

PD-AY-897

AID 1025-1A (7-71) (NARRATIVE DESCRIPTION)

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number) DATE 1-22-75	PAGE COVER of 59 PAGES
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39868

PROJECT PAPER (PP)
BASIC HEALTH SERVICES
306-11-590-144

KABUL, AFGHANISTAN
January 22, 1975

PROJECT NO.	306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 1 of 59	PAC
-------------	----------------	--	----------	-----------------	--------------	-----

Table of ContentsPage No.

PART I. SUMMARY

A. Summary Information	1
B. Project Purpose	1
C. Financial Data	2

PART II. PROJECT JUSTIFICATION, FEASIBILITY AND SIGNIFICANCE

A. Relationship of the Project to the DAP Strategy	4
B. Justification	6
C. Rationale	7
D. Feasibility	8
E. Significance	8
F. AID/W Health and Family Planning Team Recommendations	9

PART III. PROJECT DESIGN

A. Project Design	10
B. Two Major Project Phases	14
C. Project Inputs	16
D. Financial Requirements	20

PART IV. PROJECT IMPLEMENTATION AND EVALUATION

A. Tentative Implementation Schedule	23
B. Implementation Steps	24
C. Fixed-Cost Reimbursement	28
D. Evaluation	28

PART V. PROJECT ANALYSES

A. Background	30
B. Economic and Financial Analysis	44
C. Social Analysis	50
D. Ministry of Public Health - Health Sector Administrative Analysis	54
E. Technical Analysis	58

PROJECT NO.	306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 11 of 59 PAGES
-------------	----------------	--	----------	-----------------	---------------------

APPENDICES

- A. Director's Certification of 25 Percent Requirement
- B. Engineering Monitoring and Inspection
- C. USAID Fixed-Cost Reimbursement Procedure Policy
- D. AID/W Health Team Report dated November 10, 1974
- E. Ministry of Public Health Organization Chart
- F. Parwan/Kapisa Experience
- G. Environmental Impact Statement

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 1 of 59 PAGES
-------------------------------	--	----------	-----------------	--------------------

PROJECT PAPER (PP)

BASIC HEALTH SERVICES
306-11-590-144

FY 75 to 78

PART I. SUMMARY

A. Summary Information

1. Project Title: Basic Health Services
2. Project Number: 306-11-590-144
3. Cooperating Country: Afghanistan

Executing Agency: The Ministry of Public Health

4. Obligation Span: FY 75 to 78
5. Implementation Span: FY 75 to 78

B. Project Purpose

Project purposes have been divided into two phases. Phase I project purposes, discussed in this Project Paper and for which approval and financing are sought, include: (1) constructing Basic Health Centers (BHC) to complete a basic health infrastructure network; (2) making the 179 BHC's which comprise the basic health system operational by the end of FY 78; (3) designing and field testing up to three low-cost, outreach systems to serve the rural population which does not have access to the BHC's; and (4) accelerating the pace with which health services are provided to rural females. By the end of Phase I approximately 50 percent of the rural population would be served through this network of BHC's. Based on current population estimates, this would mean that over 3,000,000 people would be potential beneficiaries of the project, compared with the current base of perhaps 500,000 being served by the basic health system. The achievement of the

Phase I project purposes by the end of FY 78 is the precondition to initiating Phase II (FY 78 to FY 84) wherein the primary purpose would be to install the low-cost outreach systems developed under Phase I to reach an additional 40 percent of the population, or over 4,000,000 rural people who live beyond the reach of the BHC's. (Approval for Phase II activities is not sought at this time.)

C. Financial Data

1. Total Project Cost Table

	Fiscal Year				Total
	(\$ U.S. Thousands)				
	<u>1975</u>	<u>1976^{a/}</u>	<u>1977</u>	<u>1978</u>	
GOA	1,689	1,997	2,080	2,270	8,036
AID	1,383	1,744	1,597	92	4,816
Other Donors	<u>980</u>	<u>1,100</u>	<u>(unknown)</u>		<u>2,080</u>
Total	4,052	4,841	3,677	2,362	14,932

^{a/} FY 1976 is a 15-month fiscal year: July 1, 1975 to September 30, 1976.

2. AID Project Cost Tables

The Basic Health Services Project includes previously approved elements (i. e., former subproject 110.3 Management for Rural and Family Health Services and 100.4 Auxiliary Nurse Midwife Training) and new elements -- direct-hire project management, in-service training of Afghan personnel, Basic Health Center construction, Mission-procured contraceptives and low-cost, "outreach" experiments. AID project costs are, therefore, broken down into two summary tables: (a) AID total costs by components and (b) cost of new components. In table (c) below annual financing is divided between Title X and non-Title X funding. Additional details may be found in Part III., C and D.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-73	PAGE 3 of 59	PAGE:
-------------------------------	--	----------	-----------------	--------------	-------

a. AID Total Project Cost Table

	Fiscal Year (\$ U.S. Thousands)				Total
	<u>75</u>	<u>76^{a/}</u>	<u>77</u>	<u>78</u>	
Personnel:	513	639	627	56	1,835
Direct-hire	(20)	(59)	(50)	(56)	(185)
Contract	(493)	(589)	(577)	-	(1,650)
Participants	55	64	67	-	206
Commodities	32	91	118	-	241
Other Costs	<u>783</u>	<u>930</u>	<u>785</u>	<u>36</u>	<u>2,534</u>
Total	1,383	1,744	1,597	92	4,816

b. Cost of New Components

	Fiscal Year (\$ U.S. Thousands)				Total
	<u>75</u>	<u>76^{a/}</u>	<u>77</u>	<u>78</u>	
Personnel:	106	206	213	92	617
Direct-hire Project Manager	-	(69)	(58)	(92)	(219)
Contract:					
Health Educ. Trainees	(2)	(57)	(91)	(119)	(267)
Engineering, Monitoring/ Inspection ^{b/}	(49)	(46)	(36)	-	(131)
Commodities:	27	31	31	-	89
Contraceptives	(26)	(26)	(23)	-	(75)
Miscellaneous	(1)	(5)	(5)	-	(11)

PROJECT NO.	SUBMISSION	(Number)	DATE	PAGE	of	PAGES
308-11-590-144	<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1-22-75	4	of	59

Fiscal Year
(\$ U.S. Thousands)

	<u>75</u>	<u>76^{a/}</u>	<u>77</u>	<u>78</u>	<u>Total</u>
Other Costs					
Fixed-Cost Reimbursement	726	842	717	-	2,285
BHC Construction	(648)	(756)	(624)	-	(2,028)
Outreach Experiments	<u>(78)</u>	<u>(86)</u>	<u>(93)</u>	-	<u>(257)</u>
Total	859	1,079	961	92	2,991

a/ FY 76 is a 15-month fiscal year.

b/ Refer to Annex B for cost-sharing formula.

c. Title X/Non-Title X Funding within Category II, Population Planning and Health

	Fiscal Year (\$ U.S. Thousands)				
	<u>75</u>	<u>76</u>	<u>77</u>	<u>78</u>	<u>Total</u>
Title X	26	26	26	-	78
Non-Title X	<u>1,357</u>	<u>1,718</u>	<u>1,571</u>	<u>92</u>	<u>4,738</u>
Total	1,383	1,744	1,597	92	4,816

PART II. PROJECT JUSTIFICATION, FEASIBILITY AND SIGNIFICANCE

A. Relationship of the Project to the DAP Strategy

In the Mission's draft DAP, certain important criteria of good project design for Afghanistan were identified as being essential elements to a revised U.S. assistance strategy for Afghanistan. These elements are discussed below.

PROJECT NO.	306-11-500-144	SUBMISSION	(Number)	DATE	PAGE	of	PAGES
		<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1-22-75	5	of	59

A Phased Approach. The DAP speaks of the need in Afghanistan to proceed in small incremental steps from an experimental stage through a larger test stage to full project implementation over a period of years. In most respects the Basic Health Services project is designed to fit this idealized description of project evolution. The forerunner of this proposed project was Population/Family Planning, project 306-11-570-110 which was composed of several sub-projects -- a general commodity element (vehicles and contraceptives), a demographic survey and KAP study with the Ministry of Planning and Central Statistics Office, management advice to the Ministry of Public Health, setting up a training institution for auxiliary nurse midwives, and ad hoc support to the Afghan Family Guidance Association -- which were, in the main, indirectly related. It has been, however, the Mission's intention for the past several years to fashion these sub-project "building blocks" into one or more integrated projects. In FY 75 new projects are proposed for AFGA Clinic Expansion and Basic Health Services, based on these old sub-projects. What the Mission calls "Phase I" of the Basic Health Services project is essentially an effort to assist the MPH to put together elements of its system -- health center buildings, staff, supply systems -- in order to reach about 30 percent of the rural poor. The project will also lay the groundwork for Phase II by designing and testing, but not installing nationwide, low-cost, outreach health care delivery systems for rural dwellers who reside beyond the effective range of the BHC's. In Phase II the low-cost outreach system would be installed.

Simplicity. The main concept of the Phase I project is simple: put the existing elements together to form a functioning health system. However, breathing life into this simple concept during project implementation will be difficult. Even so, the project does conform to the DAP strategy of not attempting "great leaps forward" in the early years of project evolution.

