

PROJECT PAPER

for

Improvement of Rural Health Delivery - Egypt

263-11-999-015

In cooperation with the Ministry of Health,
Arab Republic of Egypt (A.R.E.)

July 30, 1976

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PROJECT PAPER FACESHEET

TO BE COMPLETED BY ORIGINATING OFFICE

1. TRANSACTION CODE (FIX APPROPRIATE BOX)

ORIGINAL CHANGE
 ADD DELETE

PP
DOCUMENT CODE 3

2. COUNTRY/REGIONAL ENTITY/GRAantee
EGYPT

3. DOCUMENT REVISION NUMBER

4. PROJECT NUMBER

5. BUREAU

6. ESTIMATED FY OF PROJECT COMPLETION

A. SYMBOL NE B. CODE 4

FY 8 | 1 |

7. PROJECT TITLE - SHORT (STAY WITHIN BRACKETS)

8. ESTIMATED FY OF AUTHORIZATION/OBLIGATION

[Improvement of Rural Health]

MO. YR.
A. INITIAL [T | 0] B. FINAL FY [8 | 1]

9. SECONDARY TECHNICAL CODES (MAXIMUM SIX CODES OF THREE POSITIONS EACH)

333

10. ESTIMATED TOTAL COST (\$000 OR EQUIVALENT, \$1 = _____)

A. PROGRAM FINANCING	FIRST YEAR			ALL YEARS		
	B. FX	C. L/C	D. TOTAL	E. FX	F. L/C	G. TOTAL
AID APPROPRIATED TOTAL	1,902	100	2,002	7,870	600	8,470
(GRANT)	(1,902)	(100)	(2,002)	(7,870)	(600)	(8,470)
(LOAN)	()	()	()	()	()	()
OTHER 1.						
U.S. 2.						
HOST GOVERNMENT.		620	620		3,100	3,100
OTHER DONOR(S)						
TOTALS	1,902	720	2,622	7,870	3,700	11,570

11. ESTIMATED COSTS/AID APPROPRIATED FUNDS (\$000)

A. APPRO-PRATION ALPHA CODE	B. PRIMARY PURPOSE CODE	C. PRIMARY TECH. CODE	FY 10		FY 78		FY 79		ALL YEARS	
			D. GRANT	E. LOAN	F. GRANT	G. LOAN	H. GRANT	I. LOAN	J. GRANT	K. LOAN
A			2,002		1,800		1,200		8,470	
SA	581	583								
TOTALS			2,002		1,800		1,200		8,470	

12. ESTIMATED EXPENDITURES

13. PROJECT PURPOSE(S) (STAY WITHIN BRACKETS) CHECK IF DIFFERENT FROM PID/PRP

To assist the Ministry of Health to identify and validate the principal factors limiting the productivity and outreach of the rural health service and devise replicable strategies to reduce or eliminate these factors as problems.

14. WERE CHANGES MADE IN THE PID/PRP FACESHEET DATA NOT INCLUDED ABOVE? IF YES, ATTACH CHANGED PID AID/OR PRP FACESHEET.

YES NO

15. ORIGINATING OFFICE CLEARANCE

SIGNATURE

W. Templeton per CAIRO 8574

TITLE

Mission Director/USAID

DATE SIGNED

MO. DAY YR.

16. DATE RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION

MO. DAY YR.

PART I Summary and Recommendations

B. Recommendations

1. Summary of Proposed Funding (all 5 years)

Source	AID		GOARE (1)	Total
	US\$	LE	LE	
Technical Assistance				
Contract Resident (5 yrs)	300			300
Contract Consultants	1200			1200
Equipment				
Vehicles, spare parts, main- tenance facilities	2200			2200
Communications equipment	400			400
Immunization & cold chain	250			250
MCH, nutrition & family planning	650			650
Educational & instructional materials & equipment	400			400
Office equipment	330			330
Environmental sanitation test eqpt.	300			300
Local currency budget		600		600
Training	700			700
Vehicle operation & maintenance			1900	1900
Miscellaneous supplies			400	400
Project staff			800	800
Inflation factor	400			400
Contingency	740			740
TOTAL	7870	600	3100	11570

(1) Dollar equivalents

2. Total new AID obligations requested:

Grant funds for Year 1 operations - \$2,002.

Technicians (contract) and Consultants	\$ 410
US Participant training	125
3rd Country participant training	25
Commodities (vehicles, spare parts, and maintenance supplies)	1,092
Inflation factor	<u>250</u>
Sub total	<u>\$1,902</u>
AID owned local currency	<u>100</u>
TOTAL AID	<u><u>\$2,002</u></u>

NOTE: A waiver of US procurement for communications equipment supplied to the rural health service test program may be required. Estimated cost: \$400,000 in FY 78. Purpose is to assure compatibility of new items with present system.

C. Description of the Project

This project will assist the Egyptian Ministry of Health to conduct a number of field tests in 8 selected districts. These tests are designed to identify the principal constraints limiting the productivity and outreach of the rural health system and devise replicable strategies to reduce or eliminate these factors as problems.

The Ministry of Health feels that there are three principal factors limiting the productivity of their extensive and well-staffed Rural Health System. These are:

- the absence of a means of communication between the elements in the system,
- shortcomings in training and supervision, and
- inadequate incentives and rewards to motivate staff to high levels of performance.

Through a series of structured tests, the project intends to measure the impact of improved transport and communication on services delivery and outreach, the impact of various patterns of rewards and incentives (available within the GOARE personnel system) on job performance, and the impact of better supervision and training on the range, quality and quantity of services being delivered under the system. These services include family planning, and it is anticipated that the project will identify more efficient approaches to the delivery of family planning, as well as other forms of preventive health care.

At the completion of the project, it is anticipated that we will be able to measure the impact of transport and communications, training/

supervision and motivation as elements impeding the productivity of the rural health system, and devise replicable strategies that the GOARE can apply nationwide to overcome these three factors as limitations. Specifically, this project will provide the means through which the Egyptians can systemically examine and test - under controlled conditions - the principal, replicable remedies that are available under their administrative system to improve the productivity and outreach of their system and thereby enable the government to weigh tested cost-effective alternatives prior to nationwide application.

D. Summary Findings

This is a complex and difficult project. It is also difficult to predict the likelihood for success until the project is in fact underway. It will be technically complex to structure the field tests in such a way that externally valid conclusions can be reached and made ready for application within the project's life span. It will also be difficult to locate a US contractor with the range of skills required to undertake this project. We also have little recent experience dealing with the Egyptian health professionals in a technical assistance relationship. While concerted efforts have been made to assure that this project enjoys full support, both at the MOPH policy level and at the levels that will be responsible for actual project operations, it cannot be confirmed in advance that this interest will be sustained throughout the life of the project. There is also a large equipment component in the project which poses potential utilization problems. We have attempted to compensate for the project's possible implementation difficulties through formation of an expert advisory committee to clear and periodically review the technical aspects of the work, and by agreement with the

Egyptians on an implementation plan that will establish time-phased targets that will clearly link the commodities being supplied to the field test program through close, on-site project monitoring from the AID Mission.

While recognizing the presence of some potential difficulties, a number of factors argue for moving ahead. The Egyptian rural health system is among the largest and best staffed in the developing world, with an infrastructure to which many developing countries aspire. The system represents an enormous human and financial resource investment by the GOARE. The structure closely follows the ideal for basic health services advocated by W.H.O. It is important for the Egyptians to find out the degree to which additional resources, training, better management and improvements in the reward structure that are available in the Egyptian system can influence the outreach and productivity of this system. Because of the similarity between the Egyptian system and many others being developed, it is very possible that the findings of this project can have some international significance. The project also provides a vehicle for the Egyptians to try a number of different strategies, and rate their feasibility and cost effectiveness prior to nationwide application.

The project meets criteria for health programming under the new legislation.

E. Project Issues:

- 1) Is the project technically feasible?

We have submitted the PRP design to an outside expert consultant who has confirmed that the basic approach and methodology is sound and that plans as developed in the PRP appear sensible. The consultant has suggested that a small technical advisory committee, composed of individuals with strong health services research experience, be formed at the outset

to guide the design and selection of tests, review the operational plans, and evaluate progress to insure the test programs being formulated and executed will have the best chance of yielding a useful result. We agree this is a good idea and have incorporated this suggestion in the project design.

2) Is the GOARE commitment sufficient to assure adequate in-country support?

Extensive efforts have been made to seek the involvement and agreement of all levels of the Ministry of Health in project discussions. The project has been formally approved by the Minister of Health. It has also been approved and offered the highest priority as a collaborative activity by the Egyptians in the Joint Working Group on US-Egyptian cooperation. We consider this provides a fully adequate formal commitment. At the operational level, it is hoped that the substance of the activities being carried out will be of sufficient interest to generate on their own a measure of professional support and commitment.

3) Can we locate a qualified contractor?

There are a number of potentially qualified contractors who have expressed an interest in this project. Very few, however, have the full range of skills (from health services to research design to vehicle maintenance) to implement this activity in-house. We anticipate the successful bidder will be a combination; a research institute or university with a management firm.

4) Is it possible for one contract consultant in the field to manage this project?

We do not yet know whether one consultant in the field can manage the AID contribution to this project. While the Egyptians are not anxious to have a large US presence, we have not been precluded from considering additional staff if this becomes necessary.

5) What measures should AID take to assure that we remain in close touch with project operations? There are a significant number of questions that cannot be resolved until implementation is underway. Given these circumstances, what are the measures AID should take to assure we remain in close touch with the project design, operational and funding issues as they arise?

We propose the following:

Funding: We propose to fund only for the first year - and evaluate prior to approving additional resources.

Operational Issues: As a first task, we propose a work plan for the first 18 months of project operation be developed by the contractor. This plan will be developed with the GOARE for approval by the Mission and AID/W prior to final release of the project commodity component. Such a document will include a technical plan describing and scheduling the test activities, a commodity utilization plan, and a scheduling of training and consultation to be provided under the contract.

Test Design: We propose to form a technical advisory committee to periodically review the design and scheduling and results of the project test program.

PROJECT BACKGROUND AND DETAILED DESCRIPTION

In 1976, the Arab Republic of Egypt is proceeding on a two-pronged strategy for development. The first is the consolidation and extension of the major reforms and programs undertaken since the revolution in 1952; the second is the liberalization of the economy and attraction of foreign aid and investment. In the first, it is important to realize that coherent plans and programs have been developed and adapted through 24 years of implementation experience. This is an experience base that is quite different from that in other, lesser developed countries, and contains substantial implications for a project that is intended to aid Egyptians in their development effort.

Egypt is an extraordinary country. It has a large group of technical and professionally trained people, many natural assets such as favorable soil, water, and climatic conditions, and a socialist set of equity ideals which are being translated into government action programs.

These latter appear both in form and substance throughout the society. Egypt's Permanent Constitution asserts that each citizen has a constituent right to basic social advantages. As a result, despite burdens imposed by maintaining a war economy, Egypt has established a series of social service and welfare policies which are unique among developing countries confronting similar national income and budgeting situations. They are unique because of magnitude and conception as well as almost total reliance upon governmental operation of all necessary systems.

These systems include: a comprehensive social insurance plan (so far largely confined to industries); free health and education services for all; subsidization of basic consumer goods; and wage and price controls aimed at promoting equity in the distribution of income.

Egypt is 96.5 percent desert; areas which are barely habitable. As a result, the population - 40 million people in 1976 - is squeezed into a narrow strip of land along the Nile, the Nile Delta, and the Suez Canal Zone. The population density in these areas is 2,700 per square mile, higher than in any comparable country. Over 40 percent of the population lives in the five major urban areas: Cairo, Alexandria, Suez, Ismailia and Port Said.

The population is substantially homogeneous, almost all being Egyptian Arabs, with a few Egyptian Nubians and Sudanese. Over 92 percent are Sunni Muslims; seven percent are Coptic Christians. Arabic, the official ARE language, is spoken by 98 percent of the population. (Those forms in use: (i) classical, used essentially by religious scholars only; (ii) modern, the official language used in government documents, broadcasting, etc; (iii) colloquial Arabic, which occurs in many different dialects.

Egypt has a republican form of government in which strong central control is exercised by the executive. The country is divided administratively into 25 governorates (provinces), further subdivided into about five districts each. At the governorate level, the structure of

the central government is mirrored, but all government employees are under direct control of the Governor. He is appointed by the President.

Considerable operational autonomy is given the Governorates. The present intention is to push some of this decentralization down to the districts, and ultimately to the 4,100 villages. These are run by village councils, whose members are elected. Through such measures, a greater degree of participation in affairs that directly concern them (such as health care delivery) will be afforded the fellahin.

The fellahin are the traditional rural population. They are largely landless farmers for whom the family continues to be the basic social unit. They constitute about 52 percent of the country's work force, producing cotton and other cash crops in addition to subsistence crops. The production of cotton occupies about 35 percent of total farm acreage. For purposes of both production and marketing, the fellahin have quite successfully been organized into cooperatives.

This project derives from deliberations of the US-Egyptian Joint Working Group on Medical Cooperation and the Agreement on Health Cooperation pursuant thereto, between the ARE and the USA.

The first Joint Working Group session, October 28--November 1, 1974, identified five "priority areas for cooperation", including a health sector analysis and subsequent pilot project for strengthening rural health services.

The second Joint Working Group session, July 7-10, 1975, noted that a planning study proposal for rural health services (inter alia) had been approved during the interim by the Egyptian Government, and that an AID study team would shortly commence outlining an appropriate rural health project.

On October 28, 1975, the Egyptian Foreign Minister, Mr. Ismail Fahmi, and the United States Secretary of State, Dr. Henry Kissinger, signed an Agreement on Health Cooperation and directed the Joint Working Group to oversee its implementation. Article X of this agreement provides for improvement of resource utilization in several areas, including rural health services. Meanwhile, in September, 1975, the U.S. Department of Health, Education and Welfare published a "Synchrisis" report by Dr. Arthur Furnia, analyzing health problems and GOARE health strategy and identifying major issues and policies affecting delivery of health services.

This project accommodates one major concern among several that are reflected in the GOARE national health plan and the priorities delineated in the Joint Working Group deliberations. Taken together, they comprise a package for health sector development concomitant with and mutually beneficial to development in other social sectors such as education, housing, sanitation and transport, thereby epitomizing the GOARE pursuit of synergistic developmental impact through coordinated progress throughout the economy. In this sense, the project may be regarded as an essential constituent of a deliberate long-term plan for broad-scale socio-economic development at all income levels.

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 labor surplus will exist for some time into the future, there are recent estimates of increasing deficits in all levels of skilled manpower to emerge in the near future. Poor health and early death also thrust an unbearable social welfare burden onto the State, resulting in suboptimal resource allocation and dampened progress in other productive sectors of the economy.

The GOARE has made an impressive attempt to cope with the rural health problems by constructing and maintaining a fairly large government-operated health delivery system. The system employs more than 150,000 professional, paraprofessional and administrative personnel; operates more than 4,000 health care, research and training facilities; and generates 10,000 newly trained physicians and auxiliary health workers annually. It delivers health care free or at nominal charge to rural areas through more than 2,000 village health units, each served by a physician and reaching, on the average, about 8,000 inhabitants - very close to the WHO ideal design for rural health delivery. Current operating and capital investment costs for the health sector absorb eight percent of the total national budget, considerably above health sector allocations of most developing countries. Significant starts have also been made in environmental health. Sanitary workers are assigned to all rural health units; 80 percent of all rural villages are tapped into government pumping and water treatment stations; and campaigns are underway to control major environmental diseases.

Nevertheless, it is clear that Egypt faces formidable and complex impediments to improving the health status of its poor majority; and that its infrastructure suffers deficiencies in several areas - corresponding to deficiencies burdening general social and economic development - which impair effective deployment and utilization of the skills and resources that the health system does possess. As noted in the PRP, further improvement in health status of the rural population is heavily dependent upon substantial qualitative improvement in health

manpower training at all levels, intensive and innovative health education, marked improvement in supervision, significant advances in waste disposal and sanitation, better health planning, including targeting and monitoring of health sector investment and related improvements; all of which, in turn, depend in varying degrees upon greatly reinforced capacity in logistical support, supervisory mobility, communication, motivation, incentive and availability of low cost methods of health delivery.

Detailed Description

The overall health sector goal that this project supports is to improve the commitment and capacity of the MOH to provide broad access to preventive and curative health services at acceptable levels of quality. Underlying this sector goal are certain basic assumptions. These are that the Government of Egypt will maintain present socialist, public service policies concerning delivery of rural health care and that the MOH can organize and staff internally to support new operations. These assumptions are well founded in the Egyptian situation. The GOARE has begun several rural development efforts. The MOH has taken steps to improve rural health delivery prior to the date of this project. It plans to expand the entire system so that by 1981, 3 out of every 4 villages will be adjacent to health facilities.

Measurements of goal achievement include strong MOH management capacity for support of rural health. This measurement will focus on the adoption of new methods of approach in management and adoption of

new technologies for delivery of services. Information on these topics will be provided by several tests conducted over the lifetime of the project in eight rural districts.

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 following are critical to determining the future success of the system:

1. Rural health work, with emphasis on preventive measures, is not highly regarded by the Egyptian medical profession. Prestige and chances for improved income are possible in urban-based, curative, health care work; but not in the rural health care system.

2. Notwithstanding the government's innovative approach to development of a rural health delivery system, the existing medical and auxiliary health personnel training remains strongly biased towards service for urban populations with emphasis on curative care.

3. Government allocation of resources for use in health care remains strongly biased toward the urban sector. Approximately U.S. \$2.02 per capita is expended annually on rural health care, while U.S. \$10.25 per capita supports urban health care.

4. Targeting specific rural health status objectives, organizing to meet those targets, and managing/supervising sustained attacks on those targets are not yet developed as generalized modes of operation within the rural health delivery system.

5. While physical facilities are being completed that will provide nationwide coverage for the rural health delivery system, shortages persist in numbers of staff and equipment - and there are no adequate procedures for improving management/supervision and evaluation/planning throughout the structure.

6. Though, as mentioned earlier, the system's size is impressive, its ratios of professional staff to total size of rural population will still leave much to be desired - even when it is fully extended. Thus, at present projected strengths, by 1980 there will still be only one physician posted in rural areas per 7,000 inhabitants.

By contrast, the auxiliary health staff ratios in some categories will be much more favorable. Thus, Nurse/Midwives will be at a 1 to 3,500 ratio. However, in other cases where much specialized work by the rural health delivery system remains to be done, the ratios will be less favorable, e.g., sanitarians, laboratory assistants, and records clerks, 1 to 7,000.

The MOH has a strong commitment to the provision of rural health services. The MOH leaders have further recognized that there are serious constraints to the provision of these services. With the further identification of specific alternatives in the four major areas

mentioned above, the tests will then be conducted. Working from a baseline productivity survey, the project will include such items as different work patterns and tasks for rural health personnel, various means of involving village residents, varying incentives to health personnel to attract and maintain a qualified staff. The project also will introduce transport communications and incentive packages into the system in a way that changes in productivity resulting from these interventions can be measured.

Other subject areas for particular tests will probably include the use of PL 480 Title II foods in nutrition programs. This is an ongoing program that can be integrated into this project. Additionally, heavy emphasis will be placed on testing several educational, motivational and technological approaches to family planning that will appeal to the rural population and result in greater acceptability.

