commodities coming from the National Nutrition Program, which will be used in this project, is included as a non-additive component in the financial plan.

Host Country Activities:

The National Economic and Development Authority (NEDA) will represent the Government of the Philippines (GOP) in the Project. The Regional Development Council (RDC) of Region VI and the Department of Health are the major implementing agencies.

The RDC will receive funds from NEDA to initiate BHW training, construction of sanitation facilities, and the operations of the Project Support Staff. The provincial and municipal governments will disperse the funds advanced to them by the NEDA, and RDC.

At the regional level the RDC will formally organize the Project Management Team (PMT) and operationalize the office of the Project Support Staff (PSS) which will provide technical and administrative staff support. The PSS will prepare a Training Task Force to develop the BHW training curriculum and support system.

Other Donor Activities:

No other donor agency is providing funds for this Project. AID is also supporting a Philippine Nutrition Program and GOP Family Planning Program. In both cases this Project will not duplicate or compete with their program components. The BHW will function primarily to enhance the attainment of the GOP goals in nutrition and family planning set for Panay Island.

Issues:

Some important issues or assumptions concerning the Project are:

(1) Qualified persons in sufficient numbers are available in the regions to take part in the BHW training.

(2) The BHW is capable of devoting sufficient time to each of the numerous tasks, he/she is supposed to perform.

(3) The local community must be motivated to participate in the Project.

(4) Administrative and financing capabilities must exist at the regional and provincial levels for effective mangement of the Project.

(5) Logistical, technical supervisory and financial support must exist at all levels to backstop the efforts of the BHWs.

(6) Career mobility must exist for the BHWs to maintain their interest in rural health services delivery.

(7) The continued financial interests of AID and the GOP must be maintained to insure Project success.

(8) Appropriate evaluation and technical followup should occur to gage the Project's effectiveness.

TABLE I

Annual Cost Estimate Summary by Major Project Component (Inputs)
PUSH Project ($1000)

Project Component	Year 1	2	3	4	5	TOTAL
Environmental Sanitation	405	519	689	836	1075	3524
Drilled Deep Wells	(361)	(361)	(361)	(361)	(361)	(1805)
Driven Shallow Wells	(10)	(29)	(47)	(56)	(82)	(224)
Improved Dug Wells	(12)	(46)	(97)	(135)	(315)	(605)
Water-sealed Toilets	(22)	(83)	(184)	(284)	(317)	(890)
Barangay Health Workers	58	116	203	298	384	1061
Training	(44)	(62)	(82)	(98)	(106)	(392)
Salaries	(14)	(54)	(121)	(200)	(278)	(669)
Equipment and Supplies	478					478
Project Support Staff	66	66	66	66	66	331
Consultants	18	28	28	28	66	168
Participant and Project Management Training	33	30	12			75
SCP Administration and Supervision	132	175	225	231	238	1001
Rent and Utilities	14	14	14	14	14	69
Sub-Total	1204	948	1237	1473	1843	6707
Contingency	181	142	186	221	276	1006
Cost Escalation	128	158	320	526	830	1962
TOTAL	1513	1248	1743	2220	2949	9675
PL-480 Commodities)	(19)	(68)	(117)	(151)	(154)	(509)

NOTE: Figures may not add to totals due to rounding. See tables in Annex B for more detail (See Project Paper)

Project Name and Title: BICOL Integrated Health, Nutrition, and Population Project, 492-0319

Project Cost: $2.5 million loan (Total Project Cost--$2.5 million)

Project Life: FY1979-FY1981

Target Population/Area of Coverage

The target beneficiaries of this initial project will number about 400,000 or about 23% of the total population of the BICOL River Basin Development Program Area (29% of its rural population).

Project Purpose:

The purposes of the proposed project are:

- to create an effective rural social services delivery system largely funded from and supported by local resources and institutions; and

- to improve the sanitary environment and household water supplies and rural barangays.

This will require changes in perceptions and behavior on the part of rural residence and their leaders for which the end of project status indicators are only proxy measures.

The Problem:

The BICOL River Basin Development Program Area has a net per capita domestic product averaging $172 in 1974, only 49% of the national average. 92% of the families in this region reported incomes of the 1975 census below the poverty threshold of $187 per family member. The BICOL region is an area where parasitic infestation and water borne enteric diseases are endemic with result in nutrient loss is greatly reducing the value of food consumed, and therefore of income. It is also an area where 78% of pre-school children suffer from malnutrition, parenthetically 5% third degree level, and where morbidity and mortality, and especially infant mortality (73 per 1,000 births) rates are very high. Despite high mortality rates the crude population growth rates is 3.3% annually.

Efforts to extend health, nutrition, and population information and services in the rural area are not achieved as significantly positive impact among the world poor. The basic constraints are the sure magnitude of the requisite task and total cost it would involve using traditional organizations.

Central Government itself cannot command either the administrative talent or the revenue resources necessary to do the jobs successfully alone. The problem is further complicated by distance, time, and financial inadequacies which prevent most rural residence of using health services and facilities in the urban centers. Cultural barriers and social differences between the medical doctors and health related extension workers in the rural barangay residence are also contributing factors.

Project Description

The strategy behind this project contains two major thrusts, the first being institution building and the second, physical construction. Institutionally the project will provide start-up funds organizing training, staffing, supporting, and selling the integrated decentralized approach to rural health care, nutrition, and family planning delivery.

Physically, the project will provide funds for the following:

1) to conduct an experimental sanitation survey of rural barangays;

2) to establish a revolving loan fund to help rural barangay (provincial) councils and households, finance improved water supply facilities and sanitary drainage systems;

3) subsidize the construction of individual household sanitary toilets;

4) upgrade prevential laboratory facilities for water analysis;

5) expand and equip integrated municipal health units for the care of malnutrition cases with disease complications.

6) construct and equip barangay development centers to serve project activities;

7) rehabilitate a few dilapadated municipal health centers and construct some additional barangay health stations; and

8) equip municipal microscopy centers for the identification of TB cases and parasites

Locally hired and funded barangay health aides (BHA) will receive training and assist municipal based specialists to perform basic functions (specializing in one or more priority areas at a time depending on conditions in his or her own barangay). Activities to be performed by the aides and specialists are listed below:

Health Component

(1) Promote and improve environmental sanitation in the rural areas.

(2) Organize construction, monitor, and advise the operations and maintenance of barangay water supply, drainage systems with assistance from the municipal sanitary engineer,

(3) Assist in immunization and the control of communicable diseases.

(4) Disseminate information on improved health practices,

(5) Help promote maternal and child health care,

(6) Institute case finding activities,

(7) Referral and follow-up of patients,

(8) Administer first aid,

(9) Publicize first aid techniques.

Nutrition Component

(1) Help promote nutrition oriented food production programs such as the ongoing back-yard livestock and garden projects, to increase required nutrient availability.

(2) Identify malnourished cases for assistance under the nutrition program, referral of pregnant women to prenatal care facilities, and assist in educational efforts of municipal and voluntary barangay nutrition workers, serving as the Barangay Nutrition Scholars of the National Nutrition Council Program.

(3) Assist in Operation Tim-bang and distribution of PL 480 food commodities.

(4) Upgrade malnutrition treatment centers local in provincial hospitals.

This nutrition component relates significantly to the Philippine Nutrition Program of the National Nutrition Council to reduce malnutrition. The component will strengthen the capacity of the region to achieve the goal of reaching virtually all severe third degree malnturition cases with rehabilitation services and all second degree cases of malnturition with rehabilitative or protective nutrition services.

Population Component

The barangay health aides will make referrals to the municipal family planning outreach workers in their area and may also serve as the barangay contraceptive supply point. They will assist in information, education, communication and motivation activities for family planning as requested by POPCOM (Commission of Population) outreach workers.

Project Outputs:

One of the primary outputs of the project will be a cadre of trained barangay health aides. During the five year life span of the initial project 400 rural barangay councils are expected to recruit and appoint at least one barangay health aide who will be trained, prepared and equipped to assist municipal base specialists perform basic health population and nutrition functions. To equip BHAs with first aid and simple drug supplies, health and nutrition kits will be purchased with projects funds. Next the kits are assembled and distributed to each participating barangay council for the BHA's use. The BHA will report to the municipal health center once a month to replenish depleted stock and collect its monthly stipend. Other institutional outputs of the project to be funded include:

1) Temporary funding for additional Diocesan nutritionists and Food for Work coordinators to be integrated into the project by the Catholic Relief Services and Social Action Center in corporation with DSSAD.

2) An intensified information, education, communication, and motivation campaign.

3) The organization of functional rural improvement clubs to targeted barangays.

4) An inter-agency regional training team, an operational BHA training center and program.

5) 400 salt liquidating village drug stores installed and operational.

6) An expanded immunization program in the 400 targeted barangays.

In addition to these institutional inputs, physical construction of health and sanitation facilities will also be provided. The project provides funds for the construction of nine or ten new barangay health stations adding to those already constructed or financed by the Government of the Philippines and a World Bank Project.

The renovation of seven municipal health centers, presently in dilapidated condition is also called in the project. Eventual laboratory facilities will be upgraded and a $705,000 revolving loan fund will be established

which will enable 400 barangay councils to finance materials for the construction of recommended domestic water supply and drainage facilities. Finally, municipal health units will be upgraded to house integrated health and nutrition population activities allowing for the feeding and treatment of disease complications of severe malnutrition. This will mean taking the primary focus for prevention and treatment of malnutrition to the home.

Project Inputs:

The 2.5 million dollar loan proposed in this Project Implementation Document (PID) would finance 43% of the total incremental costs of $5.8 million associated with this project. In addition to the AID loan, it is expected that about $1/2 million of local currency funds generated by the PL 480 Program would be used to fund the construction and equipment of municipal nutri-huts or mal-wards and the salaries of additional voluntary agency personnel required the supervised increased demands on existing food distribution and nutrition education programs. This amounts to about 9% of the total project cost (see Table A).

Host Country and Other Donor Activities

Host country contribution is expected to reach at least $2.8 million or 49% of total project requirements. The Government of the Philippines is expected to contribute $1.6 million from central funds and local Government revenues will provide 1/2 million during the five year period for a total of 35% of project requirements. Finally, the host country beneficiaries themselves are expected to contribute labor to pay for part of the material costs of toilets, and to start reimbursing the Government (for water fees) for water facility construction for a total five year contribution worth $.8 million or 14% of the project cost.

Project Issues

The most important issue in the BICOL integrated health services delivery project is its comparison with the PANAY United Services for Health (PUSH) project. The PUSH project is scheduled to begin in FY1978 and the BICOL health project is similar in many respects, but the provide clearly defined operational differences which need to be tested to determine the most replicable model for widespread application in the Phillipines. (See Appendix I for similarities between the two projects.)

Source of Information

BICOL Integrated Health, Nutrition and Population Project Implementation Document.

Table A: Estimated Project Cost by Source of Funds (Financial Plan)
Bicol Integrated Health, Nutrition and Population Project
(1000 dollars)

Project Component	Total Project Cost[1]	HOST COUNTRY[2]					PL480 Generations	UNITED STATES			
		Beneficiaries		Local Govt.	GOP Host Co.			PL480	Appropriated AID Loan		
		LC	Labor	LC	LC	TOTAL	LC	Comm.	LC	FX	TOTAL
Institutional Development	962			156	358	514			448		448
BHA Stipends	646			156	42[3]	198			448		448
Training	183				183	183					
IECM Campaign	132				132	132					
Construction	2020	316	216	155	227	914	300		806		806
Water Supply Facilities	615	115				115			500		500
Primary Drainage	328		76	47		123			205		205
Secondary Drainage	44		8	4	32	44					
Water-sealed Toilets	483	201	80		101	382			101		101
7 Municipal Health Centers	19				19	19					
9 Barangay Health Stations	48				48	48					
Provincial Lab Expansion	27				27	27					
MHC Extension	300						300				
Barangay Development Centers	156		52	104		156					
Equipment & Supplies	668				60	60	63			545	545
BHA Kits	45									45	45
Botica sa Barrio Drugs	53									53	53
Vaccines	15									15	15
Chlorine	20									20	20
M H C Equipment	74						63			11[4]	11
Barangay Dev. Center Equipment	140				60	60				80[4]	80
Municipal Microscopy Equipment	33									33	33
Municipal Microscopy Supplies	22									22	22
Provincial Lab Equipment	133									133	133
IECM Equipment & Supplies	45									45	45
Training Equipment & Supplies	11									11	11
PMD Equipment & Supplies	28									28	28
Vehicles & Parts	51									51	51

Table A (continued)

Project Component	Total Project Cost[1]	HOST COUNTRY[2]					PL480 Generations	UNITED STATED			
		Beneficiaries		Local Govt.	GOP Host Co.			PL480	Appropriated AID Loan		
		LC	Labor	LC	LC	TOTAL	LC	Comm.	LC	FX	TOTAL
Project Management Office	443				416	416	27				
Salaries/wages & Allowances	182				182	182					
Diocesan Nutritionists	16						16				
CRS-FFW Coordinators	11						11				
Environmental Sanitation Survey	56				56	56					
Project Monitoring & Evaluation	178				178	178					
Sub-Total	4093	316	216	311	1061	1904	390		1254	545	1799
15% Contingencies	614	47	32	47	159	285	59		188	82	270
7%/yr. Cost Escalation	1132	119	69	128	334	650	51		358	73	431
TOTALS[1]	5839	482	317	486	1554	2839	500		1800	700	2500
						49%	9%				43%
(U.S. PL480 Title II Food Commodities)	(1170) (in PID)							(1170)			

1/ See Tables A-2 and A-3 for details. Columns may not add to totals due to rounding.

2/ Host country contribution consists of incremental costs only, project use of existing staff and buildings is not included.

3/ Sixth year project-funded stipends. Stipends at ₱200 per month per BHA: 120 BHA's in year 1, an additional 280 BHA's in year two for a total of 400. In year 4 the local governments will start sharing 50% of the stipends of the 120 BHA's appointed in year 1. By year 5, the local governments will be paying for half of the stipends of all 400 BHA's, in year 6 they will pay the full amount of stipends of BHA's recruited in year 1 and after year 6 the local governments will shoulder all stipends of the BHA's. It is assumed that by that time, real property tax revenues have sufficiently increased. As lead agency of the project, DOH will budget the centrally funded portions of BHA stipends and other continuing costs of this project after the fifth year as part of the longer-term GOP effort.

4/ Clinical scales only.

Panay Unified Services for Health (PUSH)

The PUSH Project, scheduled to begin in FY 1978, and the Bicol Health Project are similar in many respects, but they provide clearly defined operational differences which need to be tested to determine the most replicable model for widespread application in the Philippines. The Mission and the GOP have carefully discussed the rationale for funding the two projects simultaneously in order to test these operational differences in approaching the same basic health problems. The PUSH Project targets the bottom 20% of the social economic strata whereas the Bicol Health Project targets a broader spectrum of the society in a somewhat more economically depressed area of the country. The Bicol Health Project can be considered a lower cost approach, involving some increased risk and a higher proportion of local contributions, but this has been thoroughly discussed, debated and accepted by the local government leaders in the Bicol are

The similarities between the two projects can be listed as follows:

1) Barangay Health Aide or Worker deployment with similar selection, training, and task characteristics. Both projects require that the BHA or BHW will be a local resident; however, the Bicol Project will attempt to utilize the currently trained and unemployed midwives which are in surplus in the Bicol area.

2) Targeted preventive medicine and environmental sanitation interventions in which the BHA will play a catalytic role.

3) Use of existing government systems and organizations rather than creating new independent systems.

4) Large enough in scale to neutralize the effect of any one personality influe

5) Utilization of local political, economic and social support in helping peopl to help themselves.

The differences in the two projects revolve around the two basic concerns of financial viability/replicability and administrative coordination. Since a sig nificant degree of local participation is required for any social program to reach the majority of the people, it is essential that variations in the local participation and financial support aspects of the program be carefully tested.

THAILAND

Project Title and Number: Lampang Province Project (DEIDS Sub-Project), 931-0971

Project Life: FY1974-FY1981 (Project funding ends FY1978 for Phase III)

Project Cost: $1.78 million AID (APHA contract) grant (Total project cost--$16.7 million)

Target Population: 610,323 persons

Area Coverage: Regional (Lampang Province)

Project Purpose:

(1) A low cost health delivery system used by 2/3 of the women of fertile age and children under 6 years of age in Lampang Province. Key features of the system extensively replicated throughout rural Thailand without external assistance.

(2) The proposed integrated health system will include family planning, maternal and child health, nutrition and other preventive and curative services.

Health Component:

The DEIDS project proposes four innovations:

(1) to organize and test a low cost health delivery system in the villages which uses training, non-physician personnel, in addition to lay health promoters and communicators such as monks and village leaders.

(2) to train non-physician curative and preventive health care in the village.

(3) to take inventory and analyze the existing health services, costs, and the utilization of such resources.

(4) To strengthen the health delivery infrastructure in management and administrative practices at the provincial and district levels.

The proposed provincial low cost integrated health delivery system, with services for the majority of the fertile women and children under 6 years, is to be implemented through the development of four coordinated divisions: (1) medical and health services; (2) personnel development; (3) information-evaluation-research; and (4) administrative services. The DEIDS Project proposes initially to use one district, Hang Chat, as a demonstration area for the integrated health system. The entire Lampang Province should be receiving all services initiated in Hang Chat by 1978 according to the Project Paper.

The Provincial Hospital serves as the base for delivery health services in the Province. The Rural Medical and Health Center (RMHC) operates as an extension of the outpatient clinic of the Provincial Hospital. One RMHC is proposed for each district. The center for basic level health care is the sub-center (SC) in each tombol. A referral system is proposed for this regionalized network of health facilities.

Medical and Health Services Division

The Medical and Health Services Division of the Project envisions the training of traditional midwives in maternal and child health (MOH). Efforts to recruit and utilize village monks as health promoters are also planned by the Division. The religious temples have been identified as future MCH information centers. This Project also discusses the establishment of a community health section in the Provincial Hospital to provide preventive and promotional services in MCH and communicable disease control.

An immunization campaign against smallpox, diphtheria, pertussis, tetanus and poliomyelitis is planned in the DEIDS Project. Special campaigns for other diseases, such as tuberculosis, leprosy and malaria, will be integrated into the general health services system according to the PP. Additionally, laboratory services in the hospital and RMHCS are to be improved in the DEIDS Project.

Communities participating in the DEIDS Project are encouraged to contribute financially as well as to provide manpower in establishing water supply systems, sanitary privies, methods of refuse disposal, and household drainage.

Personnel Development Division

Seven training programs for health personnel have been identified to strengthen the health delivery systems in Lampang Province. These Programs are: trainer training; cross training for administrators, supervisors, and service personnel; volunteer training for health post workers and

communicators; traditional midwife training; on-the-job-training; intern training and MEDEX. The teaching staff for the DEIDS training programs will be made available through local and foreign universities according to the PP. These institutions also are involved in the evaluation and assessment of the Project training activities. The Lampang Midwifery School is proposed as the central training center for the Project.

According to the PP there are two innovations in the development of health manpower for the DEIDS project. The first innovation is the training of 85 Medex workers to provide basic health services in the villages. The numbers of "health workers" amd "practical nurses" will decrease in the Province, since these personnel will qualify for further Medex training.

The second innovation is the use of at least 5,950 training health volunteers to function as health post workers and communicators. The health post worker is capable of detecting persons with serious health problems, providing non-prescriptive drugs, and recording births and deaths. The communicator assists the patient in entering the health services system. The communicator serves as liaison between government officials and villagers. He/she also serves as a distributor of health information.

Information-Evaluation-Research Division

This Division is responsible for processing information to be used by the Project in planning, assessing, and evaluating its goals and objectives. Eight types of information will be gathered according to the PP: vital statistics, community surveys, clinical records, service records abstract, task analysis, cost analysis and administrative analysis. This information is also used for making appropriate comparisons between Hang Chat District and other districts in the Lampang Province.

Administrative Services Division

The development of support services is the major responsibility of this Division. This includes all details of administration such as personnel management, financing, correspondence, transportation, and supply distribution.

Nutrition Component:

Each community with a health sub-center (SC) is encouraged to establish a Child Nutrition Center (CNC) under the aegis of an already established governing structure (such as the village council). The health post worker assists in the feeding programs at the CNC and provides food supplements to the district population. Private days care centers are also to be

upgraded to government standards in the target area. Nutrition education is especially stressed for pregnant and lactating women in these facilities. In addition, the community health section at the Provincial Hospital provides preventive and promotional nutrition services.

Texturized protein is to be introduced more extensively in the feeding programs of the CNC's and school lunches in cooperation with all provincial education authorities. In addition, to combat malnutrition, iodated salt, fortified fish sauce with iron, vitamins, and orthoposphate are proposed for sale by all RMHCs, SCs, and Health Posts (HPs). The Agricultural Promotion Officer will augment food production techniques in the villages according to the Project Paper (PP).

A community nutrition survey is proposed for Hang Chat District.

Population Component:

Increased distribution of pills, IUD insertions, sterilizations and condoms are proposed for the Provincial Hospital, RMHCs and SCs. Hysteroscopic sterilization may be conducted by mobile teams from the Provincial Hospital. Family planning promotion in the private and public sectors is stressed in the Project Paper (PP).

Project Outputs:

(1) Significant milestones (coverage)

1976: Hang Chat District
1977: Ko Kha, Mae Ta, Sob Prab, Tein Mae Prik Districts and Serm Ngam Sub-District
1978: Munag Lampang, Tae Hom, Ngao and Vang Neua Districts.

(2) Making Lampang low cost health delivery system workable through:

(a) Trained Medex staff working in RMHCs and SCs

(b) Other medical auxiliaries trained and working in Lampang.

(c) Information on the Lampang experience available for revised training programs.

(d) Information available for Medical and Health Services Division to revised services based on Lampang experience.

(e) Trained Medex staff working outside Lampang Province.

(f) Cost analysis of Lampang low cost health delivery system thus assessing reasonableness of replication elsewhere in Thailand.

(g) Officials from the other Thai Provinces supporting replication of key features of Lampang Project -- based on knowledge of actual Lampang experience obtained at conferences, site visits, and written reports.

(h) Lessons for other developing countries from Lampang experience.

Project Inputs:

The DEIDS Project budget through FY1978 is summarized in Table A.

Host Country Activities:

The MOH (Ministry of Health) has appointed a Field Director to coordinate the DEIDS Project in Lampang Province. The First Deputy Under-Secretary of the MOH is the Director of the DEIDS Project.

The Executive Director receives technical assistance from the planning and Evaluation Committee. The Policy and Directory Committee chaired by the Project Director receives progress reports from the Planning and Evaluation Committee. Each Division has a director who is supervised by the Field Director. A District Medical Officer supervises the Provincial Chief Medical Officer and both are responsible to the Project Director.

In addition, two committees, the Field Coordination Committee and Consumer Adjunct Committee, are planned to define the role of the RMHCs.

Other Donor Activities:

No other foreign donor is involved in the DEIDS Project.

Issues:

(1) The Thai Government has extensive recurring costs in DEIDS Project. The Government's ability to substain this long-term financial burden is questionable.

Proposed Budget

	1974		1975		1976		1977		1978	
	APHA	R.T.G.	APHA	R.T.G.	APHA	R.T.G.	APHA	R.T.G.	APHA	R.T.G.
alaries	78,810	96,500	170,220	220,564	167,620	280,032	139,680	360,171	143,460	410,211
nsultants	21,820	-0-	21,820	-0-	17,320	-0-	10,820	-0-	17,320	-0-
onoraria	10,050	-0-	17,600	-0-	17,600	-0-	17,600	-0-	17,600	-0-
ravel & Per Diem	17,420	2,000	35,770	6,000	29,830	9,000	33,830	13,500	38,770	19,750
ransportation of Commodities	-0-	250	-0-	750	-0-	1,025	-0-	1,513	-0-	2,270
ther Direct Costs:										
Conference	1,000	-0-	24,000	-0-	40,000	-0-	29,000	-0-	44,000	-0-
Data Processing	3,750	-0-	7,500	-0-	7,500	-0-	-0-	-0-	-0-	-0-
Communication	2,000	50	3,400	75	3,400	113	4,000	170	4,000	225
Printing & Repro	2,000	250	16,000	750	4,000	1,025	6,000	1,513	6,000	2,270
Stipends	9,000	-0-	46,500	-0-	46,500	-0-	46,500	-0-	46,500	-0-
Rent	-0-	9,000	-0-	20,550	-0-	22,530	-0-	24,708	-0-	27,104
Miscellaneous	1,800	-0-	3,600	-0-	3,600	-0-	3,600	-0-	3,600	-0-
onstruction	-0-	132,000	-0-	942,950	-0-	1,995,950	-0-	479,050	-0-	8,451,650
quipment, Vehicles, Materials and Supplies	113,900	64,730	34,990	197,280	34,475	307,240	79,360	342,160	77,980	505,455
	261,550	304,780	381,400	1,388,919	371,845	2,616,915	370,390	1,222,785	399,230	9,418,935

otal APHA 5 years = 1,784,415

(2) The capacity of the Government Civil Service system to absorb the newly trained health workers is uncertain.

(3) Cooperation and coordination between AID and participating agencies must exist throughout the Project.

(4) Qualified applicants for the training programs must exist in each of the Districts to successful replicate the Hang Chat experience.

Source of Information:

DEIDS Thailand Phrase III Project Paper.