GOA Interest. The DAP offers the criterion that the GOA must be committed to a project idea if it is to succeed in implementation. This project fits this criteria well. For a number of years the Mission has steadfastly parried GOA requests for assistance on the the basic health system with rejoinders emphasizing family planning. In the past 18 months three things occurred which caused the Mission to change its view. With the change of Government in July, 1973, the new leadership made it clear that delivering health services to the rural poor -- those who had not benefitted from past development investments under the old regime -- was the highest priority in the health sector. In the past 18 months this theme has been consistently articulated in public and in private conversations with the GOA leadership. Second, the change in the

PROJECT NO.	306-11-590-144	SUBMISSION	(Number)	DATE	PAGE	of	PAGES
		<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1-22-75	6	of	59

1973 F.A.A., with its powerful emphasis on direct benefits to the poorest majority, caused the Mission to consider the feasibility of assisting the GOA to deliver health and family planning services. Third, the existence of already functioning but unrelated sub-project building blocks made it possible for the Mission to consider integrating project activities with one common objective: delivering health services to the rural majority. Thus, we conclude that from the point of view of GOA interest, the timing of this project could not be better.

Near or Medium-Term Results. In order to retain the interest of the GOA (and USAID staff) the DAP recommends that a project have near to medium-term payoffs. The near-term payoff of this project will be achievement of the FY 1978 target of reaching about 3,000,000 people with health services from a current base of about 500,000.

Maintenance of U.S. Leverage. The DAP observes that in projects where USAID proceeds to deliver inputs before the GOA does, any potential leverage is lost. The consequence has typically been projects which do not work, targets which are not achieved, and the prolongation of AID assistance in the vain hope that things will shortly be better. The primary leverage of the proposed Basic Health Services project is the grant-financed element to cover a share of local costs for constructing health centers. The procedure which the Mission will employ to maintain leverage is fixed-cost reimbursement. Under this procedure, designs and specifications, total estimated direct costs (typically direct construction labor, materials and transportation) and the USAID's fixed share (expressed in an absolute rather than percentage amount) of the total direct costs are agreed before construction is begun. During construction USAID monitors the work. Upon the completion of construction USAID assures itself that the job was done according to agreed designs and specifications, and that the center is fully operational. Only then is the reimbursement made. This approach places the burden for performance and the assumption of financial risk squarely on the shoulders of the GOA; concomitantly, financial risk as well as the risk of non-performance is minimized for USAID. Similarly, non-performance in other areas (for example, a failure to recruit, train or assign staff) could cause the USAID to slow down or stop its financial contributions to construction.

B. Justification

The justification for offering financial assistance to the GOA to develop and extend its system of health care delivery lies in the appraisal of the

PROJECT NO.	306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 7 of 59 PAGES
-------------	----------------	--	----------	-----------------	--------------------

health problems of Afghanistan as narrated in Part V, Section (1). The gaps in precise information are obvious, but the limited series of studies available consistently demonstrate a burden of disease on the mass of people. This is felt by Afghans both in economic cost and human suffering. The test of a desirable program for U.S. assistance is the potential benefits to the majority of people. Any project that offers improvement in basic health rates high.

C. Rationale

The Ministry of Public Health has made considerable strides toward achieving its immediate goal of 179 operating BHC's. This progress demonstrates the sincerity of the GOA's priority interest in better health services. But, there are currently various deficiencies of staffing, training, supply, and supervision in those centers described by the MPH as operational and some 117 centers not fully constructed.

Presently AID is assisting the MPH in two areas necessary for the development and expansion of the basic health system particularly focused on improving staff performance and Ministry management:

Project 110.3 - Management for Rural and Family Health Service 1/

This project's purpose is the development of the MPH capability to effectively manage a health care system.

Project 110.4 - ANM Auxiliary Nurse Midwife Training 2/

This project's purpose is the development of a training school for female workers so that services to the women of the population are available.

The remaining necessary element for the expansion of basic health services is the physical construction of 117 health centers. The GOA has committed funds for construction which has resulted in 65 of these health centers being in various stages of completion. Now funds are needed to finish these centers and construct an additional 52 new BHC complexes. The rationale for supporting the MPH's construction effort is that the centers are an essential segment

1/ Ref. PROP approved by State 077585, April 25, 1973: FY 1973 to FY 1977.

2/ Ref. PROP approved by State 077585, April 25, 1973: FY 1973 to FY 1977.

PROJECT NO.	306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 8 of 59 PAGES
-------------	----------------	--	----------	-----------------	--------------------

needed to complete a basic health service network. This proposal seeks to supply that physical base for an operational health center system to complement the two other USAID assistance projects contributing to the development of the health system which provide access to health care for over 30 percent of the rural population. The project also commits the GOA to the necessary experimentation to develop an outreach health care delivery system that will function to reach the remaining 70 percent of the population beyond the normal service radius of the health centers.

It is not within the scope of this proposal to detail the type of experimental outreach health delivery systems that will be tested. It is recognized, however, that an expanded basic health system will fall short of its potential if it is not used as a base for the further extension of services and the supervision and supply of such an outreach system would be all but impossible without the network of health centers.

To insure as much as possible that the system will be functioning, this project implementation plan allows for reimbursement for direct construction costs only after a health center is staffed and operating.

D. Feasibility

The expansion of the health center system appears feasible. The MPH has the potential necessary budget and the legal capability to contract with construction companies in both the public and private sectors for the building of the health centers. The GOA is already receiving technical assistance from the UN in the area of engineering. USAID Engineering Division, with the assistance of an engineering firm under contract to USAID, will monitor construction for adherence to specifications. UNICEF is committed to develop the water supply system for the health centers and to supply the required medical equipment. Personnel are now being trained in almost adequate numbers to staff the centers. The MSH team is helping the MPH to develop rapidly its support capabilities to make the system function effectively.

E. Significance

The significance of this proposal for assistance is the development of a health care delivery system that has the potential of relieving the people of Afghanistan of a meaningful portion of their burden of morbidity and mortality. Economic improvement must occur to exploit fully the benefits of this health care system, but the improvement in health is an essential prerequisite for solid economic development.

PROJECT NO.	306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 9 of 59 PAGES
-------------	----------------	--	----------	-----------------	--------------------

F. AID/W Health/Family Planning Team Recommendations

This proposal, as suggested by the AID/W Health/Family Planning Team (Annex E) aggregates the ongoing projects, HSH and ANM, with the GOA's request for assistance in building health centers. In addition, the team's recommendation that USAID work closely with the Government of Afghanistan to seek ways of accelerating the process of identifying and testing alternate methods of delivering services to village populations is translated into an element of this project, called outreach.

PROJECT NO.	306-11-590-144	SUBMISSION	(Number)	DATE	PAGE	of	PAGE
		<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1-22-75	10	of	59

PART III. PROJECT DESIGN

A. Project Design

Sector Goal (the broader objective to which this project contributes)

To improve the health of 70 percent of the Afghan people by 1985.

Measures of Goal Achievement:

Decrease prevalence of disease:

- | | <u>From</u> | <u>To</u> |
|-------------------------|---|-----------|
| -Diarrheal disease | (Baseline info will be available mid Phase I) | |
| -Intestinal Infestation | | |
| -Tuberculosis | | |
| -Malnutrition | | |
| -Skin Infections | | |
| -Trachoma | | |

Decrease infant/child mortality rate (0 to 5 years)

Increase number of contraceptive acceptors

Assumptions for the achievement of the Sector Goal are: (1) the GOA continues to regard improved health as a fundamental national goal; (2) the GOA allocates increasing financial resources for health services over the period FY 75 to FY 85; and (3) epidemics are contained and no major food shortages occur.

The Phase II Project Purposes (obligations from FY 78 through FY 84 but not justified in this Project Paper) is to:

To expand and increase the effectiveness of the MFI's health system to deliver health and family planning services to 40 percent of the population beyond the service area of the Basic Health Centers.

Conditions that will indicate the Phase II Project Purposes are achieved:

National Health Services Delivery Plan Implemented (based upon Phase I low cost outreach experiments):

- Health problems identified.
- Health services designed to have an effect on identified health problems.

PROJECT NO.	306-11-590-144	SUBMISSION	(Number)	DATE	PAGE	11	of	59	PAGES
		<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1-22-75					

- Health workers trained.
- Health workers placement.
- Supervision
- Logistical supply
- Reporting systems
- Sustain and improve operations/ services of Basic Health Centers System (established Phase I).
- Change in ordinary and development budgets of the MOPH commensurate with expanding health services, e.g., an increase in real terms to 6 % of National Budget.
- BHC average patient load per annum increases from FY 77 base of 12,000 to FY 84 target of 20,000.
- Outreach system providing basic health services to 40% of the population.
- Female patients served by BHC is in proportion to their numbers.

Assumptions for the achievement of the Phase II Project Purpose are: (1) the GOA is willing to implement an effective, low cost method of health delivery care; (2) the MPH is able to recruit and retain qualified personnel for service in rural areas; (3) foreign donor support continues; (4) the rural populace continues to accept the training and employment of female paramedics in BHCs; (5) that the present lack of service (i. e. lack of staff, supplies, etc.) is a major reason why existing BHCs are poorly attended; and (6) improvements in MPH planning and administrative capacities are sufficient to support the massive training program for health outreach workers.

The Phase I Project Purposes
(obligations FY 75 to FY 79) are:

Construct Basic Health Centers.