The impact on the coverage utilization of rural health facilities and the efficiency of provision of services will be measured. This information can then be used to make policy decisions. An illustrative list of potential tests is at Annex C.

Upon completion of the project, there will be information available to the GOARE and MOH policy makers on a) the impact of transportation and communication as limiting factors; b) the efficacy of motivational incentives for improving job performance; c) realistic job descriptions and standards for rural center personnel; d) special low cost mass application technologies directed at major health problems, e) the

consequences of varying patterns of local participation in health service management and the relationship to performance; f) cost-effective outreach of rural health units. These tests will be conducted in the following governates and districts selected by the GOARE.

<u>Governate</u>	<u>District</u>	<u>Number of Rural Health Centers</u>	<u>Units</u>
Beheira	Etay-el Barud	9	14
	Kom-Hamada	7	20
Dakahleya	Simbillawin	9	22
	Dekernis	9	24
Fayum	Fayum	5	17
	Abshwi	6	19
Minia	Mallawy	9	18
	Samalut	8	21

In addition to the tests carried out in the field, several sections of the MOH will be strengthened and expanded to provide logistic, design and analytical support to this project and to the entire process of policy changes and adjustments for the rural health service. These areas of support will include statistics for baseline information, planning, evaluation, analysis and management. The management aspects will include logistics, transportation, communication, personnel policies and manpower training. Specific departments are:

- Planning Projects & Programs:

Staff expanded and trained to assist project personnel in designing tests, annual follow-up budgeting systems, redesigning and in general acting as an important repository of skills for application when replication stage begins.

- Statistics and Evaluation:

Staff expanded, trained, and equipped to install cost-effective, simple, statistical reporting and analysis systems within the project; and to develop evaluation methods, in conjunction with Egyptian academic consultants and resources, which can be continuously applied to test areas and later replicated.

- Manpower Planning:

Staff expanded and trained so that detailed manpower requirements of the project are constantly under analysis, norm-formulation becomes a part of manpower planning, and statistical analysis is tied into manpower projection and skills delineation work.

- Research:

Staff expanded, trained, and equipped to design and operate surveys, develop baseline data, special research studies, to engage and benefit from the social science analysis skills of Egyptian research specialists and institutions, and to relate all results to evaluation/planning needs of the project.

- Nursing Services:

Staff expanded and equipped to provide greater supervisory support for MOH, Family Planning and other like project operations; and to effect the training of future staff at Unit/Center levels concerned with such functions.

- Communicable Diseases Control:

Staff expanded, trained and equipped to assist the project in special immunization and other forms of communicable disease control, identification, etc.

- MCH:

Staff expanded, trained, and equipped to handle improved packages of MCH services, relate these to other services like Family Planning, and Nutrition, and to effectively supervise these matters.

The project is obviously one of considerable complexity, and one which will affect all aspects of the rural health service. Commodities will be used in support of the test activities; at times the availability of commodities, particularly vehicles, will be the test variable. Management and service of these commodities will also be an important part of the project outputs.

In order to achieve project outputs and purpose, the inputs will necessarily be varied. AID will provide a contractor who will in turn provide technical assistance in test design, implementation and evaluation. The contractor will also provide short-term consultants as needed in the areas of health planning, health economics, logistics, transportation maintenance, systems, analysis, management and management information, health training and health education, communications, personnel administration, epidemiology, anthropology, environmental sanitation, family planning, nutrition education, maternal and child health, communicable diseases, and other areas of expertise. Many of these short-term consultants will be Egyptian Nationals. The involvement of technically competent and experienced Egyptians outside the MOH is an important part in the strengthening and expansion of MOH expertise. The GOARE will provide salaries for 52 additional staff members to strengthen departments in the MOH relating to this project. These departments include statistics, planning, research, nursing services, communicable disease control, MCH, and Schistosomiasis.

The GOARE will also provide funds for vehicle operation and maintenance and other supplies in support of the project.

AID will provide commodities including vehicles, spare parts, communications equipment, immunization and cold chain supplies and equipment, educational and instructional materials, office equipment, and environmental sanitation testing equipment.

While the bulk of the technical assistance will be provided by the contractor, with US and Egyptian Nationals, the Mission will also play a major role. This role and its importance is described in Section IV.

(A) TECHNICAL ANALYSIS

For the purposes of the technical analysis the project can be divided into four components: technical assistance, transportation, communications equipment and other equipment.

In the area of technical assistance in general, no specific technology or system is proposed. Rather, US/Egyptian expertise will identify alternatives which will then be tested. There are no definite technological implications per se, although some may result from the testing of alternative, presumably low-cost, technologies.

In the problem area of vehicle management and maintenance, expert consultants addressed five objectives during the PP development stage:

- What are the vehicle requirements at each level of the rural health delivery system;
- What support would be needed to facilitate that operation;
- What fleet management procedures are needed;
- How should the vehicle delivery be phased; and
- What will the replication costs be for the system as a whole.

The approach followed by the team was to collect detailed data at each level of the present health delivery system for subsequent analysis. To facilitate this data collection effort, a checklist was prepared to obtain data concerning:

- present health delivery organizations;
- the functions of each staff member;
- the existing vehicle fleet;
- levels of activity;

- existing records maintained and submitted;
- maintenance facilities/capabilities;
- spare part supply operations;
- personnel requirements/availability; and
- training requirements.

Annex E describes the team's findings and recommendations in detail. In summary the team recommended a two-stage delivery system, with the second stage depending on evaluation of the first; an upgrading of existing facilities and staff; central spare parts; and the procurement of only one type of vehicle. None of the recommendations appear to be either technologically or managerially beyond current Egyptian capacity and - given the analysis of current problems and the restraints that transport has placed on the delivery system - the recommendations are not only appropriate at this time, but should produce beneficial results. We have modified the teams' recommendations to stage deliveries to the project areas to facilitate measuring changes in productivity resulting from the addition of vehicle transport.

The area of communications has also been identified as a constraint on effective functioning of the system. A communications expert has reviewed the situation and a detailed report appears in Annex G. The expert recommended against the use of a two-way transceiver wireless telecommunications system as inappropriate under the current system of radio frequency assignments and unnecessary when the same needs can be met by the use of four telexs, within the existing system, directly tying the MOH and the four pilot project governorates; and the expansion of regular phone communications between governorate and district levels. All equipment required for implementation of the recommendations will be additions

to the existing working systems and, therefore, compatibility will be a requirement. A source waiver may therefore be required.

Other equipment envisioned for the project will consist of low-cost communicable disease and endemic disease control service packages. Technological feasibility will be determined as part of the "pilot" orientation of this project.

(B) FINANCIAL ANALYSIS AND PLAN

This project is non-revenue producing with expected social benefits that cannot be easily measured in financial terms. Section D below discusses the financial implications of replication of the pilot project. This section will be limited to elementary budget analysis and summary financial tables.

Egypt is currently spending \$23 million in yearly operating costs for the rural health system. This amount is expected to increase to \$30 million by 1981. The Egyptian component of this project, which should be fairly evenly spread out over the five-year life of the project, will be about \$620,000 or 3% of the current budget and declining to 2% of the future budget. Even presuming that the \$4.5 million worth of commodities being provided by the U.S. under this project does not displace any planned Egyptian expenses, (and thus balance out the Egyptians' pound contribution) the percentage of the operating budget is that the Egyptians should not have difficulty fulfilling their financial commitments to this project.

III- (B) Financial AnalysisSUMMARY COST ESTIMATE AND FINANCIAL PLAN
(US \$ 000)

Source	AID		GOARE LE	Total
	US\$	LE		
Technical assistance				
Contract Resident (5 yrs)	300			300
Contract Consultants	1200			1200
Equipment				
Vehicles, spare parts, main- tenance facilities	2200			2200
Communications equipment	400			400
Immunization & cold chain	250			250
MCH, nutrition & family planning	650			650
Educational & instructional materials & equipment	400			400
Office equipment	330			330
Environmental sanitation test eqpt.	300			300
Local currency budget		600		600
Training	700			700
Vehicle operation & maintenance			1900	1900
Miscellaneous supplies			400	400
Project staff			800	800
Inflation factor	400			400
Contingency	740			740
TOTAL	7870	600	3100	11570

COSTING OF PROJECT OUTPUTS/INPUTS
(US \$ 000).

Project Inputs	Project Outputs				Total
	MCH	Govt	Dist	RHC	
<u>AID</u>					
Technical assistance	1500				1500
Vehicles & spare parts	110	125	805	1050	2090
Maintenance facilities		90	20		110
Communications equipment	15	25	60	300	400
Immunization & cold chain			50	200	250
MCH, nutrition, family plan.	40	60	150	400	650
Educational & Instructional	200		100	100	400
Office equipment	180	40	40	70	330
Environmental test eqpt.		30	70	200	300
Local currency budget	600				600
Training	700				700
<u>GOARE</u>					
Operating & maintenance	75	95	680	1050	1900
Miscellaneous supplies	150	100	50	100	400
Project staff	800				800
Inflation	50		150	200	400
Contingency	250	50	140	300	740
TOTAL	4670	615	2315	3970	11570

(C) SOCIAL ANALYSIS

I. Sociocultural Feasibility

The current goals of the Egyptians to provide health services to the entire population and the basic system through which they are working to achieve this goal are described in detail in the background section of this paper and in the PRP. This project accepts the Egyptian system as a given and presumes this system is suitable to the socio-cultural context. The project will not attempt to change the system from without, but will provide the tools for the Egyptians to experiment with alternative methods of supporting and managing the levels and delivery of services. The choice of widespread replication of successful experiments will be left to the Egyptians and - presumably by having shown demonstrated merit in the Egyptian setting - will be culturally feasible.

Two areas of special significance in a socio-cultural sense deserve special identification, however. The first revolves around the problems which the Egyptians have identified which could be classed as personnel problems - lack of incentives, low motivation, limited communication between management and health centers, and supervisory problems. - To the degree that this project will try to improve these personnel problems; i.e., the organizational dynamics of the system, socio-cultural changes within an established bureaucracy may result. If successful, there may be positive carryover to other areas of the civil service system, particularly those with similar rural/urban service problems.

The second area of special significance is the experimental area of increasing village participation and possibly even village supervision of the health units and centers which serve them. - This area of experimentation

will directly support Egyptian Public Law 52, promulgated in 1975, which provides for locally elected bodies at provincial, district and village levels. (For a full discussion of the law and its chances of serious impact, see Bringing Development Change to Rural Egypt: A Study of the Organization for the Reconstruction and Development of the Egyptian Village; Development Alternatives, Inc., Washington, D.C. 1976.)

II. Spread Effects

This project is designed to test replicable alternative methods to improve the delivery of health services. The goal is to improve what is already in existence, rather than to expand the existing system. For this reason, it should be possible to replicate successful methods by replacing current, less successful ones, without adding to the already immense expenditures on the health system, and thus without facing what is often the principal barrier to widespread implementation.

III. Social Consequences and Benefit Incidence

There are four classes of immediate beneficiaries associated with this project and two classes of potential benefit.

One is the bureaucracy of the Ministry of Health and all the pertinent professional and auxiliary health personnel related directly or somewhat indirectly to rural health services delivery. This comprises members of the Rural Health Services Department, the Endemic Diseases Sector, and various other Departments and Sectors assisted either at the Ministry, Governorate, District, Center, or Unit levels. In the initial test states, it is probable that no more than 2,000 personnel of varying degrees of responsibility and training would benefit from participation in this project.

A second beneficiary class consists of those individuals within the rural villages served by the rural health delivery system who make use of the facilities and care provided by that system. This is a particular class because it consists of those living within the eight experimental Districts chosen for this project. An estimate of the number who might benefit in this class ranges from 178,000 as a worst case assumption (no improvement at all in coverage by the existing system) and 594,000 as a best estimate (a quickening and improvement of services to the population already reached, and an expansion to an additional 15% of the population).

A third immediate beneficiary class would be those professional and auxiliary personnel associated with other cooperating Ministries once those Ministries were engaged in support of this project. Most likely these would be comprised of personnel in the Ministries of Local Government, Social Affairs, and Higher Education. In the initial test stages it is probable that no more than 1,000 of this class of beneficiary would be affected by operation of this project. Women form a large percentage of both the second and third beneficiary classes. MOH will form a major drive in health services. Nearly all auxiliary personnel, as well as at least 20% of the physicians, are female.

A fourth immediate beneficiary class would emerge as soon as other Ministries are engaged in support of this project. These would comprise the clients or audience served by those Ministries. In many cases they may be the same class of beneficiaries served by the rural health delivery system; that is, villagers eligible for assistance by that system and participating in it. But those same villagers may be obtaining services

from the Ministry of Social Affairs, Ministry of Local Government, etc. In other cases, they may be a new class of beneficiary. That is, villagers not now touched or affected by the rural health delivery system but in contact with Ministry of Social Affairs rural units, etc. What the total dimensions of this class might be in the eight test Districts is difficult to calculate.

A fifth, less immediate and more indirect, class consists of all the rural villagers of Egypt. These will be affected when any of the replicable results of the experiment conducted under this project will be extended to the entire rural health delivery system.

Finally, a sixth potential class of beneficiary is comprised of all those other rural Egyptians served or affected by Ministries who may support the results of this project when they are extended to the country as a whole.

In any case, there is a great need for additional information about the various immediate and prospective classes of beneficiaries. This includes data about their needs, their response to existing facilities, what classes of the rural population are aware of and make use of the health facilities their traditional health care, their willingness and capacity to pay for some part of their health care, their social organization, and their inhibition or customs which affect the capacity of the health delivery system to perform, health care status, and preventive medicine activities.

But the other deliverers of performance, that is, the managers, professionals, and auxiliary personnel in the rural health system or those working for cooperating Ministries, require careful study also. What are the real attitudes among rural health delivery personnel concerning their obligations

to the public, satisfaction derived from employment in rural areas, job performance, and aspirations for the future? Is it possible that an improved capacity to provide better health services to rural areas is not regarded as desirable or important by health system personnel? In which case, the so-called beneficiaries in this class would not regard themselves as assisted by a project of this type.

Carefully collected and analyzed evidence about these various matters is lacking. This project should be structured so that it assists in accumulating necessary data about the rural population and the rural health delivery bureaucracy including professional and auxiliary health staff.

One point of policy is clear. If the quality of care is high, access is ready and cost is negligible the delivery of rural health services will ultimately become the near exclusive responsibility of government. Private activities related to providing such services in rural areas will continue to alter in character and, overall, decline in importance. This is particularly true for the traditional midwife, who is still a perveyor of some forms of health care in the rural villages. It is true, also, for barbers who may perform some services now such as extraction of teeth, circumcisions, and injections.

There may be a future private medical practice role recognized by government for government-employed rural health care physicians. Some kind of a fee practice for Nurse/Midwives, basically employed by government in the rural health delivery system, may also evolve. Various supervisory and regulatory means will be utilized in order to limit these practices. These will likely seek to assure that some free services will always be available to those elements in the rural population who cannot afford fees or are unwilling to pay for services which they regard as their right.

It is conceivable also that the location of the physician may ultimately change. He may be shifted to district hospitals or enlarged rural health centers (cottage hospitals) and carry on rural health care from such locations, rather than units or centers near villages. This may take place in a limited fee-charging mode.

Emergence of such roles (or the development of a kind of quasi-private sector) will be tolerated and perhaps, in some degree, encouraged. The justifying rationale is that this may be an effective means of inducing increased professional and auxiliary health personnel interest in working among the rural population. What the beneficiary effects of this possible trend may be should be a matter for continued study and analysis during the life of this project.

(D) ECONOMIC ANALYSIS

The economic return to Egypt (in terms of lives saved, births averted, etc.) coming from the operations of the present rural health delivery system has never been calculated. Since this project focuses on the delivery system itself, the economic analysis is limited to the economic feasibility of replication.¹

¹As has been demonstrated by Rand Corporation studies performed under contract to the Department of Health, Education, and Welfare (HEW) in the United States, it is very difficult - if not impossible, within capitalist countries - to define those health status conditions that are measurable in economic terms. There are too many uncontrollable factors which are operative. On the other hand, studies of health status conditions and associated economic implications are continuing objects of attention in Western socialist

In this connection, the Egyptian rural health delivery system somewhat resembles that of Yugoslavia. This raises the interesting question of whether American specialists on health economics, coming from capitalist orientation, can significantly assist Egyptians in measuring and evaluating the economic impact of a better-performing rural health delivery system.

The project assumes that some kinds of methodologies in research and analysis are universal as well as neutral to underlying politico-economic conditions. Obviously, special efforts will be required to keep American and Egyptian specialists focused on identifying and improving those methodologies specifically adjusted to Egyptian socio-economic conditions and policies.

In this paper, (for purposes of illustration) we use a number of assumptions:

* Assumption ONE:

A fully effective Egyptian rural health delivery system based upon the present model, with free provision of services, will maximally cover 66% of the rural population.

The remainder of that population will either obtain services by purchasing same, not make use of the services provided in any case, or will not require services and preventive measures.

* Assumption TWO:

This experimental project cannot do more within a five-year period than both a quickening and improvement of services to the 15% or 35% range of rural population already affected by the rural health system and possibly affecting another 15% of the maximally coverable rural population.

* Assumption THREE:

In cost terms of a recurrent or annual operating budget nature Assumptions ONE and TWO mean that provision of benefits will require the following range of expenditures per rural inhabitant served versus present expenditures:

Present:	at 15%	Cost/capita	—
		Served:	U.S. \$13.50
	at 35%	Cost/capita	—
		Served:	U.S. \$5.70

(Present costs of operation for eight Districts amount to U.S.\$2,400,000 annually. If the system is serving 15% of the maximally coverable population this amounts to 178,000 individuals. If the system is serving 35% of the maximally coverable population this amounts to 416,000 individuals.)

Future: 15% plus
 15% under improved
 operation caused by
 successful tests: Cost/capita
 served: U.S.\$9.55

35% plus
 15% under improved
 operation caused by
 successful tests: Cost/capita
 served: U.S.\$5.72

(Cost of operations for eight Districts under test would amount to U.S.\$3,400,000 annually. If the system is serving only 15% of the population now but improves in efficiency by 15% as a result of some or all of these tests, the population served in eight Districts will be 356,000. If the system is serving 35% of the population now but improves in efficiency by 15% as a result of some or all these tests, the population served in eight Districts will be 594,000.)

Thus, the number of those who might be benefitted under this project in the eight test Districts would range between 178,000 on the very lowest side (no improvement at all in coverage by the existing system at a cost of U.S.\$3,400,000 annually or per capita served: U.S.\$19.15.) and 594,000 on the highest side (full planned improvement in the existing system at a cost of U.S.\$3,400,000 annually or per capita served: U.S.\$5.72.)

Overall present and potential costs can be calculated. These seem to indicate that if results from this project were replicated on a national scale the costs could be sustained by the government.

Operating costs for the rural health delivery system when fully extended by 1981 (at 1976 prices), without additional staffing or equipment replication as a result of this project) will be about U.S.\$30,000,000 annually. Presently, the annual operating cost is U.S.\$23,000,000.