THAILAND

Project Title and Number	Rural Primary Health Care Expansion, 493-0291
Project Life:	FY1978-FY1981
Project Cost:	$5.5 million loan (total project cost--$10.7 million)
Target Population:	Est. 11.5 million in 20 provinces (27% of total rural population)
Area of Coverage:	Regional

Project Purpose:

To improve and expand the rural primary health care delivery system of the RTG/MOH (Royal Thai Government/Ministry of Health) through strengthened and innovative training, management, evaluation, and research practices in 20 provinces.

Health Component:

The Project proposes to strengthen the health manpower capability at district hospitals, second class health centers, midwifery centers, and remote villages in these 20 provinces. Additionally, the supervisory and management skills will be enhanced. This Project trains nurse practitioners, auxiliary midwives, health assistants, supervisory personnel, health communicators, and village volunteers. A variety of short-term training activities will upgrade the skills of new and existing MOH staff and volunteers in rural areas.

NURSE PRACTITIONERS

Experienced nurses staffing district hospitals will be trained to become "nurse practitioners". The nurse practitioners will provide substantial medical care in provincial and district hospitals. They will also supervise the auxiliary staff in rural health centers and midwifery centers. These nurse practitioners will be taught the skills needed to identify health problems, make diagnosis, handle emergencies and minor surgical procedures, treat minor illnesses, manage abnormal deliveries and perform espsiotomies, participate in the administration of the health facility.

The nurse practitioner's training will vary from 10-28 weeks depending on the trainee's experience in public health. Fourteen weeks of field training is a requirement of the program. Each year of the Project except for FY 1981, 150 students will initiate training.

AUXILIARY MIDWIVES

The auxiliary midwives' responsibilities have been increased to include minor surgical procedures, treatment of accidents, curative services for common diseases; simple laboratory services (e.g. urinalyses to detect albumin and glucose; stool examinations for parasite ova; and hemoglobin tests for malaria parasites); identification of more serious illnesses to be referred to the physician; data collection; and supervision training, and support of primary health care workers; village health volunteers and communications.

A four month course in curative care has been developed for the auxiliary midwives. Fourteen training institutions using the same MOH-designed curriculum will train the 2,250 auxiliary midwives. A two month curriculum for the training of the trainers of the auxiliary midwives has been prepared. About 220 persons will take part in these courses. In addition, 500 physicians, nurses, and nurse practitioners will be oriented to the expanded role of the midwives.

HEALTH ASSISTANTS

To ease the burden of delivering clinical and community extension services simultaneously, the Project will train 750 health assistants to take over the routine tasks of the midwifery center's auxiliary midwife. This will free the midwife for more technical tasks and additional field responsibilities. Health assistants will work in the midwifery centers until the centers are upgraded to health centers. Duties of these health assistants focus on: (1) preparation of clinical equipment, vaccination kits, and medical supplies; (2) home visits to MCH patients; (3) resupply of village health volunteers with drugs; (4) provision of first aid services when midwife is absent; (5) assist in record keeping; and (6) maintenance of midwifery center.

The health assistants staffing the midwifery centers will receive 6 weeks of training. Another 450 health assistants will be trained to staff hospitals. Their curriculum will primarily rely on the teaching of MCH (maternal and child health), and family planning techniques. Recruitment of the midwifery center's health assistants will be from among unmarried women, aged 18-25, with at least a 10th grade education, and who would otherwise be eligible for basic training as an auxiliary midwife or practical nurse. The hospital's health assistant will be recruited from among 20-40 year old women, who have at least a 10th grade education, and have a prexisting interest in family planning.

Other elements in the Project focus on the training of sub-district (tamban) staff, village health volunteers (VHW) and communicators (HC). The RTG proposes to train 7,900 village health volunteers and 79,000 health communicators in the 20 Project provinces. This an average of 1 VHW and 10 HCs. per village without health or midwivery centers (about 9-10 villages per tambon indicates 8 VHVs and 80 HCs).

The HC's role will be primarily to promote community health events and services such as MCH, sanitation, and disease control. The VHV serves as a grassroot between the community and government officials. The VHV provides minor health care, simple drug dispensing, community health education, patient referrals, and assists in vector control.

Management training will be financed by the Project for more than 700 provincial and district level staff. The objective of these courses is to ensure that key senior and middle level health and hospital administrators develop skills necessary to manage this and other projects. Curriculum will include health planning and administration and hospital management.

This Project will include monies to support the associated planning, research and evaluation activities. Equipment and supplies and technical personnel will be financed for these purposes.

Population Component:

The nurse practitioner will be capable of carrying out MCH and family planning services including IUD insertions. At a later point in the Project the auxiliary nurses may be permitted to insert IUD's and provide injectables.

About 450 trained health assistants will only have MCH/family planning duties which include the: participation in the establishment of family planning clinics; the issuance of contraceptives to "clients", maintaining family planning records and visiting dropouts; and carrying out IEC (information, education, and communication) activities in clinics and maternity wards. The vast majority of these 450 health assistants will be assigned to district hospitals and provincial hospitals. About 10% will be posted at MCH centers and provincial health offices with family planning services.

In addition, the 750 health assistants trained soley for the midwifery centers will be capable of home visits to family planning acceptors as well as issuing contraceptives.

The auxiliary midwives in the Child Nutrition Centers provide family planning education to the participating mothers.

The village health volunteers will be trained to supply condoms and oral contraceptives to women who have been screened by other paramedicals and provide family planning education. The HCs will informally advise the community about family planning services at the health facilities.

Nutrition Component:

The Project will train 180 child nutrition attendants to staff the Child Nutrition Centers. These Centers provide supplemental protein foods for children as well as immunizations, physical examinations, and the improvement of environmental factors influencing the children's health. Mothers take turns attending the centers and preparing meals and recreational activities. The auxiliary midwife is responsible for management of the center, arranging cooking demonstrations, and education in nutrition and home food production. The MOH provides a modest stipend to the Center and makes available building materials. The parents build the Center and pay low fees.

The village health volunteer will be providing nutrition education. The HC will serve to promote and informally advise their neighbors about nutrition services.

Project Outputs:

(1) Field and institutional training for:

900 nurse practitioners
2,250 auxiliary midwives
750 health assistants at midwifery centers
450 health assistants at hospitals (only 181 will be assigned to 20 provinces

180 child nutrition attendants
7,900 village health volunteers,
79,000 health communicators, and
700 provincial and district level health supervisory staff

(2) The Health Planning Division of MOH will concentrate on an operational assessment of health facilities and manpower in the 20 provinces; an evaluation of the training of the VHVs and the HCs; and an evaluation of the training of trainers for the VHvs and HCs.

(3) Other studies to be completed include patient/household operational performance studies for all categories of paramedical personnel, volunteeer-communicator motivational study, project effectiveness studies, and utilization of audio-visual materials study.

Project Inputs:

A summary of project inputs can be found in Table A. AID funds the field and institutional training of the paramedical workers, including travel, per diem, training materials and medical kits for the trainees. AID also provides technical personnel in the areas of health care planning, survey research, evaluation and health manpower planning.

Host Country Activities:

The RTG/MOH is responsible for impelementation of the Project. The MOH will play a very important role in the training component. The proposed training techniques will be based on curriculum training manuals, and audio-visual aids already designed by the MOH.

The MOH is in charge of integrating the activities of this Project into the larger government rural Primary Health Care Program.

Other Donar Activities

This Project will be developed in coordination with a larger joint RTG and World Bank Accelerated Family Planning and Health Project (AFPH). The AFPH project includes the construction and renovation of several health service training facilities, expanded information, education and communication programs, broad research and evaluation activities, long term and short-term training for existing and new health workers. The AID component of the RTG/AFPH project will concentrate on short-term training and limited research and evaluation activities.

The RTG/AFPH project will be financed through a loan from the World Bank and grants from other donors at a level of $42.4 million.

Issues:

Some important assumptions and/or issues to consider are:

(1) Continued AID and other financial and technical support are important elements to the Project's success.

(2) The host government must remain committed to development of a regionalized health delivery system.

(3) Supervisory, logistical and technical support must exist at all levels of the health delivery system to insure back-stopping of local level workers.

Table A

Summary Cost Estimate and Financial Plan

(US $ 000)

PROJECT COMPONENT	AID		RTG		OTHERS*		TOTAL
	FX	LC	FX	LC	FX	LC	
Technical Assistance	240						240
Training	4,266			5,230			9,496
Research/Evaluation	606						606
Other				15,470	42,381		57,851
Contingency	57						57
Inflation	350						350
TOTAL	5,519			20,700	42,381		68,600

orld Bank and Other Donors

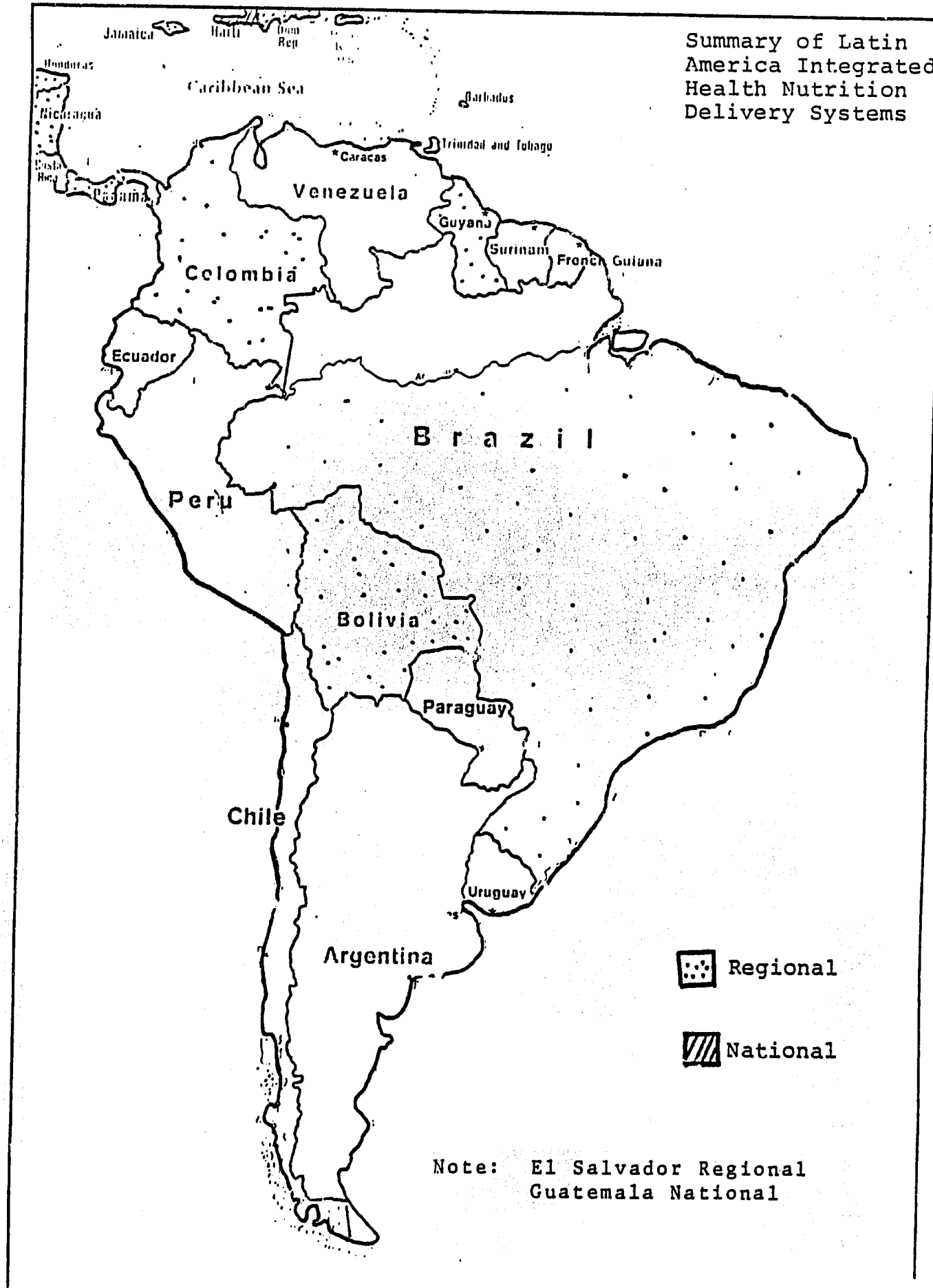
(4) The MOH and local communities must be able to "absorb" the large numbers of paramedical workers being trained in the Project.

(5) Qualified and willing persons have to exist in the host country in order to succeed in training the large quantity of health workers proposed in the Project.

(6) Coordination and management of the proposed activities of other donors within the MOH is important to the successful completion of this Project.

Source of Information:

Thailand Rural Health Care Expansion Project Paper


Summary of Latin America Integrated Health Nutrition Delivery Systems
Jamaica
Haiti
Dom Rep
Caribbean Sea
Barbados
Trinidad and Tobago
*Caracas
Venezuela
Guyana
Suriname
French Guiana
Colombia
Ecuador
Brazil
Peru
Bolivia
Paraguay
Chile
Uruguay
Argentina
Regional
National
Note: El Salvador Regional
Guatemala National

BOLIVIA

Project Title and Number: Rural Health Service Delivery, 511-0453

Project Cost: $250,000 AID grant (Total project cost--$391,000)

Project Life: FY1976-FY1978

Target Population and Area of Coverage:

An estimated 35,000 rural Bolivians, who will be provided access to rural health services in four rural communities and 33 satellite communities in Santa Cruz Department, are the beneficiaries of the Project.

Project Purpose:

To plan and successfully implement a pilot Rural Health Service Delivery System (RHDS) in the Montero area of Santa Cruz Department.

Background:

Health statistics of the Montero region of Santa Cruz Department are below Bolivian national averages with infant mortality estimated to be 300/1000 live births per year, pre-school mortality, 50% and pre-school malnutrition 60%

At present (1976) the National Bolivian Health System reaches only an estimated 15% of rural people.

Health Component:

The Project aims to create a RHDS capability within the MOH (Ministry of Health) by revising their support system at the local and regional levels and initiating training programs for rural personnel. The Project plans to train and utilize several levels of auxiliary health workers, such as 80 health promoters, 12 nursing auxiliaries and 8 supervisory nursing auxiliaries. The health promoters and auxiliary nurses, once trained, will be providing basic curative and preventive services, data collection, patient referral services, basic informational detection and community organization.

Training (6 months) is proposed for the health worker in the areas of environmental sanitation, communicable disease, and maternal and child health. These workers will receive technical back-stopping and supervision from a District Outreach Team of public health professionals

and technical auxiliary nurses assigned to sub-district hospitals. The Outreach Team is composed of a public health doctor, public health nurse, public health educator, nutritionist, sanitation technician, laboratory analyst, administrative assistance, secretary and two drivers.

Continuing education programs are another aspect of the Project designed to upgrade the promoter and auxiliary nurse's skills. Technical auxilaries will receive short-term training from the Outreach Team, periodically in addition to a 3-month supervisory course.

The Project also proposes to emphasize at the national level: decentralization of programming for personnel and budget activities; development of training goals with university training programs; utilization of paramedic personnel; increased preventive health programs; and improvement of logistical support, planning, administrative and information systems. The logistical support system is proposed, in order that rural health centers will maintain a continuous flow of drugs, vaccines, and other materials. The basic information and evaluation systems will be upgraded partially through basic data collection and analysis techniques performed by the paramedical staff. A planning and budgeting system facilitates the establishment of fiscal goals in the rural health system.

Population Component:

Family planning activities are not defined.

Nutrition Component:

The auxiliary nurses and promoters are trained to provide nutrition services, such as the detection of malnutrition. The Outreach Workers are capable of providing nutrition services.

More specific data is not provided.

Project Outputs:

(1) Persons at the national, departmental, and district levels are trained to carry out their roles in Montero RHDS through:

-- on-the-job training at the local level;

-- in-service training at all levels;

-- formal training at the district and departmental levels.

(2) Rural Outreach Workers trained and working in the RHDs service activities at the sub-district and local levels.

(3) Draft manuals outlining each systems' operations to guide the Montero RHDs service and support activities at all levels.

(4) Refined manuals based on the implementation experience of each of the systems of the Montero RHDs and all levels to guide further system development.

(5) Reports providing summaries and analyses of available data and recommending additional data gathering and information synthesis excercises.

Project Inputs:

The Project inputs and financial plan are outlined in Table A.

Host Country Activities:

The MOH has the responsibility for Project implementation and administration. A three-member executive committee headed by the MOH planning director is responsible for implementing all activities with the advice of the interministerial committee. The Project provides short-term technical assistance to the executive committee.

The GOB (Government of Bolivia) assumes responsibility for staff salaries and support costs for personnel involved in the Project. The Santa Cruz Committee of Public Works (OOPP) and the Methodist Church also provide in-kind contributions to the Project in the form of personnel, construction and office equipment.

Other Donor Activities:

There is no other foreign donor involvement in the Project. Food for Peace food products are expected to be utilized in conjunction with the Project.

Issues:

(1) Greater clarification of the activities in family planning is necessary.

(2) Differentiation between the daily tasks roles of the lower level community workers has not been included in the Project.

TABLE A : PROJECT INPUTS AND COSTS ($000's)

	AID	GOB	OO.PP. (a)	L.C. (b)	Com-munity	Total
Tech. Assistance						
a) Long term (85 w/m)	283.1					283.1
b) Short term (12 w/m)	79.4					79.4
Commodities						
a) Med. Equip.	25.0					25.0
b) Drugs & Vacc.	23.0					23.0
c) Train. mat.	5.0					5.0
d) Aerial Photo mat.	.5					.5
e) Vehicles	15.0					15.0
Other Costs						
a) Training		4.6*				
		10.0				14.6
b) Res.(Contracts, Comp.Analysis)		7.1	6.9			
			4.0*			18.0
c) Personnel		138.0*		11.2*	40.8*	
		84.6				274.6
d) Construction	3.0		27.0	4.0		34.0
e) Office Equip.		1.0		1.0*		8.1
f) Aerial photos		31.0				31.0
g) Maint. & rental of vehicles		7.0	5.0			12.0
h) Local travel & PD		10.0				10.0
i) Secr.(12 w/m)	1.0	7.6				8.6
j) Inv. travel	10.0					10.0
k) Special Studies	12.0					12.0
l) Seminars	28.0	2.0				30.0
m) Advertisement		.2				.2
n) Off. Utilities		7.2*		.4*		7.6
o) Housing (5 Bi ann)		16.8				16.8
p) Commodity trans.		9.0				9.0
Total	485.0	340.1	45.0	16.6	40.8	927.5
Cash	485.0	190.3	41.0	4.0		720.3
"In Kind"		149.8	4.0	12.6	40.8	207.2
% Participants	52%	37%	5%	2%	4%	100%

* "In Kind" Contribution.

(a) refers to Santa Cruz Committee of Public Works

(b) refers to Methodist Church

BOLIVIA

Project Title and Number:	Rural Health Delivery Services (Health Delivery Systems Loan), 511-9483. Project Paper has not been submitted.
Project Cost:	$4.2 million AID loan and $1.7 million AID grant (Total Project Cost -- $17.3 million)
Project Life:	FY1978-FY1981
Area Coverage:	Regional (60% of departments of Santa Cruz, Cochabambu and Chuquisaca)
Target Population:	800,000 persons

Project Purpose:

(1) To strengthen the planning and administrative capacity of the Ministry of Health (MOH) to enable it effectively to plan and executive a rural health delivery service program; and

(2) To extend a low cost, comprehensive health delivery system to the rural population, especially the young in the Department of Cochabambu and Santa Cruz and the Northern provinces of the Department of Chuquisaca.

Health Component:

The Project seeks: to decentralize MOH operations; to reorganize the system of providing public health services by creating a graduated referral system which is more specialized at each higher level; to augment the professional health staff with trained traditional practitioners and health promoters; to emphasize education and preventive measures; and to use community development techniques to reduce the costs of constructing needed additional helath facilities.

FACILITIES

Facilities, necessary to provide preventive and curative medical services, will be developed. Eleven health center hospitals (HCHs) will be converted into district health center hospitals (DHCH) by adding medical equipment and upgrading administrative services. Ten HCHs will be constructed and equipped while 25 other HCHs will be renovated. The HCHs provide services to populations ranging from 10-30,000 in the rural provincial centers. The HCHs are staffed by 2 physicians, 1 dentists, 2 graduate nurses, several auxiliary nurses, 1 administrator, 1 lab-technician, 1 pharmacist, several medical and nursing students, and several outreach workers. In constrast, the DHCHs service 100-250,000 people with a larger professional and support staff than the HCHs.

Medical posts (MPs) in isolated areas will be staffed to service 1-3,000 persons. A physician, 1 auxiliary nurse, 1 health promoter, 1 malaria eradication worker and 4 outreach workers will staff the posts. Sanitary posts (SPs) will also be located in rural villages and staffed by a health promoter, a malaria eradication worker and several outreach workers. The number and quality of the sanitary posts will be increased under this Project. An auxiliary nurse will treat or refer patients on a full-time basis, while a physician will make periodic visits.

HEALTH WORKERS

An estimated 600 traditional practitioners will be trained in the Project. These practitioners will receive training in basic medical care from the DHCHs, HCHS and health posts. Health education materials, health kits and transportation will be furnished.

Health promoters selected by the villages will be responsible for health promotion, construction of MPs and SPs, potable water facilities; community organization; and data gathering. Approximately 600 health promoters will be trained for 2 months at the HCHs. The health promoters and traditional practitioners will be paid workers, receiving supervision from the HCH, MP or SP.

The malaria eradication workers would receive additional training in preventive and curative medicine at the HCH in the Project. In addition to eradication activities the malaria workers will assist in vaccination campaigns, health information dissemination, drug distribution and sanitation activities.

MOBILE HEALTH UNITS

Mobile health units will service areas outside the impact area of the previously described facilities. The units will be located at the DHCH to facilitate their use in the district. These units, staffed by a physician, nurse, and other personnel, will attend to minor health needs and disseminate materials. The units provide technical assistance and supervision and training for outreach workers.

MANAGEMENT

The Project aims to strengthen MOH management and administrative capabilities at the regional and local levels. Short-term advisors and MOH personnel would design in the Project new systems and procedures in planning, evaluation and administrative support. In-service training by these advisors will be funded to instruct the regional and district level personnel in the implementation of the new systems. The district level personnel would then train personel serving the rural communities.

Nutrition Component:

The DHCHs will administer nutrition services. Additionally, the mobile health units will also provide nutrition information and services.

Community garden development will be financed under the Project. The gardens, planted by the Mother s Club, will provide for the food needs of the Clubs. The Clubs are designed to provide nutrition and other types of information to rural mothers and children.

Population Component:

The trained traditional practitioners will provide family planning services. Additionally, the malaria workers will disseminate family planning information. Mobile health units in the Project will provide family planning information and services.

AID will not purchase contraceptives or family planning education materials for the Project. Other donors will supply these materials; however, AID advisors will assist MOH personnel to design delivery and educational programs.

Project Outputs

(1) Construction and maintenance of 180 SPs, 10 HCHS, and renovation of 90 SPs, 10 MPs, 25 HCHs and 11 DHCHs;

(2) Provision of medical equipment and supplies and training materials for the health facilities and regional laboratories;

(3) Provision of 6 equipped mobile health units;

(4) Provision of office equipment and transportation vehicles;

(5) Training and technical assistance for district and regional MOH personnel;

(6) Provision of basic drugs for the MPs, SPs and HCHs and vaccination campaigns; and

(7) Provision of revolving funds for Mother's Clubs to finance cooperative activities.

Project Inputs:

Table A outlines financial inputs of GOB (Government of Bolivia) and AID.

TABLE A

Project's Financial Plan ($000)

	AID		BOLIVIA		TOTAL
	Grant*	Loan**	GOB	Community	
Construction	-	1,525	45	1,290	2,860
Equipment and materials	-	1,070	-	45	1,115
Mobile Health Units	-	240	-	-	240
Administrative Improvements	1,755	840	258	-	2,853
Operational Costs	-	1,510	4,754	3,934	10,208
Total	1,755	5,185	5,067	5,269	17,276

* The implementation period of the Grant is 5 years.
**The disbursement period of the Loan is 3 years.

Host Country Activities:

The principal GOB financial contribution to the the Project is in the form of on-going personnel costs of $4.7 million. This includes the salaries of Project support personnel in MOH, medical professionals and paraprofessionals, and regional administrative personnel.

The MOH regional and local will be responsible for the implementating the Project. Prior experience with other donor programs has enhanced their capabilities in administration and planning.

Other Donor Activities:

Complementing AID's loan program are projects financed by PAHO (Pan American Health Organization) and UNICEF (United Nations Children's Fund). PAHO is providing technical assistance at the national level in sanitation, administration, malaria control, and education. UNICEF supports the expansion of regional development programs in Chuquisaca and Tarya; thus facilitating the initiation of coordinated projects.

UNFPA (United Nations Fund for Population Activities), Pathfinder, and IPPF (International Planned Parenthood Federation) will supply family planning materials to the Project.

Issues:

(1) More information is needed concerning the specific tasks of paramedical personnel in the health facilities and in the communities.

(2) The roles played by other government ministries in the Project should be further defined.

(3) Possible resistence by traditional practitioners and community members to the new health system has not been explored sufficiently in the PRP.

Source of Information: Bolivia Rural Health Delivery Services Project Review Paper.

BRAZIL

Project Title and Number: Integrated Health Delivery Systems, 512-0089

Project Cost: $7.6 million AID Loan (Total Project Cost--$26.2 million)

Project Life: FY1974-FY1978

Target Population: Less than 3 million

Area Coverage: Regional (3 northeast states)

Project Purpose

To enable Brazil to determine, by field trials, effective multipurpose low cost patterns, for the equitable distribution of services in the health sector.