Conditions that will indicate the
Phase I Project Purposes are
achieved:

- Complete construction of 65 BHCs.
- Construct 52 new BHCs.

PROJECT NO.	306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 12 of 59 PA
-------------	----------------	--	----------	-----------------	------------------

Make operational 179 Basic Health Centers to serve 30 percent of the population by FY 78.

- Staff BHCs with 179 medical doctors, 179 ANMs, 179 male nurses, 179 sanitarians, 179 vaccinators, 179 lab. technicians.
- 179 BHCs equipped with basic furnishings.
- 179 BHCs resupplied quarterly with drugs, medicines and expendable supplies.
- Average BHC patient load per annum of 12,000.
- Service accessible to a population of 3.9 million.

Design and field test up to three low cost rural outreach health systems to serve population not having access to BHCs.

Low cost outreach health delivery system developed and judged promising by the following criteria:

- Health problems identified with health services tailored to these problems.
- System feasible to install in areas beyond coverage of BHCs.
- Feasible to recruit, train, motivate and supervise outreach health workers.
- Low cost, effective logistical linkage with established BHCs.
- Effective MPH supervision of village outreach workers.
- Per patient/service cost lower than BHC rates.
- Preliminary national health delivery plan drafted.

Accelerate the pace with which rural females are provided health/family planning services.

- Female patients served by BHC is in proportion to their numbers.
- Best outreach model serves higher percentage of women and children than the BHC average.

PROJECT NO.	366-11-590-144	SUBMISSION	(Number)	DATE	PAGE	13	of	59	PAGE
		<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1-22-75					

Assumptions for the achievement of the Phase I Project Purposes are: (1) available, qualified personnel will work in rural areas; and (2) the GOA will be willing to experiment with alternative low cost methods of health service delivery.

Project Outputs necessary for the achievement of the Phase I Purpose are:

Construction of 117 BHC complexes.

Personnel

ANMs trained for employment in BHCs.

ANMs placed in BHC near home.

Medical and para-medical personnel complete in-service training for BHC employment.

Viable MPH and BHC Management and Administrative procedures established. Supply/re-supply systems. Health data reporting systems.

Low Cost Outreach Delivery Experiments.

Magnitude of Outputs:

- Construction Program on schedule.
- Design/specifications prepared and joint agreement between MPH and USAID.
- Agreement on fixed amount of direct costs.
- MPH construction tenders.
- MPH bid analysis.
- MPH construction contract awarded.
- Female ANMs recruited from BHC sites.
- ANMs to be graduated

FY 75	FY 76	FY 77	FY 78
50	90	120	180
- Para-medicals trained to use work protocols.

FY 76	FY 77	FY 78
250	450	450
- Design and test supply/re-supply system.
- Design and test disease-illness-injury and patient load reporting system.
- At least, three low cost outreach systems designed.
- Outreach experiment personnel recruited and trained.
- Outreach experiments field tested.

PROJECT NO.	306-11-590-144	SUBMISSION	(Number)	DATE	PAGE	14	of	59	PAGES
		<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1-22-75					

Assumptions at the output level are: (1) MPH Construction Directorate will be allocated necessary new staff to supervise adequately the construction of BHCs; (2) qualified personnel will be assigned to teach in medical colleges, the Public Health Institute and ANM schools; (3) qualified personnel will accept long term employment in rural areas; and (4) the recruitment of female health workers from areas near BHCs will continue to be acceptable.

B. Two Major Project Phases

This Project Paper justifies expenditures for Phase I, a period of four fiscal years. Phase I has three components, the third of which is essential for the implementation of Phase II.

(1) Completion of the 179 Basic Health Centers which will make up the skeletal, rural health infrastructure. (2) Equipping, supplying and staffing these centers with personnel especially trained for basic health work in primarily rural areas. (3) The designing and field testing of several rural health outreach systems. (1) and (2) components, when complete in 1978, will bring basic health services within reach of 30% of the population from the current base of about 5 percent. To reach the remaining 70% will require development of a system which Afghanistan can afford. During Phase I, low cost outreach models will be designed, field tested, adapted and readied for national duplication in Phase II.

The purpose of field testing several health outreach designs in Phase I is to enable the MPH to expand, without interruption, its health coverage to reach a greater number of people who will remain beyond the radius of the 179 BHCs. By the end of Phase II in 1984, it is planned to have outreach services available to another 40% of the population, and expansion continuing so that in subsequent years nearly all are reached.

We define outreach as the extension of minimal health services to additional persons after reaching the first 30% through the 179 fully operational Basic Health Centers. Outreach presupposes the absence of a physical structure through which minimal health care is extended; instead it relies upon (1) the mobility of trained personnel to reach into the villages and houses, and (2) the population's ability to reach existing "service points". In short, service to persons or persons to service.

Avenues to achieve outreach include (1) establishment of a second or third ANM who, although administratively attached to a BHC, would perform exclusively home visits in villages beyond the areas serviced directly by the

BHC and (2) a village health agent to cover all families in one village. This agent, probably a mature, married village mother, would be identified by her fellow villagers and, after training, would convey rudimentary nutrition/infection control/family planning information.

The "service centers" include (1) compounders in village pharmacies who would diagnose, dispense appropriate medicines and dispense contraceptives; and (2) village storekeepers who would provide similar services. Training will be provided for these individuals.

The information on disease patterns that is available is outlined in Section V, Background. From this it is evident that among children under five there are two major problems--malnutrition and insanitation. Malnutrition varies from inadequate caloric intake to severe protein lack and avitaminosis. Insanitation covers the range from lack of simple soap and water cleanliness to contaminated water and faulty human waste disposal. In addition, the problem of unrestricted fertility, especially the short birth interval, contributes to impair the health of mothers and children. Powerful pronatalist attitudes are a prominent feature of the society.

It is the intention that any outreach system utilize the types of persons, the material content and the methods that will best change the patterns of behaviour underlying the pervasive malnutrition and insanitation. Woven through this will be a conscious effort to lengthen the birth interval.

It will be necessary to include simple curative services in this effort. One key service will be the treatment of gastrointestinal disease until sanitation is considerably improved. Basic immunizations will be provided. This is a service that can be supported from the health center which will serve as a referral point for illness that is beyond the village health worker's capability.

In summary, the system of outreach to be tested will consist essentially of health education in the areas of nutrition, sanitation, and family planning. There will be essential curative services. The success of the effort will be measured by the proportion of persons adopting changed behavior. The ultimate test of changed behavior can be measured by:

1. Decreased prevalence of malnourished children
2. Decreased prevalence of diarrheal disease

PROJECT NO.	306-11-590-144	SUBMISSION	(Number)	DATE	
		<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1-22-75	PAGE 16 of 59 PAGES

3. Increased contraceptive use

4. Lengthened birth interval

Finally, the end product of such three-year outreach demonstrations will be an effective reproducible system adequate to provide minimal health care at minimal cost to villagers. These demonstrations serve to determine the best method of adapting and introducing known medical technology in the context of rural Afghanistan.

C. Project Inputs - the Necessary Resources

The proposed inputs to this project together with MPH resources and contributions of other donors are sufficient for the attainment of the Phase I purposes of (1) completing the skeletal system of 179 BHCs and (2) designing and field testing at least three health outreach models and adapting from one or more of these a system which can be duplicated nationally. Assuming implementation in the summer of 1975, this project will meet its targets in 1978. 30% of the total population will then have access to BHC services. The planning for bringing services to at least another 40% of the people in the rural areas beyond the reach of BHCs will have been completed and ready for implementation.

To effect this expansion from 114 operational BHCs in 1974 to 179 fully operational BHCs in 1978, the MPH has committed itself to a major increase in the number of medical and paramedical personnel to be assigned to rural areas. The BHCs, when fully staffed, will require a total of 1,074 medical and paramedical personnel in addition to increased numbers of support personnel. The Ministry will bring into full operational capacity the BHCs not now fully operational; they will complete 65 BHCs now under construction and construct an additional 52 to reach the planned total of 179. The MPH will establish two additional Auxiliary Nurse Midwife (ANM) training facilities outside of Kabul. The MPH will provide the necessary personnel to staff the three ANM schools and another facility for training of other personnel assigned to BHCs.

The contributions of other donors that most directly relate to this project are: UNICEF: potable water supply at each BHC, one vehicle, basic medical equipment and annual contributions of MCH related drugs. FRG: paramedical volunteers to work in health centers. WHO: nursing education advisory services, infant mortality studies, maternal and child health advisory services.

PROJECT NO.	306-11-500-144	SUBMISSION (Number)	DATE	PAGE	of	P.
		<input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION	1-22-75	17	59	

AID will contribute to the direct construction costs of 117 (65 partially constructed and 52 new starts) BHCs. Payment by AID will be made under a "Fixed Cost Reimbursement" procedure. Of these 117, the MPH has begun construction of 66, and this project budgets \$780,000 (for 60 percent of the remaining direct construction costs) to assist the MPH to complete these buildings. To complete the national network of 179 BHCs requires 52 additional BHC complexes and AID will contribute 60 percent of these direct construction costs or \$1,243,000.