By the end of this project, in 1981, it is estimated that at current birth rate and urban migration trends Egypt's rural population will be about 23,000,000. The existing system of rural health delivery, at that time, if aimed at a 66% coverage of the rural population would have a maximal target of 15,180,000 individuals. If operating at 15% coverage, as now alleged in some quarters, it would be caring for 2,280,000 individuals at an overall cost of U.S.\$30,000,000 annually. This would mean a cost per individual served of about U.S.\$13.50 a year.

On the other hand, if the coverage is about 35% of the maximal target rural population in 1981 the total number served would be 5,320,000. Cost would be U.S. \$30,000,000 or about U.S.\$5.70 per person served.

If the successful results of the tests begin to be replicated after the first five years of the project it is possible that by 1991 between approximately 5,600,000 to 7,500,000 rural dwellers would be covered by the system depending upon levels of delivery efficiencies achieved. The overall operating cost annually would be U.S.\$42,500,000 or an increase of about 28% annually over present Egyptian government expenditures for operation of the rural health system. Since the increased sum would probably not be fully required until the 1990's when replication was in full swing, the increased Egyptian annual operating budget of those days should be able to sustain this level of expenditure.

Ways of estimating benefits arising from such alterations are numerous. Even a slight diminution in migration towards urban areas, influenced by improved rural living conditions, would be of much value. Similarly, any significant efficiencies in the delivery system which may affect and lower the rural birth rate will ultimately redound to benefit the scale of demand for educational and other social services.

Section IV

A. Analysis of the Recipients and of AID's Administrative Arrangements

1. Recipient

The principal implementing agent for this project will be the Rural Health Service of the Ministry of Health. The Rural Health Service is a major portion of the Ministry under the Undersecretary for Endemic Diseases (see Organization Chart). The Undersecretary has been greatly involved in the design of this project. His office will coordinate the field activities taking place in the eight test districts.

The Undersecretary's office will also provide the locus for activities carried on in the departments of Planning, Statistics, Health Education, Sanitation, Research, and Manpower Development (including recruitment and training necessary for support of this activity). There exists a competent cadre of MOH officials to support this project, and we have assurance that necessary additions will be made from an adequate national manpower pool.

At the field level, daily operations will be managed by the Governate and district health chiefs. The local level activities will also call for the participation of village organizations. These activities will be related to the rural health unit of that village.

While a U.S. contractor will be selected to provide a resident health administrator and several short-term consultants, many of the consultants and advisors will be Egyptians from universities or other appropriate institutions.

At the present time much of the planning and operations work of the MOH is highly compartmentalized. The upgrading of several departments, the formation of a coordinating unit at the Undersecretary's level, and the involvement of consultants outside of the MOH will all serve to improve this situation.

2. AID

This is most obviously a very complex project that is to be conducted in a very complex environment. The success or failure of this project will be determined in part by the Mission support in its implementation.

While the tests will be designed and conducted by the Ministry of Health and the AID contractor, the responsibility for monitoring the testing efforts, the commodity flow, training needs and technical advisory requirements will be the Mission's.

AID disbursement will follow normal regulations for commodity procurement, contractual arrangements and letters of implementation, as specified in the GOARE/U.S. agreement.

Evaluation Plan

Each test will have, as part of the design, a method of evaluation for those variables being tested.

An overall evaluation, to be conducted 24 months after project start, will be designed by the contractor in collaboration with MOH and USAID officials. This evaluation will be based on the production indicators selected in the working plan stage and the relationship of the tested variables and results of those indicators.

The results of the evaluation will be used for MOH policy consideration and for project redesign. Some baseline data is presently available, other information is being gathered in the eight districts by the MOH in anticipation of this project. Baseline data not available at project start will be gathered in the first 12 months of the project. The type of data needed will depend on the test variables selected.

Implementation Plan

Because of the complexities of the project and the need for the involvement of the contractor in design of the implementation plan, the detailed plan will be developed in the first months of the project (by 3 months after the contractor is on site). This detailed plan will include the selection and phasing of several types of tests, the variables to be tested, and the relationship and requirements of various types of commodities (including vehicles) to those tests. It will also include such items as:

- Determination of the exact amount of Ministry of Health personnel required as the "core staff" to operate this project, definition of their skills, and agreement to provide same at the beginning of the Egyptian fiscal year which starts 1 January 1977. (The MOH is already prepared to recruit such individuals ahead of that date, and assign them for special preliminary training at the Higher Institute of Public Health, Alexandria. In this connection special technical assistance consultancy advice may be required early - in order to help plan the content of this preliminary training.)
- Determination of the appropriate amounts of staff, and their equipment and training requirements, needed to enable supporting departments and institutions within the MOH to effectively participate in the test work concerning Rural Health Services.
- Determination of the various kinds of technical assistance and training requirements, (and accompanying tentative schedules) needed to get the project well started and building up momentum.

- Determination of the levels of funding required to operate the project. This includes regular funds budgeted by the MOH as well as funds scheduled to be drawn from an Egyptian Pound budget to support: increments for key "core staff" linked to maximum increments provided under regular Egyptian administrative practices, awards, consultancies, and studies. It also includes some funds needed to assure additional support for MOH rural health operations from other departments and special institutions in the Ministry.
- Determination of the foreign training requirements to be met at early stages in the project; and preliminary selection of possible training programs.

The operational plan - particularly the test portion - will be reviewed and cleared by the technical advisory committee before the project gets underway and the commodities are released.

In the first four months following signing of the agreement, an RFP notice will be prepared, bids received, and a contractor selected. See list of critical events and network.

Conditions and Covenants

The MOH approved the direction and purpose of project as described in the PRP. In the preparation of the technical reports on vehicles and communication approaches, local officials were closely involved.

There are no conditions to be filled prior to project agreement signing. However, the detailed implementation plan must be completed and approved as a condition of commodity disbursement.

Continuation of project and alterations of project will be dependent on the results of the evaluation held after the first 24 months of the project.

<u>Month</u>	<u>Events</u>
1	-- Sign Project Agreement; order vehicles and spare parts. -- Establish technical advisory group; first task to assist in design of guidelines for contractor scope of work.
2	-- Obtain info and write PIO/T. -- GOARE initiates baseline productivity surveys, allots budget additional staff.
2-4	-- Issue RFP.
5	-- Read bids. -- Select contractor. -- MOH adds additional staff, starts in-house training.
7	-- Contractor on site.
7-8	-- Contractor, MOH, Mission, AID/W complete detailed work plan for first 18 months, including tests, training, commodity utilization. -- Participants selected for U.S. and 3rd country training.
9	-- Technical advisory committee reviews work plan. -- Agreement between MOH and M of Communications obtained.
10	-- Communications consultant in country. -- Possible order of additional commodities for communications network.
9-11	-- Vehicle maintenance shops established and staffed.
11-13	-- Courses selected; training begun.
12-14	-- In-country training started. -- All central office staff in place.
13	-- First short-term consultants starting. -- Egyptian consultants outside MOH identified and embarking on defined studies.

<u>Month</u>	<u>Events</u>
14-16	-- Test started in some areas on low cost technologies and motivational incentives.
17-19	-- Equipment other than vehicles received and distributed.
18	-- <u>Vehicles</u> received and allotted.
19-21	-- Further tests designed and implemented.
20	-- Tests involving village councils started. -- Communications network in place.
24	-- First test results obtained and evaluated.
24-25	-- All events to date evaluated against work plan.

ANNEXES

- A. Approved PRP
- B. AID/W PRP Approval Message (STATE 064688)
- C. Illustrative List of Tests
- D. Mission Comments on PP (CAIRO 8574)
- E. Survey Feasibility Report - PD-AAC-020-E1
- F. Transportation Analysis - PD-AAC-245-A1
- G. Communication Analysis - PD-AAC-246-A1
- H. Proposed Training Schedule
- I. Population Trend
- J. Logical Framework Matrix
- K. Basic Statistical Information
- L. Economic Indicators

PROJECT REVIEW PAPER
FOR

Pilot Project to Improve Preventive Rural Health Delivery
Egypt

Project in cooperation with the Department of Rural
Services, Endemic Diseases Sector, Ministry of Health,
Arab Republic of Egypt (A.R.E.)

Feb. 19, 1976

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ANNEX J

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><u>Sector Goal:</u></p> <p>To improve the commitment and capacity of the MOH to provide broad access to preventive and curative health services at acceptable levels of quality.</p>	<p><u>Measures of Goal Achievement:</u></p> <ol style="list-style-type: none"> 1. Strong MOH management capacity for support of rural health. 2. Adoption of new methods of approach in supporting rural health services in areas outside project. 3. Adoption of new technologies for health services in areas outside project. 	<ol style="list-style-type: none"> 1. Number of MOH staff and job descriptions in planning, statistics and rural health delivery offices of MOH. 2. MOH and health district reports. 3. MOH and health district reports. 	<p>The A.R.E. will maintain present socialist, public service policies concerning delivery of rural health care.</p> <p>The Ministry of Health can organize and staff internally at all levels so that it will be able to effectively mount and sustain design/test/evaluation/training operations.</p>

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Project Purpose:</p> <ol style="list-style-type: none"> 1. To identify and validate through field testing replicable methods to reduce or eliminate communication, management/supervision, motivational and incentive issues as factors limiting production of the rural health services — particularly as these issues impact on prevention and outreach. 2. To mobilize greater support and commitment of resources to the rural health program within the MOH. 	<p>End of Project Status:</p> <p>Available for Application:</p> <ol style="list-style-type: none"> 1. Validated information on the impact of transport and communications as factors limiting the productivity of the rural health system. 2. Validated information on the efficacy of the motivational incentives now available within the MOH system in improving job performance. 3. Realistic unit and individual job performance standards designed, tested and validated. 4. Special low cost mass application technologies for combatting some of the major health problems designed, costed and tested. 5. Validated information on how varying patterns of local participation in the health services management influences performance. 6. Expanded cost/effective outreach of the rural health units demonstrably proven in the project area. 	<ol style="list-style-type: none"> 1. Test reports, analysis of data comparison of areas. 2. Job descriptions written and applied. 3. Data on technologies available to MOH. 4. Data on involvement of village people in management of health unit available to MOH. 5. Cost/effectiveness data on various alternatives available to MOH. 	<ol style="list-style-type: none"> 1. There is a close causal connection between improved Incentives/Motivation, communications, and management/supervision and more services production by rural health units and centers. 2. Field tests can readily isolate the variables and identify replicable techniques related to some services packages, incentives/motivation, communications, and supervision/management. 3. The management of various design test, and training operations can be programmed at a pace which both yields useful results but does not overwhelm the system with too many demands. 4. The ultimate results will be of such value that they will affect the efficiencies and costs of the entire A.R.E. rural health delivery system.

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Outputs:</p> <ol style="list-style-type: none"> 1. Validated tests measuring impact of improved communication, transport on rural health field services. 2. Significant motivational factors in rural health delivery identified and validated tests measuring the impact of a range of motivational incentives on field services. 3. Low-cost communicable and endemic disease control service packages for units and centers designed, tested, equipped, and staff trained in their application. 4. Analysis and training established within the Min. of Health concerning job descriptions, job assessments, setting of work norms, design of related supervisory tasks. 5. Analysis and training established within the Min. of Health concerning statistics gathering, assessment, collation and summarization for policy makers. 6. Evaluation systems design analysis and operations established within Min. of Health. 	<p>Magnitude of Outputs:</p> <ol style="list-style-type: none"> 1. At least 2 incentive and prestige-building systems designed and under test within the first 24 months of the project. 2. At least 3 Egyptian professionals specialized in these subjects, trained, and producing applied systems within first 36 months of project. 3. At least 2 Egyptian statisticians recruited, trained, and installing improved systems within test districts during first 36 months of project. 4. At least 4 Egyptian specialists on evaluation recruited, trained, and developing evaluation systems within test districts during first 24 months of project. 5. At least 2 Egyptian specialists selected and trained, and producing alternative systems for test, within first 12 months of project. 6. Design of configurations, scheduling of procurement, training of staffs, design and development of controls and maintenance, so that first increments of vehicles are arriving within 18 months of project start date. 7. Packages designed and tested in at least two districts within first 24 months of project. 	<ol style="list-style-type: none"> 1. Studies completed, tests defined, implemented, and results analyzed. 2. Foreign and Egyptian-provided technical assistance needs defined, personnel recruited, assignments scheduled, and necessary training/advisory systems operational. 3. Egyptians recruited for project (staff records), standards, norms, and analysis studies completed; systems designed, and tests started. 4. Domestic and foreign training needs defined, training institutions selected and training systems operational, trainees selected and assigned. 5. Definition of equipment needs; procurement and placement of equipment; training in use of equipment; development and enforcement of operational criteria. 6. Manuals and enforcement orders issued. 7. Varying equipment tests defined; tests conducted and evaluated; conclusions drawn for future use/control procurement. 8. Contracts negotiated with Egyptian academics and research institutions; scopes of work defined. 	<ol style="list-style-type: none"> 1. The identification of test area and design of universal and particular test activities can be successfully synchronized with necessary technical assistance training, equipment, and supply inputs. 2. The levels and types of inputs applied will be of a size and quality sufficient to produce significant test results. 3. Inputs of equipment and supplies can be "phased" in such a way that compliance with norms and standards is achieved. 4. Appropriate foreign training situations can be found for Egyptian staff employed in this project. 5. The necessary social science studies of varying complexity required at all times in this project can be performed by Egyptian scholars and research institutions with minimal technical advice or guidance required from American specialists in the social sciences. 6. Periodic evaluations will assist in monitoring performance and affect further delivery of inputs at defined critical junctures during the life of the project.

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Outputs: (Continued)</p> <p>7. Training established within the Min. of Health concerning analysis of family health records, maintenance of same, and use of same for strengthening rural health care outreach.</p> <p>8. Vehicle use and maintenance plan developed and accepted by MOH.</p> <p>9. Vehicle maintenance service ^{Service} established, stocked, staffed and operational in test area.</p> <p>10. Telex and telephone systems operating between MOH, governorates, health centers and rural health units.</p> <p>11. Vehicles delivered and utilized according to approved vehicle use plan.</p> <p>12. Persuasive strategies generated for strengthening professional rural health career opportunities and enhancing the importance, prestige, rewards and professional mobility of rural health workers as perceived by Egyptian health professionals, managers and policy makers.</p> <p>13. Essential add-on equipment installations for health units centers, districts, governorates and supporting elements of the Ministry designed and in use by trained personnel.</p>	<p>Magnitude of Outputs:</p> <p>8. Initial surveys of possible equipment add-ons completed in first 12 months; and procurement in process, with some installation/training occurring within second 12 months of project.</p> <p>9. Egyptian academic and Ministry personnel engaged on defined studies within first 6 months of project, with results affecting designs of tests within 12 months; and at least 20 health economists, planners, statisticians, evaluators trained and located at various levels within the Ministry and rural health delivery system during the first 48 months of the project.</p> <p>10. More than 50 participant training programs initiated and completed within first 36 months of project; and, at least 40 carefully chosen and programmed 3-country observation tours completed during that same time.</p> <p>11. Possible inputs designed, training started, and tests run in cooperation with selected village councils, and Ministry personnel within first 24 months.</p>	<p>9. Norms and conditions for vehicle use defined; equipment installed; analysis of performance.</p> <p>10. Content of some health services packages defined; training schedules issued; training completed; new norms set; modes of reporting and supervision defined; operational orders issued.</p> <p>11. Training protocols for village council members set; training occurs; tests designed for involvement of village councils and/or other ministries; inputs scheduled; orders issued; results analyzed.</p> <p>12. Incentives of varying kinds defined; tests designed; tests applied; analysis of results; generalization of results to a training mode.</p>	<p>1.7. 0. The Min. of Health can secure the cooperation and assistance of the Min. of Communications establishing that element of the test program.</p>

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p>Outputs: (Continued)</p> <p>14. Health services delivery profiles and studies designed, executed, and evaluated.</p> <p>15. Participant training and 3rd country observation travel designed and operational so as to provide incentives, correct training in methods, and widened perspectives to all project elements.</p> <p>16. Village councils, and other Ministry programs, effectively engaged in supporting health services delivery tests under guidance of the Min. of Health.</p>	<p>Magnitude of Outputs:</p>		

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NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Inputs: (US \$000) <i>Syria</i>	Implementation Target (US\$000)		
<u>US</u>	<u>US</u> <u>GOARE</u>		
Technical assistance	Min. of Health 3645 1025		
Resident administrator/ planner (5 yrs) 300	Governates (4) 420 195		
Contract consultants 1200	Districts (8) 1585 730		
Equipment	Rural health centers (50) 2820 1150		
Vehicles, spare parts, maintenance eqpt. (c.i.f. Cairo) 2200	<u>8470</u> <u>3100</u>		
Communications Equip. (c.i.f. Cairo) 400			
Immunization & cold chain supplies & equip. 250			
MQH, nutrition & family planning 650			
Educational & instruct- ional materials 400			
Office equipment 330			
Environment sanitation test equipment 400			
Local currency budget 600			
← Training 700			
← Inflation factor 400			
← Contingency 740			
	<u>8470</u>		
<u>GOARE</u>			
Vehicle operation & maintenance 1900			
Project staff 800			
Supplies and surveys 400			
	<u>3100</u>		



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Department of State

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TELEGRAM

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FM AMEMBASSY CAIRO

TO SECSTATE WASHDC IMMEDIATE 4662

UNCLAS CAIRO 8574

AIDAC

EO 11652: NA

SUBJECT: RURAL TEALTH PP

REF: (A) STATE 150182, (B) CAIRO 2696, (C) STATE 64688,
(D) CAIRO 3715

1. AS AID/W AWARE, DRAFT PP WAS PREPARED BY NORMAN HOLLY ON TDY FROM WASHINGTON. DURING DISCUSSION OF WORK IN PROGRESS, HOLLY AGREED TO OUR GUIDELINES (BOLSTERED BY PARA 2.I OF REF. C) TO RETAIN MAJOR DESIGN LAID OUT IN PRP. AID/CAIRO WAS HANDED COPY OF DRAFT PP ON EVE OF HOLLY DEPARTURE WITH ASSURANCES BY HOLLY THAT SUBSTANTIVE DIFFERENCES WERE MINIMAL. IN SUBSEQUENT REVIEW, WE WERE SURPRISED TO NOTE MAJOR REWRITING OF PROJECT DESCRIPTION IN PP BUT WE TRUST THAT APPARENT SUBSTANTIVE CHANGES WERE NOT INTENTIONAL AND THAT DIFFERENCES BETWEEN DRAFT PP AND PRP CAN BE RECONCILED IN DISCUSSIONS WITH HOLLY.

2. OUR BASIC VIEWS ON PROJECT REMAIN AS SET OUT IN REFS. A AND D.

3. FOR PURPOSES OF FURTHER COMMENT, WE HAVE DIVIDED PP INTO FOUR BASIC PARTS:

- A. SUMMARY AND BACKGROUND
- B. PROJECT DESCRIPTION
- C. IMPLEMENTATION PLAN
- D. SUPPORTING ANALYSES AND ANNEXES.