Health Component:

The Project proposes to select trial research areas in three states to test several hypotheses. In northern Minas, western Paraiba, and Pernambuco States the following types of analyses are planned:

(1) Design of an administrative and technical health delivery system which is capable of reaching 70% of mothers and children as compared to present access of 20%.

(2) Test the hypothesis that high population accessibility can be achieved in two ways:

-- in the Northern Minas Gerais Region (centered around Montes Claros) through low cost delivery systems which rely on public sector employment and training of auxiliary health personnel and the provision of simple facilities.

-- in Paraiba and Pernambuco (centered around Patos and Caruaru) through low cost delivery systems which do not rely on significant increases in public sector employment or resources but on cooperation between existing government services and private sector participation of indigenous midwives, practitioners, and community volunteers.

(3) Measure the degrees of accessibility to selected population target groups, women of reproduction age and children under the age of 5 years.

(4) Evaluate performance of the health delivery system to determine the desirability for continued support by Brazil.

(5) Encourage replicability of suitable delivery system patterns in other areas of Brazil.

A substantial portion of the project involves human resource development. Loan funds support the training of: multi-purpose and maternal and child health auxiliaries who operate from auxiliary units, clinical attendants, midwives, and home visitors. A limited degree of professional third country training is provided in the Project for 17 state and regional health officials. Curriculum development activities are planned for the Northern Minas Medical School in various health fields.

Loan financing of technical assistance is necessary for continued project design, development, and implementation of the Northern Minas Regional model. This model is based on a detailed study prepared by Tulane University and suggests the development of 200 auxiliary units in the Region. No construction activities are financed by the loan, however, the participating counties will donate existing facilities to be renovated. Brazilian financing in the Project will be used to increase the service capacity of 44 clinics and existing hospitals according to the Capital Assistance Paper (CAP).

Minimum health tasks to be provided by the 603 home visitors in the Minas Model include health promotion, data collection, immunizations, referral and follow-up, and diarrhea disease investigations. The 398 trained auxiliary workers perform family health evaluations; health promotion, treatment and referral and follow-up for the family unit; implementation of family treatment programs incorporating intestinal parasite treatment, relief of common aches, tooth extraction, immunizations, pre-natal and post natal care, first aid, and supervision of home deliveries performed by midwives; laboratory tests; and record-keeping. The 104 clinical attendants are trained (3 months) to work as assistants in the local ambulatory clinics. The 603 health volunteers serve as community "vigilants" and nursing setters. Volunteers receive 3 weeks of training and are supervised by the home visitors. Local midwives are selected from the traditional birth attendants. The midwives work closely with the maternal and child health (MCH(auxiliaries.

At the intermediate and regional levels in the Mindas Model general and specialized professional health personnel provide outpatient care and hospital services. This collection of activities includes supervision of lower level personnel, outpatient and specialized medical care, laboratory tests, patient referral, health education, and record keeping.

The Project also proposes the development of the Central Regional Executive Health Center to enhance the state health department's regional administration and supervisory authority. The quality and quanity of staff will be improved in order that they may assume the routine administration of health services in the region.

In both Paraiba and Pernambuco the Project proposes to explore the administrative feasibility of improving the effectiveness of existing formal state health systems by linking traditional strategies for developing delivery systems which can reach 50% of the women and children with minimum health services. Unlike Northern Minas, a predetermined model is not to be implemented. The upgrading of indigenous health worker skills and subsequent supervision are the major foci of this project component. Technical assistance necessary to assist state health personnel includes: (1) researching alternative delivery systems; (2) training in limited fields of maternal and child health; (3) regular supervision of services provided by non-formal personnel; (4) assessment of access of mothers and young children through sample surveys; and (5) collection and updating of basic statistical data on types of services provided.

The technical assistance component of the Project for Paraiba and Pernambaco states is directed at both target regional activities and broader aspects of planning, training, and evaluation. Basic project implementation is the responsibility of interdisciplinary teams of regional level health officials. Foreign and Brazilian personnel provide the technical assistance throughout the Project.

The training component of the Project for Paraiba and Pernambuco is designed to upgrade existing professional and paraprofessional skills. According to the CAP auxiliary training in the first year is provided for 400 community auxiliaries, 40 nurse auxilaries, 220 health post attendants, 55 sanitary auxiliaries, 6 sanitary inspectors, 25 laboratory auxiliaries and technicians, 6 statistical auxilaries, 400 midwives, 10 administrative auxilaries, 12 administrative and accounting assistants, 3 X-ray operators, and 20 retraining nurses. Limited participant training in the first year is provided for health planners, epeidemiologists, health administrators, administrative personnel, and obstetricians.

Counterpart contributions to the Project are mainly derived from basic health programs existing in the two states. As the Project is implemented, the regional programs in management, medical assistance, dental assistance, immunization, nutrition, sanitation, statistics and rural integration are to be modified according to the CAP.

A Central Level Technical Administrative Group is proposed within the Ministry of Health (MOH) to administer and coordinate the 3 pilot projects. Technical assistance in the Project partially focuses on assisting the MOH in: (1) management and evaluation of 3 pilot projects; (2) developing of a training plan for the upgrading of MOH and state health personnel; and (3) preparation of plans for replicating suitable health delivery systems in areas where applicable.

Nutrition Component:

The home visitor in the Minas Model is capable of weighing and measuring all children 0-5 years and promoting breast-feeding, child care and nutrition. The auxiliary worker provides anemia and malnutrition treatment, infant care promoting nutrition, and food preparation and production demonstrations.

In the other two regions, 60 nutrition auxilaries provide services in nutrition, such as identification of malnourished infants and children, nutrition education, treatment of diseases associated with malnutrition, and basic food preparation.

Population Component:

Not defined.

Project Outputs:

(1) Returned participants employed in Brazil in key federal and state positions.

(2) A viable administrative mechanism organized for the coordination, monitoring, and replication of health care system pilot program.

(3) In-country training courses, both long and short-term, in health care delivery systems, developed and operating.

(4) MOH evaluation of project process including comparative evaluation of coverage, target population, behavioral change, and outcome measurements, such as infant mortality rate, crude death rate, etc.

(5) MOH supported in-country program to develop well qualified health planners and administrators.

(6) MOH organized and coordinated annual conferences on health care delivery systems.

Project Inputs:

Table A outlines project inputs.

Host Country Activities:

Management of the Project is the responsibility of the Central Technical Administrative Groups (GTAC) newly created within the MOH. This management groups specifically:

- manages a special account into which local currency funds will be deposited and dispersed;
- allocates U.S. program funds to the states;
- monitors the technical, administrative and financial aspects of the three pilot projects;
- prepares quarterly reports for MOH and AID; and
- provides program coordination.

Other Donor Activities:

The main thrust of technical assistance for the Project is provided. by PAHO (Pan American Health Organization) in the form of short-term consultants and 2 full-time health systems specialists.

Issues:

(1) The family planning activities are not defined in this CAP.

(2) Coordination of technical assistance activities is necessary at all levels of the Project.

Source of Information:

Brazil Integrated Health Delivery Systems Capital Assistance Paper.

TABLE A

SUMMARY FINANCIAL PLAN

(in thousands U.S. dollars)

SUB-PROJECT	COST ESTIMATES	SOURCES OF FINANCING			
		A.I.D.		G.O.B.	State/Local Other
	TOTAL	$	L/C	L/C	L/C
1) MINAS GERAIS					
Tech. Asst.	1,514	900	440		174
Training	927	170	725		32
Aux. Units	2,400		1,365		1,035
Complementary Health services	6,183			125	6,058
Administration	327			110	217
Community Medicine	295			265	30
Sub-Total	11,646	3,600		500	7,546
2) PERNAMBUCO					
Tech. Asst.	1,052	548	504		
Training	660	120	328	212	
Complementary Health Services	4,812			288	4,524
Sub-Total	6,524	1,500		500	4,524
3) PARAIBA					
Tech. Asst.	836	548	288		
Training	938	72	592	274	
Complementary Health Services	4,850			226	4,624
Sub-Total	6,624	1,500		500	4,624
4) CENTRAL LEVEL					
Tech. Asst.	500	500			
Training	600	500		100	
Administra.	400			400	
Sub Total	1,500	1,000	1,000	500	
GRAND TOTAL	26,294	3,358	4,242 7,600	2,000	16,694

COLOMBIA

Project Title and Number:	Health Delivery System (PRIMOPS) 931-055
Project Cost:	$942,970 AID grant
Project Life:	FY1975-FY1978
Target Population:	90,000 persons
Area Coverage:	Regional (5 barrios in Cali)

Project Purpose:

To establish a model of a low cost health delivery system in the Union de Vivienda Popular area of Cali, emphasizing an integrated approach to health (maternal and child health, nutrition and family planning) which is replicable throughout Colombia.

Health Component:

The Ministry of Health (MOH) has supported a number of experimental health models designed to redistribute health services in Colombia. One of these experimental model programs is PRIMOPS (Research Program in Health Delivery Prototype Service). PRIMOPS is a research unit in the Health Division of the Universidad del Valle. The unit was created to develop, implement, and evaluate a health delivery system model which provides wide coverage of health services. This experimental methodology for service delivery designed by PRIMOPS, will be used by the MOH to deliver health services in other areas of the country.

PRIMOPS seeks to develop and test a model which is cost-effective, efficient, and maintains quality of work performance. The proposed PRIMOPS model contains such elements as: (1) training of nurse auxiliaries and promotoras; (2) the practice of simplified preventive and curative medical care; (3) community participation; and (4) linkage with traditional practitioners.

The PRIMOPS model plans to corporate the concepts of the regionalization system of the Ministry of Health. As a result, several levels of health care are available in the model differing in complexity of services offered, size, and administrative and training capabilities. The following discussion generalizes the type or regionalization network within Colombia:

(1) In the home the delivery of a simple medical service is planned for children 0-5 years of age. The auxiliary nurses, promotoras, and indigenous midwives administer these services acccrding to the Project Paper.

(2) In the health post integrated services are provided to barrio residents by promotoras and nurse auxiliaries. Four new facilities are to be constructed.

(3) At the health center more complex services are provided by professional personnel as well as nurse technicians and auxiliaries.

(4) At the peripheral and regional (University) hospitals secondary and tertiary medical services are available.

The PRIMOPS model incorporates the development of external and internal program evaluation methodologies which are important to defining project replicability. Six selected epidemiological and socio-anthropological research sutdies are also proposed in the PRIMOPS mode. In collaboration with Tulane University, PRIMOPS plans to develop the previously mentioned evaluation methodologies and research studies.

The socio-epidemiological research proposed in the Project include:

(1) measurement of the degree of community acceptance of the PRIMOPS program and identification of changes in time of knowledge, attitudes, and practices regarding health, disease, and utilization of health services.

(2) measurement of the degree of acceptance of field health personnel, in the target area vis-a-vis type of services offered, methodology, and interpersonal relationships created by the problem.

(3) Other relevant investigations as agreed to by the PRIMOPS Directorate.

The epidemiological research studies proposed are:

(1) Analysis of the planned PRIMOPS evaluation scheme.

(2) Identification of the most appropriate methodology able to pinpoint a "comparison group" and a "control group" in order to facilitate PRIMOPS program evaluation.

(3) Measurement of the effectiveness achieved by PRIMOPS in terms of morbidity and mortality by level of health care (i.e., type of health facility and services provided).

(4) Study of the effectiveness and efficacy of the health activities delegated to the auxiliary nurse and urban health promoters compared to similar effects achieved through traditional approaches.

(5) Other relevant investigations as agreed to by the PRIMOPS Directorate.

Counterpart training for 3 Colombian researchers is proposed through a sub-contract between Tulane University and the University del Valle in the area of evaluation methodology. Short-term training is also planned for 15 PRIMOPS staff members in terms of field visits to other Latin American low cost health delivery sytems.

Nutrition Component:

Epidemiological research is planned to determine the effectiveness and efficiency of the PRIMOPS model in terms of alleviating the incidence and prevalence of malnutrition. No other information is provided with regard to the types of nutrition services offered in the barrio health facilities.

Population Component:

Epidemiological research is proposed to determine the effectiveness of PRIMOPS in terms of fertility indicators by level of health care (i.e. health facility and type of services provided). No other relevant data is provided in the PP with regards to the type of population services offered in the barrio health facilities.

Project Outputs:

Project outputs and output indicators are presented in detail in Annex A.

Project Inputs:

Table A defines project inputs.

Host Country Activities:

The PRIMOPS staff is trained to operate the Project without external foreign assistance according to the PP. The MOH and University del Valle provide counterypart staff to participate in the Project.

TABLE A: PROJECT INPUTS AND COSTS

INPUT	PHASE I		PHASE II
	FY 75-76	FY 76-77	FY 77-78
A. U.S. BUDGET vs 942,970	$359.902	$313,021	$270046
1. Personnel Resources	250.039	225,162	198,522
2. Other Direct Costs	68,005	44,830	34,760
3. Indirect Costs	51,370	43,029	36,764
B. Government of Colombia (Health Sector Loan)			
1. Budget Service, Operations and Personnel Support	$210,666	$210.666	$210,666
2. Direct Support to PRIMOPS for program development, administration and evaluation	$111,457	$111.457	$111.457

TOTAL U.S. AND GOVERNMENT OF COLOMBIA INPUTS = 343 man, year efforts or U.S.$1,906,240

Other Donor Activities:

No other donor agency contributes to the Project.

Issues:

(1) A more definite description of the nutrition, health, and population services to be delivered in the Project is needed in the PP.

(2) A greater analysis of the task roles of the auxiliary workers is also needed in the PP.

Source of Information:

Colombia Health Delivery Systems Project Paper (PROP).

COLOMBIA

Project Title and Number: Health Sector Loan II, 514-2046

Project Cost: $17.3 million AID Loan

Project Life: FY1975-FY1978

Target Population: Not Defined

Area Coverage: Not Defined

Project Purpose:

To support a continuing expansion of GOC (Government of Columbia) investment and new policy initiatives in the health sector including the extension of public health coverage through improved and increased maternal/child care (MCH); regionalized scheme of services which will permit unified direction and coordination of all public health activities, preventive and curative; greater delegation of function and more rationalized location of facilities; expanded training for health; improved rural sanitation; enlarged preventive campaigns of disease control and eradication; expanded operational research; increased production of medical inputs; improved sector planning and administration; and the import of needed commodities for the sector such as vehicles, communication equipment, fixed hospital equipment, well-drilling rigs and insecticides.

Health Component:

The Project to be supported by the AID loan consists of the entire central government public health investment budget; thus complementing AID programs in rural sanitation, MCH, nutrition, disease control, and health prevention initiated in previous years. The loan proposes:

-- broadening the coverage of services through regionalization giving priority attention to maternal/child care and increasing emphasis on preventive medicine;

-- expanding personnel training through revised curricula, for auxiliary personnel, thus increasing incentives and providing greater delegation of functions.

-- strengthening operational and applied bio-social research;

-- increasing more rational investment in hospital construction and equipment through a reinforced single mechanism for channelling funds and planning priority projects;

-- improved mechanisms of intra-and-intersectorial coordination especially related to nutrition, maternal/child care, health education, urban development, and rural sanitation.

There are three major activity areas in the Project -- maternal/child care, training, and improvement of planning and administration. Funds allocated to MCH activites are to be used to: (1) expand this Project to operate from all hospitals, health posts, and centers in Colombia, (2) to have proper equipment, personnel and supplies available to carry out a program which will provide pre-natal care to 50% of the target population and post-partum care: 93) to provide consultations to 70% of the children under 1 year and 35% of children 1-4 years annually; and (4) to utilize malaria workers and health promotoras to extend the program.

The Project proposes to increase training for auxiliary, professional, and administrative personnel. This includes training for auxiliaries in nursing, dentistry, sanitation, statistics and administration; maintenance training; hospital administrators; and expansion of the National School of Public Health. In-service training seminars are planned for professional and technical support personnel.

In the area of planning and administration the development of a new administration system and supply system, in addition to equipment and training for the new information system, are planned activities. A communication system linking the various levels of service is to be installed and additional ambulances purchased.

Other activities proposed by the Project include SEM (Malaria Eradication Service) immunization campaigns against smallpox, whooping cough, tetanus, diptheria, polio, measles and tuberculosis as well as other disease control programs. INPES (National Special Health Projects Institute) receives AID Project funds to perform operational, biochemical, and bio-social research. The Project proposes to expand INPES' program of financing and improving construction of rural water and sewerage projects. The production of biologicals is also included in the Project.

Nutrition Component:

Health promotoras (2,500) are assigned half-time to the Colombian Family Welfare Institute's (ICBF) Nutrition Program.. Their role in the ICBF program is not explained.

Supplemental feeding programs are also proposed.

Population Component:

Family planning services are planned for 6.6% of all women of fertile age. No specific data is provided with regard to the providers of these services.

Project Outputs:

The specific outputs of the Project are not delineated; however, the general improvements in the the health sector, as a result of the expansion of the GOC's investment, are described below:

Health Prevention

Health prevention, an important and integral part of the sector program, will receive a variety of assistance from several donors and AID as well as sizeable GOC resources. The following results from the expansion of GOC support to the activity are expected:

(1) Maternal/Child program consultations will reach 50% pre-partum women, 35% post-partum women, 70% children under 1 year, 35% children 1-4 years, and 15 children 5-14 years.

(2) At least 452,500 women (7.6% of women in fertile age) will be contraceptive users in the MOH/MCH program.

(3) An increase to 10,000 rural and urban slum part-time health promotoras in the MOH/MCH program; 2,500 of these promotoras will also work half-time on the ICBF/Nutrition Program.

(4) MOH will develop with ICBF assistance a plan for old people's care.

(5) Improved facilities will be developed for treating drug addiction.

(6) Provide supplementary feeding with Colombian and donated foods to 295,200 pregnant and lactant mothers, 934,500 pre school children, and 1,700,000 primary school children.

(7) Provide institutional care, substitute parents, and training to abandoned children (20,000) annually.

(8) Provide 2,000 adoptions, 15,000 legal defenses for minors, 261,000 family legal consultations, and 53,000 civil actions for minors annually.

Health Protection

(9) Control of malaria through 3,553,000 home visits yearly for spraying and for case identification and treatment.

(10) Control and eradication of yaws with 151,568 home visits yearly for case identification and treatment.

(11) Control of yellow fever through spraying and vaccination.

(12) Achieve and retain an 80% of population vaccination level against smallpox, whooping cough, tetanus, diphtheria and tuberculosis.

(13) Achieve and retain an 80% (of 2 mos. to 5 years old population) vaccination level against polio and measles.

(14) Increase tests for venereal disease, increase health standards required for entry into Colombia, develop system for epidemiologic vigilance, and improve data on accidents for prevention purposes.

Health Recuperation

(15) Complete, remodel, and enlarge 239 hospitals which will provide 11,537 new beds and 13,724 improved beds (Total approximately 41,564 beds)

(16) Complete 637 new health posts and centers for a total of 2,485.

Human Resources Training

(17) Professional training will be provided to 730 persons in short-term courses and 1,340 person in long-term.

(18) Auxiliary and technical training will be provided to 6,130 persons in short-term courses and 3,585 persons in long-term courses.

(19) In-service training seminars for professional and technical personnel will be held.

(20) The National Health Library will receive additional volumes.

(21) Contracts will be signed to maintain 3 training centers for the above short and long-term training at San Juan de Dios Hospital, Bogota; School of Public Health, Medellin; University of Valle, Cali; and SENA Bogota Maintenance Training Center.

Research

(22) A variety of research will be conducted, however, the emphasis will continue to be on applied bio-social research. Studies to be continued or completed include:

- PRIMOPS - Program for low cost health delivery system.
- Medical attention institutions.
- Health sector financing
- National morbidity study
- Occupational risks in the textile industry.

Complementary Inputs

(23) Additional equipment and laboratories to be provided for tuberculosis detection, rabies control, pure food inspection, and testing of water, fluoridation, and air contamination so that all Sectional Health Services have this capability.

(24) Provide home water filters for rural areas.

(25) Purchase vehicles and establish communication system for the health sector.

Improved Planning

(26) Develop and install a new administration and supply system for the sector.

(27) Install equipment and training for the new information system.

(28) Complete construction and equipping for the MOH building.

Rural Sanitation

(29) Complete 530 aqueducts covering 293,500 persons and 570 aqueducts covering 245,500 persons.

(30) Complete 250 sewer projects covering 130,000 persons and 270 sewer projects covering 141,000 persons.

(31) Provide 200 rural schools with latrines and water.

(32) Purchase additional equipment and supplies for above projects.

Project Inputs:

The disbursement of projects funds is outlined in Table A.

Host Country Activities:

Implementation responsibility for the program rests with the MOH. The National Planning Department is responsible for monitoring and evaluating program implementation. SEM (Malaria Eradication Service), National Special

TABLE A

DISTRIBUTION OF PROJECT FUNDS

	(Millions of Current Pesos) 1975	1976
1. Maternal Child Care	70.8	84.0
2. Training	102.0	141.7
3. Improvement of Planning & Administration	42.0	36.0
4. Others	86.0	116.0
Total	300.8	377.7

Health Projects Institute, Colombian Family Welfare Institute (ICBF) and FNH (National Hospital Fund) are sub-implementing agencies.

Other Donor Activities:

This Project was planned in close coordination with PAHO (Pan American Health Organization) and UN (United Nations) technical assistance programs; World Food Program, CARE, and CRS (Catholic Relief Services) food donations; as well as proposed hospital equipment financing from the British Government.

Issues:

(a) An identification of specific target outputs is necessary in the Project.

Source of Information:

Colombia Health Sector Loan Capital Assistance Paper.

DOMINICAN REPUBLIC

Project Title and Number: Health Sector Loan I, 517-0107
(Loan #517-2089)

Project Cost: $4.7 million AID loan (Total Project--$11.6 million)

Project Life: FY1976-FY1979

Target Population: 1.8 million

Area Coverage: Regional

Project Purpose:

There are three project purposes for the Dominican Republic health sector loan. They are:

1. To reduce infant and preschool child mortality rates and crude birth rate in the geographic area subject to program intervention.

2. To improve performance of SESPAS in managing public health systems and fulfilling health policy and the planning role.

3. Develop a nutrition program which will provide the basis for long-term improvement in the nutrition status of the country.

Project Background:

The Government of the Dominican Republic (GODR) has the problem of reversing a deteriorating living situation for poor people in the country.

Despite a high economic growth rate in recent years the gaps between a new and properous middle class and the poor grows wider. Unemployment is estimated by the International Labor Organization to be $40%. Infant mortality in the Dominican Republic is 104 per 1,000 live births for 1978 and 1974--more than twice as high as Barbados, another Caribbean Island.

Health Component:

The Rural Basic Health Service (RBHS) is a system of rural-based health care delivery planned by the National government. This system is to be administered by the National Malaria Eradication Service (SNEM) of the Secretariat of Public Health and Social Assistance. SNEM's administrative offices will be increased to insure successful operation of RBHS. This AID health loan proposes to assist the GODR in the development of the RBH system.

This RBHS program contemplates the implementation of a system of basic health care in those rural communities with fewer than 2,000 inhabitants. One local female health promoter will be trained for every 400 inhabitants in the villages. An auxiliary nurse will be trained as a supervisor, and each of these women will provide supervision for ten health promoters. These auxiliary nurses will have their headquarters in a dispensary or health center, where one is available. If none is available, she will work from her home. An additional nurse auxiliary will be used to provide supervision and training for every twenty nurse auxiliaries. These nurse auxiliaries, hired to supervise other nurse auxiliaries will be experienced personnel given additional training by a supervising graduate nurse. The program will be launched in one of five regions the first year and expanded to two additional regions each subsequent year. A physician trained in public health will be responsible for the supervision and management of the program as as a whole as well as for its periodic evaluation. The physician will be recruited as Deputy Director of SNEM and also serve as Medical Director to RBHS.

The following is a list of the basic functions of health promoters, auxiliary nurses, auxiliary nurse supervisors, graduate nurses and medical directors and the role the AID health loan plays in the basic health service program.

Health Promoters

A Committee for the Improvement of Health (or like committee) will be formed in each community included in this program. This committee will select a woman from the community to be trained as a salaried health promoter. The committee will have the authority to recommend that she be retained in her position or that she be removed. The only prerequisite for a candidate to be considered as a promoter is that she be able to read and write. It is expected that 4,000 health promoters will be trained in the AID project to perform:

-- demographic data collection,

-- prenatal care (promoter will be able to identify high obstetrical risk women)

-- immunizations (vaccinations against diptheria, pertussis, tetanus, measles)

-- oral rehydration of children with diarrhea, and

-- treatment of respiratory infections.

Auxiliary Nurses

Approximately 400 auxiliary nurses are to be hired and trained during the three-year course of the Loan program. Since there are presently five schools in the Dominican Republic now graduating nurse auxiliaries, there is now a surplus of these aides. The auxiliaries to be hired under the Loan program are to be paid slightly more than is usual for these paraprofessionals, thus no problem is foreseen in obtaining the requisite number of nurses. The auxiliary nurses upon completion of training will rely heavily on a Manual of Diagnosis and Treatment, which describes the symptoms of the diseases most frequently encountered in rural areas and the appropriate treatment for these conditions. Through the use of this guide, the auxiliary nurse should be able to recognize and treat minor illnesses, to provide first aid, and to refer to a physician or hospital those cases which require more intensive care.

The auxiliary nurse will supervise health promoters and request the materials and equipment needed by the health promoters to implement the basic health service program.