The "Fixed Cost Reimbursement" procedure to be followed by USAID for this project (and similar projects in the Education and Rural Development sectors) imposes a desirable discipline on the project personnel, both Afghan and foreign. To insure the integrity of AID's contribution, careful monitoring by USAID will be required. This will include monitoring of construction progress including routine site examinations. These engineering tasks will be undertaken by USAID's Capital Development/Engineering Division (CDE). For a discussion of CDE's participation in this and related Mission projects, see Annex B.

USAID's Health, Population and Nutrition Division will provide the necessary technical assistance for the project. For this project one full time, Direct Hire Project Manager will be employed who will be responsible for the BHC construction and for the outreach models. This is the key position for this project and is therefore described here in some detail. This Project Manager, without assuming any operational responsibilities, will need to coordinate MPH and USAID efforts, keep each apprised of the limits of the other's capabilities and responsibilities, and monitor project implementation schedules to insure the closest possible relationship between plan and performance. Problems will undoubtedly arise; some have been identified; some will be surprises; any can and probably will become serious if the project manager is not aware, not empathetic, not prepared to work harmoniously with the project principals to find solutions instead of assessing blame. The Project Manager's records and frequent, scheduled reports will, in part, keep the project disciplined and on schedule.

Two essential supportive elements of this project are management and training. Two existing USAID projects address these areas.^{1/} One provides

^{1/} Health Management Advisory Services, approved PROP FY 73 to FY 77
 Ref: State 077585, April 25, 1973.
 Auxiliary Nurse Midwife Training Project, approved PROP FY 73 to FY 77
 Ref: State 077585, April 25, 1973.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 18 of 59 PAC
-------------------------------	--	----------	-----------------	-------------------

advisory services to the MPH. The other provides advisory services to the MPH's Auxiliary Nurse Midwifery training program. Each of these activities will continue as sub-projects under this new rural health project.

1. Administration and Training

The Management Team presently addresses a number of administrative areas and has not, to date, focused exclusively on the delivery of rural health services. The team has, however, recognized that the absence of health services outside of the few urban areas is responsible for the nation's high incidence of disease and mortality. The Management Team has counseled the MPH to assign a higher priority to health needs of the rural poor who now have no access to basic health care. Training by the team has, to date, been primarily to upgrade various administrative skills, both of higher and middle level management personnel, but including also some lower level personnel, e. g. materials management and warehousing personnel.

During the life of this project the MSH contractor's scope of work will focus more on the delivery of rural health services. For each administrative area in which the contract advisors work they will apply criteria appropriate to the goal and purposes of this project, emphasizing that the measures of success is the utilization of better health service by increasing numbers of people. Administrative systems, project designs, building construction, training, are the means of achieving this goal. This will represent a partial shift in this sub-project's focus, not in its purpose. As a first choice among possible alternatives, we propose to emphasize further the in-service training responsibilities of this sub-project. To make fully operational 179 BHCs requires major improvements in training of 1,076 medical and paramedical personnel to be working in BHCs, of the Provincial Health Officers, and of some MPH personnel of the BHC Division. We propose adding two more advisors to the MSH (presently five man) team. These will be Health Trainer advisors. In the initial six months of this project these advisors, together with the MPH and USAID, will develop a comprehensive, life-of-project training plan; they will then assist with the execution of the plan. (Note: While in 1975 the addition of these advisors raises the MSH team complement to seven, we plan to begin phasing out advisory services in the lower priority areas, so that by 1978 we would expect the MSH team to again number five.)

PROJECT NO.	300-11-590-144	SUBMISSION	(Number)	DATE	PAGE	of	PAGES
		<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION _____	1-22-75	19		59

2. Auxiliary Nurse Midwifery Training

The contract team now in Afghanistan consists of a nurse educator and a nurse-midwife educator. They arrived in mid-FY 75. Additionally, the contractor provides TDY consultant services. On the University of California/Santa Cruz campus, the contractor provides training for Afghan faculty from the Afghan ANM schools. The project was undertaken by the MPH for the purpose of training females from non-urban areas who would return to their home areas and be employed in the nearest BHC. Currently, no more than 25 percent of the health service clients are women. This is due to cultural attitudes which inhibit females from contact with men not of her immediate family. Thus, the rapid increase of female paramedicals is essential to the project purpose of expanding health services and insuring that women and children are benefiting from these services in proportion to their numbers.

During the life of Phase I, three ANM schools will have graduated a total of 440 ANMs. Graduating classes in each subsequent year will number approximately 180. Attrition is expected to be higher than would be found in more developed countries; however, the numbers above will insure the availability of at least one trained ANM for each BHC by 1978. In subsequent years it is planned to increase this number to two for each BHC.

PROJECT NO. 306-11-590-144	SUBMISSION		DATE	PAGE 19 of 59 PAGE
	<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION _____	1-22-75	

2. Auxiliary Nurse Midwifery Training

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During the life of Phase 1, three ANM schools will have graduated a total of 440 ANMs. Graduating classes in each subsequent year will number approximately 180. Attrition is expected to be higher than would be found in more developed countries; however, the numbers above will insure the availability of at least one trained ANM for each BHC by 1978. In subsequent years it is planned to increase this number to two for each BHC.

PROJECT NO.	306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION	(Number)	DATE 1-22-75	PAGE 20 of 59 PA
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D. Financial Requirements

1. Ministry of Public Health Inputs

	<u>\$1,000's</u>		
	<u>1954</u>	<u>1955</u>	<u>1956</u>
<u>a. Basic Health Centers</u>			
(1) Rental value of land	127	127	127
(2) Depreciation	189	189	189
(3) Land purchases	-	26	26
(4) Construction cost	376	560	416
(5) Rent paid for leased BHCs	4	-	-
(6) Personnel	285	341	432
(7) Vehicle repair, maintenance, petrol	171	197	254
(8) Building maintenance, repair, electricity, non-medical supplies	182	210	271
(9) Equipment repair, maintenance	11	13	17
Sub-total, 1-9	<u>1,345</u>	<u>1,663</u>	<u>1,732</u>
(10) Drugs, medicines, reagents, alcohol, etc.	85	95	105
Total a.	<u>1,430</u>	<u>1,758</u>	<u>1,837</u>
<u>b. Other GOA Inputs</u>			
(1) Depreciation on new ANMI building	14	14	14
(2) ANMI training	38	39	40
(3) Public Health Institute	155	160	165
(4) MSH (Trust funds)	26	26	26
Total b.	<u>233</u>	<u>239</u>	<u>245</u>
<u>c. Grand Total, A & B</u>	<u>1,689</u>	<u>1,997</u>	<u>2,082</u>

17

PROJECT NO.	396-11-599-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 21 of 59	PAGES
-------------	----------------	--	----------	-----------------	---------------	-------

2. AID Inputs (\$000)		FY 1975	FY 1976	FY 1977	FY 1978	Total
		(MM) \$	(MM) \$	(MM) \$	(MM) \$	\$
a. Personnel						
(1) Direct Hire						
Project Manager, BHS			(15) 59*	(12) 50*	(12) 56*	165*
Nurse Education Advisor, ANM		(2) 20				20
(2) Contract						
(a) Training Specialist - Chief of Party						
Management Analyst - Materials Mgt.						
" " - BHS						
" " - Inf. System						
Public Health Physician						
Short Term Consultants						
Home Office Personnel						
Total MSH Pers. Costs		(65) 335	(54) 342	(42) 311		988
Health Education Trainer		(6)	(12)	(12)		
Health Education Trainer		(3)	(12)	(12)		
Adj. MSH Pers. Costs		57*	91*	119*		267*
(b) Public Health Nurse Edu. - UC/SC						
Nurse Midwifery Advisor						
Short Term Consultants						
Home Office Personnel						
Total UC/SC Pers. Costs		(26) 52	(26) 101	(26) 111		264
(c) Cost Sharing for Const.						
Monit./Inap.		49*	46*	36*		131*
b. Commodities						
Audio Visual/office equip. - MSH		5	5	5		15
Contraceptives: Orals - AID/V		-	43	64		107
: Condoms - AID/V		-	12	18		30
: IUDs/Jelly/Pan Direct		26*	26*	26*		78*
: Misc. Direct		1*	5*	5*		11*
c. Participants						
MSH - (3 x 3 mm)		(9) 16				16
ANM - (3 x 2 MM; 6 x 6 mm)		(42) 39	(90) 84	(72) 67		190
(6 x 3 mm; 8 x 9 mm)(8x9mm)						
d. Other Costs						
Fixed Cost Reimbmt. -BHC Const.		648*	756*	624*		2,028*
Health Outreach Experimentation		78*	86*	93*		257*
Local Support of Proj. Tech. -MSH		35	58	44		137
" ANM		22	20	16		58
" BHC			10	8	36	54
e. TOTAL		<u>1,383</u>	<u>1,744</u>	<u>1,597</u>	<u>92</u>	<u>4,816</u>
Funding requested this project proposal (BHS)		859	1,079*	961*	92*	2,991

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number) DATE 1-22-75	PAGE 22 of 59 PAGES
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PART IV - PROJECT IMPLEMENTATION AND EVALUATION

The Project Agreement based on this Project Paper, will include a three year work plan in which each specific task required for the achievement of the Phase I project purpose will be described. Following simplified PERT techniques, this work plan will describe the tasks, the dates by which they are to be accomplished and the relationship of each to the overall plan. The MPH has already agreed in principle to these procedures. The following tentative implementation plan will be finalized not later than mid-April, 1975:

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____ (Number)	DATE 1-22-75	PAGE 23 of 59 PAGES
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A. Tentative Implementation Schedule

Function	6/75	12/75	Targets			Total
			9/76	9/77	9/78	
1.0 BHC Construction						
1.1 Design/Specs prepared & agreed	x					
1.2 Agreement on fixed costs	x					
1.3 BHC construction tenders		x	x	x		
1.4 BHC bid analysis		x	x	x		
1.5 BHC contract awards		x	x	x		
1.6 Construction started (No. of BHCs)	-	54	37	26		117
1.7 USAID monitoring visits (No.)	-	108	48	78	52	286
1.8 Construction completed (No.)	-	-	54	37	26	117
1.9 Reimbursement funds (\$ 000)	-	-	648,000	756,000	624,000	2,028,000
2.0 BHCs operational	114	-	116	152	179	179
2.1 Staffing:						
ANMs trained (No.)	56	102	192	312	492	492
ANMs assigned home BHC (No.)	26	82	113	152	179	179
In-service training for BHC staff						
Staff assigned:						
Medical Doctors (No.)	91	114	116	152	179	179
Male Nurses (No.)	110	120	131	152	179	179
Sanitarians (No.)	81	99	117	152	179	179
Vaccinators (No.)	137	137	137	152	179	179
Laboratory Technicians (No.)	47	114	116	152	179	179
2.2 BHCs equipped with furnishings (No.)	114	-	116	152	179	179
2.3 Management systems:						
Design supply/resupply system	x					
Test resupply system	x	x	x	x	x	
Install resupply system		x	x	x	x	
Design patient load reporting system	x	x				
Test patient load reporting system	x	x	x	x	x	
Install patient load reporting system			x	x	x	
2.4 Supplemental Staff Training						
Develop Training Courses	x	x	x			
Test training courses		x	x	x	x	
Begin training implementation		x	x	x	x	
Complete training advisory services					x	
3.0 Low cost, outreach health systems						
3.1 Identify health problems	x	x	x	x	x	
3.2 Design systems	x	x	x			
3.3 Recruit outreach workers		x	x	x		
3.4 Train outreach workers		x	x	x		
3.5 Assign outreach workers			x	x		
3.6 Resupply outreach workers				x	x	
3.7 Evaluate installed experiments				x	x	
3.8 Redesign outreach system				x	x	
4.0 Assist drafting national health delivery plan					x	

26

PROJECT NO. 306-11-500-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 24 of 59 PAGES
-------------------------------	--	----------	-----------------	---------------------

B. Implementation Steps

1. First Year

a. Construction (ANNEX C)

(1) Agreement between the GOA and USAID:

- (a) BHC designs and specifications for BHCs partially completed and planned new starts for which MPH will seek reimbursement of direct construction cost to complete.
 - (b) Field visits certify percentage of completion of partially completed BHCs at start of project and review site selection.
 - (c) The specific materials, labor and other direct construction cost required to complete the partially completed BHCs and construct a new BHC.
 - (d) Fixed amount to be reimbursed for completion of partially completed BHCs according to an agreed upon baseline percentage of completion.
 - (e) Field visit to certify construction of partially completed BHCs is in accordance with the previously agreed upon design and construction standards.
 - (f) Site selection for new BHCs to be constructed in second year of implementation.
- (2) USAID reimbursement of the agreed upon fixed amount for completing construction of a BHC after USAID certification that construction completed in accordance with agreed upon design, specifications and construction standards.

b. Training

- (1) Present Kabul ANM school will have moved into permanent MPH owned school building.

PROJECT NO.
306-11-590-144

SUBMISSION

(Number)

DATE

 ORIGINAL REVISION _____

1-22-75

PAGE 25 of 59 PAGES

- (2) The MPH will have begun construction of a second ANM school outside Kabul.
- (3) Continuation of advisory services to ANM schools directed toward in-service teacher training and curriculum development to make training more relevant to the work of ANMs in BHCs. Continuation of training of Afghan ANM faculty in the United States.
- (4) Arrival of two "Health Trainer" advisors (proposed new members of Management Advisory Team) and the completion by them and MPH counterparts of special, short-term training programs, begin training programs newly assigned personnel and personnel already serving in operational centers.

c. Operational Capabilities

- (1) The Management Advisory Team has worked in this general area since 1973 and will continue to do so. MSH will focus more on the delivery of rural health services.
- (2) Coordination with other donors (e.g., UNICEF, WHO) will be strengthened to insure adherence of each to the MPH plan of operations.
- (3) Initiation of new procedures in those BHCs now identified as "operational" by the MPH.

d. Outreach

- (1) Work will proceed on theoretical outreach models, each designed to bring health services to those beyond reach of the BHCs. Implementation of at least one will begin.

e. Project Evaluation

Life of project evaluation plan finalized.

PROJECT NO.
306-11-530-144

SUBMISSION

(Number)

DATE
-22-75 ORIGINAL REVISION

PAGE 26 of 59 PAGES

2. Second Year

a. Construction (ANNEX C)

(1) The design, specifications and construction standards agreed upon in the first year of implementation will be used for the construction of new BHCs.

The

(2) /sites for new starts (BHCs) will normally be visited at least once prior to the start of construction, during construction and after completion of construction.

(3) Reimbursement for construction of new BHCs will not begin until the partially completed BHCs are completed and operational.

(4) Site selection for construction of BHCs for third year of implementation.

(5) USAID reimbursement of the agreed upon fixed amount for constructing BHCs.

b. Training

(1) In-service training programs will reach full capacity, and will be modified based on evaluation.

(2) Training of Afghan ANM faculty will continue in the U.S.

(3) Second ANM school operational.

c. Operational Capabilities

Continue work as defined in the first year implementation steps.

d. Outreach

(1) Second and third outreach models are approved and field testing started.

(2) Evaluation of the first outreach model which was implemented in first year of the project.

(3) Interim evaluation of second and third outreach models.

PROJECT NO.
306-11-580-144

SUBMISSION

(Number)

DATE

1-22-75

PAGE 27 of 59 PAGES

- e. Project Evaluation based on the design and plan developed in the first year.

3. Third Year (ANNEX C)

a. Construction

- (1) The steps outlined for the second year construction procedures will be followed.
- (2) Construction of all BHCs will have been completed.

b. Training

- (1) Evaluation of the U. S. training program of Afghan ANM faculty will have been completed and an agreement reached regarding locale of subsequent training for ANM faculty.

- (2) Third ANM/operational. All three schools will be operating at full capacity, graduating approximately 180 per year.

- (3) In-service training of BHC personnel will continue.

c. Operations

- (1) Arrangements for financing, procuring and delivering supplies, equipment and drugs through the BHC system will have been made.
- (2) BHCs considered operational during project implementation will continue to be at least 80 percent staffed, each member having had in-service training.

d. Outreach

- (1) Monitoring and evaluations will continue for all three outreach models.
- (2) Based on experiences gained in the field tests of the outreach models, preliminary plans will be developed for expanding a national outreach system across the nation.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 28 of 59 PAGES
-------------------------------	--	----------	-----------------	---------------------

- (3) GOA Cabinet decision to begin phasing an outreach system into the regular national health program.

e. Evaluation

- (1) Final evaluation will be made of all project components from which a project will be designed to assist the GOA in the implementation of the national health services delivery systems.

C. Fixed Cost Reimbursement Procedure

The fixed cost reimbursement procedure for the Basic Health Services project will be developed in accordance with the Mission Director's policy guidance statement dated December 16, 1974 (Annex C) and included as a part of the project agreement. In addition the project agreement will specify the direct construction costs eligible for reimbursement and the maximum amount to be reimbursed for each completed BHC, both partially completed and new starts, during project implementation. The utilization of this method of financing will be advantageous because project funds will only be disbursed when a BHC is operational. This phased disbursing of funds will give A. I. D. the necessary leverage to help insure the achievement of the project purpose of Phase I.

The fixed cost reimbursement element of this project will be for the reimbursement of 60 percent of the direct costs for completing the construction of 65 BHCs now partially (on the average of 50 percent) completed, and 60 percent of the direct construction cost of 52 new BHCs. Direct costs include labor, materials and transportation. Reimbursements will be tied solely to MPH's successful adherence to construction, design and specifications. Reimbursements for the 52 completely new BHCs will only be made after the 65 partially constructed BHCs are completed and operating as a part of the Basic Health System with the required staff and supplies.

D. Evaluation

In the sections immediately preceding, we are primarily describing actions to achieve the outputs and project purposes. These actions represent considerable investment by the MPH, USAID and other donors.

PROJECT NO 306-11-500-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____ (Number)	DATE 1-22-75	PAGE 29 of 59 PAG
------------------------------	--	-----------------	-------------------

The national health system, when in place, must have a significant, measurable impact on the population being/ ^{sought} and served. At several places in this paper it has been stated that reliable baseline data which are now unavailable will be made available from other projects now nearing completion. Additional current and accumulating data will be collected at the Basic Health Centers.