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4. WITH RESPECT TO THE SUMMARY AND BACKGROUND STATEMENTS OF THE PP, WE BELIEVE NARRATIVE COULD HAVE MUCH BETTER FOCUS, EXTRACTING FROM PRP THOSE ELEMENTS WHICH DEAL WITH THE BASIC PROBLEM THAT THE PROJECT HAS BEEN DESIGNED TO ATTANCK, E.E., THE BASIC INACTIVITY OF THE RURAL HEALTH DELIVERY SYSTEM IN MOUNTING OUTREACH, PREVENTIVE HEALTH PROGRAMS. HOWEVER, THESE SECTIONS DO NOT IN OUR MIND RAISE SUBSTANTIVE ISSUES AND WE BELIEVE COMBINATION OF PRP AND PP GIVES ADEQUATE BACKGROUND INFORMATION. ✓

5. WITH RESPECT TO THE PROJECT DESCRIPTION, WE DISAGREE WITH IMPLICIT MODIFICATION OF PROJECT PURPOSE REFLECTED IN SECTION 11(B) OF DRAFT PP. AS WE HAVE EMPHASIZED IN PAST, PROJECT PURPOSE IS NOT REPEAT NOT DEMONSTRATION OF EXPANDED OUTREACH SERVICES BUT RATHER PROGRESSIVE EXPERIMENTATION WIT CHANGES IN STAFFING, STAFF TRAINING, ORGANIZATION, MANAGEMENT, COMMUNICATIONS, ETC, AIMED AT BETTER UNDERSTANDING AND ALLEVIATION OF THE VARIOUS APARENT CONSTRAINTS WHICH MAKE PRESENT RURAL HEALTH SYSTEM UNDUPLY PASSIVE IN PREVENTIVE HEALTH DELIVERY (INCLUDING FAMILY PLANNING OUTREACH), WHILE WE AGREE WITH NEED FOR SURVEYS AND SPECIAL STUDIES, REINFORCEMENT AND EXTENSION OF FAMILY PLANNING EDUCATION, REINFORCEMENT AND EXTENSION OF LINKAGES BETWEEN THE MOH AND RURAL POPULATION AND CAREER DEVELOPMENT FOR RURAL HEALTH PERSONNEL, WE DO NOT WANT TO EMPHASIZE THESE QUOTE FEATURES UNQUOTE AT EXPENSE OF BASIC PROJECT PURPOSE DEFINED IN REF B AS QUOTE TO IDENTIFY AND ASSESS POSSIBLE KEYS TO UNLOCK THE PASSIVE EGYPTIAN RURAL HEALTH SYSTEM AND TO GALVANIZE IT INTO GREATER ACTION ON THE PREVENTIVE HEALTH FRONT UNQUOTE. ✓

6. WITH RESPECT TO IMPLEMENTATION PLAN, WE DO NOT SEE ANY BASIC INCONSISTENCIES BETWEEN SECTION IV(A) AND (B) OF DRAFT PP AND SECTIONS 2H (PHASING) AND 8 (IMPLEMENTATION PLAN) OF PRP. MAJOR DIFFERENCE IS THAT DRAFT PP PROVIDES FOR PROGRESSIVE UPGRADING OF ALL EIGHT DISTRICTS WHILE PRP PROVIDES FOR FULL UPGRADING OF FOUR DISTRICTS FIRST AND FOUR ADDITIONAL DISTRICTS LATER. WE CONCUR WITH DRAFT PP RECOMMENDATION ABOVE AND THAT ONE AHLF ?

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OF THE VEHICLES SPECIFIED IN ANNEX C BE ORDERED IMMEDIATELY UPON SIGNING OF GRANT AGREEMENT AND BE DISTRIBUTED THROUGHOUT ENTIRE PROJECT AREA AT ALF STRENGTH RATER THAN AT FULL STRENGTH THROUGHOUT HALF OF PROJECT AREA.

7. AID/CAIRO HAS NO RORLEM WITH PP ANNEXES. ANNEX F (MOH ORGANIZATIONAL CHART AND FUNCTIONAL STATEMENT) WILL BE POUCHED THIS WEEK. WE ALSO CONCUR IN DROPPING THE PRP ANNEX 5 (PROSPECTIVE TEST CONFIGURATION) SINCE IT SEEMS TO US PREMATURE TO SET RIGID SET OF TESTS AT THIS TIME. TESTING IS, OF COURSE, BASIC APPROACH OF PROJECT AND FOR THIS VERY REASON SHOULD NOT BE SET OUT IN ADVANCE. PRP ANNEX 5 COULD SERVE AS AN ILLUSTRATIVE PATTERN, BUT NOT AS A BINDING ONE.

8. COMMENTS ON SPECIFIC PORTIONS OF PRP AND DRAFT PP FOLLOW:

PRP PAGE 13: DELETE FROM PARAGRAPH WHICH REFERS TO UNIVERSAL AND PARTICULAR TESTS REFERENCE TO ANNEX 5 AND REPLACE QUOTE ENDEMIC DISEASE SECTOR, RURAL HEALTH SERVICES WILL BE FURNISHED WITH RESOURCES TO. UNQUOTE WITH QUOTE PROJECT WILL UNQUOTE.

PRP PAGES 14 AND 18: DELETE PARAGRAPHS WHICH REFER TO MINISTRIES OF LOCAL GEOVERNMENT AND SOCIAL AFFAIRS.

PRP PAGE 51 AND PP SECTION 4A: THE IMPLEMENTING AGENT SHOULD BE THE MOH AND NOT THE RURAL HEALTH SERVICE, EVEN THOUGH THE MINISTER HAS DESIGNATED DR. ALMOTAZ MOBAREK (UNDERSECRETARY FOR ENDEMIC DISEASES AND RURAL HEALTH) AS THE PROJECT COORDINATOR.

PP SECTION 4B SHOULD FOCUS PRINCIPALLY ON THE FIRST SIX MONTHS. THE FIRM SCHEDULE FOR REMAINDER OF PROJECT DURATION SHOULD BE DEVELOPED BY CONTRACTOR. 02

PP SECTION 4C SHOULD PROVIDE FOR FIRM EVALUATION PLAN TO BE PREPARED BY CONTRACTOR. 02

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9. WE TRUST PRP, PP PLUS ABOVE PROVIDE SUFFICIENT BASIS
FOR AUTHORIZATION OF PROJECT IN FY 1976.
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PROPOSED TRAINING SCHEDULE

<u>Department</u>	<u>Staff</u>	<u>Training in Country by</u>	<u>Training Abroad</u>
1) Planning & Project	12	U.S. Systems Analyst	3 4 (3rd country Obs.)
2) Statistics & Evaluation	14	U.S. Statistician & U.S. Evaluation Specialist	6
3) Manpower Training	2		1
4) Health Economics	4	Health Economist & Budget Analyst	2
5) Research	10	Med. Anthro. & Epidemiologist	4 6 (3rd country obs.)
6) Nursing Services	4	Nursing Supervisor	2
7) Communicable Disease Control	4	Immunologist	-
8) MCH	8	Systems Analyst	2 4 (3rd country obs.)
9) School Health		Health Education	2
10) Nutrition Institute		Nutrit. Ed. Spec. & Nutrit. Research Specialist	4 2 (3rd country obs.)
11) Combatting Schistosomiasis			
12) Combatting Malaria & Insecrs			
13) Health Educa- tion	8	Health Education	4 2 (3rd country obs.)

<u>Department</u>	<u>Staff</u>	<u>Training in Country by</u>	<u>Training Abroad</u>
14) Institute of Tropical Medicine		-	2
15) Field and Applied Research Center		Med. Anthro. & Epidemiologist	2
16) Manpower Training		Health Train. Methods.	2
17) Family Planning	14	Demographer, F.P. Methods, F.P. Messages	4 16 (3rd country obs.)
18) Financial Administration	4	Systems Analyst, Budget Spec., Health Economist	2
19) Adm. Affairs	4	Personnel Ad., Records & Mgt. Info. Spec.	2
20) High Institute Public Health		Health Adm. Spec., Health Ed. Spec.	5 3 (3rd country obs.)
21) Technical Institutes		Health Ed., Health Trg. Spec., Records Spec., Lab. Spec. Environ. Spec.	10 11 (3rd country obs.)
22) Rural Health Services	52	All Consult. Personnel plus Comm. Specialist; Transport Spec.; Environ. Spec.	25 20 (3rd country obs.)
23) Other Ministries		System Anal.	
- Local Govt.			4 20 (3rd country obs.)
- Social Affairs			4 8 (3rd country obs.)

<u>Department</u>	<u>Staff</u>	<u>Training in Country by</u>	<u>Training Abroad</u>
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24) Studies/increments: stretched across all operations
 where essential.

TOTALS:

25

140

20 Consl.

92 S/T & L/T
 96 (3rd country
 Obs.)

MINISTRY OF HEALTH

BASIC STATISTICAL INFORMATION
OF
HEALTH SERVICES

JANUARY 1975

POPULATION

Population Estimate (in Millions) :

Year	1952	1960	1974
Population	21.4	25.8	36.1

Population by Sex (in Millions) :

Year	1952	1960	1974
Male	10.7	13.0	18.3
Female	10.7	12.8	17.8

Population by Age (in Millions) :

Age Groups	No.	%
0 — 4	5.6	15.4
5 — 9	4.9	13.6
10 — 14	4.0	11.0
15 — 19	4.1	11.3
20 +	17.5	48.7

URBAN and RURAL Distribution:

Urban (138 Cities)	42.6%	15.4 Millions
Rural (4100 villages)	57.4%	20.7 Millions
— villages less than 2,000		29.0%
— villages 2,000 — 5,000		43.7%
— villages 5,000 — 10,000		22.5%
— villages more than 10,000		4.8%

VITAL RATES (Per thousand):

	1952	1960	1972
Birth rate	45.2	43.1	34.1
Death rate	17.8	16.9	14.5
Natural Increase rate	27.4	26.2	19.9
Infant Mortality rate	127.0	109.0	116.0
Neonatal Mortality rate	20.6	19.3	21.0
Maternal Mortality rate	1.4	1.1	0.9
Marriage rate	10.8	10.9	10.3
Divorce rate	3.2	2.5	2.2

LIFE EXPECTANCY AT BIRTH:

	1947	1960	1970
Male (in years)	41.4	51.6	53.5
Female (in years)	47.0	53.8	55.6

TOTAL AREA A.R.E. (1974) : 1,002,000 Km²

POPULATION DENSITY (1974) :

Density / Total area (Person/Km ²)	36/Km ²
Density / Inhabited area (Person/Km ²)	1001/Km ²

MORBIDITY and MORTALITY

I. PERCENTAGE DISTRIBUTION OF MAJOR CAUSES OF ILLNESS in General Hospitals (1972) :	
A. MALES	
1 — Accidents, Poisoning and Violence	29.5%
2 — Diseases of Digestive System	21.1%
3 — Diseases of Circulatory System	10.6%
4 — Diseases of Genito - Urinary System	8.7%
5 — Others	30.1%
TOTAL	100.0%
B. FEMALES	
1 — Deliveries and Complications of Pregnancy, Childbirth and Puerperium	31.2%
2 — Accidents, Poisoning and Violence	14.4%
3 — Diseases of Genito - Urinary System	14.2%
4 — Diseases of Digestive System	11.7%
5 — Others	28.5%
TOTAL	100.0%
II. PERCENTAGE DISTRIBUTION OF MAJOR CAUSES OF DEATH in Total Population (1970) :	
1 — Diseases of Digestive System	30.05%
2 — Senility and ill defined	20.60%
3 — Diseases of Respiratory System	18.67%
4 — Diseases of Circulatory System	12.37%
5 — Other Causes	18.31%
TOTAL	100.00%

BUDGET OF HEALTH SECTOR

1 — MINISTRY OF HEALTH (in Millions) :			
year	52/53	60/61	74
	6.8	11.8	<u>62.6</u>
2 — PUBLIC HEALTH SECTOR :			
Health Insurance Organization			8,039,000
Curative Organization Cairo & Alex.			888,500
Pharmaceutical and Chemical Organization			39,810,000
Egyptian Organization for Biological and Vaccine Production			1,392,500
Nasser Institute			200,000
Supreme Council for Family Planning			<u>1,117,800</u>
TOTAL			51,447,800
3 — TOTAL BUDGET OF HEALTH SECTOR :			
Ministry of Health			62,635,000
Public Health Sector			<u>51,447,800</u>
TOTAL			114,082,800
University Hospitals Budget			<u>11,000,000</u>
GRAND TOTAL			125,082,800
4 — BUDGET OF Health Sector related to THE GENERAL BUDGET OF THE STATE. :			
General Budget of the State	4187.1		100%
Adminstrative Sector	939.2		22.4%
Budget of Health	125.1		<u>3.0%</u>

MANPOWER

<u>MINISTRY OF HEALTH (1974) :</u>		Number	
High Administration		63	
Physicians		13103	
Dentists		1966	
Pharmacists		2882	
Other Specialization		23.9	
Technicians		8886	
Nurses		23107	
Administration & Clerks		35600	
Others		46687	
TOTAL		134603	
 <u>Physicians, Dentists, and Pharmacists. Medical Registers(1/1/1974):</u>			
Physicians		23501	
Dentists		2991	
Pharmacists		6665	
 <u>Physicians, Dentists and Pharmacists. Ministry of Health:---</u>			
	1952	1960	1974
Physicians	2002	3750	13103
Dentists	42	254	1966
Pharmacists	247	317	2882

UNITS, BEDS and PATIENTS

M. P. II. (1974)

	Units	Beds	Inpatients	Outpatients
General & District hospitals	184	21633	462,050	14,353,802
Polyclinics	24			
Chest disease hospitals	42	8753	15,747	971,473
Chest dispensaries	61			
Mobile units	25			
Mental & Psychiatry	35			
Eye disease hospitals	158	2922	37,570	4,562,318
Infectious disease hospitals	73	6630	175,301	2,004,870
Endemic disease hospitals	162	1283	17,043	5,066,335
School health hospitals	3	424	14,328	4,058,740
School health polyclinics	47			
School health units	170			
Leprosy hospitals	77	1815	1,263	126,995
Skin disease hospitals	62	89	727	1,219,729
Maternity & child health centres	214	426	3,307	3,121,710
Rabies units	123	52	389	426,752
Combined units	587	8280	33,302	8,713,781
Rural health centres	1522	—	—	5,513,618
Dental units	948	—	—	2,069,003
Medical institutes	8	486	—	—
Quarantine centres	40	285	—	—
Health bureaux	306	—	—	—
Health education centres	57	—	—	—
Food control units	79	—	—	—

CURATIVE SERVICE BEDS (1974)

	Number	%
Ministry of Health	57138	73.4
Other Ministries	2111	2.7
Universities	9545	12.3
Public Sector	5452	7.0
Private Sector	3596	4.6
Total	77842	100.0
Main Parameters of Health Service*		
1 — Population Per Physician	1536	
Population Per Dentist	12070	
Population Per Pharmacist	6660	
Population Per Nurse (M.P.H.)	1562	
2 — Physicians Per 10000 Population	6.51	
Dentists Per 10000 Population	0.83	
Pharmacists Per 10000 Population	1.85	
Nurses Per 10000 Population (M.P.H.)	6.40	
3 — Beds Per 10000 Population		
Urban	445	Beds
Rural	0.4	Beds
Total	2.1	Beds
4 — Bed Turn Over/Year	27.1	Patients
Bed Occupancy	77.3 %	
Average Duration of Stay/Patient	10.4	Days
* For Registered Man Power.		

PREVENTIVE SERVICES

TRAINING

Internal Scholarships

Manpower	70/71	71/72	72/73	73/74	74/75
Physicians	380	394	425	435	551
Dentists	50	36	43	58	53
Pharmacists	32	25	299	24	55
Chemists	33	22	24	25	33
Agriculture Engineers	2	4	3	9	15
Social Workers	2	3	1	11	1
Dietitians	1	4	—	4	3
Psychiatrist	—	—	—	—	2
University Nurses	4	—	7	1	—
Nurses	217	165	294	399	282
Veterinarians	—	—	2	—	—
Administration	2	9	10	2	4
Total	723	662	838	868	999

1 — Production of Sera and Vaccines

Typhoid and Paratyphoid	2,047,400	MI.
Cholera	3,011,430	MI.
Small Pox (liquid)	27,475,000	Units
Small pox (dried)	2,700,000	Units
Anatoxin Diphtheria	533,000	MI.
B. C. G.	7,998,700	Units
Tuberculin	2,711,300	Units
Anti Rabies Vaccine	4,103,900	MI.
Human Plasma (dried)	16,783	Bottles
Blood (250---500 MI.)	62,204	Bottles

2 — Vaccination and Immunization Activities :

Small Pox (Primary, Quarterly & Others)	17,955,667
Diphtheria (Primary and Booster)	1,046,831
Poliomyelitis (Primary and Booster)	1,020,963
Typhoid	1,931,729
Tuberculin Testing	1,652,944
B. C. G. Vaccination	1,086,532

3 — Important Lab. Activities :

	Principal Labs.	Governorate Labs.
Bacteriological Samples	120202	948116
T. B. Detection Samples	19298	32989
Water Samples	5428	67917
Food Samples	58177	195317
Rabies Samples	28931	38231
Chemical Samples	6922	258044
Pathological Samples	1326	2300
Clinical Pathology	3657	183167

Institutes	No.	Students	Graduates	
Faculties of Medicine	9	33555	3227	Year 71/72
Faculties of Dentistry	3		406	
Faculties of Pharmacy	5		784	
High Nursing Institutes	2	676	158	
Health Institutes	4	2557	621	
Technical Nursing Secondary Schools	131	16940	6000	(Expected) 1975
Assistant Midwives Schools	18	240	312	
Health Visitors Schools	9	1344	446	

(11)

FAMILY PLANNING ACTIVITIES

Units (Urban & Rural) and Users
by Type of Contraceptive Method
1966 — 1973

Year	Units			Users	
	Urban	Rural	Total	I.U.D./year	Pills/Month
1966	624	1493	2135	19077	157822
1967	856	1693	2549	41138	181829
1968	883	1768	2651	31796	231599
1969	893	1807	2700	34595	279059
1970	957	1843	2800	44175	337753
1971	1004	1924	2928	56224	379372
1972	1066	2001	3067	66963	415632
1973	1100	2078	3178	71752	436615

Unit	Users		
	Number	I.U.D./year	Pills/Month
Maternity & child health centres	202	29045	94074
Health bureaux	276	—	104680
Rural health centres	586	1768	41075
Rural health units	1329	1084	52100
Hospitals	223	11512	33167
Others	562	28343	111519
Total		3178	71752

(10)

LABOUR (1966/67 - 70/71) (Thousands)

Sector	66/67	67/68	68/69	69/70	70/71
Agriculture	3864.6	3892.4	3964.9	4048.3	4056.9
Industry	846.7	867.3	890.7	916.1	946.6
Electricity and Construction	325.9	278.3	358.3	410.7	396.2
Public Utilities and Services	2596.6	2789.6	2837.3	2899.6	2965.3
Total	7633.8	7827.6	8051.2	8274.7	8365.0

WAGES (1966/67 - 70/71) (millions)

Sector	66/67	67/68	68/69	69/70	70/71
Agriculture	204.9	201.3	210.7	218.4	225.4
Industry	155.2	160.0	166.2	175.7	187.2
Electricity and Construction	60.5	51.9	67.6	77.9	77.6
Public Utilities and Services	581.6	619.0	661.1	707.7	757.2
Total	1002.2	1032.2	1105.6	1179.7	1247.4