Auxiliary Nurse Supervisor

Twenty-two experienced auxiliary nurses will also be employed to supervise the auxiliary nurses just described. It is felt that doing so will serve as an incentive to the auxiliary nurses at the more basic level since the latter can aspire to becoming supervisors on the basis of outstanding performance. The primary function of these paraprofessionals will be to provide supervision for the auxiliary nurses. They will be involved in the continued training programs of both nurse auxiliaries and the promoters. These supervisors will have their headquarters in an area health center.

Graduate Nurses

A graduate nurse will be appointed to each of the five health regions in the country as the regional director of the program of basic health services in rural areas. Her primary functions will be that of supervising the auxiliary nurse supervisor and being responsible for carrying out the continuing training program for the promoters and supervisors. She will be directly involved in health education at the community level.

Medical Director

A public health physician will be the Director of the National Program of Basic Health Services for Rural Area. He or she will be responsible for the implementation evaluation and supervision of the health program. Administrative reform of the Secretariat for Health (SOH) is deemed urgent by the Project Paper. An AID-financed contract is proposed with a U.S. private agency to provide assistance to SOH. Reform is planned in such areas as human resource development and personnel administration, planning

and evaluation systems, information systems, logistical systems, and hospital administration. To provide a monitoring mechanism, a technical Office for Administrative Reform is planned with SOH.

Nutrition Component:

The health promoter is responsible for encouraging and promoting breast feeding. The promoter will provide instruction in weaning practices and refer malnourished children to health centers for treatment. The promoter, during one week of her three week training period, will work in a nutrition recuperation center to acquire a background in appropriate child feeding practices.

Other nutrition activities of the loan are particularly interesting because they are administered by the Secretariat of Agriculture. The Secretariat will develop an organization with a nutritional focus, called the Office of Nutrition Coordination (ONC). It will serve as the implementing sub-agency for the nutrition component of this health sector loan. The ONC will be charged with center policy formulation and coordination to improve nutrition and execution of some project activities It will work closely with the Secretariat of Health on health projects and activities and the Secretariat of Education on educational aspects. One of the proposed functions of the ONC is more research on the determinant of malnutrition and the cost effectiveness of current and future nutrition programs. A food relief/behavior pattern study pattern is proposed to identify more precisely the variety of prejudicial traditional beliefs and taboos which exist in the DR (Dominican Republic).

Another activity of the ONC would be to develop a national nutrition education and awareness program. This activity encompasses a series of projects designed: (a) to reach the target group better through educational programs and better nutritional practices; (b) to provide training to upgrade the capabilities of professionals in the field of nutrition; and (c) to create a national awareness and understanding of the problem of malnutrition among GODR officials, public and private leaders and the public media. This education and awareness program involves media education and promotion campaign, high-level training for professionals in the Ministries of Health and Agriculture, and a series of nutrition seminars to engender widespread public interest in nutrition.

In conjunction with the organizational arrangements and educational functions, a rural nutrition recuperation program will be undertaken within the scope of the loan. Sufficient resources are not available to undertake treatment on a nationwide scale of all of the malnourished children in the DR. The Government has agreed, however, to initiate five government sponsored nutrition recuperation centers for demonstration and training purposes.

The other area of nutrition intervention within the scope of the health sector loan will be the development of a good supplement program aimed specifically at children zero to two years of age and pregnant and nursing women. The Government has proposed to develop, with loan assistance, commercially marketable food supplements specifically designed for consumption by this target group. These products, one for small children and the other for mothers, will be a low cost highly nutritive food, which will probably be made available through normal commercial food distribution channels. In order to ensure the success of this aspect of the program, comprehensive and thorough planning and product formulation and testing must take place before the supplement is made available commercially. To achieve this end, a food supplement feasibility study will be undertaken in order to provide the Government with a satisfactory plan governing the technical administrative, financial, social, and economic aspects of a food supplementation program.

Population Component:

The health promoter is also capable of providing family planning services. The promoter will work with the existing village midwives in this area.

Project Outputs:

Three specific areas of outputs will be noted at the end of the project. They are:

1. Establishment of a low-cost health delivery system for the 1.8 million rural and urban corps not served by the existing public health system.

2. Nutrition

   - Establish an Office of Nutrition Coordination.
   - Carry out a mass media education and promotion Program.
   - Undertake research
   - Develop a food supplement program.

3. Carry out management reform in SESPAS (Secretariat of Health)

Chart 1 of the Logical Framework Matrix in the Project Paper indicates the end of project status and ouput indicators to be achieved by the end of the Project. These ouput indicators also demonstrate the specific types of activities to be undertaken during the course of the project.

Project Inputs:

Table A outlines financial estimates for the Project.

Host Country Activities:

The Secretariat of Health (SOH) has been designated as the agency responsible for program implementation. A Loan Coordinator receives policy guidance from a Central coordinating Committee appointed by the SOH. The Coordinator will rely extensively on the designated representative of each implementing agency for support.

Other Donor Activities:

No other donor agency is involved in this Project's activities.

Issues:

While the GODR loan is probably one of the best written in terms of specific activities identified and elaborated, specific skills and functions performed by the various health workers are as yet not adequately defined. It is interesting to note that three level of integration are seen in this particular project. They are:

- organizational integration (i.e., Secretariat of Agriculture and Secretariat of Health),
- funding integraiton (i.e., GODR and AID contributions), and
- manpower integration (.e., levels of health workers).

Source of Information: Dominican Republic Health Sector Loan Project Paper.

TABLE A

FINANCIAL ESTIMATES AND PLAN

IN U.S. $000

Program Element	GODR Pesos	A I D US$	A I D Pesos	Total US$ Equivalent[1/]
1. Low-Cost Health Delivery System (Basic Health Service program that includes rural and urban systems)	4,743	1,125	521	6,389
2. Nutrition Program	673	435	321	1,429
3. Institutional Development of the Secretariat of Health	1,503	1,791	532	3,826
Total	6,919	3,351	1,374[2/]	11,644

1/ Peso amounts given throughout this document are on the basis of RD$1 Dominican peso equals US$1.00.

2/ Total budgeted AID contribution $4,725,000.

DOMINICAN REPUBLIC

Project Title and Number: Health Sector Loan II, 517-0120 (PID Stage)

Project Cost: $7 million loan (Total Project Cost--$14 million)

Project Life: FY1979-FY1983

Target Population: 175,000

Area Coverage: Regional

Project Purpose:

(1) Provide potable water for 25% of the communities served by Basic Health Services program.

(2) Expand the Health Services program and provide additional training to health promoters.

Health Component:

This two part program plans to develop low cost mechanisms to provide potable water and health services to rural communities. The Project is designed to issue potable water to residents in 625 communities which are also served by low cost health delivery systems initiated in another AID loan. Several approaches to the delivery of potatable water will be examined in the Project. The use of windmills has been identified as a likely choice.

The other Project component will increase the scope of the low cost health care delivery system by providing training for those health promoters currently working in the rural health care system. Equipment (such as scales, sterilizers, and examining tables) will also be furnished to rural health clinics. The health promoters upon completion of training should be capable of diagnosing pre-eclampsi and diabetes in pregnancy and of referring such patients to rural clinics. Other tasks to be performed by the promoters will result from training initiated in another AID fundeded low cost health delivery system project.

It is known that the health promoters trained by the other AID health delivery system loan provide immunization, minimal prenatal care, treatment of respiratory infections, and oral rehydration of infants and young children with diarrhea.

Health educational materials will be distributed in all homes served by the Basic Health Services.

Nutrition Component:

The health promoters are capable of providing nutrition education services as a result of training funded in AID project.

Population Component:

The health promoters are capable of distributing condoms, contraceptive pills and family planning educational materials.

Project Outputs:

(1) Provision of potable water for 175,000 inhabitants in 25% of the 2,500 communities served by the low cost health delivery system.

(2) 4,000 health promoters capable of diagnosing pre-eclampsi and diabetes in pregnancy and of referring such patients to rural clinics for appropriate care.

(3) 618 additional health promoters to serve in 206 communities with rural health clinics and capable of providing various types of health services.

(4) Rural clinics capable of providing appropriate care to patients referred to them by promoters.

(5) The provision of health and family planning educational materials in all homes served by the Basic Health Services Program.

Project Inputs:

Project inputs include the following:

- institutional capability for construction of potable water systems,
- tanks, pipes, faucets, pumps and windmills,
- sphygomomanometers and stethoscope,
- kits for analyzing the presence of sugar and albumin in the urine
- health and family planning education pamphlets,
- equipment for rural clinics
- medical supplies

Estimates of the budget costs are:

Training of Promoters	$500,000
Salary of Promoters	2,000,000
Vaccines	800,000
Materials and equipment	2,700,000
Potable Water	8,000,000
	$14,000,000

AID will provide a $7 million loan and finance about one-half of the above costs. The GODR and the affected communities will provide the other half.

Host Country Activities:

GODR (Government of Dominican Republic) is currently participating in other health programs which directly affect this project. However, specific host government activities for this Project were not defined.

The GODR is implementing a program for the provision of rural potable water with funds from the Inter-American Development Bank (IDB). In addition, some rural clinics will be constructed and equipped with World Bank funding.

The GODR, with funds from AID loan 517-0028, is currently implementing a low cost health care delivery system project utilizing village health workers. Both of these AID projects will complement each other primarily because the same village health promoters are being trained in the two programs. The proposed loan project outlined in this PID (Project Implementation Document) builds on the training initiated in the first AID loan.

Other Donor Activities:

No other donor involvement is indicated in the project.

Issues:

(1) The supervisory mechanisms are not defined in the PID and require further analysis.

(2) GODR interest in maintenance of the water systems and support of the health promoters are essential to the program's success, once AID funding is withdrawn.

(3) GODR financial commitment to the project are substantial however, the PID does not outline recurrent and fixed costs and their impact on the GODR.

(4) the continuation of this Project depends in part on the effectiveness of training health promoters funded in another AID health loan.

(5) A more detailed analysis of the proposed water system to be tested is required in the PID.

(6) An outline of all tasks to be performed by the health promoters is necessary to understand where these new tasks will fit into the promoters existing work routine.

Source of Information: . Dominican Republic Health Sector Loan II Project Implementation Document

EL SALVADOR

Project Title and Number:	Rural Health Services Delivery 519-0179 (PRP Stage)
Project Life:	June 1978 - December 1980
Project Cost:	$652,000 AID Grant (Total Project--$1.59 million)
Target Population:	210,000
Area Coverage:	Regional

Project Purpose:

The Project is designed to provide technical assistance and support to the Government of El Salvador (GOES) Ministry of Health in the further development and institutionalization of its Rural Health Aide (RHA) training activity.

In the Project Review Paper (PRP) the project purpose is stated in terms of designing and testing a pilot rural delivery system using selected local communities and rural health workers. It was not clear whether the PRP proposed prototype, research to test various interventions, training programs, demonstration projects, or other types of projects. Discussion, subsequent to the preparation of the PRP, indicate that the AID/Mission was interested in establishing a Rural Health Delivery System that can be replicated nationally. The final project purpose depends on the GOES and Mission analyses and discussions.

Health Component:

Initial AID assistance in support of the RHA activity was administered under the AID/Mission's on-going Population and Family Planning Project. Once the feasibility of the RHA activity has been demonstrated on a limited scale, it became essential to establish a broader project, separate from that of population and family planning activities.

The RHA is the primary component of the GOES Rural Penetration Program developed in 1976 to improve rural health care through the training and support of nurse practitioners, indigenous midwives, and outreach workers workers. The initial phase of the HRA activity, which will be further developed under this Project, has succeeded in demonstrating the acceptability to the community of a paraprofessional health worker trained (10 weeks) to provide and promote primary health, nutrition, community development and family planning services.

The RHA will provide a variety of tasks including medical care motivation, health education, basic primary care and preventive care. Upon identification of persons in need of health treatment the RHA will either provide services or refer the persons to a health facility. Communities participate in the selection of RHAs who must: live in village where their work will be done; have minimum of 6th grade education; be accepted by community members; have expressed an interest in health work through their participation in health related activities; and be in good health.

In support of both the community based ambulatory workers and the fixed facility organization, additional support in the form of supplies, maintenance, in-service training and recruitment.

This Project will train 410 RHAs in addition to the 200 RHA's trained in the population funded project. A MOH management/information system will also be financed in this Project grant to gather information on the impact of the HRA on the target population and health system. The new system will furnish data which can be used to reorientate the existing health, family planning, and nutrition services.

Nutrition Component:

The RHA will be capable of health/nutrition monitoring.

Population Component:

The RHA will be capable of family planning referral and distributing contraceptive supplies.

Project Outputs:

(1) 410 RHAs trained and in the field by 1980.

(2) A management/information system established within the MOH which:

  (a) measures the quantitative and qualitative efforts of the work of the HRAs; and

  (b) provides feedback necessary for effective program management.

(3) 15 supervisors trained and functioning in the same communities as HRAs.

Project Inputs:

The total project activity will cost an estimated $2.9 million of which AID will contribute 22%. The MOH will absorb project costs on an incremental basis until January 1980 when the MOH will assume full funding responsibility (see Table A). It is anticipated that the GOES will probably seek loan assistance to support the RHA program through 1982.

Funding to be provided under the proposed project includes training costs, salaries, technical assistance, and supplies. An estimated 45% of the project budget covers subsistence costs for the 410 RHAs and their 41 supervisors during the training period.

Host Country Activities:

The MOH, according to preliminary indications in the proposed FY 1979 grant project, will manage the development and institutionalization of the RHA activity. The MOH will be responsible for training, deploying, and supporting the RHAs.

Specific details of MOH involvement were not outlined in the report.

Other Donor Activities:

Other donor interest in rural health delivery services, especially in the HRA activity, has been minimal except for UNFPA (United Nations Fund for Population Activities) assistance in partial funding salaries for mobile health team medical staff. Great Britian is expected to approve a request by the MOH to provide support for the construction and staffing of four regional health training centers.

Issues:

(1) The MOH must be able to absorb the newly trained RHAs.

(2) Continued financial support and interest of the GOES and AID in the RHA concept is very significant. The MOH will absorb the expensive recurring costs, but there is a need for external funding to achieve long-term program objectives.

(3) Supervisory logistical and technical support must be available to the HRAs at all levels of the referral system.

(4) Community support of the HRAs' activities must be maintained throughout and subsequent to the Project.

TABLE A

PROJECT INPUTS
EL SALVADOR

RURAL HEALTH SVCS. DELIVERY 519-0179	June - Dec. 1978		January - Dec. 1979		January - Dec. 1980		TOTAL		
	AID	GOES	AID	GOES	AID	GOES	AID	GOES	PROJECT TOTAL
Salary Costs	68,040	-	225,316	215,748	-	924,352	293,356	1,140,100	1,433,456
RHA's *	62,892	-	225,316	167,076	-	829,192	288,208	996,268	1,284,476
Supervisors.	5,148	-	12,000	48,672	-	95,160	5,148	143,832	148,980
Technical Assistance	18,000	-	12,000	-	-	-	30,000	-	30,000
Mgt./Adm. (in-kind)	-	50,000	-	100,000	-	100,000	-	250,000	250,000
Equipment	5,200	-	14,000	5,200	-	33,200	19,200	38,400	57,600
Mat'l & Supplies	35,800	-	98,00	71,600	-	267,600	133,800	339,200	473,000
Training Costs									
Subsistance:	35,262	-	84,672	7,200	-	90,360	119,934	97,560	217,494
RHA's	27,720	-	75,600	-	-	75,600	103,320	75,600	178,920
Refresher courses	5,652	-	-	7,200	-	7,200	5,652	14,400	20,052
Supervisors	1,890	-	9,072	-	-	7,560	10,962	7,560	18,522
Teaching	-	17,820	-	48,600	-	48,600	-	115,020	115,020
Miscellaneous									
Data Processing	-	-	25,000	-	-	-	25,000	-	25,000
Travel	2,000	-	3,000	-	-	-	5,000	-	5,000
Inflation	-	-	25,710	34,114	-	254,750	25,710	288,864	292,204
TOTAL	164,302	67,820	487,698	482,462	-	1,718,862	652,000	2,269,144	2,921,154

* Rural Health Aides.

(5) The potentially important role of the traditional providers in the new health system should be analyzed.

(6) An on-going evaluation mechanism must be included within the design of the Project.

Source of Information: (a) Interim Report of the El Salvador Rural Aides Project

(b) Rural Health Delivery System Project Review Paper

GUATEMALA

Project Name and Title: Rural Health Services Evaluation
520-0230

Project Cost: $1.262 million (AID grant--$.93 million)

Project Life: FY1976-FY1981

Target Population: Not Defined

Area of Coverage: Rural Areas Nationwide

Project Purpose:

1) Carry out an in-depth evaluation of the Government of Guatemala (GOG) rural health services system; and

2) Institutionalize an evaluation capability within the Ministry of Health (MOH) which will have the capacity to develop information and feed-back on sector activities on a continuing basis which can be used by sector managers for planning, monitoring, and controlling Ministry programs and projects.

The Problem:

Rural ill-health in Guatemala rises from the presence of a dispersed largely illiterate, indigenous population, many of whom do not speak Spanish. As in most developing countries the health deficits have their roots in poor sanitation, poverty and ignorance, and have been compounded in the past by the limited outreach and effectiveness of a health system based on hospital curative services. Materials and manpower are also in short supply with such resources being improperly distributed and utilized Life expectancy at birth is 45 years for Indians and 61 for Ladinos. Mortality rates are 89 per 1,000 live births for children under one year of age, 30 per 1,000 for those aged one to four and 16.4 per 1,000 for all ages. The major cause of death by far is enteritis and diarrheal diseases. Eighty percent of all children under five have protein energy malnutrition.

The problems of health care delivery lie in three disparities:

1) The disparities of expenditure and needs (curative versus preventive).

2) The disparity between resource distribution and population distribution.

3) The disparity between growth of the population and the rate of which services can be extended.

Health Component:

Since the primary purpose of this project is evaluation of ongoing sector projects in Guatemala there are no new health, nutrition, or population components.

The evaluation aspect of the Project focuses on health services provided by rural health technicians, health promoters, nursing auxiliaries and indigenous midwives at the rural posts.

As an integral part of the evaluation is the development of an information system including data on the rural communities dissemination and use of health data by the rural health system, support systems and economic analysis.

Information gathered by the project includes:

- Existing information on rural health and health services;
- Type, time, location and purpose of the activities of rural health workers;
- Studies of the rural communities served;
- Analysis of the gathering and use of information by the Rural Health System;
- Studies of the functioning of the Rural Health System and its support systems;
- Economic analyses.

Population Component:

Family planning activities are not defined.

Nutrition Component:

Nutrition activities are not defined.

Project Outputs:

Four categories of outputs are listed in the logical framework for this evaluation project.

a) Organizational structure and personnel for evaluation;

b) Components studies reports;

c) Integration sub-system;

d) Final project analysis, interpretation and reporting.

By means of interviews, observation visits, and reviews of project records, it will be possible to establish the necessary organizational units properly staffed to conduct the evaluation. Reports will then be developed as component studies incorporating:

1) a review and integration of existing MOH information;

2) activities analysis;

3) community studies;

4) studies of the rural health system (including support and information aspects); and

5) economic analyses.

The third ouput of the project will be the development and implementation of a system for gathering, analysing, interpreting, disseminating and using information for making decisions, at all levels of the rural health system. The information sub-system will both contribute to the achievement of the first purpose (evaluation) and constitute a major factor in the improvement of the Ministry's capacity to plan, monitor, evaluate and control its own programs which is the second project purpose. The final output of the project will be a final report that summarizes project findings and presents the results and interpretations of the various project analyes.

Project Inputs:

Five inputs will be necessary for the completion of the evaluation project. Input #1 requires 50 man months of international technical assistance aimed at:

a) rural health system planning;

b) information system design and management; and

c) health logistics and support systems.

The second project input will be the use of local consultants necessary to provide the needed assistance to other project personnel. Particular expertise by the local consultants will be required in:

a) data processing assistance analysis;

b) social sciences; and

c) training design.

In addition to international and local consultants, vehicles will be necessary to provide a base for field operations, a storage place for field equipment and supplies, and possibly also temporary sleeping quarters for one or more field personnel.

The fourth input required will be a training and orientation workshop for the project to be organized during the first month of the implementation phase and taking place during the following three months. Other project training and orientation workshops will be necessary during the course of the project. The fifth input is logistical supplies such as office supplies, medical supplies, computer services, and per diem for in-country travel of project personnel. (See Table A for detailed budget)

Host Country Activities:

The project is to be organized and carried out by the Academy of Sciences of Guatemala in association with the Ministry of Health and National Economic Planning Council. The Academy is a professional association whose membership includes experts from INCAP and other health institutions.

In this project AID will provide the specialized technical assistance as needed by the Academy.

Other Donor Activities:

No other foreign donor organization will participate in the Project.

Issues:

While extensive information is available in the project with regard to project inputs the exact methodology utilized in the evaluation is unclear and needs to be followed-up. Personal contact has been initiated with Dr. Eugene Boostrum in Guatemala City to determine those factors that have influenced the design of the projects since its inception.

Source of Information: Guatemala Rural Health Care Services Evaluation Project Paper

TABLE A

RURAL HEALTH SYSTEM EVALUATION

DETAILED BUDGET (000's)

(Amendment)

		Total		FY-76		IQ		FY-77		FY-78	
		FX	LC	FX	LC	FX	LC	FX	LC	FX	LC
Technical Budget											
International--AID/W		162	-	53	-	9	-	20	-	20	-
	A	54	-	4	-	10	-	-	-	-	-
Local	A	-	22	-	8	-	-	-	2	-	2
Total T.A.		216	22	57	8	19	-	20	2	20	2
Supplies, Rentals, Travel											
Office	A	-	21	-	3	-	-	-	5	-	3
Medical	A	-	15	-	2	-	-	-	3	-	3
Computer	A	-	12	-	1	-	-	-	2	-	2
Local Travel	A	-	6	-	1	-	-	-	1	-	1
Total		-	54	-	7	-	-	-	11	-	9
Equipment											
Office	A	1	9	1	3	-	-	-	2	-	1
Data Processing	A	2	1	2	-	-	-	-	-	-	1
Field Unit Trailer	A	7	-	7	-	-	-	-	-	-	-
Vehicles	A	12	-	6	-	-	-	-	-	-	-
Total	22	22	10	16	3	-	-	-	2	-	2
Local Personnel											
Admin. Unit	A	-	189	-	28	-	8	-	30	-	30
Field Unit	A	-	162	-	23	-	6	-	25	-	25
	G	-	94	-	9	-	3	-	12	-	15
MOH-Evaluation	G	-	71	-	-	-	-	-	6	-	10
Total		-	516	-	60	-	17	-	73	-	80
Training	A	-	6	-	6	-	-	-	-	-	-
	G	-	66	-	6	-	3	-	12	-	12
Total		-	72	-	12	-	3	-	12	-	12
GRAND TOTALS	A	238	443	73	75	19	14	20	70	20	68
	G	-	231	-	15	-	6	-	30	-	37
		238	674	73	90	19	20	20	100	20	105
Inflation-10% (259)	A	60	121	-	-	-	-	2	7	4	14
	G	-	78	-	-	-	-	-	3	-	8
Sub-Total		298	873	73	90	19	20	22	110	24	127
Contingency (5-10%) (91)	A	23	42	3	3	1	-	1	5	2	6
	G	-	26	-	1	-	1	-	2	-	3
TOTAL		321	941	76	94	20	21	23	117	26	136
		1,262									

GUYANA

Project Title and Number:	Rural Health Systems, 504-0066 (PID Stage)
Project Cost:	Proposed funding includes a $300,000 grant and a $2.6 million loan.
Project Life:	Proposed for FY1979 - FY1981
Target Population:	est. 312,000 (39% of total country population)
Area Coverage:	Regional

Project Purpose:

To design a low cost health delivery system for Guyana's interior regions and assist in the training of at least 240 Community Health Workers (CHW).

Health, Nutrition and Population Components:

This Project will concentrate on the establishment of an in-country cadre of sub-professional personnel, such as medical extenders (MEDEX) personnel and community health workers to assume rural medical and public health responsibility with physician supervision. The integrated system will link supervision, support, and referral services between the most basic health entity in a three-tier system, i.e., a health post to the more technically advanced district hospital.

In 1976 Canada's International Development Research Center, awarded a three year grant to the GOG (Government of Guyana) for the initiation of a MEDEX program with the University of Hawaii providing advisory assistance. Graduates (23) of the first one-year program initiated in March, 1977 will staff rural clinics and cottage hospitals. The Canadian funding of the MEDEX program will end in 1979. AID proposes to fund the MEDEX program beginning in FY 1979. It is known that the MEDEX workers is trained to perform tasks in the areas of health population and nutrition, however, these tasks were not identified in the PID (Project Implementation Document).

The extension of health care to the most remote areas is the responsibity of the CHW. The CHW is a village resident and in most cases a woman. The MEDEX workers will train the CHW, who will possess basic first aid and preventive medical skills. The CHW will have a capacity to detect

nutritional deficiencies, and advise mothers of nutritional standards. The PID does not define the population tasks to be performed by the CHW. The Project should include assistance to the MOH (Ministry of Health) in expanding the CHW program throughout the country and selecting CHW candidates.

This Project will finance the design and implementation of a CHW Program as a further extension of the MEDEX Program. However specific tasks of the CHW and MEDEX worker are not fully outlined.

The Project furnishes logistical support equipment, e.g., radios, boats and visual aids to facilitate the delivery of services.

(1) 234 trained CHWs.