It will be essential for each BHC during the initial six months of its operation to create a health profile of the area it serves. The project's training programs will teach this. There will be significant variations among and within the various regions. Based on this "profile" and the health indicators of which it is made up, continuing evaluation of each BHC will be a built-in feature of the system. Among the indicators which will be monitored at each BHC are the following:

1. A utilization ratio of males/females approaching 1:1.
2. Decreases in selected presenting complaints: e.g. diarrheal disease, skin infections, trachoma.
3. Reduced numbers of malnourished children.
4. Increased numbers of patients under TB treatment.
5. Increase proportion of population reached by immunization procedures to 95 percent or more.
6. Rising proportion of continuing contraceptors.
7. Increasing number of women seen during pregnancy.

PART V. PROJECT ANALYSIS

A. Background1. Health Conditions

a. Little reliable information exists that would assist development planning in any specific area of Afghanistan's economy or any of its social problems. Its total population at present is only a guess; agricultural statistics are rough estimates; and registration of vital events is almost non-existent. This lack of relevant information, required for planning within the health sector, is immediately apparent. The available information has been gathered from health surveys of small, widely scattered geographic areas and the analysis of recorded complaints of clinic users. ^{1/} What is known is consistent in broad outline with the health problems of countries comparable in level of social and economic development. (Afghanistan has been identified by the United Nations as one of the 25 least developed countries).

From existing studies referred to above comes a list of diseases that are diagnosed most commonly in groups of persons presenting themselves to clinics. These persons are representative of the age distribution of the population. The profile of those seeking care is dominated by males in a ratio of 3:1.

The most common diagnoses are:

	<u>Percentage</u>
1. Intestinal parasites	20.1
2. Acute and chronic dysentery	7.0
3. Chronic pulmonary disease	6.4
4. Tuberculosis	5.2

-
- ^{1/} 1. Duck, et.al, Health and Disease in Rural Afghanistan. York Baltimore (1972).
2. Medical Assistance Program Report, (1974), mimeo.

PROJECT NO.	306-11-500-144	SUBMISSION	(Number)	DATE	PAGE	31	of	59	PAGE
		<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1/22/75					

5. Trachoma and conjunctivitis	4.3
6. Non-toxic goiter	7.4 ^{1/}
7. Pyoderma and other superficial skin infections	2.5
8. Acute infectious disease	3.7
9. Leprosy	3.2 ^{1/}
10. Acute and chronic otitis media	3.0
11. Acute pneumonia	2.1
12. Malaria	6.3 ^{1/}

The rank order of disease varies by geographic area, but the first five predominate in all areas. The majority are diseases that are associated with poverty, malnutrition and insanitation. They are a group that, with a few exceptions, are more effectively dealt with by prevention than cure.

One study ^{2/} developed the following information on how village residents themselves view their problems of disease.

<u>Most feared</u>	<u>Accepted as part of life (except when acute)</u>
1. Child mortality	1. Malaria
2. Difficult labor and maternal mortality	2. Malnutrition
3. Smallpox	3. Diarrheal disease
4. Sterility	4. Chronic infections (TB)

Of the "most feared" only smallpox is apparently being effectively controlled. (An evaluation of the WHO advised smallpox program is to be done in 1975.) The other three on the list should be thought of together as being fostered by the cultural and economic necessity for children, and the economic loss incurred through maternal mortality.

^{1/} The prevalence of these is not universal. They are major problems in some areas only.

^{2/} UNICEF study - CINAM (1973).

Malnutrition and diarrheal disease on the "accepted list" are major factors in child mortality. Because a large family is a respected cultural value, the chain of events from inability to conceive, fetal and maternal loss during pregnancy, and high childhood mortality are of major importance. The "accepted" list probably represents the experience of centuries of a society victimized by disease and deprived of the knowledge that some control of one's destiny is possible. The germ theory would receive as skeptical a reception here as it did in 16th century Europe, which even then was a more sophisticated, secular society.

One study, still in progress, is attempting to define more accurately the extent of infant and early childhood mortality. It is being carried out in Kabul and three villages in the immediate environs of Kabul. ^{1/}

Some data from this report is set out in the following tables:

Table I

<u>Number Dying by:</u>	<u>Estimated Infant and Childhood Mortality Rates from 1000</u>	
	<u>Live Births</u>	
	<u>13 Kabul</u>	<u>3 Pilot Study</u>
	<u>Areas</u>	<u>Areas</u>
1 week	24	37
4 "	38	82
12 months	123	183
2 years	172	240
3 years	194	260
4 "	199	274
5 "	207	277

Itemized in Table II are the major causes of death in children under 5 from the same study. This table gives some clues as to where the problems of childhood morbidity and mortality lie, and they are not all medical.

^{1/} VBO-571: "Preliminary Report on Infant and Early Childhood Mortality Survey in Greater Kabul" (1974).

TABLE II

MAJOR CAUSES OF DEATH IN CHILDREN UNDER FIVE

Major <u>1/</u> Cause of Death	(1) 12 months or Less (N=95)	(2) 1-2 years (N=43)	(3) 2-5 years (N=42)
1. Infectious disease	47.4 %	7.0 %	4.8 %
2. Nutritional deficiency	26.3 %	70. %	38.1 %
3. Respiratory disease	27.4 %	27.4 %	37.7 %
4. Perinatal causes	16.8 % <u>2/</u>		
5. Nervous system diseases	3.2 % <u>3/</u>		
6. Congenital anomalies	3.2 % <u>4/</u>		
7. Diarrheal disease		48.8 %	47.6 %
8. Measles		18.6 %	35.7 %

(The percentages do not add to 100% because many deaths had two or more factors contributing.)

- 1/ These are clinical diagnoses only. There would be changes if autopsy diagnoses could be made.
- 2/ This is a catch all group of conditions that are due to many causes: poor maternal nutrition; poor obstetrical care; congenital abnormalities; etc.
- 3/ It can reasonably be presumed that a large portion of these may be congenital defects.
- 4/ This is a very high proportion of congenital defects and probably reflects the consequence of the large number of consanguinous marriages (a combined social-medical problem)

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 34 of 59 PAGES
-------------------------------	--	----------	-----------------	---------------------

The high mortality figure in the 2nd year of life has its roots in the first year where faulty weaning practices lay the groundwork for continued nutritional deprivation. The basic problem lies in a mesh of cultural beliefs and practices regarding foods and feeding.

Diarrheal disease is the major problem from one year on. This is a problem of insanitation of food, water, and person. There is solid evidence that malnutrition and diarrhea have a synergism and both problems must be attacked before either can be effectively dealt with. Here again the roots lie in economic and social conditions.

Measles appears as a killer with a high degree of frequency. In more developed countries this disease is only occasionally severe and rarely fatal. This is an example of what occurs when a disease, that is relatively benign in the well nourished, attacks persons who are severely malnourished from infancy.

Underlying these problems is a lack of scientific knowledge among the mass of people as to the principles of cause and effect as it relates to health. There has been little effort at health education, which would stimulate a process of necessary cultural and social change. In addition some isolated information (the accuracy of which is in question) is important. The crude birth rate is estimated at 45-50/1000. The crude death rate about 27/1000. Maternal mortality may be as high as 50/1000. Life expectancy is estimated at about 40 years. Three areas of the country are having a major recrudescence of malaria. Tuberculosis is active in around 10% of the population. The diseases of aging are uncommon - people do not live long enough to develop them.

This incomplete analysis must be viewed in the context of the following three hypothesis in order to judge the actual severity of the health problems:

1. Because medical services are concentrated in Kabul the problems are less severe in this city than elsewhere.
2. The health services in Kabul are so deficient that the health status of the city is little different than in the rural areas.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 35 of 59 PAGES
-------------------------------	--	----------	-----------------	---------------------

3. The major health problems (especially among children) have their roots in pervasive malnutrition, insanitation, and poverty. No system of curative medicine only can change this picture. No system of health services that does not directly address these problems can enjoy more than a few minor successes. The health delivery system has not faced the fundamental problems as yet.

2. Available Health Services

a. Hospitals

There is a great disparity and distance between the rural population and available health services. There are 66 hospitals with 2,945 beds in the larger cities and woleswali towns. Modern health services are virtually non-existent in villages outside walking distance of the woleswali towns.

	<u>Hospitals</u>	<u>Beds</u>	<u>Est. Bed/Pop Ratio</u>
Kabul	12	1,455	1:700
Provinces	54	1,490	1:7500

The majority of the provincial hospitals are between 10 and 30 beds.

b. Health Centers

The MPH is currently operating 114 health centers in the larger woleswali towns. Fifty-two centers operate in rented quarters and sixty-two operate in MPH buildings. The MPH goal is to deliver essential health services throughout rural Afghanistan through 179 health centers. It is unlikely that their potential clientele will travel more than 8 km. for services.

As these centers are sited their effective radius may make them available to only 30% of total population. The geography of the country makes site selection crucial for availability of services to the maximum number of people. The country is mountainous with long river valleys. Much of the easier movement is along these

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 36 of 59 PAGES
-------------------------------	--	----------	-----------------	---------------------

valleys. Movement across intervening mountains is difficult and time consuming in summer and impossible in winter. The road net is excellent between major cities, but once off these roads the feeder roads vary in quality.

The plans for a health center include the clinic building; living accommodations for doctor and bachelors; potable water supply; and a proper latrine. Of those now owned by the MPH only a very few (the exact number is unknown but estimated at 5 or 10) having living quarters, water supply, and a latrine.

The concept of this clinic complex was adopted for two reasons:

- a. Better living quarters with proper water supply and sewage disposal serve as a teaching example; and
- b. The provision of adequate living accommodations would serve as an incentive for staff to work in the rural areas.