(13)

NATIONAL PRODUCTION IN MILLIONS (1966/67 - 70/71)

Sector	66/67	67/68	68/69	69/70	70/71
Agriculture	928.9	950.0	977.7	1075.1	1101.1
Industry	1835.9	1935.4	2071.9	2252.4	2464.0
Electricity and Construction	231.6	221.9	286.3	326.0	315.5
Public Utilities and Services	1378.5	1410.8	1520.7	1653.1	1768.5
Total	4374.9	4518.1	4856.6	5306.6	5648.9

NATIONAL INCOME IN MILLIONS (1966/67 - 70/71)

Sector	66/67	67/68	68/69	69/70	70/71
Agriculture	612.3	644.4	688.3	771.9	774.1
Industry	477.4	460.3	503.9	542.0	611.9
Electricity and Construction	119.5	116.8	146.0	165.5	161.4
Public Utilities and Services	985.6	966.3	1001.2	1073.4	1144.3
Total	2194.8	2187.8	2339.4	2552.8	2691.7

(12)

ANNEX L

ECONOMIC INDICATORS

Fiscal periods ^{1/}	1973	1974	1975		1976
	Actual	Actual	Budget	Preliminary Actual ^{2/}	Budget
Receipts	1,018	1,180	1,343	1,379	1754.7
Central government revenue,	694	780	1,060	1,020	1071.2
of which					
Taxes on income and profits	(161)	(176)	(187)	(227)	(264.6)
Taxes on goods and services	(191)	(196)	(217)	(213)	(253.4)
Taxes on international trade	(205)	(234)	(491)	(398)	(378.1)
Local governments' revenue	60	65	88	63	83.1
Public economic sector ^{3/}	264	335	395	293	600.4
Transferred profits ^{4/}	(137)	(211)	(278)	(208)	(426.9)
Investment financing ^{4/}	(127)	(124)	(117)	(91)	(173.5)
Current expenditure	953	1,269	1,713	1,671	1791.2
Central government current expenditure	714	779	839	850	755.3
Local governments' current expenditure	51	61	88	80	370.0
Public Authorities' deficits ^{5/}	165	402	86	85	112.2
Public Organizations' deficits ^{6/}	23	15	8	8	--
Subsidies	--	12 ^{7/}	642 ^{8/}	640	553.7
Current account surplus or deficit (-)	65	-89	-170	-292	-36.5
Investment expenditure^{9/}	451	565	757	679	1252.2
Overall deficit (-)	-386	-654	-927	-971	-1288.7
Total financing:	386	654	927	971	1288.7
External borrowing (net)	51	11	316.8	105	668.2
Domestic borrowing (net)	335	643	610.2	866	620.5
Social insurance and pension funds	224	245	275.5	253	321.8
Savings certificates	38	43	30.0	50	42.0
Postal savings	10	18	13.7	17	16.1
Public economic sector ^{10/}	-170	23	166.0	-169	115.6
Banking system	183	314	125.0	715	125.0
Memorandum items					
Emergency Fund					
Expenditure	399	507	775	423	646.7
Grants	251	389
Jihad bonds ^{11/}	13	2	...	10	...

Source: Ministry of Finance

1/ Fiscal year same as calendar year.

2/ Preliminary figures based on actuals for the first 11 months and estimates by Ministry of Finance staff for the concluding month.

3/ Mandatory transfers under the legal requirement that 65 per cent of net profits after tax and depreciation be transferred to the Treasury.

4/ Resources generated internally by Public Authorities and Public Economic Organizations to finance part of their investment. The associated expenditure is included in the item "Investment expenditure". An alternative presentation would exclude this provision from both receipts and expenditure, which would affect the current account but not the overall deficit.

5/ Deficits in current operations of Public Authorities met by government subventions.

6/ Deficits in current operations of Public Economic Organizations met by government subventions. Different institutional arrangements have been introduced for 1976.

7/ Subsidies for essential commodities paid directly by the Treasury and not through the General Supply Authority (almost entirely for low-grade textiles).

8/ In the 1975 budget the provision for subsidies has to a large extent been consolidated under one heading.

9/ Includes self-financed investment of the public economic sector but excludes certain reconstruction expenditure (LE 243 million) to be financed from the Emergency Fund in 1975.

10/ Calculated as a residual; includes net lending and borrowing from units within the public economic sector including the affiliated companies and presumably also the disposal of the surplus or financing the deficit of the Emergency Fund.

11/ Grants received primarily from other Arab countries and credited to the Emergency Fund (as recorded in balance of payments data).

12/ Not included in the budgetable part of Jihad bonds received to the Emergency Fund.

4/21/76

Table C5. Public Sector Investment Expenditure

(In millions of Egyptian pounds)

Year periods	1973 Actual	1974 Actual	1975 Budget	1975 Preliminary Actual	1976 2/ Budget
<u>General public services</u>	9.0	15.2	21.0	21.6	34.3
General administration	0.3	1.3	2.6	2.6	10.4
Public order and safety	1.9	3.6	4.6	1.9	6.7
Local administration	5.5	4.8	13.8	17.1	17.2
<u>Education</u>	20.5	23.0	32.7	37.0	59.5
<u>Health</u>	4.8	7.3	13.3	11.5	29.0
<u>Transport</u>	33.1	45.2	57.5	48.3	168.6
<u>Community and social services</u>	1.7	2.4	4.9	2.0	10.2
<u>Economic services</u>	358.8	461.9	602.7	552.1	934.4
Agriculture	52.0	54.5	90.1	84.9	127.5
Mining, petroleum and manufacturing	188.6	248.8	255.8	307.6	371.9
Electricity	21.5	33.1	27.5	30.4	66.0
Transport and communications	86.3	108.8	197.8	136.6	321.7
Water and supply	6.7	11.7	22.0	8.4	41.0
Tourism	4.7	5.0	9.5	4.2	6.3
<u>Other 1/</u>	24.5	19.6	25.2	6.5	16.2
<u>Total</u>	451.4	564.6	757.3	679.0	1,252.2

Source: Ministry of Finance and Ministry of Planning.

Table D1. Outstanding External Debt, as of December 31, 1975 1/

(In millions of Egyptian pounds)

	Undisbursed	Disbursed	Arrears	Payments Schedule (Disbursed Amounts)					After 1980
				1976	1977	1978	1979	1980	
Convertible currencies		<u>2,322.2</u>	<u>145.8</u>	<u>787.1</u>	<u>305.7</u>	<u>156.7</u>	<u>86.2</u>	<u>98.8</u>	<u>741.7</u>
Official loans		579.7	15.6	39.4	37.3	36.3	36.6	22.0	392.5
Rescheduling agreements		124.2	2.1	22.1	19.1	19.8	11.6	9.8	39.7
Suppliers' credits		234.2	58.7	82.7	43.5	14.9	9.1	14.9	10.4
Euro-currency loans		130.3	--	16.1	15.4	18.6	17.2	17.0	46.0
Bank credit facilities 2/		473.3	12.8	363.6	81.2	.3	--	--	15.4
Official deposits		780.5	56.6	263.2	109.2	67.0	11.7	35.1	237.7
Non-convertible currencies		<u>375.5</u>	<u>2.8</u>	<u>53.0</u>	<u>44.8</u>	<u>39.5</u>	<u>23.5</u>	<u>24.8</u>	<u>178.1</u>
Official loans		338.0	.9	40.4	36.6	32.3	29.2	23.3	175.3
Suppliers' credits		37.5	1.9	12.6	8.2	6.2	4.3	1.5	2.8
Total		<u>2,697.7</u>	<u>148.1</u>	<u>840.1</u>	<u>350.5</u>	<u>195.4</u>	<u>119.7</u>	<u>123.6</u>	<u>919.8</u>
Memorandum items:									
Fund members 3/									
Other countries 4/									

Sources: Ministry of Economy and Economic Cooperation and Central Bank of Egypt.

1/ Includes interest on disbursed amounts except where noted. Does not include bilateral payments agreement liabilities, foreign deposits with Egyptian banks, liabilities under compensation agreements, or military debts.

2/ Excludes sight credits; data on interest not available.

3/ Includes international organizations.

4/ Official loans and suppliers' credits from Bulgaria, China (People's Republic), Czechoslovakia, Germany (Democratic Republic), Hungary, Poland, Switzerland and the U.S.S.R.

Table D2. Outstanding Loans from Foreign Governments and International Organizations (Convertible Currencies) as of December 31, 1975

(In millions of Egyptian pounds)

	Including Undisbursed	Disbursed Only	Arrears on Dec. 31, Payments Schedule (Disbursed Amounts)					After 1980	Memorandum Item Payments in 1975	
			1975	1976	1977	1978	1979			1980
(Principal)	1,030.2	448.6	6.5	24.2	26.2	25.9	26.8	13.6	325.4	11.1
France	122.1	71.4	--	--	.4	.9	1.3	1.3	67.5	--
Germany	7.2	5.2	--	.1	.1	.1	.2	.2	4.5	--
Italy	17.6	--	--	--	--	--	--	--	--	--
Japan, Fed. Rep.	108.2	53.1	1.5	2.9	2.9	2.8	2.7	1.1	39.2	3.0
U.S.	125.2	125.2	--	11.7	11.7	11.7	11.8	--	78.3	--
U.K.	18.8	18.8	1.0	1.7	2.6	1.5	1.5	1.5	9.0	5.7
World Bank	83.5	9.9	--	--	--	--	--	.1	9.8	--
IDA	97.3	60.3	4.0	5.5	5.8	5.8	5.9	5.7	27.6	1.3
Other	3.9	--	--	--	--	--	--	--	--	--
Arabia	1.6	--	--	--	--	--	--	--	--	--
Yemen	44.3	23.5	--	--	--	.3	.2	.3	22.7	--
Saudi Arabia	45.0	--	--	--	--	--	--	--	--	--
Yemen	13.7	10.2	--	.7	1.4	1.4	1.4	1.4	3.9	--
U.S. Kingdon	12.3	4.4	--	.3	.1	--	--	.1	3.9	.3
U.S. States	160.9	25.6	--	1.3	1.2	1.3	1.2	1.3	19.3	.8
International Development Bank	2.3	2.3	--	--	--	1.1	.2	.2	1.8	--
Fund for Economic and Social Development	--	--	--	--	--	--	--	--	--	--
World Bank and IDA	8.8	.1	--	--	--	--	--	--	.1	--
IDA	157.5	38.6	--	--	--	--	.4	.4	37.8	--
(Interest)	--	131.1	9.1	15.2	11.1	10.4	9.8	8.4	67.1	2.4

(Concluded) Table D2. Outstanding Loans from Foreign Governments and International Organizations (Convertible Currencies) as of December 31, 1975

(In millions of Egyptian pounds)

	Including Undisbursed	Disbursed Only	Arrears	Payments Schedule (Disbursed Amounts)					After 1980	Memorandum Item Payments in 1975
			on Dec. 31, 1975	1976	1977	1978	1979	1980		
including agreements ^{1/}		124.2	2.1	22.1	19.1	19.8	11.6	9.8	39.7	22.4
Italy		.1	--	.1						.2
Germany, Fed. Rep.		60.5	--	6.6	6.6	6.5	6.5	6.3	28.0	8.3
France		23.8	2.1	2.1	2.1	2.0	2.3	2.1	11.1	--
Japan		5.3	--	1.2	1.2	1.4	1.5			.6
United Kingdom		6.4	--	1.2	1.1	1.2	1.1	1.2	.6	1.2
United States		.5	--	.5						1.1
		27.6	--	10.4	8.1	8.7	.2	.2		11.0
		743.0	17.7	61.5	56.4	56.1	50.2	35.7	465.4	35.2

Source: Ministry of Economy and Economic Cooperation.

^{1/} Includes interest.

Table D3. Egypt: Outstanding Loans from Foreign Governments
(Clearing Currencies) as of December 31, 1975

(In millions of Egyptian pounds)

	Frame Agreements	Contracted (including undisbursed)	Disbursed	Arrears	Payments Schedule (Disbursed Amounts)					After 1980	Memorandum Item Payments in 197
					1976	1977	1978	1979	1980		
Czechia	37.3		10.9	--	1.1	1.0	.9	.7	.1	7.1	.8
Czech (people's Rep.)	55.5		12.0	--	--	--	--	--	--	12.0	.5
Czechoslovakia	49.3		27.4	.7	4.1	3.3	2.8	2.1	1.8	12.6	4.1
Hungary (Dea. Rep.) ^{2/}	54.3		28.6	--	2.4	2.3	2.3	2.3	2.2	17.1	1.3
Poland ^{2/}	23.1		4.6	--	1.3	1.0	.7	.6	.3	.7	1.6
Yugoslavia ^{2/}	33.0		6.2	--	.7	.7	.7	.5	.4	3.2	.8
USSR ^{2/}	9.7		9.7	--	.4	.3	.1	.1	--	8.8	.1
Yugoslavia ^{2/}	530.0		231.9	.2	29.4	27.1	23.9	22.1	17.7	111.5	28.8
Czechia ^{2/}	21.5		6.7	--	1.0	.9	.9	.8	.8	2.3	2.4
Total			<u>338.0</u>	<u>.9</u>	<u>40.4</u>	<u>36.6</u>	<u>32.3</u>	<u>29.2</u>	<u>23.3</u>	<u>175.3</u>	<u>40.4</u>

Source: Ministry of Economy and Economic Cooperation.

^{1/} Includes interest.

^{2/} Though the bilateral payments agreements with Hungary, Poland and Yugoslavia have been terminated, previously contracted loans are repaid in goods and services through special accounts.

Table D6. Egypt: Outstanding External Bank Credits, 1970-76^{1/}
(In millions of Egyptian pounds)

	Including Undisbursed (End of period)	Disbursed Only	Utilized During Period
1970	104.8	50.0	122.7
1971	96.1	44.1	93.6
1972	135.5	55.3	96.5
1973	446.3	194.5	430.7
1974			
January-March	512.8	241.3	135.4
April-June	635.7	307.9	213.2
July-September	754.7	319.0	224.3
October-December	1,055.2	422.9	337.9
1975			
January-March	1,004.1	466.7	183.3
April-June	997.6	533.4	130.2
July-September	989.1	531.4	154.3
October-December	1,023.2	473.3	232.4
1976			
January	917.6	521.4	75.0
February	855.3	550.6	33.9
<u>Position at March 31, 1976 (outstanding amounts)</u>			
Maturities of less than 180 days	41.0		
Maturities of 180 days or more	814.3		
Total	855.3		

Source: Central Bank of Egypt.

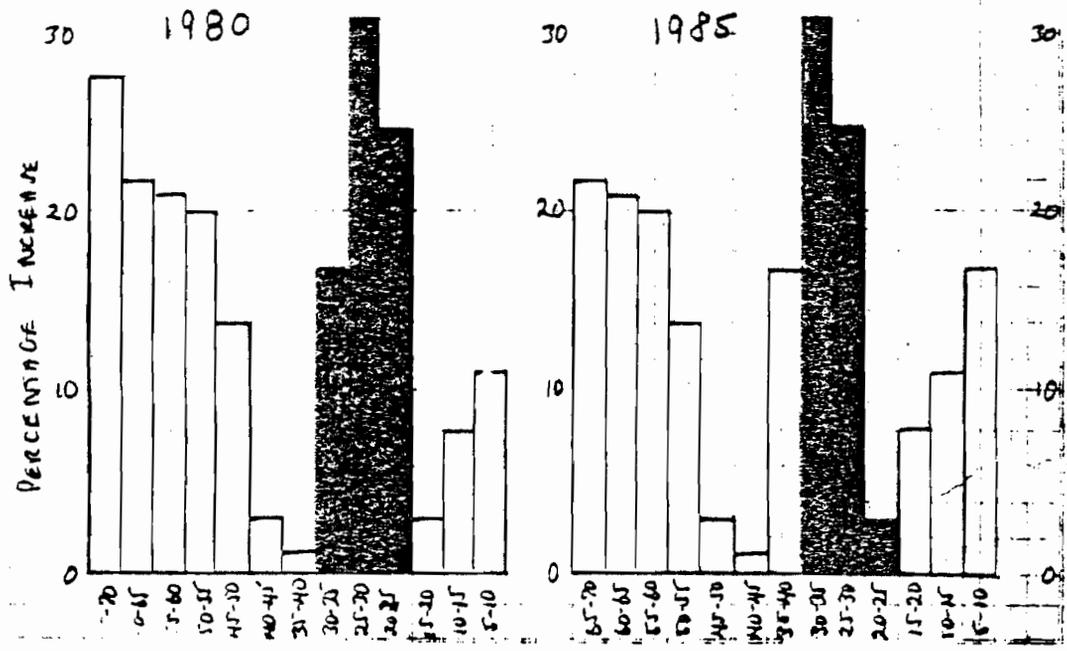
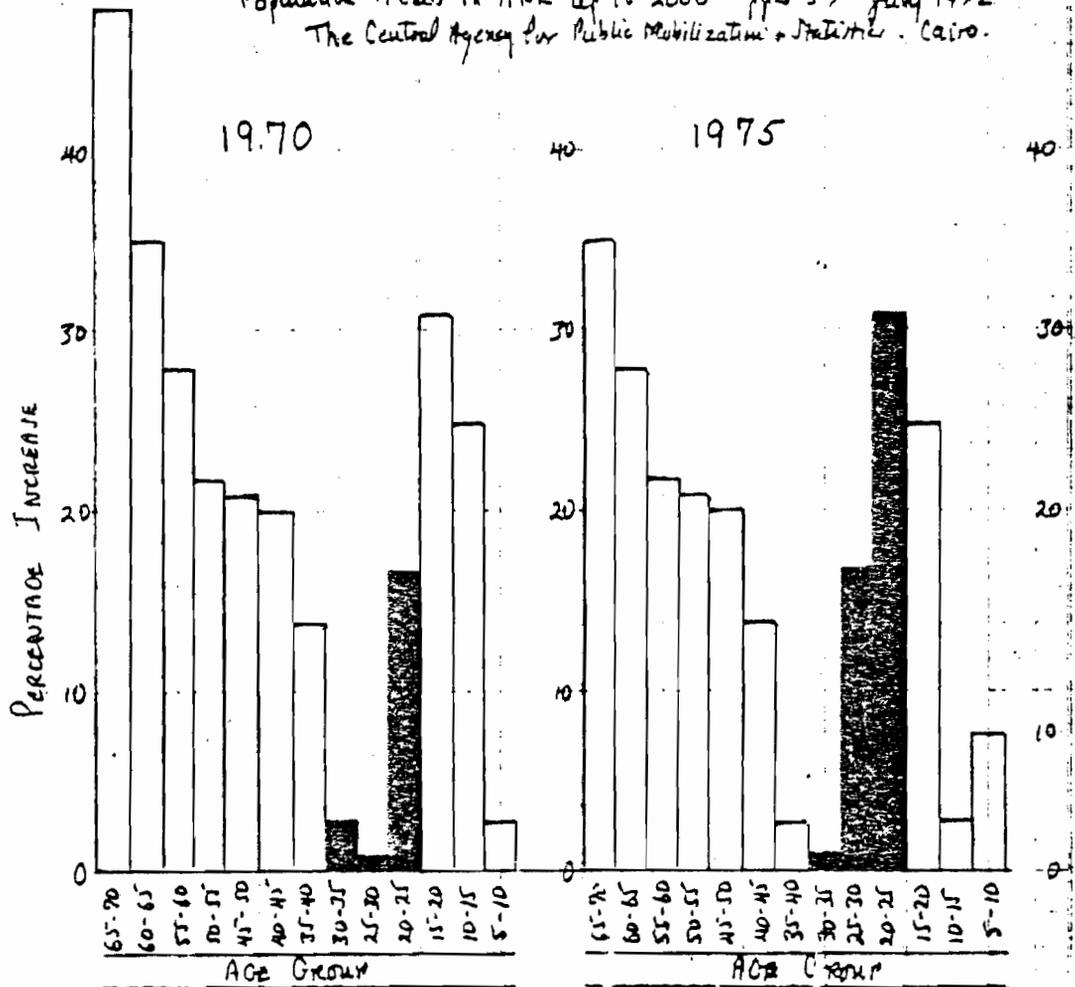
^{1/} Correspondent bank credits for financing trade. Excludes Euro-currency loans.