(2) 154 trained MEDEX workers

(3) 3 health manuals developed and issued.

(4) CHWs should have access to 134,000 persons at health post locations.

Project Inputs:

The Project will provide about 18 person months of technical advisory services, as well as commodities consisting of audio-visual training aids, four-wheel drive vehicles, boats, radios, medical supplies. The funding of the Project will purchase long and short-term technical consultants and local and foreign training.

The GOG is expected to contribute $2 million to the Project. AID proposes a $2.6 million grant and a $300,000 loan.

Host Country Activities:

GOG's administrative and technical support activities were not detailed.

Other Donor Activities

The International Development Bank (IDB) is considering a $16 million loan and a $1.4 million grant for the expansion and improvement of GOG health facilities and equipment. This would include the construction of 10 district hospitals, 13 health posts, and 7 health stations. Technical assistance, training of administrative and support staff is considered part of the IDB Project.

As previous discussed, Canada funds a grant to development MEDEX personnel with the University of Hawaii providing technical assistance.

Issues:

(1) Technical and logistical support systems for CHWs must exist at all levels of the referral system.

(2) The GOG's ability to finance the expensive recurring costs is questionable.

(3) An analysis of the relationships of the MEDEX and CHW workers to the traditional practioners and physicians is necessary to identify potential areas of conflict.

(4) Continuous AID and GOG financial interest in and support of the rural health development is an essential element.

(5) A task analysis of the proposed activities to be performed by the CHW would further clarify and define the specific health, population and nutrition tasks.

(6) Coordination of GOG, AID and other donor project activities must exist at all times.

(7) The willingness of health personnel to work in the under-served rural areas and community acceptance are important elements in the Project.

Source of Information: (a) Guyana Rural Health Systems Project Implementation Document (PID)

(b) AID Submission to the Congress: FY1979, Latin America Programs.

HAITI

Project Title and Number: Rural Health Delivery System, 521-0091, Project Paper is in final stages of development.

Project Cost: $1.7 million AID grant and $4 million AID loan (Total Project cost -- $9.1 million)

Project Life: FY1978-FY1982

Target Population: Estimated 3 million (56% of total population)

Area Coverage: National (Rural areas nationwide)

Project Purpose:

To implement an integrated and affordable regional health system to deliver basic preventive and curative health services to 70% of the rural population of Haiti.

To carry out malaria control activities nationwide which will reduce the prevalence and transmission of malaria sufficient to allow adequate malaria control activities to be accomplished (in selected project areas) by non-SNEM (National Malaria Eradication Agency) and MOH (Ministry of Health) workers in the RHDS.

Health Component:

The AID strategy will be to develop a replicable integrated rural health delivery system (RHDS) in Haiti. This major activity requires within the MOH (Ministry of Health) planning and administrative capabilities to design, implement, and evaluate the RHDS. The RHDS Project revolves around the completion of four major components: (1) strengthening the administrative capability of the MOH in planning, budgeting, programming, implementing, and evaluating a national system at the national, regional, and administrative levels; (2) training technical and administrative personnel to operate in coordination with PAHO (Pan American Health Organization) and IDB (Inter-American Development Bank) programs; (3) providing on a national basis the clinical referral system to support the demand created by the RHDS service outreach activities in three zones not covered by the IDB; and (4) designing a process whereby existing non-governmental activities are integrated into the RHDS.

The AID strategy involves three phases:

Phase I: This phase (FY1975-76) focused on the improvement of the health planning and administrative capability of the MOH.

Phase II: Phase II (FY 1977) involved development and implementation of a 5-year plan of operations for malaria control.

Phase III: This Project Review Paper (PRP) proposes funding for Phase III of the RHDS program. In Phase III paraprofessional personnel and the Planning Bureau of the MOH support the development of the RHDS. Grant funding will be used to finance technical assistance to put these support systems into operation and manage them for about 2 years.

The PRP indicates that introduction of the RHDS should begin in those areas where malaria incidence has been reduced to acceptable low levels. Workers from SNEM (National Malaria Eradication Agency) would then be available to be retrained for broader health delivery services under the auspices of the MOH. Thus, integrating SNEM into the MOH at the health district level.

Elements of the project include (1) strenghtening of the central ministry's planning and administrative capability to run a RHDS; (2) training and retraining of health personnel; (3) refurbishing of outreach facilities (4) commodities; and (5) adequate transportation, communications, and medical supply support systems.

A planning group involving AID and GOJ (Government of Jamaica) personnel will begin the design and implementation process for Phase III by defining service population; defining type of health nutrition, and family planning services to be integrated; defining alternative systems or methodologies for providing services; performing health task analysis; determining needs and costs of the RHDS; and defining a fee-for-service system.

Nutrition Component:

Not defined. It is stated in the PRP that nutrition interventions will be developed within the MOH or within the Department of Agriculture.

Population Component:

Not defined.

Project Outputs:

(1) Personnel to plan, administer and operate the RHDS and its support systems (including central, regional and peripheral level personnel).

(2) A functioning training system to provide initial and continuing training to RHDS personnel.

(3) Basic documents for RHDS development:

-- improved personnel system design (including salary adjustment)
-- improved information system
-- task assignments
-- initial plans for recommendations for logistical improvement.
-- communications network plans
-- transportation network plans
-- facility, vehicle and equipment maintenance plans.

Project Inputs:

Project inputs and financial plan are described in Table A.

Host Country Activities:

Not defined.

Other Donor Activities:

No other donor funds are proposed for this Project. However, PAHO (Pan American Health Organization) and numerous other multilateral, bilateral, and private agencies provide major material and technical contributions to the Haitian health system.

Issues:

(1) The specific health, nutrition and family planning activities are not described in the PRP.

(2) The ability of the GOJ to absorb the recurring costs has not been discussed sufficiently in view of the GOJ's weak health care financing mechanisms.

(3) The projects planned by the numerous foreign donor agencies in Haiti should be coordinated to avoid duplication of program activities.

(4) The role of the GOJ has not been defined in the PRP; host country involvement is a major element in project acceptability and implementation within any country.

Source of Information:

Haiti Rural Health Delivery System Project Review Paper.

TABLE A

Projected Project Costs (000's)

Project Element	Fiscal Years 78/79	79/80	80/81	81/82	82/83	Total
AID GRANT:						1,700
Manpower Development	350	50	50	50		
Training System	(100)					
Trainer Service	(50)	(50)	(50)	(50)		
Training Sites	(150)					
Equipment	(50)					
Technical Assistance for Support System	200	200	200	200	50	
Logistics Supply	(100)	(100)	(100)	(100)	(25)	
Communications	(50)	(50)	(50)	(50)	(10)	
Transportation	(50)	(50)	(50)	(50)	(15)	
Training	100	100	50	50	50	
AID LOAN:						4,000
Commodities	400	400	400	400	400	
Support Systems	650	500	500	250	100	
Transportation	(150)	(150)	(150)	(50)	(25)	
Communication	(100)	(150)	(150)	(50)	(25)	
Logistics	(400)	(200)	(200)	(150)	(50)	
AID SUBTOTAL	1,700	1,250	1,200	950	600	5,70
GOH:						
Commodities	250	250	300	350	400	1,550
Personnel	300	350	400	400	400	1,850
GOH SUBTOTAL	550	600	700	750	800	3,400
TOTAL PROJECT	2,250	1,850	1,900	1,700	1,400	9,10

HONDURAS

Project Title and Number:	Integrated Rural Health/Family Planning Services, 522-0130
Project Cost:	AID $3.0 million grant (Total Project--$6.9 million)
Project Life:	FY1976-FY1980
Target Population:	1.3 million (41% of total population)
Area Coverage:	Not defined

Project Purpose:

To increase the Honduran institutional capacity to provide effective means of fertility control, and maternal and child health (MCH) and other basic health services expecially in rural areas.

Health Component:

AID support of the MOH's (Ministry of Health) Rural Penetration Program will provide the MOH with: (1) institutional capabilities to train the large numbers of paramedical personnel required to staff 500 health centers; and (2) the principal contraceptive supplies required by the family planning element of the Program.

The rural health centers will be staff by one salaried MOH auxiliary nurse, one volunteer community health worker, and one volunteer empirical midwife. The number of medical personnel at any location may be larger depending on the size of service demand. The auxiliary midwife will be capable of providing basic first aid, pre-and post-natal care, data collection, general MCH, enteric and veneral disease treatment, and immunizations. The community health worker will promote environmental sanitation and preventive health care. The empirical midwife will be involved in visiting expectant mothers on a prenatal and postpartum basis in addition to providing childbirth assistance. Cases requiring treatment beyond these capabilities will be referred to the nearest health center with a physician or to the nearest Emergency Hospital center.

The main thrust of AID project financing is to support the establishment within the MOH of an institutional capacity to train the required paramedical personnel. Thirty graduate nurses who will function as paramedical instructors are to receive training in MCH/family planning in the U.S. for 14 weeks. Course content is focused on women's health and family planning. Seventy nurse auxiliaries will be trained for 9 months in all

the areas previously described. One hundred and thirty-four community health workers will receive 2 months of instruction at each of the training centers. Medical professionals, such as doctors, and MOH staff, will receive short-term training so that they can provide better support services.

This Project will finance new health facilities for the MOH Rural Health Program by either construction, rehabilitation or expansion of existing services. Each facility will operate 12 months per year and will include five classrooms to train 175 students. The MOH will provide specialists in environmental sanitation, community development and other fields to train the paramedical workers. Graduate nurses, however, will train a large number of students in basic curriculum.

In addition to the direct AID funding for the MOH in this Project, intermediary assistance to the Honduran Family Planning Association (HFPA) will continue to expand a pilot program. The pilot program focuses on the distribution of non-medical oral contraceptives in two large urban cities. This system is testing contraceptive distribution by utilizing present acceptors, who receive a salary for vending, as opposed to other acceptors, who sell contraceptives on a commission basis.

AID/W through centrally funded contracts will provide assistance for activities related to this Project. For example, the Association for Voluntary Sterilization in New York will provide financial assistance to the Honduran Association for Voluntary Sterilization to expand to provide male and female surgical contraceptive services.

Nutrition Component:

The auxiliary nurse, midwife and community health workers will demonstrate food handling and preparation techniques. These workers will be capable of providing nutrition education for pregnant women and other nutrition services. Only the midwife receives training in breast feeding instruction.

Population Component:

The auxiliary midwife will be capable of providing family planning and MCH services. The community health worker will counsel rural males in family planning. The empirical midwife also counsels women in family planning and child-spacing and conducts follow-up visits to women in the family planning program.

Depending upon results from an experiment in urban areas being conducted by the Honduran Family Planning Association (HFPA), the community health workers and empirical midwives will sell contraceptives and receive a sale commission.

Project Outputs:

-- 6 physical facilities suitable for training paramedical, MOH and supervisory personnel;

-- 30 instructors trained and assigned to teaching positions in paramedical training facilities;

-- 12 key MOH officials receive training on the feasibility of of using paramedics as MCH/family planning service providers;

-- 1,120 auxiliary nurses, 2,144 community health workers and 2,144 midwives trained and placed in 500 rural health centers and related situations;

-- 150 physicians and 100 supervisors trained in family planning technology and assigned to posts;

-- 6 centers being supplied with adequate supplies of contraceptives;

-- Data reflecting services provided in MOH and related family planning programs to allow effective monitoring of service delivery.

Project Inputs:

Table A outlines the summary costs for this Project. AID appropriated $3.0 million to establish training centers, local training and evaluation/ advisory services plus centrally procured centraceptives. In addition, $200,000 of the AID funds provided for participant training and consultant services from Development Associates, Inc., Communicable Disease Center of HEW, and the Bureau of Census.

Support from MOH is estimated at $3.2 million to finance salaries of MOH personnel in the program, rural penetration program staff, and para-medical trainer staff; (2) purchase medicines including contraceptives; (3) construction of 500 rural health centers; and (4) in-kind donations of land for training centers and health facilities.

Other intermediary organizations such as Pathfinder Fund, Association for Voluntary Sterilization, International Planned Parenthood Federation, Pan American Health Organization, and the Inter-American Development Bank fund technical assistance for local activities.

Other Donor Activities:

The Inter-American Development Bank approved a $14 million loan to the MOH to construct 242 rural health centers and 8 hospitalization centers and the expansion of two regional hospitals. Indirectly, this loan

will facilitate the delivery of rural health care services funded through AID's grant by providing the health facilities from which the paramedicals can deliver services.

The IPPF (International Planned Parenthood Federation) will provide a $500,000 grant for technical assistance to training programs to improve management and administration in MOH.

PAHO (Pan American Health Organization) will provide $20,000 for equipment for the Tegucigalpa training center and make permanent assignments of advisors in nurses education and supply management.

Issues:

(1) Coordination of AID, MOH and other donor activities in the Project appears to be necessary at the national and regional levels. The possibilities of duplicating program activities seems to exist largely due to the lack of a central coordinating office.

Source of Information: Honduras Integrate Rural Health/Family Planning Services Project Paper.

TABLE A

SUMMARY COST ESTIMATE AND FINANCIAL PLAN

(U.S. $000)

USE	AID Grant Funds			GOH Funds		Other		Total		
	Bilateral		Central							
	FX	LC	FX	FX	LC	FX	LC	FX	LC	TOTAL
1. Training Facilities		250			g/				250	250
2. Equipment	40	10				15[a/]	5[a/]	55	15	70
3. Participants			200[b/]		20[c/]			200	20	220
4. Local Training		1024			512				1536	1536
5. Health Centers					600[g/]	d/	d/	25	600	625
6. Personnel					713				713	713
7. Commodities			1593[e/]		501			2393	501	2894
8. Technical Assistance	110					350[f/]	150[f/]	460	150	610
9. Other				d/	d/	d/	d/	d/	d/	d/
TOTAL	150	1284	1793	625	2345	365	155	3133	3785	6918

a/ PAHO equipment for Tegucigalpa training center

b/ Through UAI.

c/ Salary continuation.

d/ IDB loan ($14.0 million) and GOH counterpart. Distribution not known at present.

e/ Centrally funded contraceptives.

f/ IDB grant. IPPF advisory services in supply management and nurse's education not quantified.

g/ Does not include the value of land or existing buildings.

JAMAICA

Project Title and Number: Health Improvement of Young, 532-0040

Project Cost: $375,000 AID Grant (Total Project--$2.97 million)

Project Life: FY 1976 to FY 1978

Target Population: 250,000 people in Cornwall County

Area Coverage: Regional

Project Purpose:

The purpose of the project is to improve the Cornwall County primary health delivery systems by: (1) facilitating and evaluating the expansion of clinic base services currently provided with the comprehensive outreach service and the entire country; and (2) improving the administration of the health system in Cornwall County by developing a decentralized administrative capability.

Nutritional Problem:

The 1970 nutrition survey showed that 49.8% of children under 5 have nutritional deficiencies (39% grade 1, 19.4% grade 2, and 1.4% grade 3). Protein - calorie malnutrition has been identified as a major cause of mortality and morbidity among young children in Jamaica. Nutritional deficiencies and anemia among pregnant mothers has been the major cause of morbidity. The percentage coverage of pregnant women attending prenatal clinics was estimated to be about 55% and the average number of visits during pregnancy was less than 2, which is far below the desirable for adequate health protection. It is also estimated that 25% of the deliveries over 50% take place in hospitals and only 20-25% conducted at home by midwives. There is a tremendous need for greater outreach services to reach the urban and rural underserved.

General Project Description:

This project has two distinct focuses: (1) the improvement of management and institutional capability within the Jamaican Ministry of Health (MOH); (2) and the improvement of training and outreach services primarily through the community health aides and supervisory levels of health care delivery. This grant finances technical assistance for the development of a decentralized management system to implement the MOH's integrated health program. The grant also funds the reorientation of training programs of health staff towards curative and preventive services in rural area.

The manpower training activities of the Project focus on the community health teams (CHTs) comprised of medical officers, public health nurses, district midwives, public health inspectors, auxiliary nurses, and community health aides (CHAs). The Project proposes to establish in the Cornwell County Health Office a training unit to design, coordinate, and initiate in-service training for the CHAs. These activities are carried out in conjunction with other training agencies in the region and nationally. The in-service training is initiated to up-grade existing skills in several areas. Prior to the implementation of the training activities a functional analysis of the roles of CHTs is planned.

The Project plans to strengthen the skills of community health aides (CHAs) and DMs (district midwives) in maternal and child health and first aid. It is suggested that the DM's role would be more effective if immunizations injections, childhood growth and development and nutrition were skills taught in the new midwifery school of Cornwall County. Public health nurses will receive training in management and supervision to be more effective in the Project. District midwives and public health inspectors will also receive training in supervision of CHAs.

A significant portion of in-service training is directed toward data collection, communications and referral. CHAs will complete census gathering and analysis training to assist in these efforts.

Administrative and support staff are to be trained for county and parish positions. To coincide with this training, the Cornwall County health care system faces decentralization including the management, supervisory and support services.

Project components specifically include:

-- 46 man months of U.S. technical assistance in various fields of health care;

-- 36 man months of support for Cornwall County Project Director;

-- 27 man months of in-country technical assistance to assist in surveys and as interim supervisors;

-- 2 persons to receive long-term training in health administration and statistics;

-- 4 man weeks for evaluation;

-- sufficient commodities and equipment to help equip training rooms and related equipment;

-- salaries for project staff;

-- administrative costs;

-- training facilities and personnel; and

-- logistical support.

Nutrition Component:

The CHAs and DMS according the Project Paper will be trained to provide nutrition education and advice services.

Population Component:

The CHAs and CMS are trained to provide family planning services.

Project Outputs:

1. Implementation of outreach services with capacity to contact 90% of households quarterly.

2. Implementation of the centralized management, supervisory and support services of the Cornwall County health care system.

3. A functional analyses of the roles of the community health team members and further elaboration of the responsibilities of paramedical and administrative personnel responsible for community health care services.

4. A training unit established and functioning in the Cornwall County Health Office, developing and coordinating initial and in-service training of the community health team members, i.e., Medical Officers, Public Health Nurses, District Midwives, Community Health Aides, Auxiliary Nurses, Public Health Inspectors and Nurse Practitioners.

5. Trained personnel for key administrative and support staff posts in county and parishes in position and functioning (990 individuals).

6. Initial design for an improved information system encompassing client, personnel, service and cost records intended to facilitate use of program information in decision making at each level of supervision and health care.

7. CHA census completed annual in project area and results tabulated and available within three months of completion of annual census data collection.

Project Inputs:

Table A and B outline the Project's financial plan and proposed inputs.

Host Country Activities:

The project is centrally administered by the Project Director who is the permanent Secretary of the MOH. At the country level the Senior Medical Officer for Cornwall County implements the Project, having additional responsibility for the associated IBRD (International Bank and Reconstruction and Development) loan activities. Technical skills in health planning and training is provided by AID. Counterpart professional personnel receive one year participant training in the U.S. in information systems and management systems.

Other Donor Activities:

IBRD will refurbish existing health centers and construct 57 new health centers in Cornwall County. The loan also finances new medical equipment and supplies plus limited technical assistance.

The IBRD loan assists the GOJ (Government of Jamaica) develop, implement, and evaluate a decentralized supply system in Cornwall County. This loan will supply 60 vehicles for use of the personnel in the AID Cornwall County grant project.

Issues:

(1) Coordination of GOJ, AID and other donor activities must be maintained for Project continuity.

(2) A clear delineation of the various tasks now performed and proposed for the CHT members is not available in the Project Paper.

Source of Information:

Jamaica Health Improvement of Young Project Paper

TABLE A

FINANCIAL PLAN

(U.S. $ 000)

Use	AID (FX)	GOJ (LC)	TOTAL
Technical Assistance			
Long Term	98		98
Short Term	197		197
Participant Training	16		16
Commodities	5		5
Evaluation	15		15
Contingency	44		44
Salaries		2300 *	2300
Operating Expense		200	200
Drugs & Medical		100	100
Total	375	2600	2975

* The GOJ is planning the approximate $105,000 as shown in Schedule I (attached) for direct management and training salaries, while the remaining 2.3 million is for salaries for the members of the Cornwall County Community Heath Team.

* The IBRD Health Loan is for $6.8 million of which 80% or $5.4 million is for Cornwall County.

TABLE B

PROJECT INPUTS

Training Unit Cornwall County Health Office	GOJ	AID
18 M/M Curriculum/training Specialist (Primary Care)		$ 97,500.00
20 M/M P.H.N. tutor (CHT Curriculum)	$ 15,000	
30 M/M P.H.N. Training Coordinator	22,500	
Functional Analysis		
6 M/M Functional Analysis Consultant		20,000.00
4 Round trips		1,100.00
180 days per diem @ 40.00		7,200.00
12 M/M Field Supervisor		6,000.00
48 M/M 4 Interviewers		16,000.00
12 M/M Research Assistant		6,000.00
Forms and computer costs		3,000.00
Information Systems		
10 M/M Information Systems Specialist		30,000.00
4 Round trips		1,100.00
300 days per diem @ 40.00		12,000.00
Management Systems		
12 M/M Management Systems Specialist		30,000.00
4 Round trips		1,100.00
365 days per diem @ 40.00		11,600.00
36 M/M Cornwall County Project Director (Dr. D'Souza)	45,000	30,000.00
Long Term Training		
1 Yr. Management Systems	300	8,000.00
1 Yr. Information Systems	300	8,000.00
Interim Supervisors		
27 M/M 3 Medical Students	22,500	22,500.00

NICARAGUA

Project Title and Number: Rural Community Health Services, 524-0110

Project Cost: Total project cost--$731,000 (AID grant--$385,000)

Project Life: FY1975-FY1978

Target Population: Less than 61,500 persons

Area Coverage: Regional (45 villages)

Project Purpose:

(1) To involve the rural population in the leadership of health programs through the use of village health committees.

(2) To provide health education services and simplified medicine to rural, isolated areas.

(3) To develop an effective, low cost cadre of community level health workers emphasizing the use of rural health promoters.

(4) Integrate health-related GON (Government of Nicaragua) and PVO (Private Voluntary Organization) activities at the village level.

Health Component:

This project proposes the establishment of an integrated rural health delivery system. The components of the system are:

-- development of rural health promoters for the delivery of basic preventive and curative health services in rural areas;

-- establishment of a community health committee in each target for the support of community health activities.

-- Micro-analysis of the community health problems and recourses;

-- implementation of selected health projects by the community in the areas of potable water supply and waste disposal;

-- personal and community oriented preventive health education activities which feature a radiophonic school with scheduled broadcasts;

-- redesign curriculum for health educators and strengthen curriculum for rural health promoters;

-- improve administrative support system for rural health programs to include improved coordination between GON agencies responsible for improved living conditions for the poor.

The health promoters are selected by the local village health committee to attend a two-month course in basic medicine and community organization. The promoter assists the committee in detecting its health problems and initiating collective solutions, coordinating actions of health agencies, and health services delivery.

The major activities of the community health committee are the community action projects (wells, latrines, health posts gardens, vaccination campaigns, etc.) which enlist the participation of a large number of citizens. Technical and administrative support will be provided to the committees.

The basic coordinating elements for the MOH are the rural health educators who are trained in the Project to activate and supervise the health committees promoters, and community projects. The health educators also contribute to the initial formulation of the village health committees and the collective establishment of a community health plan. The educator also serves as a liaison to bring economic and technical resources to the health committee and provides health education instruction through mass medica raido programs.

Nutrition Component

Organization of family vegetable gardens, school vegetable gardens and Club de Madres for instruction in food handling and preparation. Breast feeding will be stressed by the health promoters.

Population Component

Family planning services to include identification of fertile age and pregnant women for prenatal, delivery, and puerperal assistance and education.

Project Outputs:

(1) Approximately 20 trained health educators with special abilities in developing integrated community level health programs.

(a) Development of an ongoing curriculum which stresses analysis, motivation, organization, implementation of self-help projects and evaluation of health projects.

(b) Development of a continuing education program for health educators in rural health system skills.

(c) Program standardization in the form of "cookbook" procedures for the basic steps in the development of community health projects undertaken during the project period.

(d) Quarterly/annual evaluation meetings of the health educators, promoters, health committee, and MOH direct administrative support for continuous evaluation of ongoing projects.

(2) Approximately 45 locally trained health promoters with basic skills in community health analysis, first aid, basic primary-preventive care, and basic community health organization.

(a) Refinement and modification of the basic curriculum and instructional material now being utilized by voluntary groups within the country.

(b) Refinement and modification of the promoter "community kit" with supplies of basic medicine, medical-dental equipment, self-instruction medical education materials, and audio-visual equipment for community health education.

(c) Development of a continuing-education program for rural health promoters.

(d) Quarterly/annual evaluation meetings of health educators, promoters, health committee and MOH direct support administrative personnel.

(3) Diagnostic and analytic methodology being utilzed for determining community health problems and health resources.

(a) Continuous micro-epidemiological study for the establishment of major morbidity-mortality indicators to include infant death rate; maternal death rate; birth rate; death rate; infant weights.

(b) Basic micro-sociocultural economic study undertaken each year to determine major sociocultural influences on major disease problems, patterned after present health sector analysis survey.

(c) Basic micro-health resource evaluation of institutional, human resource, and program capacity undertaken each year to determine the status of community health programs, and the relationship of the community with the nearest referral hospital, clinic, or health organization/ facility.

(d) Quarterly community level analysis are conducted to ascertain status of health problems and community health programs, and to modify community health programs to better utilize community resources.

(e) Yearly MOH report on the health status and problems of the communities.

(4) Community health education program (motivation, organization and training) to energize community participation in the health system.