Four designs have been developed for the buildings which vary by climatic conditions and the availability of local building materials. The clinic designs include doctor's office, examining room, small lab, pharmacy, family health (women patients) room, and treatment room.

The estimated average cost of each clinic complex is \$40,000.

The MPH envisions an operating health center as the physical complex described above, operated by a staff of physician, male nurse, ANM, lab. tech. vaccinator and sanitarian. The operating clinic will have the necessary equipment, drug supply, and a vehicle. At present only six health centers are near the minimum described. These are the six in Parwan province that is considered a pilot area. The lessons and information developed from these are to be transferred to the whole system. In addition this is to be the first effort at a cost accounting of functioning health centers. A study as to extent of population served, in-service training of personnel, and an analysis of supply is also taking place.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 37 of 59 PAGES
-------------------------------	--	----------	-----------------	---------------------

c. Medical and Para-Medical Personnel

(1) Physicians - There are approximately 800 practicing physicians. There are two schools of medicine which together graduate about one hundred and fifty physicians per year. The overall ratio of physicians to population is low, and the situation is exacerbated by uneven distribution. A large number are concentrated in Kabul where the ratio may be as high as 1:1500. In the rural areas the ratio may be as low as 1:60,000. ^{1/} There is considerable attrition among MPH physicians. Most physicians prefer not to leave the larger towns. Getting them to and keeping them in the more remote areas is difficult.

(2) Male nurses - Based on 1970 figures there are approximately three hundred. There is an average of twenty-one graduated each year.

(3) Female nurses - Approximately 150. The only truly functioning nursing school is in Kabul and this graduates eighty nurses a year. Virtually all are residents of Kabul and it is unlikely they would work elsewhere. All are graduated as nurse-midwives. A second school is in Jalalabad and by next year it will have graduated twelve students.

(4) Auxiliary nurse-midwives - Approximately 100. ANM's were trained in years past in regional schools that no longer function. At present the new auxiliary nurse-midwife school in Kabul (USAID assisted) is functioning with a student body drawn from villages that are sites of existing or proposed health centers. (This recruitment pattern has not been entirely successful.) Forty-five students graduated in 1973. In 1975 fifty-five more will graduate. The target is to be 180 graduates per year after two additional ANM Schools are established.

(5) Other categories - this includes vaccinators, sanitarians, and laboratory technicians. The latter are being trained

^{1/} This is imprecise because precise information on the status of personnel, status of construction or most other matters is not available.

PROJECT NO. 306-11-500-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 38 of 59 PAGES
-------------------------------	--	----------	-----------------	---------------------

at about twenty-five per year. Vaccinators are available. Sanitarians are of doubtful value but are available.

(6) In addition there are three major programs supported by WHO and other UN agencies. They are the malaria, smallpox, and tuberculosis programs. All have fairly large numbers of personnel trained in one task and they are fairly extensively distributed throughout the country. They exist as vertical programs primarily because the health center system is too weak and inefficient to carry out their functions.

Personnel

In August of 1973 the E-PH listed for a WHO Malaria Assessment Team the following types and numbers of personnel on the Ministry payroll:

Table I - MINISTRY FIELD PERSONNEL (August 1973)

<u>Type</u>	<u>Number</u>
1. Physicians	592
2. Asst. Physicians	29
3. Asst. Dentists	129
4. Pharmacists	83
5. Compounders	293
6. Sanitarians	262
7. Nurses	479 ^{1/}
8. Aux. Nurse-Midwives	329 ^{1/}
9. Laboratory technicians	106
10. Aux. Lab. Technicians	43
11. Vaccinators	618

^{1/} We have questioned these two categories; but we are unable as yet to confirm these figures.

Table II YEARLY OUTPUT OF TRAINED PERSONNEL

Year		1974/75	1975/76	1976/77	1977/78
TYPE	SOURCE	ANNUAL GRADUATES			
Physician	Medical Schools	150	150	150	150
Male Nurse	Aliabad Nursing School	21	21	21	21
Auxiliary Nurse Midwife	Auxiliary Nurse Midwife School	56	50	100	100 ^{1/}
Vaccinator	Public Health Institute	see "Vaccinators" under the comments.			
Laboratory Technician	Central Laboratory	24	24	24	24
Sanitarian	Public Health Institute	18	18	18	18

Table III describes the present status and the anticipated personnel needs as the additional health centers are opened. This projection makes no allowance for failures in recruitment, failures of trainees to complete courses, or attrition after graduation. This could be as high as 10%, particularly among auxiliary nurse-midwives.

^{1/} This is a projection of what can reasonably be expected from the Kabul ANM School. The opening of a second and third school would raise the number of graduates to about 180 a year in twelve to eighteen months after opening.

Table III PERSONNEL NEEDS (NEED/TRAINED and ASSIGNED)

Year	1974/75	1975/76	1976/77	1977/78
Operating Health Centers	114	116	152	179
Staff Needed				
Physician	(114)/91	(116)/116	(152)/152	(179)/179
Male Nurse	(114)/110	(116)/131	(152)/152	(179)/172
Auxiliary Nurse Midwife	(114)/82	(116)/113	(152)/152	(179)/179
Vaccinator	(114)/114	(116)/116	(152)/152	(179)/179
Laboratory Technician	(114)/71	(116)/95	(154)/119	(179)/143
Sanitarian	(114)/81	(116)/117	(152)/135	(179)/153

Physicians - There are adequate numbers being graduated to fill the BHC needs. The problem lies in the unwillingness or inability of the MPH to make these assignments.

Male Nurses - It appears that there are sufficient number in this category.

Auxiliary Nurse-Midwives - at present there is only one school in Afghanistan. There are plans for two more such schools with the same capacity. If these plans come to fruition there should be adequate graduates.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 41 of 59 PAGES
-------------------------------	--	----------	-----------------	---------------------

3. Donor Assistance

a. USAID

(1) Since 1973 AID has financed a management team (MSE) in response to a request from the MPH for assistance in improving the management capability of the Ministry particularly as it applies to the operation of a BHC system.

(2) Since 1972 AID has provided technical assistance, grant financing, and commodities for the development of an auxiliary nurse-midwife school. The students for training are recruited from villages with a BHC and returned there to work. This is directed at having socially acceptable workers for delivery of services to women.

(3) Since 1971 support has been supplied for the Afghan Family Guidance Association (AFGA), an IPPF affiliate, and until December 1974 was the only source of contraceptive services. AFGA operates nineteen clinics, nine in Kabul and ten in provincial centers. Commodities, training, and a small amount of grant assistance amounting to \$487,625 have been contributed. USAID continues to supply all contraceptives used.

b. WHO - provides the advisors to MPH for malaria, tuberculosis, and smallpox, nursing education, maternal and child health, and the infant mortality survey.

c. UNICEF - provides vehicles, medical equipment for clinics; and has offered to develop water supplies for each clinic.

d. Federal Republic of Germany - has given support for a Serological Institute and some volunteers work in health centers.

e. U.S.S.R. - Various medical advisors in hospitals; minor support to malaria program in one border province on the Oxus River; construction of a 500 bed general hospital for the military.

f. People's Republic of China - a reported offer to build, train, staff and supply a 200 bed hospital in Kandahar.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 42 of 59 PAGES
-------------------------------	--	----------	-----------------	---------------------

g. CARE-MEDICO - This organization has an agreement with the GOA to supply medical assistance to Avicenna Hospital in Kabul. This takes the form of CARE-MEDICO physicians, nurses, and other specialized personnel assigned for tours of two plus years. In addition they have short-term specialists for one to two months. The primary function of these personnel is teaching directed toward the Afghan professional staff. The MPH looks upon this hospital as a post-graduate training center.

h. Government of India - The Indians have contributed a pediatric hospital building as well as nurses and physicians to assist in training the Afghan personnel. Within this hospital serving Kabul residents primarily, there is a pediatric residency program. The program began in 1974 with eight residents. It is presumed that these physicians, when trained, will be placed in provincial hospitals.

i. Peace Corps - There have been volunteers in Afghanistan since 1963. Up until late 1973 they were active in the tuberculosis program, working with Afghans in several clinics. Over 40 nurses have worked in Afghan health centers and hospitals. Two nurses now teach at the Auxiliary Nurse-Midwife School and one is working at the Public Health Institute's in-service training center. A few volunteers TEFL in the medical school.

j. Medical Assistance Program - This U.S. based organization has supported medical personnel and supplied drugs and equipment for two projects over the last ten years. One of these is an Eye Hospital in Kabul. The other is a hospital-based system of rural clinics in Central Afghanistan. The former continues to function and serves as a training institution. The latter was closed in 1974 by the Government of Afghanistan. Much of what we know about disease patterns and approaches to delivery of health care to the rural people is derived from their experience.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 43 of 59	PAGE
----------------------------	--	----------	-----------------	---------------	------

4. Studies Related to Project

Background information comes from a diverse group of small area surveys attempting to delineate the health problems. From these studies two facts become apparent: (a) there are a group of diseases that are virtually universal; (b) there are others that are problems in only certain areas. In order to plan and implement an effective national health program more information must be gathered on the precise geographic distribution of disease.

a. SUNY - ADS. A census of the population of Afghanistan has never been conducted. At present a demographic sample survey is nearing completion which will provide population estimates of the settled and the nomadic populations. This survey will give better approximations of the demographic realities of Afghanistan, including more precise descriptions of patterns of population distribution.