ANNEX 1 ARAB REPUBLIC OF EGYPT

INCREASE IN FEMALE POPULATION BY FIVE-YEAR COHORT:
ATTAINING AGE 5

PERCENTAGE INCREASE OF EACH COHORT OVER NEXT OLDEST
 FIVE-YEAR GROUP: ATTENTION TO PERIOD OF MAXIMUM FERTILITY

- Derived from data in POPULATION RESEARCHES AND STUDIES,
 "Population Trends in ARE up to 2000" pp. 45-57 July 1972
 The Central Agency for Public Mobilization & Statistics, Cairo.



ANNEX 2
MINISTRY OF HEALTH Table of Organization (March 23, 1975)

<u>Ministers Office</u>	<u>General Organization</u>	<u>Foreign Health Relations</u>	<u>Planning & Research</u>	<u>Curative Services</u>	<u>Preventive Services</u>	<u>Endemic Diseases</u>	<u>Central Services</u>	<u>Finance & Administration</u>
Sect'yGen'l Office	Office of Sector Chiefs	Intn'l Orgs.	Chief	Chief	Chief	Chief	Chief	Chief
Adm. Office	Technical Office	Bi-lateral Agencies	Planning Projects & Programs	Curative Medicine	Communicable Diseases Control	Combatting Schistosomiasis	Manpower Training	Finanl. Affairs
Private Secretariat	Fin. & Adm. Office	Investment of Arab & Foreign Capital	Statistics & Evaluation	Emergency & Ambulance Services	Environment-al Health	Combatting Malaria & Filaria	Central Labs	Adm. Affairs
Org. & Adm Security		Second-ments & Special Leaves	Engineering & Equipment of Health Services	Dental Services	M.C.H.	Rural Health Services	Medical Councils	Fin. & Adm. Inspect.
		Adm.	Manpower Planning	Nursing Services	School Health	Combatting Insects	Pharmaceut-ical Affairs	Legal Affairs
			Health Economics	Curative Research Institutes	Preventive Research Institutes	Health Education	Medical Licenses	Medical Supplies
			Permanent Committee for Research	- Poliomyelitis Institute	- Nutrition Institute	Endemic Disease Research	Family Planning	
				- Ophthalmic Institute	- Environ-mental Health Research Center	- Tropical Medicine	Adm. of Health Directorates in Governorates.	
				- Rheumatology Institute		- Entomology		
				- Hearing & Speech Institute		- Field & Applied Research Center		

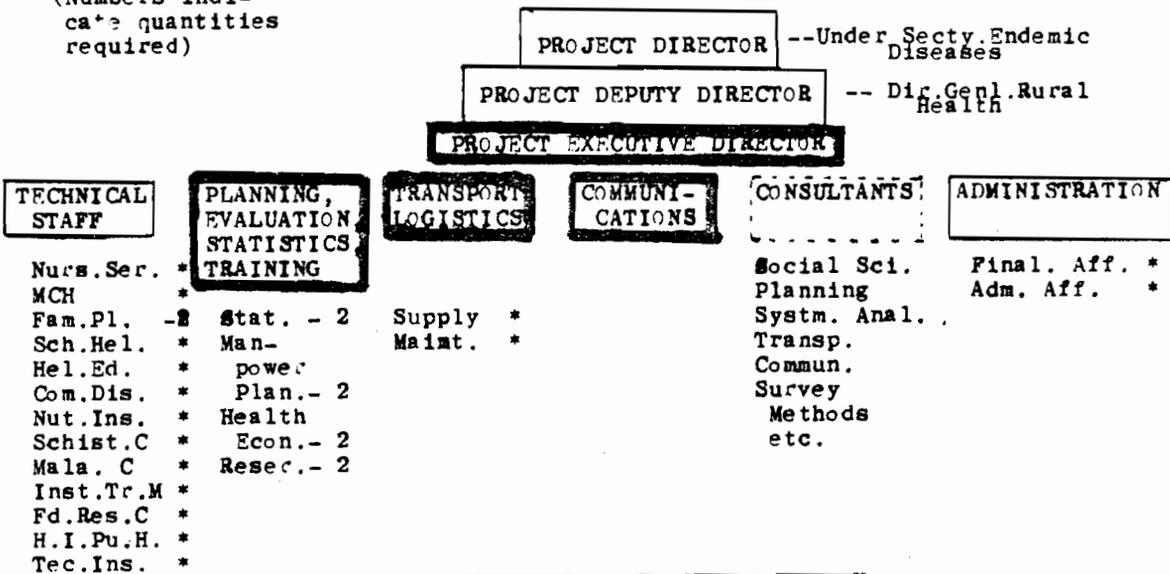
PROJECT-EMPLOYED: 52
(In Black Lines)

* ANNEX 3 *

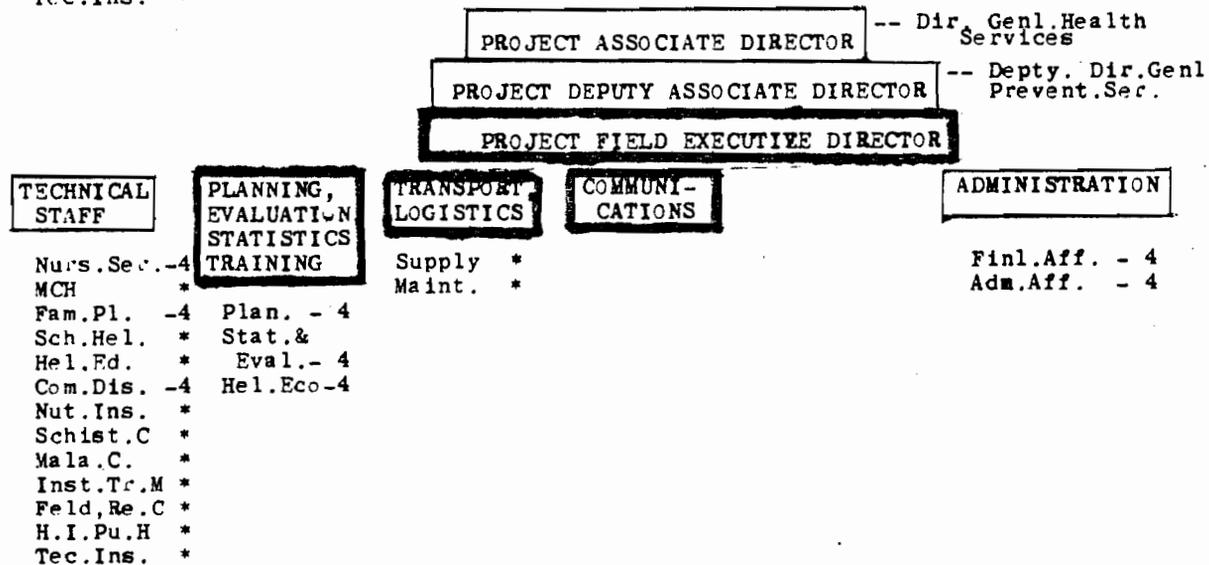
TENTATIVE SCHEMA FOR STAFF-
ING & ORGANIZATION OF RURAL
HEALTH DELIVERY SYSTEMS
PROJECT (Feb. 11, 1976)

PROJECT-TEST-
EMPLOYED: 88
(Numbers indi-
cate quantities
required)

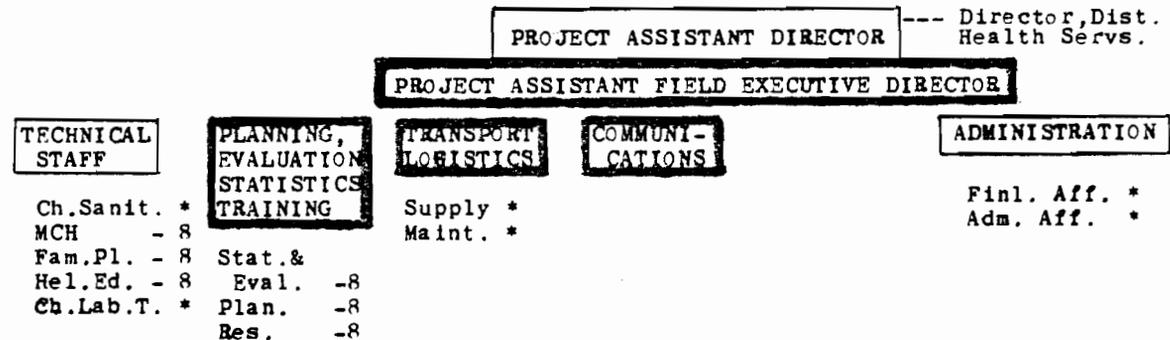
MINISTRY



GOVERNMENT



DISTRICT



ANNEX 4

Prospective Technical Assistance Inputs

NOTE: As indicated in the Project Description and Financial Plan sections, some of the Technical Assistance may be obtained from Egyptians employed on contract.

In this presentation, the various skills required are listed together with tentative estimates about the total length of time required for each skill. It is probable, in some instances, that a consultant specialised in a skill may visit Egypt several times during the life of the project.

As perceived in this paper, there will be need for only one long-term, resident, American consultant for technical assistance. He will probably play the role of manager for contract inputs working in collaboration with the Egyptian project manager. Since it is probable that some of the consultants will be present in Egypt for rather long periods of time, it may be expected that the single resident consultant will seldom be alone in the country.

It may be noted, finally, that this Annex does not address the question of how the AID/Cairo Mission is to be staffed professionally in order to adequately support and monitor this project. It is assumed that the necessary Mission project back-up personnel will be: highly familiar with systems analysis, management of health systems, social science research as applied to management and supervision, and transportation/communication organization and management.

Contract Personnel - Resident

1 Senior Public Health Administrator/Health Planner 5 Years

Contract Personnel - Consultants

Months

1 Transportation Vehicle Maintenance Specialist	30
1 Systems Analyst	24
1 Health Economist	24
1 Health Management Analyst	18
1 Health Training/Methodologist	18
1 Transport Vehicle System Specialist	18
1 Communications Specialist (Hardware)	12
1 Communications Specialist (software)	12
1 Logistics Specialist	12

Contract Personnel - Consultants (Cont'd.)

Months

1 Personnel Administration Specialist	9
1 Statistician/Demographer (Surveys)	9
1 Medical anthropologist/behavioral scientist	9
1 Epidemiologist (surveys)	6
1 Environmental Sanitation Specialist	6
1 Family Planning specialist	6
1 Management Information specialist	6
1 Nutrition Education Specialist	3
1 Communicable Disease Specialist	3
1 Health Education Specialist	3
1 MCH Specialist	3
Miscellaneous Skills	9

20

240

Prospective Test Configuration Data

Explanatory Note:

All tests devised will be concerned with Inputs and Actions related to:

- Motivation/Incentives
- Communications
- Supervision/Management

Three tests will be applied to all test areas. (224 entities), either simultaneously or on a phased basis with the ultimate objective of application to all test areas. These are called Universal Tests. Four tests will be applied to selected pairs of Districts and/or all pairs of test Districts depending upon what is being tested and the target population required. These are called Particular Tests.

The Universal Tests are justified as separate and treated on a 224-entity basis because:

- a. The nature of the problem treated stretches across the entire universe of test areas.
- b. It is assumed that without major improvement in the problem treated no other tests will produce significant results.
- c. The magnitudes of the data collected under a sufficiently realistic "spread" of practical operating conditions will provide reliable perspectives on probabilities of success if replication is started.

The Particular Tests are justified as separate and treated on a paired or multiple-pair basis because:

- a. The approaches to problem solution can be varied, effectively managed, and measured.
- b. The paired or multiple-pair tests can be easily compared to comparable "control" areas where the existing system is in place.
- c. The number of factors under test can be limited very precisely and observed.
- d. Where successful, the tests can quickly be converted into training modules and used as the basis for instructing staff drawn from surrounding areas.

I. Universal Tests:

1. Direct incentives or motivation-inducing policies.

a. Area of Test:

All facilities or 224 installations (Governorates, Districts, Centers, Units)

b. Tests:

- Types of commendations,
- Awards,
- Scholarships,
- 3rd Country Tours,
- Promotion ladders and criteria,
- Training ladders and awards,
- Bonuses against performance,
- Transportation equipment subsidies for outstanding performance,
- Special recognition, etc.
- Local community participation and recognition, etc.

c. Amounts and Types of Inputs:

Will require careful design and planning of tests. Sufficient inputs in project to permit range of variation. These include: Egyptian Pounds; Scholarships; 3rd Country Observations; Transport; Training; Technical Assistance in Management/Supervision, etc.

2. Supervision/Management systems and supporting technologies.

a. Area of Test:

All facilities or 224 installations.

b. Tests:

- Management-information systems,
- Job description and personnel monitoring systems,
- Target setting and monitoring systems,
- Vehicle support for operations, and monitoring, maintenance of such support,
- Point-to-point communication systems, and monitoring, maintenance of such systems.
- Supervision norms and systems for monitoring such norms.

c. Amounts and types of Inputs:

Will require careful design and planning of tests. Sufficient Inputs in project to permit range of variation. These include: 281 vehicles, funds for communications equipment variations (transceivers, phones, etc.), maintenance facilities, methods; office and records equipment, etc.

3. Communication as a means of spurring Incentives/Motivation and Management/Supervision.

a. Area of Test:

All facilities or 224 installations.

b. Tests:

- Involvement of all Unit and Center personnel in delivering Family Planning, MCH, environmental sanitation, nutrition, etc., messages to villagers.
- Development of most effective messages and forms of message delivery to villagers concerning Family Planning, MCH, environmental sanitation, nutrition, etc., by rural health system staff.
- Variations in types of message delivered, methods of delivery, frequency of delivery, delivery role of various rural health system personnel, relationship to health education and school health roles, etc.

c. Amounts and types of Inputs:

Sufficient Inputs in project to permit range of variation. These included possible assistance to Nutrition Institute, Institute of Public Health in Alexandria, Health Education activities, etc.

II. Particular Tests: (illustrative only)

1. Health education linked to infant nutrition checks, mobilization of recent mothers, Family Planning and immunization/nutrition work.

a. Purpose:

Test various ways to improve capacity of Health Units/Centers to speedily carry out infant nutrition status checks, record same, discuss Family Planning with mothers and fathers, and combine with immunization/nutrition follow-up work.

b. Area:

- 8 Districts
- 212 Field Facilities
- 36,000 Population of infants (Babies age 1-2 in 8 Districts) and mothers and fathers.

c. Possible Outputs:

*Methods developed for quickly locating and recording infant population.

*Methods developed for mobilizing mothers and fathers of infants on a scheduled basis using Village Council and other local leader systems as means combined with vigorous integrated actions by staff of Health Units/Centers.

*Methods developed to schedule nutrition-status assessment of infants with immunization activities. (Measles might be the immunization vehicle used since it is not compulsory, is difficult to apply through the existing system, and shows signs of becoming an increasing factor in the weakening or death of infants.

*Methods coupling infant immunization/nutrition status assessment follow-up with nutrition education and Family Planning Home Visiting by integrated Rural Health Unit/Center staffs.

*Improved procedures for speeding immunization work by Units/Centers.

*Development of effective cold chain live-vaccine delivery methods.

*Development of realistic and combined work norms for infant nutrition status checks and immunization activities.

*Effective incentives for mother's with perfect immunization records for their infants and high-status nutrition records for those same infants.

*A reward system in which high performance by all members of the Unit/Center is linked to recognition/training/promotion/transfer incentives.

*Development of system for monitoring and evaluating continued high family and Unit/Center performance in these matters.

d. Possible Procedure:

*Health education/nutrition/Family Planning special team at District level works with selected Units and Centers in mobilizing and scheduling target population participants.

*Develop District capacity to work with Units/Centers in linking mobilization work with scheduling of immunization activities.

*1 Immunization Team at Governorate level with 3 Jet Injectors (of which one is for stand-by).

*Team comprised of 2 operators, 1 Driver, 1 Clerk, 1 vehicle, portable insulated containers to keep vaccines deep-frozen.

*Team scheduled by Districts.

2. Variations on Center Nurse/Midwife Supervision with emphasis on delivery of MCH/Family Planning/Nutrition services in villages.

a. Purpose:

Test various "mixes" of staff with the Nurse/Midwife Supervisor against standard or newly devised work norms concerning delivery of MCH/Family Planning/Nutrition services to villages by Unit/Center personnel.

b. Area:

4 Districts with variation:

- 1 District - Nurse/MW Supervisor alone
- 1 District - Nurse/MW Supervisor with Record Technician
- 1 District - Nurse/MW Supervisor with Endemic Disease Integration
- 1 District - With all above interventions and some other variable.

c. Population Target:

Per Nurse/MW Supervisor:

- *20,000 of which 750 pregnant women
- 4,000 fertile women
- 5,000 pre-school children
- 4,000 primary school children

d. Supervision Target:

Per Nurse/MW Supervisor:

- *10 Nurse/Midwives & Asst. MW's
- 4 School Health Visitors
- Dayas (for further study?)
- Pioneers (Social Affairs) (for further study?)

e. Workloads, annual, of supervisors:

Per Nurse/MW Supervisor:

- *500 deliveries by MOH personnel
- 4,000 pre-natal clinic visits
- 1,000 pre-natal home visits
- 7,000 post-natal home visits
- 8,000 clinic visits by pre-school children for immunization, health appraisal, and nutrition advice.