(a) Personal level (person to person) health education program through promoter and GON health related personnel (sanitary engineers; malaria sprayers, health center and PUMAR doctors, nurses auxiliaries, etc.) that emphasizes improvement of personnel or family health habits, e.g. specific health education with the service being received.

(b) Community health education programs directed at community health committees and health leaders through the health educators and specific.

(c) GON officials and consultants assisting and instructing a community in a health project.

(d) Combined personal and comunity health education program through the utilization of radiophonic schools which emphasize the format of Radio Sutatenza (radio script which follows a predistributed picture book format).

(5) Specific community action projects which are organized through the community health committees and which address the most important community and personal health problems determined by the health survey and analysis. The program will focus, but will not limit itself on the following:

(a) Environmental Sanitation

-- Latrinification

-- Wells and small aquaducts

-- Vector extermination

(b) Nutrition (assistance from PRODESAR, PMA, and Caritas)

-- Organization of family vegetable gardens

-- Organization of school vegetable gardens

-- Club de Madres, preparation and handling of foods.

(c) Maternal and Child Health

-- Immunization programs

-- Combined program against enteritis (education, latrinification, potable water, etc.)

-- Family planning services to include identification of fertile age and pregnant women for prenatal, delivery and puerperal assistance and educational; stressing of breast feeding; and well baby visits.

(6) Improved intra and interagency administration and coordination.

(a) Biweekly meetings of the Committee for Coordinated supervision within the MOH to identify and resolve program problems.

(b) Monthly meetings of interministerial-interagency committee for program coordination to include as a minimum the PRODESAR component of MOH, Ministry of Agricultural and Ministry of Education personnel to identify and resolve program problems.

Project Inputs:

AID proposes to fund $385,000 in inputs in the form of travel and maintenance costs for participant training, continuing education activities, technical assistance, and costs related to the radiophonic school. (See Annex A for an outline of inputs).

GON inputs ($268,000) include salaries, office equipment, latrine and gasoline transportation. The individual communities inputs are in the form of medical supplies and medicines for the promoters, basic construction materials and labor.

Host Country Activities:

The Health Education of the Ministry of Health (MOH) is the implementing agent for the project. Central and regional coordinators are assigned to monitor the Project by the MOH.

CEPAD, a PVO associate with the World Church Service, will train paramedics to evaluate the progress of community health promoters.

Other Donor Activities

No other foreign donors are providing funds to this project.

Issues:

(1) An assessment of the communities' attitudes toward the Project must be made to insure that community members are extremely motivated to participate in the community health committees.

(2) The ability of the MOH to manage, evaluate and replicate this Project at the national levels has not been discussed and is an unknown aspect of the Project.

(3) Technical and administrative cooperation must exist at all levels of the health system in this regional project to insure inter-agency coordination of activities.

(4) A better understanding or delineation of tasks to be performed by the health promoters is essential to project implementation.

(5) The existence of qualified human resources in the communities which can be recruited for the Project has not been fully discussed.

ANNEX A

PROJECT INPUTS

	A.I.D. 1976	1977	1978	Total
TECHNICAL ASSISTANCE				
Health Educator (12 mm x 1,5000/m) (10% increase 3 rd year)	$ 20,000	20,000	22,000	62,000
Health Administrator in Coordinated Supervision 4 mm.	5,000	7,500	7,500	20,000
Rural Health Paramedical Training Team (16 mm) CEPAD	8,000	8,800	9,600	26,400
Epidemiologist (4 mm)	5,000	7,500	7,500	20,000
Sub-Total	$ 38,000	43,800	46,600	128,400
FOREIGN TRAVEL				
Radiophonic School Bogotá, Colombia ($359 round trip x 3 persons) + (5 days x 40/per day x 3 people)	1,400	1,540	1,700	4,640
Agriculture Radio School and Quirigua School, Guatemala ($130/round trip x 3) + (3 people x 5 x 40)	1,000	1,100	1,250	3,350
Community Health Committees Panamá ($150/round trip x 3) + (3 x 5 x 40)	1,100	1,250	1,400	3,750
Sub-Total	$ 3,500	3,890	4,350	11,740

	1976	1977	1978	Total
LOCAL TRAVEL AND PER DIEM				
Consultants	$ 1,000	1,000	2,500	4,500
Program Coordinators	2,000	1,500	1,000	4,500
Technical Assistance/Local (21 mm x $140/mm)	3,000	3,000	3,000	9,000
Sub-Total	$ 6,000	5,500	6,500	18,000
Miscellaneous	$ 2,000	2,000	3,000	7,000
	$ 49,500	55,190	60,450	165,140
EDUCATION COURSES				
Promoters - Basic Course (15 promoters x 56 days x $5/day)	$ 4,200	4,620	5,000	13,820
Health Educators - Basic Course (5 x 176 days x 6.50/day)	5,720			5,720
Promoters - Continuing Education $5/day x 6 days	450 (15 promoters)	900 (30)	1,400 (45)	2,750
Health Educators - Continuing Education $6.50/day x 12 days x (2 x yr.)	1,860 (12 health educators)	2,700 (17)	2,700 (17)	7,260
Lecturers ($15/hr for special classes not given by regular lecturers)	1,800	750	750	3,300
	14,030	8,970	9,850	32,850

	1976	1977	1978	Total
RADIOPHONIC SCHOOL				
Broadcast Time	8,000	8,800	9,600	26,400
Tape Preparation	1,200	1,300	1,440	3,960
Radiophonic Texts 50 families x 10 subjects x 15 promoters x $.75/text (30 promoters in second year and 45 in third)	5,700	11,400	17,100	34,200
Total	14,900	21,520	28,140	64,560
EVALUATION REPORT				
Data Collection			800	
Analysis			560	
Publication/Binding of Report			800	
Total			2,160	2,160
	28,930	30,490	40,150	99,570
EVALUATION SEMINARS				
Community Health Committees and Promoters (Semi-annual)				
Community Per Diem (7 people/village x $5 day x 3 days)	3,200 (15 villages)	6,400 (30 villages)	12,800 (45 villages)	22,400
Lecturers	600	800	1,000	2,400
Material Costs (Publications, special displays)	600	800	1,000	2,400
Total	4,400	8,000	14,800	27,200

	1976	1977	1978	Total
Health Education (Semi-annual)				
Educator Per Diem (15 Educators x $7 x 3 days)	630	700	800	2,130
Lecturers	600	700	800	2,100
Materials (as above)	150	200	250	600
Total	1,380	1,600	1,850	4,830
Inter-Intra Ministerial (Semi-annual)				
Lecturers (INCAE) (5 days x 138/day x 2 lecturers)		1,400	1,500	2,900
Lodging ($25 x 15 x 3 days)		2,250	2,400	4,650
Materials (as above)		200	250	450
		3,850	4,150	8,000
Total	5,780	13,450	20,800	40,030

	1976	1977	1978	Total
COMMODITIES				
AM Radios, portable, 4" C" Batteries $25/radio	400 (16)	440 (16)	440 (16)	1,280
Batteries "C" $.40 each x 4/radio x 10/year	250	550	850	1,650
Multigraph	580			580
Projectors, 16 mm, Sound portable, 60 cycles C$420. each	880 (2 ea)	480 (1 ea)	520 (1 ea)	1,880
Screens, 60" x 60", steel case, Tripod ($50/ea)	120 (2 ea)	70 (1 ea)	80 (1 ea)	270
Power Plant, portable, gasoline, 13455 watts, 115 V, 60 cycles $250 ea	600 (2 ea)	330 (1 ea)	360 (1 ea)	1,290
Extension Cords, 14 gauge, 13 amp, 100 ft. length	120 (4 ea)	70 (2 ea)	80 (2 ea)	270
Vehicles				
Audio-visual, 4 wheel, 4 - 6 passenger/ea	9,000 (1 ea)	18,000 (2 ea)		27,200
Typewriter, large carriage, electric	1,000			1,000
Teaching Materials				
Health Educator Texts	700	200	220	1,120
Promoter Texts	600	900	1,200	2,700
Community Teaching Aids (Texts, Visual Aides, Films, Blackboards, Writing Materials)	1,500	3,000	4,500	9,000

	1976	1977	1978	Total
Water Pumps, hand (350/ea)	1,200 (3 ea)	11,850 (28)	11,645 (25)	24,695
Design Improvement (design assistance, drilling, cement pipes, tanks, etc.) ($125/ each)	375 (3 ea)	3,540 (28)	3,610 (25)	7,825
Total	17,325	39,430	23,505	80,260
TOTAL	101,535	138,560	144,905	385,000

	1976	1977	1978	Total
PERSONNEL				
Salaries				
Health Educators (10)	17,742	17,742	17,742	53,226
Central Coordinator (1)	4,286	4,286	4,286	12,858
Regional Coordinator (1)	4,286	4,286	4,286	12,858
Departmental Supervisor (2)	4,286	4,286	8,572	17,147
Drivers (4)	8,000	8,000	8,000	24,000
Sanitary Inspectors (3)	7,715	7,715	7,715	23,145
Nurse Auxiliaries (3)	7,715	7,715	7,715	23,145
Artists (1)	1,715	1,715	1,715	5,145
Total	55,745	55,745	60,031	171,521
TECHNICAL ASSISTANCE (MSP, MOA, MO, Radio Nacional)				
2500/mm Material (Child Health (2 mm/year)	715	715	715	2,145
2500/mm Nutritionist (1 mm/year)	360	360	360	1,080
2500/mm Agriculture Extension Agent (1 mm/year)	360	360	360	1,080

	1976	1977	1978	Total
3000/mm Health Statistician (1 mm/year)				
4000/mm Epidemiologist Statistician (2 mm/year)	1,142	1,142	1,142	3,426
5000/mm Sanitary Engineer (1 mm/year)	714	714	714	2,142
7000/mm Civil Engineer (5 mm/year)	500	500	500	1,500
6000/mm Malarialogist (.75 mm/year)	642	642	642	1,926
3000/mm Radio Programmer (2 mm/year)	860	860	860	2,580
3500/mm Social Workers (1 mm/year)	360	360	360	1,080
5000/mm Physician - Tropical Diseases (.5 mm/year)	600	600	600	1,800
5000/mm Physician - General Practice (1 mm/year)	715	715	715	2,145
Total	6,968	6,968	6,968	20,904

MATERIALS AND SUPPLIES

Cement Latrines 5 latrines/month x $7/latrine	3,150 (15 promoters x 6 months)	9,450 (15 x 12 months) (15 x 6 months)	9,450 (15 x 12 months) (15 x 6 months)	22,050
Office Equipment and Materials	5,715	5,715	5,715	17,145
Typewriter	580	0	0	580
Office Paper	5,000	3,930	3,930	12,860
Total	11,295	9,645	9,645	30,585

ANNEX A (Continued)

	1976	1977	1978	Total
TRANSPORTATION				
Gasoline and Vehicle Maintenance	6,000	8,000	9,000	23,000
AUDIO VISUAL MAINTENANCE		200	200	400
Total	83,158	90,008	95,294	268,460

	1976	1977	1978	Total
COMMUNITY HEALTH COMMITTEES				
Promoter Basic Medical Kit $35	525 (15)	550 (15)	575 (15)	1,575
Restack Kit		1,100	1,150	2,250
PROJECTS				
Well Construction and Installation 430 ea	1,290 (3)	12,040 (25)	10,700 (25)	24,030 (56)
Latrine Construction and Installation 7 latrines	8,400 (1200)	21,000 (3000)	21,000 (3000)	50,400 (7200)
Total Community Contribution	10,215	34,690	33,425	78,255

NICARAGUA

Project Title and Number: (a) Rural Health Institutional Development, 524-0014
(b) Rural Health Services Loan, 524-0032

The Rural Health Services Loan finances a grant (Rural Health Insitutional Development) and three component sub-loans (1) Rural Community Action; (2) Rural Human Resources; and (3) Referral System Development. Hereafter, these sub-loans will be referred to as components 1, 2, and 3, and the Grant Component as outlined above. The individual components will be discussed separately.

Project Life: FY1976 - FY1981
Project Cost: Estimated total project cost $10.9 million
(Estimated AID appropriated funds $5 million)

Target Population and Area Coverage:

Component 1 proposes to extend health coverage to approximately 163,000 Nicaraguans living in rural communities having populations from approximately 200 to 900. Component 2 provides facilities for training of paramedical and rural health personnel in the rural town Jinotepe, Carzao, with a teaching health center in the northern rural town of Matagalpa. Component 3 is aimed at rural departmental hospitals nationwide. The Grant Component does not define its target population.

Project Purposes:

The purpose of the Rural Health Services Loan is to extend, improve, and integrate rural health coverage in the target areas, thereby leading to the sector goal of increasing the well being of Nicaragua's rural poor.

More specifically, the various component project purposes are:

(1) Grant Component - strengthen the institutional capacity of health and the JNAPS (National Hospital System) in planning, management, evaluation and selected technical skills;

(2) Loan Component 1 - develop community and MOH capacity to initiate and support community health activities that will reduce basic health problems especially those immunable to reduction by preventive measures;

(3) Loan Component 2 - improve and expand the human resource capacity of the health sector with emphasis on community health workers, primary and secondary care and rural health centers and health education; and

(4) Loan Component 3 - improve the rural health referral system based upon more operational and coordinate referral patterns between health facilities and upon strengthened diagnostic, therapeutic, and supporting health services provided by the rural department hospitals.

The Program:

A detailed analysis of the health problems of Nicaragua and the goals to be achieved during the course of the health sector program are contained in the Nicaraguan Health Sector Assessment conducted in part by the HEW/Office of International Health in conjunction with the Agency for International Development.

The following however is a summary of the key findings of the health sector assessment. The average Nicaraguan life expectancy for the period of 1970-74 was estimated at 51.23 years for males and 54.47 years for females. Life expectancies were shown to be substantially low where among the rural poor than the national average. While Nicaraguan health statistics estimate the overall infant mortality rate at 45 per 1,000 it has been estimated as high as 146 per 1,000 by PAHO when underreporting from rural areas was taken into account. Infants as well as children from one to five years suffer a significantly disproportionate share of mortality rates from Nicaragua. Nicaragua's overall birth rate per 1,000 ie estimated at approximately 49 and is slightly higher in rural areas where the average family size is 6.2 persons compared to 6.1 persons in urban area. Statistics presented in the Ministry of Health Five Year Plan indicate that less than 20% of the Nicaraguan rural population have access to an adequate complement of health services. Extremely limited health coverages in Nicaragua contributes to and perpetuates the above indicators, namely low life expectancies, high infant mortality rate and a high birth rate, as well as high rates of morbidity and mortality among rural dwellers in general.

Health Component:

The main efforts of the Grant Component are directed at mid-level persons and include:

- development of human resource and management skills and continuing educational opportunities;
- development of an information system and program planning;
- development of technical skills in emergency health care (nurse trainers); radiology; and maternal and child health (MCH) for nurses and nurse auxiliaries;
- development of administrative capacity, in GON.

About 45 middle level personnel will receive this training during a one year period. Training curriculum emphasizes practical and theoretical skills.

Component 1 is comprised of two phases. Phase one involves the development of community participation mechanisms such as village collaborators and community health committees (CHCs) through the use of community organizations and health education techniques. Phase two involves assistance to communities in carrying out specific health improvement projects such as potable water, latrines, community gardens, and immunization for 297 rural communities in Regions 2 and 5.

Component 2 aims to provide the resources necessary to train primary support personnel for the rural health system by instituting a National Health Delivery School (NHDS). The focal points of Component 2 are refinement of NHDS curriculum and development of NHDS physical facilities to provide quality service to the rural areas. The curriculum includes training for nurse practitioners, nurse auxiliaries, radiology technicians, health educators, midwives, and community collaborators. Practical and theoretical training aspects will be equally stressed in the curriculum. The Project also envisions the use of local outpatient health facilities and health posts as teaching forums. The NHDS will produce the follwing graduates per year:

-- 80 nurses for service in the regional and national hospitals;

-- 30 nurse specialists for service in health centers;

-- 10 health educators to develop community action health activities;

-- 120 health collaborators/promoters to assist in community action health activities;

-- 15 nurse auxiliaries with MOCH skills to work in health centers and posts;

-- 30 parteras empiricas to improve indigenous delivery, pre/post natal care and assist in family planning efforts;

-- 20 malaria workers to maintain control efforts; and

-- 9 continuing education tracts to improve the skills of MOH and related agency personnel.

Components 3 focusses on the operational weaknesses of rural hospitals and proposes to strengthen their ability to delivery curative medical services. Component 3 is directed at upgrading diagnostic and therapeutic services, establishment of a maintenance referral center and training center, development of maintenance personnel and equipment, and hospital facilities improvement.

Nutrition Component:

In the Grant Component nutrition improvement during pregnancy and nutrition improvement of the small children are curriculum areas to be included in the training programs of the nurse auxiliaries.

Component 1 proposes the development of community gardens as one nutrition project supported by the rural CHC.

Population Component:

The nurse auxiliaries in the Grant Component will receive training in family planning (FP) and MCH to upgrade their skills to the level of MCH-FP specialists.

The parteras empiricas in Component 2 will be trained at NHDS to assist in family planning efforts.

Project Outputs:

Major expected outputs of the components are listed below. Annex A outlines specific program outputs.

Component 1

-- 297 potable water systems installed and operating, serving 83,00 goals;

-- 10,000 family latrines installed and in use;

-- 65,000 full vaccination series administered to 0-4 age group; and

-- 279 CHCs operating.

Component 2

-- Strengthened nursing curriculum;

-- New curricula for the continuing; education of in-service personnel; and

-- New and expanded training facilities such as the NHDS and its subsidiary teaching sub-center.

Component 3

-- Operation of a National Maintenance Center; and

-- Staffing of trained maintenance personnel in ten rural hospitals

Grant Component

-- Strengthen the capabilities of MOH and JNAP (National Board for Social Assistance and Welfare) in the area of planning, management, evaluation and selected technical skills.

Project Inputs:

Table A outlines the financial plan for the previously described project components. Annex B also provides a more detailed accounting of component's inputs by AID and GON.

Host Country Activities:

The MOH directs the execution of all Project Components. Component Managers for each of the three loan components manage all technical assistance activities. Various specialized agencies within the MOH will conduct component activities. For example the Immunization Division will conduct the vaccination activities proposed in Component 1.

The Nicaraguan policy directive for the Project will emanate from the National Health Council. This is an informal unit comprised of the Director of JNAP (National Board for Social Assistance and Welfare); Ministers of Ariculture, Health and Labor; and Directors of INSS (National Social Security Hospital System), Central Bank, and JLAS (Managua Hospital System). The National Health Council will provide ongoing policy guidance and coordination.

Other Donor Activities:

Currently the International Development Bank (IDB) is assisting the GON's national water and sewer agency with a large scale potable water and sewerage program in Nicaragua's secondary cities and larger communities. The AID environmental sanitation activities in Component 1, which directly affect rural villages of 500 or less persons, will complement the IDB project. IDB is additionally financing improvements in the National University's medical school. By improving the educational facilities available to medical students, the project enhances the training resources available to rural health training programs for paramedical personnel.

PAHO (Pan American Health Organization) currently provides technical advisors in sanitary engineering, nursing, nurse supervision, and maintenance operations. PAHO has also provided technical advice on the design of all components of this Project, particularly in the design of the rural community action component where PAHO's sanitary engineer has assisted MOH personnel to extend its outreach program to the rural areas. In cooperation with PAHO the United Nations Development Program is also financing technical assistance with the MOH in environmental sanitation.

Peace Corps is actively working in various areas of health and nutrition education in Nicaragua. The agency anticipates the assignment of volunteers to assist the MOH with the community development aspects of the GON rural health program. The volunteers will be capable of assisting the CHCs with their community improvement health projects.

A number of PVOs have active health programs in the rural areas of Nicaragua. This AID Rural Health Services Loan is designed to extend in some degree, the successful technical practices from pilot PVO rural programs.

Issues:

Additional information on the roles the health personnel will play in the health facilities is necessary to evaluate project activities. Elements such as supervisory patterns, upward mobility, possibilities, logistical support are not sufficiently reviewed in the Project Paper.

Source of Information:

Nicaragua Rural Health Services Project Paper.

ANNEX A ---- PROJECT FINANCIAL PLAN

Based upon the described Components, it is expected that A.I.D. grant and loan and GON counterpart resources will be allocated to the sector program approximately as follows:

	Sources of Funds (in US$000.)			
	A.I.D.		GON	Total
Uses of Funds	US$	C$	C$	
Grant Component	344	116	316	736
Loan Component I				
a) PLANSAR *	150	100	1,180	1,430
b) Village Projects	1,000	750	730	2,480
Sub-Total	1,150	850	1,910	3,910
Loan Component II				
a) NHI School	450	1,100	100	1,650
b) Scholarships		150	150	300
c) Salaries/operating			2,100	2,100
Sub-Total	450	1,250	2,350	4,050
Loan Component III				
a) Maintenance	150	250	315	715
b) Rural Hospitals	700	200	400	1,300
Sub-Total	850	450	715	2,015
Loan Total:	2,450	2,550	4,975	9,975
GRAND TOTAL:	2,794	2,676	5,291	10,743

* PLANSAR refers to the National Plan for Basic Rural Health and Sanitation

ANNEX B

COMPONENT ONE RESOURCE INPUTS

	Number	Unit Cost	TOTAL	A.I.D.	GOM	Comm
I. COMMODITIES & SERVICES						
A. Water Source						
Hand Dug Well	212	500	106,000		77,000	29,0
Drilled Well	228	2,400	547,000	192,000	355,000	
B. Water Supply						
Hand Pumps, 60 Ft. Setting	212	250	53,000	53,000		
Installation		50	11,000		10,000	1,0
Windmill, 10 Ft. Diameter, 30 Ft. Tower	228	2,700	616,000	616,000		
Installation		250	57,000		46,000	11,0
Elevated Tanks, 1,500-2,000 Gal.	109	1,300	246,000	246,000		
Installation		200	38,000		30,000	8,0
Windmill Pump 90 Ft. Setting Installation	(Included in Mill)					
C. Water Distribution						
Galv. Steel Pipe, 2,000 Ft. (Com. Size 250)	189	1,000	189,000	189,000		
Installation		280	53,000		46,000	7,0
D. Water Supply & Distribution Modifications for Major Systems						
Materials to Modify Water Supply Equipment			33,000	33,000		
Additional Galv. Steel Pipe	3,000 Ft.	.50	44,000	44,000		

	Number	Unit Cost	TOTAL	A.I.D.	GOH	[illegible]
E. Other - Contingency (5%)			106,000	69,000	34,000	3,000
F. PLANSAR Equipment						
Vehicles - 4 Wheel Drive	8	6,000	48,000	48,000		
Vehicles - 3 Ton Stake Truck	2	11,000	22,000	22,000		
Motorcycles	30	800	24,000	24,000		
Office & Engineering Equipment	2 Lots	12,000	24,000	24,000		
Survey Equipment & Supplies	2 Lots	1,500	3,000	3,000		
Dewatering Pump	5	800	4,000	4,000		
G. Biologicals	64,500	4	258,000	258,000		
H. Latrinification						
Materials	10,000	15	150,000	50,000	100,000	250,00
Installation		25	250,000			
TOTAL Commodities & Service			2,882,000	1,875,000	698,000	309,000
2. TRAINING & TECHNICAL ASSISTANCE						
A. Community Education and Water Supply Technicians	2 Yrs.	62,500	125,000	125,000		
B. Engineer & Educator Training			208,000		208,000	
TOTAL Training & Technical Assistance			333,000	125,000	208,000	
3. OTHER						
A. PLANSAR Salaries			839,000		839,000	
B. PLANSAR Operating Expenses			131,000		131,000	
C. Immunization Administration			33,000		33,000	
TOTAL Other			1,003,000		1,003,000	
4. TOTAL RESOURCE INPUTS			4,218,000		1,909,000	309,000

COMPONENT TWO

Human Resources Development Input Breakouts

MOH Inputs

A. Land. GOH will budget approximately $100,000 to the purchase of land for the sites of the National Health Delivery School and its Subcenter, as follows:

i. National Health Delivery School at Jinotepe, Carazo	$ 80,000	
ii. Training Subcenter at Matagalpa	20,000	$100,000

B. Operational Cost for NHDS and Training SubCenter. MOH will budget an estimated $1.4 million for the operational costs of the NHDS and its affiliated subcenter, as follows:

i. Materials and Supplies	85,000	
ii. Salaries and Expenses for Professors and Staff	1,165,000	
iii. Scholarships for student expenses	150,000	1,400,000

C. Salaries and Related Operating Costs for NHDS Graduates Employed by MOH*

Salaries	385,000	
Operating costs	480,000	865,000
MOH Total		$ 2,365,00

* Salary costs are based on Nurses, Nurse Auxiliaries, and Health Educators, not included in PLANSAR operations, graduated from NHDS beginning in 19[illegible] and MOH proposed salary rates. Operating costs are based on MOH estimates of additional medicines supplies, materials, etc. for these graduates to efficiently carry out their duties.