~~40,000 immunizations against 7 diseases (including series of immunizations and boosters).~~

~~A percentage (perhaps 10%) of the fertile women population accepting and using family planning methods.~~

f. Possible Outputs:

- * Development and demonstration of most effective workload and work norms for Nurse/MW Supervisors.
- * Development and demonstration of most effective Unit auxillary staffing and work assignments coupled to Nurse/MW Supervisory work.
- *Transport requirements, availability, use and effectiveness tested.
- *Verbal and written communication/reporting systems tested in relation to effects upon relative effectiveness of Nurse/MW Supervisor.
- *Standard Operating Procedures developed including communication time, records, reports, etc.
- *Associated MOH personnel job descriptions altered.
- *Training programs developed including: selection procedures and instruments for choice of Nurse/MW Supervisors, training objectives for such staff, curriculum design for their training, evaluation, etc.
- *Incentives developed and tested in order to examine effects upon Nurse/MW Supervisor performance.
- *Tests of measures developed concerning rating the effectiveness of introducing Nurse/MW Supervisors in the system including:
 - Home Visits to high-risk mothers and children.
 - Efficiency by Units/Centers in selection of high-risk families.
 - Nutritional and immunizational status of high-risk families; and of other families.
 - Rate of Family Planning acceptance and retention.
 - Expectations concerning Health Unit/Center services by village leaders.
 - Attitudes of Supervisors and Supervisees towards each other, etc.

g. Possible Procedure:

*Determine Base-line indicators from records and by survey carried out in early stages of project.

*Establish field work on a scale, initially of two Health Centers and satellite Units. Then proceed to a District-wide basis.

*Establish procedures for a Nurse/MW Supervisor including:

-Estimated one to two visits per week (6 to 7 per month) by Nurse/MW Supervisor to each Rural Health Unit.

-Review of Work Plan prepared by each supervisee and accompanies her on Home Visits and/or deliveries on a rotating basis.

-Reviews School Health and Health Education schedules aimed at mothers including Family Planning, Nutrition, and pre- and post-natal care.

-Reviews and applies work norms and service targets.

-Reporting and feedback on MCH/FP/Nutrition programming.

*Initially review and revise service package supervised. Perform job analysis and develop job description. Develop work-norms, service targets, etc.

3. Endemic Disease Identification and Health Education:

(Have not developed Purpose, Area, Target, Possible Outputs and Procedures for this activity. It should or could include greater emphasis upon disease identification accompanied by special efforts at control in Schistosomiasis, and Malaria and special test/work on Environmental Sanitation measures as well as experiments in low-cost, capital-extensive technologies and all accompanied by special Health Education efforts.)

4. Health Records and Job Performance Measures:

(Have not developed Purpose, Area, Target, Possible Outputs and Procedures for this activity. It could or should include exploitation and improvement of the existing village health record system linked in to the health status survey work, Family Planning records, etc.)

5. Other tests could be developed in substitution for all or several of those suggested above. It is probable, considering the management and evaluation problems, etc., that the total number of Particular Tests should be limited to about 4 stretched over the 5-year life-of-the-project.

ANNEX 7

Draft Logical Framework

Goal

By 1990 contribute to limiting the social dependency burdens upon the Government of the Arab Republic of Egypt and freeing some resources for economic development through lives saved, births averted, and health care costs reduced per capita because of the operation of a well-targetted, cost/effective and efficiently managed national public rural health delivery system.

Objectively Verifiable Indicators (by 1990)

1. Sixty out of Egypt's rural Districts, at that time, served by a rural health delivery system which is:
 - a. Fully staffed with professionals and auxiliary health care personnel.
 - b. Operating against defined targets and work norms with adequate back-up equipment and technologies.
 - c. Adequately housed and distributed against realistic ratios of population to services.
 - d. Efficiently managed with necessary trained staff, information and budget systems, work norms, and supporting transport, communication, evaluation, training systems.
 - e. Effectively supported by all essential elements of the Ministry of Health and other rural-serving Ministries.
2. At least 40% of the Egyptian rural population within the sixty Districts having access to and using effective health services concerning MCH, Family Planning, Nutrition, and Environmental Sanitation.
3. Rising importance, prestige, and rewards of rural public health service as perceived by Egyptian health professional, managerial, and general policy-making circles.

4. Principle of employing specialised non-medical management, evaluation, and other related skills in order to improve the efficiency of the rural health delivery system well understood and applied by the Ministry of Health.
5. Improved low-cost technologies in Environmental Sanitation, immunization, etc. designed, tested, and applied on scale.
6. Reliable economic measures of social dependency trends developed and applied in rural areas.
7. Government policies, concerning the allocation of resources to the health care of rural populations, are based on social and economic cost/savings criteria.
8. The management/supervision of public rural health care programs are based on tested cost/effective models.

Means of Verification:

1. Services to population ratios established and facilities in place.
2. Work norms and systems of supervision/evaluation for each service established and functioning.
3. Tables of Organization fully manned and appropriate promotional, training, budgeting operations taking place.
4. Incentives, transport, communication, systems of management, and service technologies tested and successful results being applied on scale.
5. Curricula in Higher Institutes, Medical Schools, auxiliary health training institutions, etc. placing much greater stress on public health instruction, methods, and applied field research.
6. Public rural health care facilities in the sixty Districts maintaining up-to-date health records on all reproductive-age females and infants/children ages 0-10 in each village.

- c.
7. Research studies completed concerning the effect of Egyptian rural family size differences on savings.
 8. A.R.E. planning systems for rural health care based, at least partially, on economic criteria.
 9. Published results of tested cost/effective rural health care activities.
 10. Reliable, well analysed, statistical data on rural infant/child mortality and fertility trends in the sixty rural Districts.

Important Assumptions:

1. Egypt's international situation will stabilize so that human and financial resources can be devoted steadily to domestic development.
2. The principles enunciated in the Permanent Constitution of 1962 will continue to guide the course of Egypt's domestic development.
3. It will be possible to engage and hold sustained serious Egyptian intellectual interest in rural health.
4. Reduced rural infant/child mortality and fertility rates become matters for priority A.R.E. attention.
5. Improvement and rationalization in Egyptian planning processes will continue to receive priority A.R.E. attention.
6. Expanded domestic savings and improved foreign exchange balances will permit somewhat increased A.R.E. attention to social development activities including rural health services.
7. Foreign donor and loan support for improved efficiencies in rural health delivery services can be effectively coupled to A.R.E. initiatives concerning this subject.
8. The prestige and career attractiveness of rural preventive health and health services can be substantially enhanced among trained Egyptians.

d.

PURPOSE

To simultaneously institutionalize means of co-optation and support within the Ministry of Health (and ultimately among other related Ministries) for the Rural Health Services and to test replicable productivity-raising techniques that will reduce or eliminate incentive, motivational, communication, and management/supervision issues as factors limiting production of services by the system; particularly in relation to all these matters as they impact on preventive care.

END-OF-PROJECT-STATUS

1. A series of motivational studies completed, concerning health delivery system personnel; and, a number of norms/incentives developed and available for application within the system.
2. Individual management factors linked to improved communications and supervision selectively designed, tested, and evaluated for use in high performance service production rural health delivery systems with emphasis on:
 - a. Research, planning, and evaluation;
 - b. Incentives;
 - c. Training;
 - d. Targetting;
 - e. Staffing;
 - f. Logistics;
 - g. Records;
 - h. Service Packages; and
 - i. Local participation.
3. Expanded cost/effective outreach of Rural Health Units and Centers demonstrably proven.
4. Ministry of Health research, evaluation, and management systems designed and professionally staffed in order to effectively support extension of proven systems, and equipment to additional areas on a planned basis.
5. Special low-cost, mass-application, technologies for Environmental Sanitation, Immunization, etc. designed, tested, costed, and ready for widespread use.

- 2
6. Internal Ministry of Health and Inter-Ministerial systems of co-optation, participation, and support organised and effectively assisting rural health services delivery.
 7. Test area activities have taken place on a sufficient scale to provide reliable data concerning necessary Egyptian investments which are generalizable according to reasonably projected future A.R.E. revenues.

MEANS OF VERIFICATION

1. At least 4 reliable health service production indicators identified, tested, and in use in selected Districts by 1981.
2. At least 3 field tests on cost/effectiveness measures completed and evaluated and 1 of these undergoing further test (at the end of the first 3 years of the project) on an extensive application basis.
3. Subject to exceptions made at a Joint Evaluation at the close of the first thirty-six months of the project, all selected test Districts have transport and communication systems in place by the end of 1981.
4. Rural health care facilities in the test Districts are handling approximately 50% of the rural residents with particular reference to MCH, Nutrition, Family Planning, and Environmental Sanitation special targets.
5. All selected test Districts are fully staffed according to the regular Ministry norms by the end of the first year after each is designated as a test District.
6. All selected test Districts with revised staffing norms are fully staffed to the new norms within six months after the norms are adopted for that District.
7. The Planning/Research Sector of the Ministry of Health is staffed with professionally trained personnel and equipped adequately to support all research, planning, and evaluation operations in test Districts with the cooperation of Qualified University and special Institute personnel.
8. By 1981 new management systems have been introduced in a majority of the test Districts, and training is taking place in those Districts concerning the subjects of MCH, Family Planning, Nutrition, and Environmental Planning as affected by: new technologies, incentives, communications, transportation, logistics, records, and local participation.

- 6
9. Special participatory and training arrangements have been developed with Ministries like Local Government and Social Affairs under the guidance of the Ministry of Health concerning their support for delivery of extended preventive medicine and health care services in selected test areas.

IMPORTANT ASSUMPTIONS

1. The Ministry of Health can organize and staff internally at all levels so that it will be able to effectively mount and sustain design/test/evaluation/training operations.
2. Existing A.R.E. budgetary, personnel, logistic and other management regulations are sufficiently flexible to allow the successful design, test, and application of new approaches to Incentives/Motivation.
3. The technological package now available for delivery through the rural health care system is, essentially sound and needs only marginal further development.
4. The A.R.E. will maintain present socialist, public service, policies concerning delivery of rural health care.
5. There is a close causal connecton between improved Incentives/Motivation, communications, and management/supervision and more services production by Rural Health Units and Centers.
6. Field tests can readily identify replicable techniques related to some services packages, incentives/motivation, communications, and supervision/management.
7. The management of various design, test, and training operations can be programmed at a pace which both yields useful results but does not overwhelm the system with too many demands.
8. The ultimate results will be of such value that they will affect the efficiencies and costs of the entire A.R.E. rural health delivery system.
9. The University and special Institute communities of Egypt, together with other Ministries, can be co-opted to engage in various parts of the design, test, evaluation, and replication activities.

- 9.
10. Foreign donor inputs of technical assistance, training, supplies, and equipment for such a PURPOSE can be sufficiently flexible in content, scale, and timeliness of application to facilitate the accumulation of generalizable experience.

OUTPUTS (Illustrative List Only - will need further development during Project Design stage)

- | <u>1) Outputs:</u> | <u>2) Output Indicators:</u> |
|--|---|
| a. Significant motivational factors affecting Egyptian rural health delivery system performance IDENTIFIED. | a. At least 2 Incentive and Prestige-building systems designed and under test within the first 24 months of the project. |
| b. Analysis and training established within the Ministry of Health concerning Job Descriptions, Job Assessments, setting of work norms, design of related supervisory tasks as these all concern Universal and Particular tests. | b. At least 3 Egyptian systems analysts specialised in these subjects, trained, and producing applied systems within first 36 months of project. |
| c. Analysis and training established within the Ministry of Health concerning statistics gathering, assessment, collation and summarization for policy makers. | c. At least 2 Egyptian statisticians recruited, trained, and installing improved systems within test Districts during first 36 months of project. |
| d. Evaluation systems design analysis and operations established within Ministry of Health. | d. At least 4 Egyptian specialists on evaluation recruited, trained, and developing evaluation systems within test Districts during first 24 months of project. |
| e. Training established within the Ministry of Health concerning analysis of family health records, maintenance of same, and use of same for strengthening rural health care outreach. | e. At least 2 Egyptian specialists selected and trained, and producing alternative systems for test, within first 12 months of project. |

- 2.
- f. At least two different point-to-point modes of communication between all levels tested, costed, and checked for management efficiency as well as ease of maintenance.
- g. Training and equipment in the analysis and delivery of effective message content with reference to: MCH, Family Planning - Nutrition, and Environmental Sanitation as addressed to villagers; means of combined and separate delivery by Health Unit and Center staffs developed; and communication modes of supervision developed.
- h. Low-cost communicable and endemic disease control service packages for Units and Centers designed, tested, equipped, and staff trained in their application.
- i. Development of Universal test designs for use of varying types/capacities of American and foreign transport in the rural health delivery system: i.e. jeeps, carry-alls, 1/2 ton, heavy-duty Land Rovers; German Unimogs; light French Citroens, and possibly experimental electric short-range vehicles.
- j. Installation of major 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 effects upon operation of the rural health delivery services.
- f. Design of such systems within first 12 months of project; procurement and installation of tests within first 18 months; and completion of analysis within first 36 months.
- g. At least 2 Egyptian communication specialists trained and in place within the Ministry of Health in 36 months; the Institute of Nutrition and other special agencies equipped and involved in communication message programming within 18 months; and at least four specific communication and related survey studies completed within the first 30 months.
- h. Packages designed and tested in at least two Districts within first 24 months of project.
- i. Designs for different types and capacities developed within first 6 months of project; and arrangements completed for procurement through use of 'special waivers'.
- j. Design of configurations, scheduling of procurement, training of staffs, design and development of controls and maintenance, so that first increments of vehicles are arriving WITHIN 12 months of project start date.

- k. Essential add-on equipment installations for Health Units, Centers, Districts, Governorates, and supporting elements of the Ministry designed and in use by trained personnel.
- l. Health economics, health status, health services delivery profiles and studies designed, executed, and evaluated.
- m. Participant training and 3rd country observation travel designed and operational so as to provide Incentives, correct training in methods, and widened perspectives to all project elements.
- n. Village Councils, and other Ministry programs, effectively engaged in supporting health services delivery tests under guidance of the Ministry of Health.
- k. Initial surveys of possible equipment add-ons completed in first 12 months; and procurement in process, with some installation/training occurring within second 12 months of project.
- l. Egyptian academic and Ministry personnel engaged on defined studies within first 6 months of project, with results affecting designs of tests within 12 months; and at least 20 health economists, planners, statisticians, evaluators trained and located at various levels within the Ministry and rural health delivery system during the first 48 months of the project.
- m. More than 50 participant training programs initiated and completed within first 36 months of project; and, at least 40 carefully chosen and programmed 3-country observation tours completed during that same time.
- n. Possible Inputs designed, training started, and tests run in cooperation with selected Village Councils, and Ministry personnel, for at least two kinds of activity related to Universal or Particular tests during the first 36 months of the project.

3) Means of Verification: (with reference to some of the foregoing);

- a. Studies completed, universal and particular tests defined, and orders for implementation issued.

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- b. Foreign and Egyptian-provided technical assistance needs defined, personnel recruited, assignments scheduled, and necessary training/advisory systems operational.
 - c. Egyptians recruited for project, standards, norms, and analysis studies completed; systems designed, and tests started.
 - d. Domestic and foreign training needs defined, training institutions selected and training systems operational, trainees selected and assigned.
 - e. Definition of equipment needs; procurement and placement of equipment; training in use of equipment; development and enforcement of operational criteria.
 - f. Manuals and enforcement orders issued.
 - g. Varying equipment tests defined; tests conducted and evaluated; conclusions drawn for future use/control/procurement.
 - h. Contracts negotiated with Egyptian academics and research institutions; Scopes of Work defined; study schedules related to Universal and Particular tests; studies conducted; studies analysed and results applied to tests and re-design of tests.
 - i. Norms and conditions for vehicle use defined; equipment installed; analysis of performance.
 - j. Content of some health services packages re-defined; training schedules issued; training completed; new norms set; modes of reporting and supervision defined; operational orders issued.
 - k. Training protocols for Village Council members set; training occurs; tests designed for involvement of Village Councils and/or other Ministries; inputs scheduled; orders issued; results analysed.
 - l. Incentives of varying kinds defined; tests designed; tests applied; analysis of results; generalization of results to a training mode.

4) Assumptions:

- a. The identification of test areas and design of Universal and Particular test activities can be successfully synchronised with necessary technical assistance, training, equipment, and supply inputs.

- h.
- b. The levels and types of Inputs applied will be of a size and quality sufficient to produce significant test operations.
 - c. The Ministry of Health can recruit assign and recompense the kinds of key personnel who will vigorously manage and operate this project; and, where essential, the necessary additional secondments of technical or managerial staff will take place on time.
 - d. American requirements on procurement of equipment can, in some specific test instances, be waived.
 - e. Inputs of equipment and supplies can be "phased" in such a way that compliance with norms and standards is achieved.
 - f. Appropriate foreign training situations can be found for Egyptian staff employed in this project.
 - g. The necessary social science studies of varying complexity required at all times in this project can be performed by Egyptian scholars and research institutions with minimal technical advice or guidance required from American specialists in the social sciences.
 - h. It will be possible to engage the interest and cooperation of other Ministries in this project to appropriate intervals.
 - i. Periodic evaluations will assist in monitoring performance and affect further delivery of Inputs at defined critical junctures during the life of the project.

INPUTS:

1. Inputs are defined in the Financial Plan - section (7) of this paper.
2. Technical Assistance Inputs are defined in Annex 4 of this paper.

a

ANNEX 8

Ministry of Health Future Plans

Rural Health Services

1. Horizontal Expansion:

- A. Expand the present number of rural health care facilities by 600
- B. Creation of Rural Health Services in the newly founded Governorates such as Matruh, the Red Sea, the New Valley, and Sinai, including Mobile Health Units and Airborne First Aid Services.
- C. Completion of all dwellings for second doctors and/or added dentists.

2. Vertical Expansion:

- A. Engage a second physician at each Health Center.
- B. Complete all scheduled Dentist's Clinics.
- C. Replace all physicians in Centers and Units who have not at first spent an entire year at District Hospitals.
- D. Restaff and fill all Nursing (now Technical Nurses) positions at Health Centers and Units.
- E. Upgrade all present Assistant Nurses/Midwives to Technical Nurses.
- F. Replace all Assistant Sanitarians with trained Sanitarians at Centers and Units.
- G. Upgrade Assistant Sanitarians to Sanitarians.
- H. Replace Laboratory Assistant at Health Centers with trained Laboratory Technicians.
- I. Staff all Laboratory Assistant positions.
- J. Add an additional Technical Nurse and Mid-wife to each Health Center.

3. Program Improvement:

- A. Intensify training and operations concerning the Family Health Card system.

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- B. Develop home treatment of T.B.
 - C. Start the eradication of Bilbarzia project in Central Egypt (Assiut, Minya, and Beni-Suef).
 - D. Transform Health Centers in very large villages into 'Village Hospitals' so as to provide improved medical services and also better utilize the 8,000 beds now located in such Centers.



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TAGS:

SUBJECT: EGYPT RURAL HEALTH SERVICE PRP

REF: CAIRO 1994

1. INTER-BUREAU MEETING APPROVED PRP AT REVIEW ON MARCH 12. ALSO APPROVED IN PRINCIPLE USAID RECOMMENDATIONS CONTAINED REFTEL FOR PHASED PROJECT IMPLEMENTATION IN WHICH FIRST PHASE WILL CONSIST DEVELOPMENT OF DETAILED PROJECT IMPLEMENTATION PLAN.

2. MAIN ISSUES RAISED AT REVIEW MEETING INCLUDED:

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A. SIZE AND COMPLEXITY OF PROJECT.

B. NEED TO DEFINE PROJECT EQUIPMENT REQUIREMENTS, CAPACITY TO MANAGE THE EQUIPMENT, AND STEPS AID SHOULD TAKE TO ASSURE PROPER UTILIZATION.

C. INFLUENCE OF PROJECT ON MOH BUDGET WITH REFERENCE TO FUTURE REPLICABILITY.

D. INADEQUATE DETAIL IN FAMILY PLANNING CONTENT OF PROJECT.

E. NEED TO BETTER STATE ROLE OF WOMEN IN THIS PROJECT.

F. POTENTIAL US TECHNICAL ASSISTANCE RESOURCES FOR IMPLEMENTATION INCLUDING ADEQUACY OF ONE DIRECT HIRE AND ONE CONTRACT ADVISER TO MANAGE PROJECT; AND ASSESSMENT OF SUITABLE US CONTRACTORS WITH CAPACITY TO HANDLE SUCH A COMPLEX PROJECT.

G. NEED TO IMPROVE EVALUATION PLAN CONTENT.

H. NEED TO ASSURE FLEXIBILITY IN THE PROJECT DESIGN SO THAT TESTS OF DIFFERENT DELIVERY MIXES CAN BE INTRODUCED IN ORDER TO DETERMINE WHETHER DELIVERY SYSTEM ITSELF AS WELL AS ITS MANAGEMENT SHOULD BE MODIFIED.

I. PRP WITH MODEST AMPLIFICATION BE ACCEPTED AS A PP IF VARIOUS ISSUES LISTED ABOVE CAN BE MET SATISFACTORILY IN NEXT TWO MONTHS.

3. THE REVIEW DEALT WITH THE ABOVE ISSUES AS FOLLOWS:

ISSUE A: AID/W WILL ORGANIZE A SPECIAL REVIEW COMMITTEE PROBABLY DRAWING ON RAND CORPORATION TO LOOK AT PROPOSED MET-BOOLOGICAL DESIGN OF THE TESTS, SIZE OF TEST AREAS, ETC. ACTION ON THIS WILL BEGIN IMMEDIATELY AFTER ALDEN RETURN FROM EGYPT.

ISSUE B: DALTON AND TURNER WILL REVIEW PROBABLE SIZE AND COMPOSITION OF CONSULTANTS REQUIRED TO ACCOMPLISH

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FURTHER PRE-PP INVESTIGATIVE AND DESIGN WORK AT CAIRO DURING APRIL AND MAY. AMONG OTHER ACTIONS THEY WILL DRAFT TENTATIVE SCOPES OF WORK FOR EQUIPMENT, COMMUNICATIONS, AND HEALTH SYSTEM ANALYST SPECIALISTS AND FORWARD SAME SOONEST FOR YOUR REVIEW. THEY WILL ALSO BEGIN CANVASSING OF AMERICAN QUALIFIED PERSONNEL. OBJECTIVE WOULD BE TO GET AGREEMENT HERE AND WITH YOU TO SIZE AND COMPOSITION OF SPECIALIST TEAM NEEDED AND THE CONTENT OF SCOPE SO AS TO ARRANGE TIMINGS OF ARRIVAL AT CAIRO ON OR ABOUT APRIL 5. LENGTH OF STAY AT CAIRO WOULD BE APPROXIMATE FIVE WEEKS.

ISSUE C: IF A HEALTH SYSTEM ANALYST IS SENT TO CAIRO IN APRIL, THAT INDIVIDUAL CAN LOOK FURTHER AT THIS ISSUE.

ISSUE D: ALTHOUGH FP COVERAGE INADEQUATE, SEE LITTLE CHANCE DESIGN IMPROVEMENT UNTIL ISSUES RAISED AFTER DEMONGEOT GRANT MEETING WITH DRS. FAWZI SYED AND MARSHFAWI ARE CLARIFIED. THESE COVERED IN GRANT MEMORANDUM TO DEMONGEOT OF 26 FEBRUARY. EVEN IF THESE ISSUES ANSWERED, AND PP STRENGTHENED, IT SHOULD BE UNDERSTOOD THAT THIS PROJECT WILL NOT ADDRESS ISSUE OF HOW MAJOR CONTRIBUTION TO IMPROVING FAMILY PLANNING SERVICE DELIVERY CAN BE MADE BY A.I.D. THIS NEEDS TO BE ADDRESSED AS SEPARATE ISSUE, PERHAPS BUILDING ON PHA/POP PAPER OF 16 JANUARY 1976, TRANSMITTED TO TEMPLETON UNDER ROBERTS' LETTER OF JANUARY 23, 1976.

ISSUE E: DALTON WILL WORK ON IMPROVING CONTENT OF PRP CONCERNING ROLE OF WOMEN IN THIS PROJECT.

ISSUE F: REVIEW OF METHODOLOGY BY RAND PLUS WORK OF ANY HEALTH SYSTEM ANALYST SENT TO CAIRO IN APRIL-MAY WILL BE EXPECTED TO CLARIFY THIS ISSUE.

ISSUE G: RPC REQUIRES EVALUATION PLAN FOR APPROVED PROJECT PAPER. PLAN INDICATES OBJECTIVES AND SCOPE OF EVALUATION, AND DIRECTIONS FOR PREPARING DETAILED EVALUATION STUDY SUCH AS MAY BE REQUIRED. DALTON WILL REVIEW EVALUATION NEEDS OF PROPOSED PROJECT, AND PREPARE PLAN WHICH WILL SERVE AS SCOPE OF WORK FOR DESIGNING

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EVALUATION ASPECTS OF PROJECT. WILL FORWARD PLAN TO MISSION FOR COMMENT PRIOR TO INCLUSION IN PP.

ISSUE H: DURING THE REVIEW, DALTON-COPPEDGE POINTED OUT THAT THE DESIGN PRESENTLY ALLOWS FOR TESTING SYSTEM MODIFICATIONS, PARTICULARLY AT LATER STAGES OF PROJECT. HOWEVER IF HEALTH SYSTEM ANALYST SENT TO CAIRO IN APRIL, THAT INDIVIDUAL CAN FURTHER IMPROVE PROJECT DESIGN CONCERNING THIS POINT.

ISSUE I: IF WORK OUTLINED IN PRECEDING ISSUES IS COMPLETED SATISFACTORILY DURING NEXT TWO MONTHS, THIS SHOULD LAY ADEQUATE BASIS FOR AN ACCEPTABLE PP AND CONSEQUENT PROJECT AGREEMENT CONTAINING PROVISION FOR PHASED DESIGN AND WORK PLAN DEVELOPMENT IN EARLY PORTION OF PROJECT. WE ANTICIPATE COMMITTING FUNDS FOR LIFE OF PROJECT, WITH CONDITIONS IDENTIFIED TO BE MET BEFORE MOVING TO NEXT STAGE.

4. PLEASE DISCUSS CONTENTS OF THIS CABLE WITH ALDEN AND ARRANGE ANY NECESSARY MODIFICATIONS FOR ACTION IN NEXT TWO MONTHS WITH HIM.

5. ALSO DALTON PROMISED MOEBARAK TO LET HIM KNOW OUTCOME OF PRP REVIEW. PLEASE INFORM HIM AND PREPARE HIM FOR OUR CONTINUING DESIGN EFFORT. KISSINGER

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ANNEX C

ILLUSTRATIVE TESTS

Explanatory Note:

All tests devised will be concerned with Inputs and Actions related to:

- Motivation/Incentives
- Communications
- Supervision/Management

Some tests will be applied to all test areas. (224 entities), either simultaneously or on a phased basis with the ultimate objective of application to all test areas. These are called Universal Tests. Four tests will be applied to selected pairs of Districts and/or all pairs of test Districts depending upon what is being tested and the target population required. These are called Particular Tests.

The Universal Tests are justified as separate and treated on a 224-entity basis because:

- a. The nature of the problem treated stretches across the entire universe of test areas.
- b. It is assumed that without major improvement in the problem treated no other tests will produce significant results.
- c. The magnitudes of the data collected under a sufficiently realistic "spread" of practical operating conditions will provide reliable perspectives on probabilities of success if replication is started.

The Particular Tests are justified as separate and treated on a paired or multiple-pair basis because:--

- a. The approaches to problem solution can be varied, effectively managed, and measured.
- b. The paired or multiple-pair tests can be easily compared to comparable "control" areas where the existing system is in place.
- c. The number of factors under test can be limited very precisely and observed.
- d. Where successful, the tests can quickly be converted into training modules and used as the basis for instructing staff drawn from surrounding areas.

I. Universal Tests: (illustrative)

1. Direct incentives or motivation-inducing policies.

a. Area of Test:

All facilities or 224 installations (Governorates, Districts, Centers, Units)

b. Tests:

- Types of commendations,
- Awards,
- Scholarships,
- 3rd Country Tours,
- Promotion ladders and criteria,
- Training ladders and awards,
- Bonuses against performance,
- Transportation equipment subsidies for outstanding performance,
- Special recognition, etc.
- Local community participation and recognition, etc.

c. Amounts and Types of Inputs:

Will require careful design and planning of tests. Sufficient inputs in project to permit range of variation. These include: Egyptian Pounds; Scholarships; 3rd Country Observations; Transport; Training; Technical Assistance in Management/Supervision, etc.

2. Supervision/Management systems and supporting technologies.

a. Area of Test:

All facilities or 224 installations.

b. Tests:

- Management-information systems,
- Job description and personnel monitoring systems,
- Target setting and monitoring systems,
- Vehicle support for operations, and monitoring, maintenance of such support,
- Point-to-point communication systems, and monitoring, maintenance of such systems.
- Supervision norms and systems for monitoring such norms.

c. Amounts and types of Inputs:

Will require careful design and planning of tests. Sufficient Inputs in project to permit range of variation. These include: 281 vehicles, funds for communications equipment variations (transceivers, phones, etc.), maintenance facilities, methods; office and records equipment, etc.

3. Communication as a means of spurring Incentives/Motivation and Management/Supervision.

a. Area of Test:

All facilities or 224 installations.

b. Tests:

- Involvement of all Unit and Center personnel in delivering Family Planning, MCH, environmental sanitation, nutrition, etc., messages to villagers.
- Development of most effective messages and forms of message delivery to villagers concerning Family Planning, MCH, environmental sanitation, nutrition, etc., by rural health system staff.
- Variations in types of message delivered, methods of delivery, frequency of delivery, delivery role of various rural health system personnel, relationship to health education and school health roles, etc.

c. Amounts and types of Inputs:

Sufficient Inputs in project to permit range of variation. These included possible assistance to Nutrition Institute, Institute of Public Health in Alexandria, Health Education activities, etc.

II. Particular Tests: (illustrative only)--

1. Health education linked to infant nutrition checks, mobilization of recent mothers, Family Planning and immunization/nutrition work.

a. Purpose:

Test various ways to improve capacity of Health Units/Centers to speedily carry out infant nutrition status checks, record same, discuss Family Planning with mothers and fathers, and combine with immunization/nutrition follow-up work.

b. Area:

- 8 Districts
- 212 Field Facilities
- 36,000 Population of infants (Babies age 1-2 in 8 Districts) and mothers and fathers.

c. Possible Outputs:

*Methods developed for quickly locating and recording infant population.

*Methods developed for mobilizing mothers and fathers of infants on a scheduled basis using Village Council and other local leader systems as means combined with vigorous integrated actions by staff of Health Units/Centers.

*Methods developed to schedule nutrition-status assessment of infants with immunization activities. (Measles might be the immunization vehicle used since it is not compulsory, is difficult to apply through the existing system, and shows signs of becoming an increasing factor in the weakening or death of infants.

*Methods coupling infant immunization/nutrition status assessment follow-up with nutrition education and Family Planning Home Visiting by integrated Rural Health Unit/Center staffs.

*Improved procedures for speeding immunization work by Units/Centers.

*Development of effective cold chain live-vaccine delivery methods.

*Development of realistic and combined work norms for infant nutrition status checks and immunization activities.

*Effective incentives for mother's with perfect immunization records for their infants and high-status nutrition records for those same infants.

*A reward system in which high performance by all members of the Unit/Center is linked to recognition/training/promotion/transfer incentives.

*Development of system for monitoring and evaluating continued high family and Unit/Center performance in these matters.

d. Possible Procedure:

*Health education/nutrition/Family Planning special team at District level works with selected Units and Centers in mobilizing and scheduling target population participants.

*Develop District capacity to work with Units/Centers in linking mobilization work with scheduling of immunization activities.

*1 Immunization Team at Governorate level with 3 Jet Injectors (of which one is for stand-by).

*Team comprised of 2 operators, 1 Driver, 1 Clerk, 1 vehicle, portable insulated containers to keep vaccines deep-frozen.

*Team scheduled by Districts.

2. Variations on Center Nurse/Midwife Supervision with emphasis on delivery of MCH/Family Planning/Nutrition services in villages.

a. Purpose:

Test various "mixes" of staff with the Nurse/Midwife Supervisor against standard or newly devised work norms concerning delivery of MCH/Family Planning/Nutrition services to villages by Unit/Center personnel.

b. Area:

4 Districts with variation:

- 1 District - Nurse/MW Supervisor alone
- 1 District - Nurse/MW Supervisor with Record Technician
- 1 District - Nurse/MW Supervisor with Endemic Disease Integration
- 1 District - With all above interventions and some other variable.

c. Population Target:

Per Nurse/MW Supervisor:

- *20,000 of which 750 pregnant women --
- 4,000 fertile women --
- 5,000 pre-school children --
- 4,000 primary-school children --

d. Supervision Target:

Per Nurse/MW Supervisor:

- *10 Nurse/Midwives & Asst. MW's
- 4 School Health Visitors
- Dayas (for further study?)
- Pioneers (Social Affairs) (for further study?)

e. Workloads, annual, of supervisors:

Per Nurse/MW Supervisor:

- *500 deliveries by MCH personnel
- 4,000 pre-natal clinic visits
- 1,000 pre-natal home visits
- 7,000 post-natal home visits
- 8,000 clinic visits by pre-school children for immunization, health appraisal, and nutrition advice.

f. Possible Outputs:

* Development and demonstration of most effective workload and work norms for Nurse/MW Supervisors.

* Development and demonstration of most effective Unit auxillary staffing and work assignments coupled to Nurse/MW Supervisory work.

*Transport requirements, availability, use and effectiveness tested.

*Verbal and written communication/reporting systems tested in relation to effects upon relative effectiveness of Nurse/MW Supervisor.

*Standard Operating Procedures developed including communication time, records, reports, etc.

*Associated MOH personnel job descriptions altered.

*Training programs developed including: selection procedures and instruments for choice of Nurse/MW Supervisors, training objectives for such staff, curriculum design for their training, evaluation, etc.

*Incentives developed and tested in order to examine effects upon Nurse/MW Supervisor performance.

*Tests of measures developed concerning rating the effectiveness of introducing Nurse/MW Supervisors in the system including:

- Home Visits to high-risk mothers and children.
- Efficiency by Units/Centers in selection of high-risk families.
- Nutritional and immunizational status of high-risk families; and of other families.
- Rate of Family Planning acceptance and retention.
- Expectations concerning Health Unit/Center services by village leaders.
- Attitudes of Supervisors and Supervisees towards each other, etc.

g. Possible Procedure:

*Determine Base-line indicators from records and by survey carried out in early stages of project.

*Establish field work on a scale, initially of two Health Centers and satellite Units. Then proceed to a District-wide basis.

*Establish procedures for a Nurse/MW Supervisor including:

-Estimated one to two visits per week (6 to 7 per month) by Nurse/MW Supervisor to each Rural Health Unit.

-Review of Work Plan prepared by each supervisee and accompanies her on Home Visits and/or deliveries on a rotating basis.

-Reviews School Health and Health Education schedules aimed at mothers including Family Planning, Nutrition, and pre- and post-natal care.

-Reviews and applies work norms and service targets.

-Reporting and feedback on MCH/FP/Nutrition programming.

*Initially review and revise service package supervised. Perform job analysis and develop job description. Develop work-norms, service targets, etc.

3. Endemic Disease Identification and Health Education:

(Have not developed Purpose, Area, Target, Possible Outputs and Procedures for this activity. It should or could include greater emphasis upon disease identification accompanied by special efforts at control in Schistosomiasis, and Malaria, and special test/work on Environmental Sanitation measures as well as experiments in low-cost, capital-extensive technologies and all accompanied by special Health Education efforts.)

4. Health Records and Job Performance Measures:

(Have not developed Purpose, Area, Target, Possible Outputs and Procedures for this activity. It could or should include exploitation and improvement of the existing village health record system linked in to the health status survey work, Family Planning records, etc.).

5. Other tests could be developed in substitution for all or several of those suggested above. It is probable, considering the management and evaluation problems, etc., that the total number of Particular Tests should be limited to about 4 stretched over the 5-year life-of-the-project.

OVERALL SCHEMA FOR PROJECT IMPLEMENTATION

ANNEX

AREA OF IMPLEMENTATION	1976	1977	1978	1979	1980	1981
	DURATION			PROJECT	PERIODIC EVALUATION OF EACH INTERVENTION	FINAL PROJECT EVAL
	Preliminary Phase	Equipment introduced Communications COMMO: 8 months orientation	CONTINUING EVALUATION	***** EVAL	*****	*****
GOVERNORATE A District 1	PREPARATORY PHASE STANDARD STAFF, EQUIPT MODIFIED MANAGEMENT Measles Vaccine	TEST #1: 12 mos. COMMUNICATIONS VEHICLES, COMMO: 8 months	TEST PERIOD #2: 12 mos. SMALL-SCALE FIELD STUDIES, VARIOUS INTERVENTIONS: 9m	TEST PERIOD #3: 24 mos. Small-Scale studies Training cadres for larger-scale studies in other Test Districts		
GOVERNORATE B District 1	PREPARATORY PHASE STANDARD STAFF, EQUIPT MODIFIED MANAGEMENT Measles Vaccine	TEST PERIOD #1: 12 mos. VEHICLES, COMMUNICATIONS: 15 mos. Training Personnel for Other Model Districts	TEST PERIOD #2: 15 mos.	TEST PERIOD #3: 24 mos. Larger-scale studies of interventions for which procedures have been developed in Govt A, Dist 1		
GOVERNORATE A District 2	PREPARATORY PHASE STANDARD STAFF, EQUIPT MOD MGMT	TEST PD #1: 12 mos. VEHICLES, COMMO	TEST PD #2: 12 mos.	TEST PERIOD #3 Larger-scale studies		
GOVERNORATE B District 2	PREPARATORY PHASE STANDARD STAFF, EQUIPT MOD MGMT Measles Vaccine	TEST PD #1: 12 mos. VEHICLES, COMMO	TEST PD #2: 12 mos.	TEST PD #3: 27 mos. LARGER-SCALE STUDIES		
GOVERNORATE C DISTRICT 1	PREPARATORY PHASE STANDARD STAFF, EQUIPT MODIFIED MANAGEMENT	TEST PD #1: 12 mos. VEHICLES, COMMO	TEST PD #2: 12 mos.	TEST PD #3 Larger-scale studies various interventions		
GOVERNORATE D District 1	same as Governorate C, District 1	TEST PD #1: 12 mos. VEHICLES, COMMO	TEST PD #2: 12 mos.	TEST PD #3 Larger-scale studies of various interventions		
GOVERNORATE C District 2	PREPARATORY PHASE STANDARD STAFF, EQ	TEST #1: 9m VEHICLES, COMMO	TEST PD #2: 10 mos.	TEST PD #3 Larger-scale studies of various interventions		