C. Scholarships. Approximately $150,000 will be used for qualified but needy students to be trained in nursing and other health professions at the NHDS and its affiliated subcenter in Matagalpa $ 150,000

D. Technical Assistance. An estimated $150,000 will be used to provide technical assistance for curriculum development and instructor training as follows:

i. Community Development Expert 6 mos/yr for 2 years	$ 50,000	
ii. Rural Health Education Expert 6 mos/year for 2 years	50,000	
iii. Community Nursing Expert 3 mos/yr for 2 years	25,000	
iv. Pediatric Nurse with emphasis upon family health and planning 3 mos/yr for 2 years	25,000	150,000
	A.I.D. Total	$ 1,700,000

MOH Total	2,365,000
A.I.D. Total	1,700,000
Total, Component Two	$ 4,065,000

2. A.I.D. Inputs

A. Construction. Approximately $650,000 will go toward construction of the National Health Delivery School (NHDS) and an affiliated sub-center, as follows:

i. Construction of National Health Delivery School at Jinotepe, Carazo - 3,000 M² at $190/M²	$ 570,000
ii. Construction of training, subcenter at Mateguipe - 1,400 M² at $190/M² *	266,000
	$ 836,000
	(round to $850,000)

B. Commodities. An estimated $550,000 will be allocated to the purchase of commodities as follows:

i Laboratory Equipment and Supplies	$ 200,000
ii. Office Equipment	76,000
iii. Vehicles:	
- 2 Microbuses, capacity 30 persons at $13,000 each	26,000
- 2 Buses, capacity 60 persons at $23,000 each	46,000
- 4 4-wheel drive Jeeps at $7,000 each	28,000
iv. Audiovisual equipment and materials	100,000
v. Library and books	71,000
	$ 550,000

* Cost of construction per square meter includes A & E work, supervision and allowance for contingencies.

COMPONENT THREE

REFERRAL SYSTEM DEVELOPMENT - INPUT BREAKOUT

1. JNAPS Inputs

A. Construction. Approximately $15,000 has been budgeted by JNAPS for the construction of a temporary maintenance training center for use until the National Health Complex building is completed, which will house the permanent National Maintenance Center. $ 15,000

B. JNAPS has recently created a position of Component Manager to be directly responsible for the administration of loan funds. This position is budgeted at $12,5000 per annum for a four years period.

12,500 x 4 $ 50,000

Total JNAPS Inputs..... $ 65,000

2. JLAS Inputs

Inputs from the ten participating local hospital boards (JLAS) will total approximately $650,000 and will be used to finance the following:

- Complementary institutional facilities improvement activities, such as renovation, repair, and/or expansion of existing facilities estimated at $500,000.
- Additional personnel expenses estimated at $150,000 for expanded staff, to include at each hospital
  - National Medical Maintenance Center trained Individuals
  - Dietary Supervisors
  - Increased Ancillary Personnel, as required.

3. A.I.D. sponsored inputs to Component Three will approximate the following:

A. Construction. Estimated construction costs for maintenance subcenters to support regional and departmental hospitals in Regions II, IV and V, will approximate $100,000 broken down as follows:

- 2 Regional Maintenance subcenters at $15,000 each	$ 30,000
- 6 Departmental Maintenance subcenters at $10,000 each	60,000
- 2 Departmental Maintenance subcenter at $5,000 each	10,000
	$ 100,000

B. Commodities. Approximately $200,000 on A.I.D. funds will be used to properly equip the National Medical Maintenance Center and area subcenters, allocated as follows:

1. Maintenance Equipment

- National Medical/Maintenance Center at	$80,000	
- 10 Regional/Departmental Subcenters at	$30,000	
		$ 110,000

2. Tools

- National Medical Maintenance Center at	$28,000	
- 10 Regional/Departmental Subcenters at	$25,000	
		$ 53,000

3. Vehicles Assigned to National Medical Maintenance Center

- 1 Truck at	$17,500	
- 3 Utility Vehicles (Suburban Van type) at	$19,500	
TOTAL.....		$ 37,000
		$ 200,000

C. Training and Technical Assistance.

Approximately $50,000 will be budgeted to provide technical assistance to the National Medical Maintenance Center in the form of instructors who are expert in the more sophisticated aspects of medical maintenance. Up to an additional $50,000 will be available to provide scholarships for individuals to be trained in maintenance at the Center as well as other priority activities.

D. Facilities Improvement

Approximately $700,000 will be used to equip selected rural hospitals. A tentative and illustrative list of areas within each of the ten regional/departmental hospitals within Regions II, IV, and V to receive A.I.D. funded equipment is shown in the following Table.

PANAMA

Project Name and Title:	Rural Health Delivery Systems, 528-0181
Project Cost:	$9.5 million grant (Total Project Cost--$18.2 million)
Project Life:	FY1976-FY1981
Target Population:	150,000 (in 225 rural communities)
Area of Coverage:	Regional

Project Purpose:

To institutionalize an improved integrated low-cost public health delivery system providing preventive and curative health care services and adequate environmental sanitation conditions to the marginal rural populations.

Health Component:

Primary health care services within the framework of a systematic referral system will be developed for rural communities. Health assistants and nurse auxiliaries (500) will be trained to function at this rural level in health posts to provide health services and refer patients to the health centers and subcenters of the health care system. The health care system will be strengthened by the development of the following facilities: four rural health centers, 14 health subcenters, 225 rural health posts.

Training (4 months) for the health assistants will consist of instruction in primary and community health care, i.e. the basics of vaccination, first aid, childbirth, MCH care, environmental sanitation, community organization, and referral techniques. The assistants will be responsible for providing instruction to local Health Committees and other inhabitants personal hygiene and sanitation (the health assistants will be selected and training at the provincial level by medical personnel with knowledge of their assigned tasks). The Project will also fund educational materials training programs for the instructors, trainees' per diem, transportation, and curriculum development. To insure adequate mobility, the health assistants will be provided with transportation such as horses, boats, etc. The health assistants will be visited periodically by agronomists, nutritionists, physicians and nurses operating out of the nearest health center or hospital.

Environmental sanitation conditions will be improved through the:

a) construction of 300 rural aqueducts;

b) installation of 400 hand-pumped wells; and

c) construction of 13,800 latrines.

Some 20 sanitary technicians will also be trained under the Project to assist the MOH (Ministry of Health) in supervising these and other activities.

Technical personnel and training programs will be financed under the loan to address the administrative constraints posed by the integration of the financing and administrative functions of the MOH and the Social Security agencies. Additionally, to insure adequate managerial capacity for administering provincial health care systems, 10-15 provincial medical directors and other key administrative personnel will receive graduate public health training in the U.S.

Population Component:

The community health assistants will be trained to provide family planning and childbirth services.

Nutrition Component:

The community health assistants will be trained to provide nutrition services. Additionally, this instruction by the assistants includes information on nutrition during pregnancy and for young children.

A secondary element of the Project is the development of community gardens and small animal projects to improve the nutritional intake of the rural population. The health assistants will also support these elements of the Project.

Project Outputs:

a) Development of 48 additional community gardens, averaging five hectores each, established and functioning for a total of 200 functional gardens.

b) Development of 75 small animal projects.

c) Strengthen and enlarge the capacity of the public health sector for training and utilization of 500 indigenous health assistants and nurse auxiliaries capable of providing basic health services, environmental health services, nutrition education, MCH care, family planning services, and promotion of agricultural technology.

d) Integration of the organizational and administrative capabilities of the MOH and CSS (Social Security) health systems at the national and provincial levels.

e) Construction, staffing, and equipping of four rural health centers, 14 health subcenters, and 225 rural health posts.

Project Inputs:

See Table A for detailed outline of the project inputs.

Host Country Activities:

The various construction activities funded in this Project will be carried out mainly by the MOH (included are the construction of the latrines, aqueducts and well pumps).

In the small animal farm component, the MOH provides limited poultry animal feed, vaccinations, feeders, and personnel to train the community farmers in the use of the equipment and financial accounting. A MOH agronomist, working with the rural communities, will participate in the community garden program by delivery farm equipment, supplies, and instruction in farming technologies.

The MOH, in an attempt to improve field communications between the agronomist and farming community, will establish a radio communications network.

The MOH will fund the training of auxiliary health workers to be stationed in the health subcenters and posts. This auxiliary health worker project will compliment other attempts to increse community health manpower.

The MOH has also instituted activities which foster the development of criteria for the:

1) selection of communities to participate in the community garden and poultry programs;

2) selection of the sites for construction of the proposed health facilities;

3) recruitment of health assistants; and

4) selection of sites for the development of the aqueduct, water, and sanitation systems.

TABLE A

Components	Total No. of Units	Unit Costs	Contributions A.I.D.	Contributions G.C.P.	Contributions Communities	Total 1/ Cost	Total Contributions A.I.D.	Total Contributions G.C.P.
I. HEALTH POSTS	125	$9,960	$6,000	$2,460	$1,500	1,545,000	$750,000	557,500*
Investment								
Land		500			500			
Construction		4,600	4,000		600			
Plans & Supervision		460		460				
Equipment		2,000	2,000					
OPERATIONS								
Personnel		1,200		1,200				
Materials/Supplies		1,200		800	400			
II. SUB-CENTERS	14	27,040	16,900	8,040	2,100	495,460	236,600	207,060*
Investment								
Land		500			500			
Construction		12,900	12,900					
Plans & Supervision		1,290		1,290				
Equipment		4,000	4,000					
OPERATIONS								
Personnel		1,060		3,060				
Materials/Supplies		5,290		3,690	1,600			
III. RURAL HEALTH CENTER	4	155,282	66,620	64,662	24,000	941,128	266,480	498,648*
Investment								
Land		4,000			4,000			
Construction		46,620	46,620					
Plans & Supervision		4,662		4,662				
Equipment		20,000	20,000					
OPERATIONS								
Personnel		35,000		35,000				
Materials/Supplies		45,000		25,000	20,000			
IV. AQUEDUCTS	150	25,500	13,350	5,850	6,300	3,825,000	2,002,500	877,500
Equipment		15,000	13,350	1,650				
Installation		10,500		4,200	6,300			
V. HAND PUMP WELLS	400	1,270	530	540	200	508,000	212,000	216,000
Equipment		990	530	460				
Installation		280		80	200			
VI. LATRINES -	10,000	168	60	68	40	1,680,000	600,000	680,000
Equipment		60	60					
Installation		108		68	40			
VII. COMMUNITY GARDENS	48	19,000	15,000		4,000	912,000	720,000	
VIII. SMALL ANIMAL PROJECTS	75	5,120	4,000		1,120	384,000	300,000	
IX. ADMINISTRATION			400,000			400,000	400,000	
X. TRAINING			260,000			616,912	260,000	356,912
XI. EQUIPMENT			252,420			252,420	252,420	
TOTAL COSTS						11,559,920	6,000,000	3,393,620
I. HEALTH POSTS	100	$9,960	$6,000	$2,460	$1,500	1,236,000	600,000	446,000*
II. REMODELING EXISTING SUB-CENTERS & CENTERS						349,500	349,500	
III. AQUEDUCTS	150	25,500	13,350	5,850	6,300	3,825,000	2,002,500	877,500
IV. TRAINING						571,392	320,000	251,392
V. LATRINES	3,800	168	60	68	40	638,400	228,000	243,400
TOTAL COSTS						6,620,292	3,500,000	1,818,292

* Represents operating costs for two years (average for life of project).

1/ Due to the asterisk, Number Units X Unit Cost will not equal Total Cost.

Other Donor Activities:

PAHO (Pan American Health Organization) sponsored technical assistance, training programs, and provided funds for the MOH and IDAAN (National Water and Sewerage Institute) personnel working in the area of environmental sanitation. PAHO also supplied funds for the Project's capital investments in potable water systems and latrine construction. UNICEF (United Nations International Children's Educational Fund) has provided 230 hand diesel tractors for the MOH community garden program. The MOH has made 29 tractors available for the gardens proposed in this Project. Additional tractors required for the Project will be obtained with counterpart funding.

IDB (Inter-American Development Bank) negotiated with IDAAN funds for rural aqueducts and sewerage systems.

Issues

Major issues facing the Project's development and implementation were not specifically identified; however, some problem areas may be:

a) GOP and AID's continuing financial and philosophical support of the Project;

b) existence of a developed pharmaceutical resupply storage, and transporation infrastructure;

c) financial mechanisms exist to compensate the auxiliary health workers;

d) recruits for the auxiliary worker training programs will be available;

e) rural communities will follow-up with appropriate activities upon Project Completion;

f) prevalence of supervision and technical backstopping at all levels within the health delivery system;

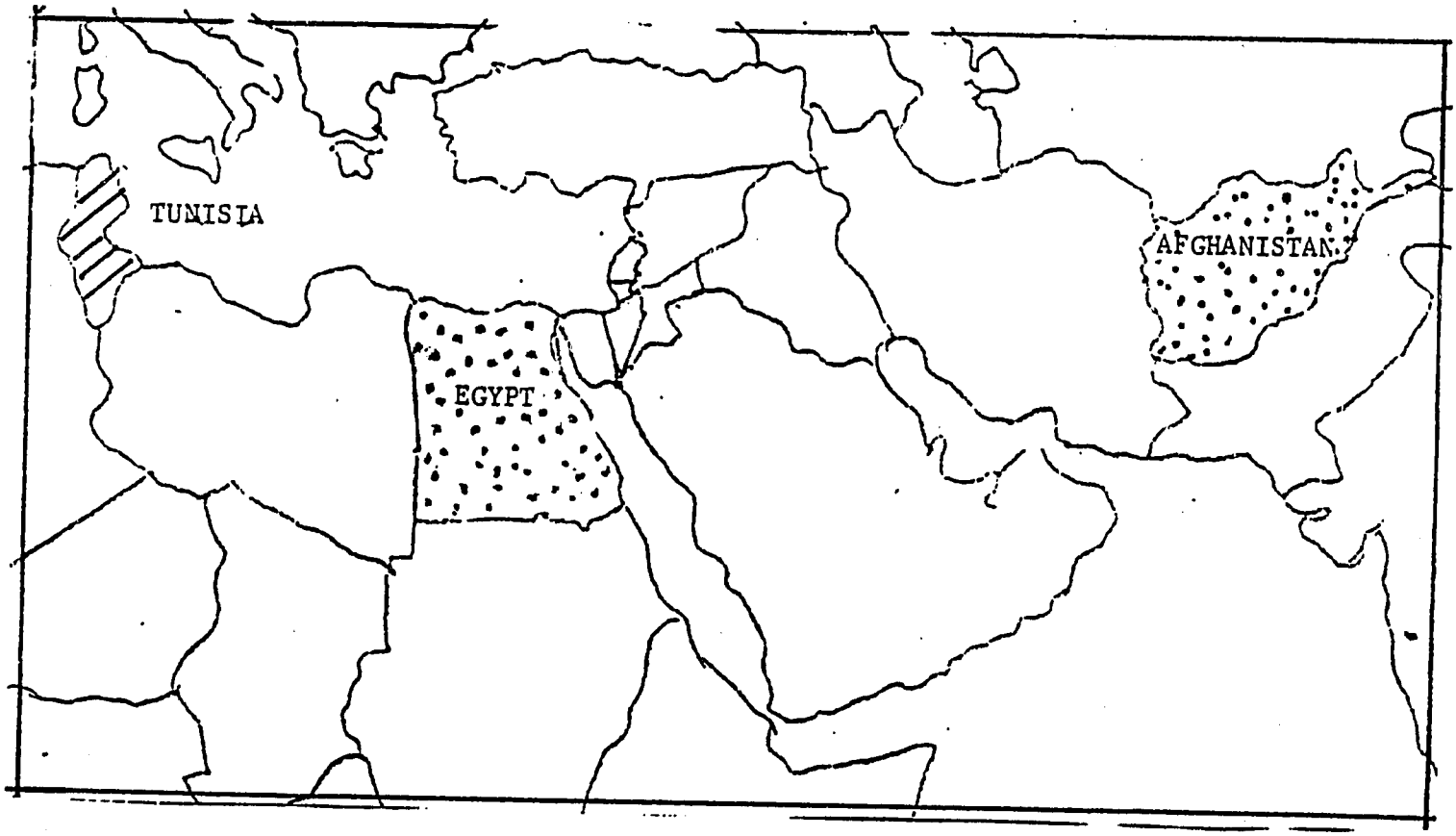
g) manaterial/administrative capabilities exist at the rural level to manage the Project;

h) the MOH and CSS integration of health systems will bring about coordination in the management and delivery of health services.

Source of Information:

Panama Rural Health Development Delivery System Project Paper.

SUMMARY OF
NEAR EAST INTEGRATED
HEALTH NUTRITION DELIVERY
SYSTEM PROJECTS



REGIONAL

NATIONAL

AFGHANISTAN

Project Title and Number: Basic Health Services, Project #306-0144

Project Cost: $6.42 million (AID grant--$4.2 million)

Project Life: FY 1976 - FY 1979

Target Population:

The number of beneficiaries for the Phase I Project is 830,000. Females, children, and adults will receive health services in proportions corresponding to their numbers in the target population.

Area Coverage:

Fifty Minor Civil Divisions within four of Afghanistan's six health regions.

Project Purpose:

(1) To provide basic health services with emphasis on services for women and children to 830,000 persons living in 50 Minor Civil Divisions ("county") within four of Afghanistan's six regions.

(2) To provide two or more Alternative Health Delivery Systems (AHDS) which when widely replicated will provide minimal health service for those persons who will not have reasonable access to a basic health center.

The Problem:

Afghanistan is, by most all international measures, among 25 of the least developed nations. Not unexpectedly, it shares the problems of these less developed countries.

Recent large scale national surveys by the Government of Afghanistan (GOA), and specifically targeted studies under the Ministry of Health (MOH, indicated birth rates as high as 50/1000, and death rates of over 30/1000 (with rural deaths occurring at about twice the urban level), with particularly punishing effects on women and children.

Maternal mortality has been variously estimated from 64 to as high as 300 per thousand with even the lower and perhaps more accurate estimates, 100 times the level encountered in the United States and Sweden. The mortality approximating 200 per thousand live births, and deaths between the first and fifth year similarly elevated.

While data is scarce on the major causes of death and disability, and while there is some variance in rank order; in the first year of life and the years 1-5, all studies confirm that diarrheal disease, other infections and respiratory diseases, measles, and nutritional deficiency are the major contributing factors in childhood deaths, which is, in turn, the predominant category of mortality in the Afghans seen today.

Women approaching completed fertility, that is, ages 35-44, have an average of 7.1 live births, approximately 30% of whom died. The overall mortality rate for the same population in the previous year was 20.1 per thousand, 68% of which were children under five years of age.

Health, Population and Nutrition Components:

Within the Project two specific types of programs are being implemented: Basic Health Services (BHC) and Alternative Health Delivery Systems. A prerequisite to the achievement of the BHC Project goals is the training to auxiliary Nurse Midwives (ANMS) and the assignment of BHC (Basic Health Centers) to their home regions. The ANWs would be available to provide medical services primarily to women and children. This Project would fund training programs for the ANWs as well as the following: (1) establishment and coordination of the management systems (including personnel assignment, logistics and supply clinic information systems); (2) trained personnel to perform other paramedical, medical and administrative tasks; and (3) recent and constructed facilities necessary to provide health services to the rural population.

The Project will activate 50 BHCs in Kunduz, Kandahar, Balkh and Ghazni regions. The health regions of Afghanistan are comprised of Rank I, II, and III BHCs. The Rank I BHC includes a polyclinic of ten rooms, a training center, administrative offices, and living quarters for personnel. The Rank II BHC consists of a polyclinic and living quarters for personnel. The Rank III BHC consists of a six room polyclinic and living quarters for BHC personnel. Proposed staffing in the larger (Rank I) BHCs includes a physician or senior nurse, and auxiliary nurse midwife, and two other paramedical personnel (e.g., sanitarian, compounder or male nurse). Smaller BHCs have a proposed staff of senior nurse or physician and an ANW. In-service occupational and team training is planned using BHC manuals and materials already developed.

Each BHC provides the following services: (1) diagnosis; (2) effective treatment for 80% of the diseases present; (3) referrals to provincial hospitals; (4) family planning; (5) midwifery and maternal and child health; (6) health education for nutrition and sanitation; and (7) vaccination services by the assistant nurse, midwife and vaccinator. A

referral system for more complex cases is a part of the BHC delivery system (specialty hospitals and general hospitals provide services for the BHC's). Unfortunately, no attempt is made in the Project Paper (PP) to discuss task delineation or supervisorial roles of the BHC workers.

Higher level training is planned in health planning, program administration (supply and transportation management), and ANW trainer training. Another element to the Project is the establishment of outreach programs for health, nutrition, and family planning (more specific data on these activities is not given). The PP also proposes the development of family planning/ medicament kits composed of antidiarrheal medication, antibacteria ointment, aspirin and condoms to be distributed by the ANWs to the villages. Resupply systems for the distributed kits will also be implemented.

The Project Paper (PP) implies that the AHDS component may be based on two health delivery system models: the volunteer Village Health Worker (VHW) Model and the Community Entrepreneur Model. In an area including a number of settlements, but no commerce, the volunteer Village Health Worker Model appears to be suitable according to the PP. In larger villages or settlement clusters, in which there is commerce used by all, a storekeeper might be the most appropriate dispenser of health education and services (a "Community Entrepreneur Model"). In addition, in those areas where transportation is sufficiently developed, the BHCs can be expected to play a direct role in training and supervision of the workers in all AHD models.

In Model I the VHW would provide advice on childhood malnutrition detection and prevention, weaning, practices, hygiene as it relates to diarrhea, first aid, food storage and preparation, family planning and contraceptive services. In all AHDS models the workers would be capable of performing simple diagnosis and treatment (or referral) of gastro-enteritis and children's diarrhea, conjunctivitis and trachoma, "aches and pains", skin infections, worms, and bronchitis and pneumonia.

In the VHW Model, the rural worker would be trained in her village or the Regional Training Center and supervised from BHCs. The worker must be accepted by both villagers and the village leaders. It was not determined in the PP how many families could be served by a VHW, whether it is desirable to have two VHWs working as a team, and what would be the appropriate supervisory mechanisms.

The community entrepreneur in Model II would be chosen based on his/her interest and ability in handling basic medicines. His/her selection would be approved by the villagers and their leaders.

Project Outputs:

The project outputs for the Basic Health Services Project in Afghanistan are divided into BHC outputs and AHDS outputs. Four outputs for BHS are identified. They include:

(1) four operational regional offices supporting BHC and AHDS experiments;

(2) fifty operational BHC's;

(3) ANM school operating at an optimal level (an estimated 140 ANW will complete training by the end of the Project);

(4) BHC personnel trained and assigned;

(5) BHC supply systems expanded; and

(6) client record system operating.

Within the AHDS, only two specific outputs are mentioned. They are:

(1) two or more AHDS designed and approved for testing and

(2) elements of one or more AHDS demonstrated effective and financally and administratively feasible.

Project Inputs:

Nine categories of inputs have been identified within the project. These include inputs from USAID, GOA (Government of Afghanistan) and other donors such as UNICEF. Table I indicates the various types of inputs and the specific indicators over the three-year period.

Host Country Activities:

According to the PP the MOH (Ministry of Health) has demonstrated the administrative flexibility necessary to implement the Project. The MOH is responsible for making the necessary administrative changes. The Presidency of Coordination and Planning, Presidency of the Basic Health Services, and the Presidency of Administration are three government agencies which are intricately involved in design and implementation of the Project. New personnel positions will be created in these agencies to facilitate the decentralization of health activities nationwide. Counterparts from these agencies will work closely with AID personnel in the development of the training programs; logistical, management, and information systems; and the AHDs.

Other Donor Activities:

UNICEF (United Nations Children's Fund) contributions will finance drug supplies, as well as some BHC equipment, vehicles and potable water supplies (see the section on project inputs). In addition UNICEF furnishes technical assistance in the maintenance of the vehicles.

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NO. 263 and 264

TABLE ONE: PROJECT OUTPUTS AND COSTS

Inputs	Year 1	Year 2	Year 3	TOTAL
1. Construction	$ 302,260	$ 584,760	$1,711,130	$ 2,598,150
- Buildings	127,500	387,500	1,630,000	2,145,000
- GOA	(89,250)	(96,875)	(407,500)	(593,625)
- USAID	(38,250)	(290,625)	(1,222,500)	(1,551,375)
- Water	32,500	55,000	22,500	110,000
- GOA	(6,500)	(11,000)	(4,500)	(22,000)
- UNICEF	(26,000)	(44,000)	(18,000)	(88,000)
- Land (GOA)	25,000	25,000	-	50,000
- Tech Support (GOA)	117,260	117,260	58,630	293,150
2. Equipment	140,000	90,000	15,000	245,000
- GOA	15,000	45,000	15,000	75,000
- USAID	-	20,000	-	20,000
- UNICEF	125,000	25,000	-	150,000
3. Rent	1,880	13,440	4,680	20,000
- GOA	470	3,360	1,170	5,000
- USAID	1,410	10,080	3,570	15,000
4. Outreach Projects (USAID)	-	40,000	21,000	61,000
5. Supplies, Repairs	19,700	79,050	159,000	257,750
- GOA	5,700	31,800	71,500	109,000
- USAID	12,800	43,200	80,000	136,000
- UNICEF	1,200	4,050	7,500	12,750
6. Personnel	607,800	732,800	610,900	1,951,500
- GOA	47,200	158,300	301,000	506,500
- USAID	553,200	553,200	276,600	1,383,000
- UNICEF	7,400	21,300	33,300	62,000
7. Participants (USAID)	220,000	170,000	35,000	425,000
8. Sub-Total	1,291,640	1,710,050	2,556,710	5,558,400
9. Contingency	24,040	66,395	247,875	338,310
- GOA	14,400	16,200	61,800	92,400
- USAID	5,740	43,595	183,375	232,710
- UNICEF	3,900	6,600	2,700	13,200
10. Inflation Allowance	-	35,275	173,900	209,175
- GOA	-	19,500	70,100	89,600
- USAID	-	12,000	99,000	111,000
- UNICEF	-	3,775	4,800	8,575
11. GRAND TOTALS	$1,315,680	$1,811,720	$2,978,485	$6,105,885

WHO (World Health Organization) provides indirect technical assistance in drug procurement. FAO (Food and Agriculture Organization) provides food for distribution by BHCs as part of a MCH (Maternal and child health) program of the MOH (the MCH program is not a component of this Project). The World Food Program/FAO finances food imports which are distributed through several channels including the Basic Health Services of the MOH. Food distribution activities in the BHC may disrupt other health activities performed by the paramedical personnel. However, the Program also encourages villagers to come to the BHC's where they are encouraged to use the services.

The UNFPA (United Nations Fund for Population Activities) is financing national data collection and registration activities. UNFPA also has a Family Planning Services Project. These UNFPA activities may serve as future points of interaction with this AID Project.

Issues:

Some areas of discussion are:

(1) Continued GOA, AID, and other donor financial support and management interests are always essential to Project completion and future follow-up activities.

(2) A task analysis for the BHC workers is necessary to better define the areas of responsibility and supervision.

(3) The GOA is deeply involved with other donor financed projects, such as the IBRD irrigation project. The GOA has pledged priority one status for this AID project, however, there is the possibility of conflict between these other projects and the AID Project. GOA staff assignments and logistical support is limited which restricts their availability.

(4) There is a shortage of drugs within the BHCs as a result of inefficient MOH drug distribution system. All MOH health services and supplies are free thus complicating the drug shortage situation. The possibility of substituting some payment mechanism should be carefully considered by the MOH (as suggested in the PP).

(5) The possibility of interacting with other donor financed projects should be studied carefully particularly the proposed UNFPA family planning projects.

Additional Information Required:

As with most of the other project papers we have reviewed, additional information is required detailing the specific activities of the various levels of health workers.

Source of Information:

Afghanistan Basic Health Services Project Paper.

EGYPT

Project Title and Number: Improvement of Rural Health, 0263-0015

Project Cost: $11,570,000 (AID Grant--$8.5 million)

Project Life: FY1977-FY1981

Target Population: Not Defined

Area Coverage: Regional

(The project will assist the Egyptian Ministry of Health (MOH) to conduct a number of field tests in eight districts.)

Project Purpose:

The purpose of this project is to identify and validate, through field testing, replicable methods to reduce or eliminate some of the major identified constraints to the system. These constraints are in the areas of communication, management, supervision, motivation, and incentives. A further project purpose is to mobilize greater support and commitment of resources to the rural health program within the MOH.

The Problem:

The current health status of the Egyptian rural population is a crucial national problem, and under present circumstances, it represents a significant barrier to economic progress. Poor health, physical impairment and premature death debilitate the Egyptian work force and, although an unskilled surplus will exist for sometime in the future, there are recent estimates of increasing deficits in all levels of skilled manpower to emerge in the near future.

While the GOARE (Government of Arab Republic of Egypt) has made an impressive attempt to cope with the rural health problems by constructing and maintaining a fairly large government-operated health delivery system it is clear that it still faces formidable and complex impediments to improving the health status of its poor majority and that its infra-structure suffers deficiencies in several areas. These deficiences correspond to those burdening general social and economic development, imparing effective deployment and utilization of the skills and resources that the health system already possesses.

Health Component:

This Project proposes to assist the MOH conduct a number of field tests in 8 selected districts. These tests are designed to identify the principal constraints limiting productivity and outreach of the rural health system. Through a series of structured field tests, the Project intends to measure the impact of: (1) improved transportation and communication on health services delivery and outreach; (2) various patterns of rewards and incentives on job performance; and (3) better supervision and training on the range, quality, and quantity of services being delivered under the system.

Emphasis in project design is to be placed on testing the utilization of rural health facilities and the efficiency of the services provided. Project activities will be conducted in 207 health centers and units. Some tests are proposed for all 8 districts, while other tests are applicable to selected pairs of districts (Universal Tests versus Particular Tests).

The following list contains illustrative examples of Universal Tests in communications as a means of spurring incentives (motivation) and management (supervision):

(1) Involvement of all health unit and center personnel in delivering family planning, maternal and child health (MCH), environmental sanitation, and nutrition education to villages.

(2) Development of most effective education techniques in family planning, MCH, sanitation, nutrition, etc., by rural health system staff.

(3) Variation in the types of educational techniques, methods of service delivery, frequency of service delivery, service delivery roles of personnel, relationship to health education, etc.

Particular Tests in the Project may include the following aspects:

(1) Health education at health facility is linked to routine infant nutrition checks, mobilization attempts of mothers, and family planning, immunization and other nutrition services.

(2) Variations in health center nurse/midwife supervision, emphasis may be placed on the delivery of MCH, family planning and nutrition services.

(3) Research on environmental sanitation, schistosomiasis and malaria control with emphasis on health education.

In addition to the field tests several departments of the MOH will be strengthened to provide logistical, design and analytical support, to the Project. It also proposes to expand and equip staff in the areas of statistics, program evaluation and design, manpower planning, survey research, nursing services (to provide greater supervisory support), communicable disease, and MCH.

Population Component:

Special emphasis is to be placed on testing several educational, motivational and technological approaches to family planning that will be acceptable to the rural villagers. The health component section outlines examples of possible family planning tests.

The Project proposes to train MOH staff in supervisory techniques involving elements of MCH, health, nutrition, and other functions of the health centers and units to facilitate the delivery of family planning education and services.

Nutrition Component:

Research studies, training of nutrition staff, and provision of equipment and supplies are elements of the Project which are proposed to better assist the activities of Egypt's Nutritior Institute.

The health component section outlines illustrative examples of possible nutrition tests.

Project Outputs

The project paper identifies fourteen specific measurable outputs to be achieved by the end of the project. They are as follows:

1. Identification of significant motivational factors that affect Egyptian rural health delivery system performance.

2. Analysis and training established within the MOH concerning job descriptions, job assessments, setting of work norms, design of related supervisory tasks as these all concern universal and particular tests.

3. Analysis and training established within the MOH concerning statistics gathering, assessment, collation and summarization for policy makers.

4. Evaluation systems design analysis and operations established within MOH.

5. Training established within the MOH concerning analysis of family health records, maintenance of the same, and use of same for strengthening rural health care outreach.

6. At least two different point-to-point modes of communication between all levels tested, costed and checked for management efficiency, as well as use of maintenance.

7. Training and equipment in the analysis and delivery of effective message content with reference to MCH, family planning, nutrition, and environmental sanitation as villagers; means of combined and separate delivery by health unit and center staff developed; and communication modes of supervision developed.

8. Low cost communicable and endemic disease control service packages for units and centers designed, tested, equipped, and staff trained in their application.

9. Development of Universal test designs for use of varying types/capacities of American and foreign transport in the rural health system; i.e., jeeps, carryalls, half-ton heavy duty land rovers.

10. Installation of motor vehicle inputs per test district and at other crucial points in the system under appropriate norms and conditions, with careful reference to management/control maintenance and analysis of their effects upon operation of the rural health delivery systems.

11. A central add-on equipment installations for health units, centers, districts, governments and supporting elements of Ministry designed and in use by trained personnel.

12. Health economics, health status, health service delivery profiles and studies designed, executed and evaluated.

13. Participant training in third country observation designed and operational so as to provide incentives, correct training and methods, and widened perspectives to all project elements.

14. Village councils, and other ministry programs effectively engaged in supporting health services delivery tests under guidance of the Ministry of Health.

Project Inputs:

Project inputs are concentrated in two primary areas, technical assistance and equipment. The total funds allocated for the project are $11,570,000 of which $.1 million are GOARE funds allocated for vehicle operation and maintenance, miscellaneous supplies, and project staff. AID will fund $8.5 million for the 5-year Project. About $1.5 million is allocated for technical assistance while $4.53 million has been allocated for equipment. In addition, resources will be utilized for training, vehicle operation and maintenance, miscellaneous supplies, project staff and other contingencies. Of the technical assistance funds $300,000 will be used for a contract resident for five years. The other $1.2 million in technical assistance funds will be utilized by contract consultants.

The equipment to be purchased include $2.2 million in vehicles, spare parts, and maintenance facilities; $400,000 in communications equipment; $.25 million dollars for immunization and cold chain equipment; $650,000 in nutrition and family planning equipment; $400,000 for educational and construction materials and equipment; $330,000 for office equipment; and $300,000 for environmental sanitation testing equipment.

Host Country Activities:

The MOH is providing in-country training, equipment, supplies and staff to the Project. Table A outlines the MOH project inputs by MOH department level.

The MOH serves as the implementing agent for the Project at the national level. During the field test project operations the 4 Governments (each containing 2 of the 8 districts) will manage the associated activities. These Governments are staffed by MOH personnel and will assume local level project management.

Other Donor Activities:

This Project is not financed by other foreign donors. UNICEF (United Nations Children's Fund), Project HOPE, and WHO will continue to fund projects in health-related areas in Egypt. However, their activities are not directly associated with this Project.

HEW initiated in 1976 a health project designed to assess patient flow patterns to determine the levels of health care provided by the rural health system. The results of this research can be of great value to this Project.

Issues:

(1) Field tests can readily isolate the variables associated with effective health service delivery.

(2) Field tests can identify replicable techniques related to better management, communications, and manpower motivation.

(3) AID and MOH funding and technical support must continue.

(4) Periodic evaluation must exist throughout to monitor project performance.

(5) The technical feasibility of the Project may be questionable as a result of the complexity of field tests and limited AID contract personnel involved.

(6) In-country coordination and philosophical support at all times are essential elements to Project success.

(7) The Project Paper is particularly negligent in defining the various field tests to be performed. Data on this subject located only in the Project Review Paper.

Further Information Required:

While the project does not address itself specifically to health, population and nutrition activities, it is unclear from the project paper exactly the course to be undertaken during the course of the project. From the broader perspective of our review of nutrition, interventions into low cost health delivery systems, it would be tremendously useful to be able to utilize and evaluate mechanisms developed during the course of this project. From the broader perspective of our review of nutrition, interventions into low cost health delivery systems, it would be tremendously useful to be able to utilize the evaluative mechanisms developed during the course of this project. The issues of replicability, sociological feasibility, and impact have been glossed over during the course of the project paper.

Source of Information

Egypt Improvement of Rural Health Project Paper.

TABLE A

Ministry of Health Project Inputs

Department:	Staff:	Training in Country by	Training Abroad:	Equipment:	Supplies
1) Planning & Projects	12	U.S. Systems Analyst	3 4 (3rd country Obs.)	8(1Vehicle/ Test District)	Office Equipment
2) Statistics & Evaluation	14	U.S. Statistician & U.S. Eval. Specialist	6	8 (1 Vehicle/ Test District) Office Equip. & Calculators	Egyptian Funds for Surveys, etc.
3) Manpower Training	2	—	1	Office Equip. & Calculators	—
4) Health Economics	4	- Health Economist - Budget Analyst	2	Office Equip. & Supplies	Funds for Surveys & Studies
5) Research	10	- Med. Anthro. - Epidemiologist	4 6 (3rd country obs.)	Office Equip. & Supplies	Funds for Surveys & Studies
6) Nursing Services	4	- Nursing Supervisor	2	4 (1 Vehicle/ Governorate)	—
7) Communicable Disease Control	4	- Immunologist	-	—	-Special Imm. Equipment -Vaccine Refrig. Equipment

TABLE A (Continued)

Department:	Staff:	Training in Country by:	Training Abroad:	Equipment:	Supplies:
8) MCH	8	- Systems Analyst	2 4 (3rd country obs.)	—	- Unit Center MCH Equip.
9) School Health		-Health Education	2		-Education & Training Material
10) Nutrition Institute		- Nutrit. Ed. Spec. Nutrition Research Specialist	4 2 (3rd country obs.)	2 Vehicles	- Reprod. Equip. Office & Cal. Equip.
11) Combatting Schistoso-miasis					- Unit Detect. Equipment
12) Combatting Malaria & Insects					- Unit Detect. Equip. Spray & Dust Equipment
13) Health Education	8	- Health Education	4 2 (3rd country obs.)	8 Vans 1 Vehicle/ Governorate	- Reprod. Equip. - Training Material
14) Institute of Tropical Medicine			2		- Lab. Equipment
15) Field & Applied Research Center		- Med. Anthro. - Epidemio-logist	2	1 Vehicle	Office and Test Equip
16) Manpower Training		- Health Train. Methods	2		Office Equipment

TABLE A (Continued)

Department:	Staff:	Training in Country by:	Training Abroad:	Equipment:	Supplies:
17) Family Planning	14	- Demographer - F.P. Methods - F.P. Messages	4 16 (3rd country obs.)	8 Vehicles (1/District) 4 Vehicles (1/Gov.)	Equipment and Supplies
18) Finan. Admin.	4	- Systems Analyst - Budget Spec. - Health Econ.	2	—	Office Calculator Equipment
		- Personnel Ad. - Records & Mgt. Info. Spec.	2	—	- Maintenance Equip. - Records Equipment - Mgt. Info. Systems - Computer Time & System
20) High Institute Public Health		- Health Adm. Spec. - Health Ed. Spec.	5 3(3rd country obs.)	4 Vehicles	-Funds for Surveys & Field Work
21) Technical Institutes		- Health Ed. - Health Tng. Specialist - Records Spl. - Lab. Specl. Environ. Specialist	10 11 (3rd country obs.)	4 Vehicles	- Lab Equipment - Training Materials
		- All consult. personnel plus comm. Specialist; Transport Specialist; Environ. Specialist	25 20 (3rd country obs.)	229 Vehicles*	- Equipment for env. Sanitation - Other Equipment - Vehicle Maint. Equipment

TABLE A (Continued)

Department:	Staff	Training in Country by:	Training Abroad:	Equipment:	Supplies
23) Other Ministries		- System. Anal.		—	- Equip. for Good Village Council
- Local Govt.			4 20 (3rd country obs.)		
- Social Affairs			4 8 (3rd country obs.)		- Special Equipment Pioneer Training

24) Studies/increments: stretched across all operations where essential.

TOTALS:					
	25	140	20 Consl.	92 (S/T & L/T 96 (3rd Country Obs.)	291 Vehicles	- Equipment - Training Material

229 Vehicles for Rural Health Services (see note at beginning of this section)

- Governorates (4 each) X 4 = 16
  - 1 for Project Exec. Director
  - 1 for Training Officer
  - 1 for Transport/Communications Officers
  - 1 for Supervision Back-up
- Districts (3 each) x 8 = 24
  - 1 for Project Field Executive Directors
  - 1 for MCH Supervision
  - 1 for Environmental Sanitation Supervision
- Centers (2 each) X 50 = 100
  - 1 for MCH Supervision
  - 1 for Environmental Sanitation Supervision
- Units (only for assignment where dispersed population warrants) = 81
- Districts (1 Truck each) = 8

TUNISIA

Project Title and Number: Rural Community Health, 664-0296

Project Cost : $5.4 million (AID Grant and Loan--$4.0 million)

Project Life : FY 1977 - FY 1980

Target Population : Sidi Bou Zid and Siliana Provinces have roughly 200,000 persons for a total target population 400,000.

Area Coverage : Regional

Project Purpose:

This project is designed to enhance the quality and coverage of health services in two rural provices through the following:

(a) A restructured health manpower system for non-physician personnel;

(b) The integration of preventive and curative primary health services (including family planning);

(c) An expansion in the outreach components of the primary care system;

(d) Expansion and improvement of the facilities and equipment for primary care.

The Problem:

Over the past twenty years in Tunisia, much has been done to redress a very poor health system. A nationwide network of clinics and hospitals had been established providing some access to minimal basic curative services in all provinces. These services are provided at no cost to the population.

Over the period of this reorganization of the health services, malaria and typhus have been eliminated, infant mortality has dropped from more than 200 to a little more than 100, and general life expectancy has increased by ten years to about 55.

Health, Population and Nutrition Components:

The specific curative and preventive services to be integrated in the project are not identified. However, general categories of these services are listed below:

(1) Adult routine basic clinical care for minor illnesses, chronic illnesses, minor trauma and emergency first aid, stabilization of major trauma;

(2) Prenatal, labor and delivery, post-natal, gynecology;

(3) Pediatric routine basic clinical care is indicated in Item 1 above;

(4) Family planning;

(5) Nutrition and Hygiene education;

(6) Immunization/vaccinations;

(7) Environmental education;

(8) Malaria screening;

(9) Water supply testing

(10) Inspection of public and commercial places; and

(11) Dog control

Appendix A indicates the outreach health services available in the community to be provided under the rubric of the project.

Project Outputs:

The planned outputs of this project are:

(1) Curriculum for training non-physician health workers in new duties;

(2) 250 re-trained workers, supervisors, and local officials;

(3) renovation and construction of 40 new primary care facilities;

(4) an operating field training program in rural health for interns; and

(5) an improved patient record and management systems.

Project Inputs:

Project inputs take on two forms, technical assistance and capital assistance. Under technical assistance, AID will fund:

(1) job restructuring and the retraining of front line health workers;

(2) the detailed conceptualization and design of both assistance management and the patient record system to support newly-integrated preventive and curative services for rural areas;

(3) the training and orientation of rural delivery system supervisors and managers as well as the orientation of community leaders;

(4) support for improved clinical experience in medicine and public health for interns assigned to Siliana and Sidi Bou Zid.

The capital assistance activities include the design, renovation, construction and equipping of 40 facilities which will provide integrated primary health services at the delegation, regroupment, and village levels.

The U.S. inputs for the project will provide $2.675 million as reimbursement to the GOT (Government of Tunisia) for construction and renovation costs, $325,000 for equipment and $1 million for technical assistance. This technical assistance will consist of a three-person team and some participant training.

Host Country Activities:

The GOT will share in the project cost by at least 25% through a direct cash and in-kind contribution to the construction costs.

Other Donor Activities:

Other donor activities are not relevant to this Project.

Project Issues:

At the time that PRP was reviewed and approved, the following were identified as areas where more analysis was needed before the project paper was completed:

(a) The development of functional programs for each type of health facility to be assisted;

(b) Fuller agreement with the GOT on the scope and content on the training programs;

(c) Facility designs that were compatible with the functions to be carried out as primary health centers; reasonable estimates of construction costs; and

(d) Confirmation of the capacity of the government to replicate the Siliana-Sidi Bou Zid system in other parts of the country.

The following are the criteria assumptions upon which the successful completion of the project depends:

(a) Continued sustained interest by the MOPH in broadening the functions of non-physician personnel;

(b) The availability of adequate GOT support of an expanding rural health program (people to train; funding to support them);

(c) The availability of qualified U.S. technical assistance team resident in the two provinces;

(d) The acceptability of expanded services delivered by non-physicians to consumers.

Further Information Needed:

In the Tunisia Project, as in the other projects we have reviewed, there is inadequate data on the exact activities required of the various levels of health workers. Details on how these activities will be provided is also lacking. The paper also does not state adequate indicators of the current health status of the Tunisian population.

Source of Information:

Tunisia Rural Community Health Project Paper.

APPENDIX A

In connection with designing this project, A.I.D. consultants have participated in the development of planning assumptions, retraining needs and facilities design. Their detailed observations on this process are contained in their consultant reports.[1]

Under the integration of services policy, salles de soin, MCH centers, maternity centers and the smaller circonscription hospitals will be redesignated as "Basic Health Centers" Type A, B, or C and all new facilities constructed and put into operat: in the delegations and below will follow the new program principles.

In summary the program principles provisionally agreed to are as follows.

Outreach Health Services in the Community

1. Community Services

The outreach services described below will be provided by workers in Types A, B, and C centers as appropriate.

"Community":

Home

Environmental education including burn and poissoning prevention; waste disposal and protection/purification of drinking water; nutrition and family planning education;

[1] Design Study II; Family Health Care, July 28, 1977 Tunisia: Siliana & Sidi Bou Zid Provinces - Integrated Health Services

identification and treatment of conjunctivities and ringworm; maternal education re: dietary regimens appropriate for the home management of mild diarrhea; provision of family planning supplies (condoms and pills); immunizations (not routinely); identification, education and referral of pregnant women, particularly high risk mothers; malaria screening as needed; management and monitoring of chronic conditions as tuberculosis, arthritis/rheumatism, diabetes.

Commercial and Public Areas (1)

* Sampling for analysis drinking water supplies -- piped and well
* Treatment of wells by the method of the jar
* Field testing for residual chlorine

Inspection and control of slaughtering points

Inspection and control of retail establishments, particularly re: stores selling perishable foods, and hotels

* Advising on the protection and improvement of existing water sources
* Advising on the transport and storage of water from the source to the point of consumption

"Schools

Nutrition education; case finding of pregnant women through the children in school; environmental education akin to that offered in the home; identification and treatment or referral of condi-

(1) All listed services are provided by a technician sanitaire. Services indicated by an asterisk may also be provided by centres de sante de base workers on an out reach basis.

tions common in schoolchildren; immunizations; management of chronic conditions such as tuberculosis and diabetes."

2. Type C.Centers

The Type C center provides integrated (curative and preventive) ambulatory services and is intended to serve a population of from 2,000 to 5,000 people. Minimum staff consists of one front-line worker.

"The type C center is proposed in two sizes. A smaller size is fully suitable for intermittant physician visits but planned to initially operate without physician services or midwife services. This first level of facility is staffed by an entry level integrated preventive and curative worker (e.g., recycled malaria worker or aide soignant recycled or aide sanitaire recycled). The only differences between small and large Type C centers are physical size, population served and the presence of itinerant physician services."

Siting criteria for the Type C centers are as follows:

1. In an existing or proposed regroupment;
2. In a village or other agglomeration;
3. In an area which is reasonably approximate to an existing or planned primary school;
4. In places where year-round water supply can be assured through some mix of wells, rain water collection, and haulage by tanker in the dry season;
5. Within the catchment area of a Type A or B center and thus accessible by road or track most of the year for purposes of supervision and resupply; and

6. In areas serving a population of 2,500.

Services provided from the Type C center include:

1. School health
2. Home health
3. Commercial and public area
4. Provision of routine and continuing care as prescribed by a physician--distribution of oral medications, injections and dressings
5. Definitive treatment of minor trauma
6. Stabilization and referral of major trauma (trauma should be read to include burns)
7. Identification and initial treatment of common skin disorders and minor illnesses
8. Identification, temporizing treatment, consultation or referral as appropriate, of serious illnesses (acute pulmonary infection with high fever, fever and stiff neck, moderate and severe diarrhea)
9. Provision of selected pre-natal services (list to be expanded in the case of female provider). Services suggested do not require physical contact/exam of the pregnant woman beyond cursory overall visual inspection and palpation of the ankles for edema, risk assessment by history, determination of hemoglobin, provision of prophylactic oral iron, nutrition education
10. Provision of family planning information and supplies (pills and condoms) with referral IUDs, sterilizations and social abortions.
11. Laboratory services are limited to hemoglobin determination. "

3. Type B Center

The type B center is intended for larger regroupments and areas where population density warrants, and is generally located on all-weather roads. The center is fundamentally an expansion of the Type C center described above (an integrated ambulatory care facility) supplemented by up to 10 maternity beds and a very minimum laboratory capacity. Minimum staff includes one midwife and one integrated front line worker and the center is to be visited by a physician at least one-half day per week. The population served is between 5,000 and 10,000 people.

"Basic Health Center (Centre de sante de base):

Type B

Includes all Type C services and, in addition, a full range of pre-natal, normal delivery, post-natal, and family planning services that fall within the capacity of the sage-femme. Laboratory services limited to non-microscopic urinalysis of protein and sugar and determination of hemoglobin by method as in Type C centers. Includes 5 to 10 maternity beds."

4. Type A Center

The Type A center is situated in a delegation seat and serves a population of 10,000 or more. This center provides basic integrated preventive and curative services and some referral services--maternity services and in-patient infirmary-type services in the areas of pediatrics and medicine. Such a center is staffed by at least one physician and one midwife and

provides basic laboratory services, excluding bacteriology. The bed compliment will not exceed 15, of which up to 10 beds are for maternity, 5 for pediatrics and adult medicine, and 5 to be used as "swing" beds for maternity, pediatric, or adult services as needed.

"Basic Health Center (Centre de santé de base)

Type A

All Type B services plus 5 to 10 general medical/pediatric beds for the definitive treatment of non-surgical, acute illnesses requiring short-term in-patient care; casting of simple fractures; minor surgery that can be accomplished on an out-patient basis under local anaesthesia. Lab services include complete urinalysis including microscopic, white blood count and differential, blood urea and nitrogen, blood glucose, hematocrit, hemoglobin, erthrocyte sedimentation rate, collection of sputum specimens for acid fast staining and culture. It is recommended that space be provided now for later expansion of laboratory functions and eventual installation of radiography or radioscopy."

5. Equipment, Service Capacity, and Staffing Patterns

1. The equipment lists for Types A, B, and C centers respectively are shown in Appendix I. Initial (minimal) and future (more desirable) staffing patterns for each type of center follow in Table 2.

2. The projected annual ambulatory capacity of retrained front-line workers, midwives, and physicians is shown in Table 3.

3. Table 4 shows the projected annual visit capacity of centres de sante de base Types A, B, and C, as well as the derivation of the projected capacity.

4. The location of existing facilties, proposed new construction and renovation, and the final system by type of facility and capacity are summarized in Tables 5 and 6 of the Project Paper (See also Maps--Annex G in the Project Paper)

5. The projected initial ambulatory capacity of the restructured delivery system is shown in Table 7. of Project Paper

6. The geographic distribution of centers and their estimated relation to population is shown in Appendix 2 of the consultant report in Annex I of the Project Paper.