b. MSE - This management group has been and continues to analyze and recommend changes on the structure and functions of the MPH. In addition it is conducting an in-depth study of one group of BHC's located in Parwan province. This will provide detailed information on location of centers, population served, radius of service, patterns of disease, contraceptive usage, supply, staffing, training deficiencies of staff, supervisory problems, data collection, retrieval, and analysis, and costs. No such body of detailed information exists today on any segment of the rural health delivery system.

c. MAP - For a number of years this program operated three outpatient clinics and a hospital in the Bazarajat, the central mountainous region of the country. They collected data on disease patterns in their area. They also, based on their experience in health service delivery, developed an approach to the problems of health care delivery in Afghanistan, which integrated the clinic based and outreach oriented methodologies. The data, which they collected and analyzed, and a description of their approach to health service delivery, is recorded in their terminal report. One of the major virtues of this study is the demonstration of the usefulness of collecting day to day clinic data and the rewards of its subsequent analysis. This lesson needs to be learned by the MPH.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 44 of 59 PAGES
-------------------------------	--	----------	-----------------	---------------------

d. Buck, et. al. - This study of four widely separated Afghan villages is based on extensive physical examinations and laboratory studies of the inhabitants. It demonstrates the similarities in disease patterns but also shows the marked disparities that do occur.

e. UNICEF-CINAM - A study commissioned by UNICEF based on two villages in Balkh and Jawzjan provinces. Among the factors studied were the health problems as seen by the study group as well as by the villagers themselves. This study also contains valuable data on folk medicine and dietary habits.

B. Financial and Economic Analysis

Afghanistan's health facilities/services are concentrated in its capital city. Government data show 85 percent of the nation's physicians and almost 60 percent of its hospital beds as being located in Kabul. The same data show that half the country's 26 provinces had three or fewer physicians each in 1973/74. The provincial capitals are typically the largest population centers in their respective provinces and each capital has one hospital in it. By the end of the project period, it is planned that there will be a basic health center (BHC) in each of the country's 178 woleswalis (counties) with two in one that is densely populated. Again, the BHCs will be located in the "population centers" of the woleswalis. But while they are "population centers," with few exceptions they are also clearly rural.

There are 65 BHCs on which construction has started but is not completed. USAID will reimburse 60 percent of the direct costs of completing BHCs presently under construction (or the equivalent of 30 percent of total direct costs) and 60 percent of the direct costs for all new starts (when buildings, including living quarters are constructed and the clinic is staffed, equipped and in operation). USAID assistance will be on a grant, fixed-cost reimbursement basis. The unit construction cost is estimated to be \$40,000.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 45 of 59 PAGES
-------------------------------	--	----------	-----------------	---------------------

The planned construction schedule is:

	<u>Number of BHCs</u>	<u>Construction Status</u>
1353 (1974/75)	62	Completed
1354 (1975/76)	47	To be completed on 47 partially constructed BHCs
1355 (1976/77)	18	To be completed on 18 partially constructed BHCs
1355 (1976/77)	26	To be completed on 26 new starts
1356 (1977/78)	26	To be completed on 26 new starts
Total	179	

It is estimated that the 65 BHC which are partially constructed are on the average 50 percent completed.

BHC Construction Costs

	<u>MPH Estimated Cost for Partially Completed BHC</u>	<u>Est. Cost to Complete Construction</u>		<u>Total</u>
		<u>MPH Input</u>	<u>USAID Input</u>	
Completed Con- struction of 65 BHCs partially completed	1,300,000	520,000	780,000	2,600,000
Construct 52 New BHCs		832,000	1,248,000	2,080,000
Estimated Land Value	37,000	80,000		117,000
	<u>1,337,000</u>	<u>1,432,000</u>	<u>2,028,000</u>	<u>4,797,000</u>

PROJECT NO.	306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 46 of 59 PAGE
-------------	----------------	--	----------	-----------------	--------------------

Ministry of Public Health plans call for each BHC to be staffed with six medical and paramedical personnel. The composition and cost of the staff are shown in the following table. Other recurring cost estimates are also shown for all the 179 BHCs. It will be noted that the projected cost of medicines, drugs, and medical supplies, assumed to be furnished free of charge to clients, constitute slightly more than 70 percent of the projected recurring costs of operation. There is substantial room, therefore, if the GOA would be willing to either place a charge on drugs dispensed or reduce the number of drugs given away, to reduce the operational cost of the system. Without drugs, the recurring cost would be \$1.1 million annually.

In 1353 (1974/75), the ordinary budget of the Ministry of Public Health (MPH) was about \$3.5 million. While we do not know what part of this was due to the existing BHC program (but probably less than one-fifth), the recurring cost of operating the completed system less the provision of drugs/medicines could be absorbed easily enough. If, however, the MPH places a high priority on the provision of free drugs/medicines to the public, even at a very modest level, it will have to have substantial increases in its ordinary budget. Spread over the whole population, the recurring cost (\$4.0 million) amounts to something over 30 cents per person per year. For the 30 percent of the population to which the BHCs would be moderately accessible, the per capita cost would be in the neighborhood of one dollar each. The recurring cost of operating the 179 BHCs would amount to about 2.5 percent of the GOA's ordinary budget and about 0.2 percent of the country's GNP in 1977-78.

Estimates of Annual Recurring Costs of
Operating 179 Basic Health Centers

A. Personnel	Average Salary Afs/Month	\$Million 0.45
<u>Staff/BHC</u>	<u>Average Salary Afs/Month</u>	
1. Physician	2200	
2. Nurse	1700	
3. ANM	2000	
4. Sanitarian	1700	
5. Vaccinator	1100	
6. Lab Technician	1700	
Total/BHC	10,400	
Total including 20% overhead	12,480	
Total 179 BHCs/ Year	Afs. 26.8 million	
B. Building Maintenance Repair, Electricity, Nonmedical Supplies <u>1/</u>		0.29
C. Equipment Maintenance, Repair (10% of Cost)		0.02
D. Vehicle Maintenance Repair, Gasoline <u>2/</u>		0.27
E. Technical Support (8% of total A-D)		0.08
F. Medicines, Drugs, Medical Supplies		2.85
Total		4.0

1/ Four percent of construction cost of \$40,000 per BHC

2/ 15,000 miles @ 10¢/mile for each of 179 vehicles

PROJECT NO.	300-11-590-144	SUBMISSION	(Number)	DATE	PAGE	48	of	59	PAGES
		<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1/22/75					

Estimate Construction
Cost per BHC

	<u>Afs.</u>	<u>Dollars</u>
Main building	1,521,000	15,350
Bachelor Quarters	386,000	6,433
Family Quarters	421,200	7,020
Land	60,000	1,000
Furnishing	45,000	750
Total	<u>2,433,200</u>	<u>40,553</u>

Note:

The above cost estimates are for constructing reinforced concrete structures. USAID is of the opinion that a structure similar to the primary schools being financed in the School Construction project may also be suitable for BHCs. If so, the cost per unit would be reduced. This will be settled during the Project Agreement negotiation.

PROJECT NO. 306-11-590-144	SUBMISSION		DATE	PAGE 49 of 59 PAGES
	<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION _____	1/22/75	

No attempt was made to perform a benefit-cost analysis, mainly because the output would be no better than the data used to calculate benefits. In any case, a goal of the GOA is to provide some level of health services to all areas of the country. Thus, the Annual Development Plan for 1973 states that "The main objective of public health services, in light of Government strategy, is to spread these services to all parts of the country." There is as yet, however, no system through which these services can be "spread". The basis of the propagation of medical services... is dependent on the establishment of health centers in the various parts of the county." A BHC in each of the country's woleswalis may not be too far from optimal as the basis of a system through which health services can be channeled and on which a low cost outreach system can be based.

The major intended beneficiary of this project is the country's rural population ^{1/}and the major impact may be summarized as that of improving the quality of life through the provision of health services. With respect to the short run, one would expect a reduction in mortality rates (especially infant/child mortality rates for which there is latitude for a dramatic decrease), a longer life expectancy, a more vigorous, alert, health society with improved productivity, fewer people disabled and/or deformed by disease or crude traditional medical practices, and fewer days of work lost because of illness. It is highly likely that the rate of growth in population will rise, increasing the percentage of the population in the youngest age group and consequently increasing population pressure on the country's food supply and slowing growth in per capita income. The project will distribute social benefits more broadly but may make it more difficult for per capita real income to rise in the short to intermediate term. In the longer run, it will accelerate public expenditures for social services (public health and education).

^{1/} All evidence indicates that the vast majority of the rural population is very poor. An example of such evidence is found in Whiting and Hughes, The Afghan Farmer: Report on a Survey, R. R. Nathan Associates, Inc. October 1971.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 50 of 59 PAGES
-------------------------------	--	----------	-----------------	---------------------

Of a sample of 718 farmers living in Kandahar, Ghazni, Parwan, Baghlan, Kunduz, Paghman, and Nangahar provinces, 11 percent were landlords, 61 percent owner-operators and 28 percent sharecroppers-renters. Total net farm plus nonfarm income amounted to Afs. 18 million; there were 6863 family members for an average of Afs. 2620, or \$35-\$40, per person. The average for the landlord class was Afs. 4730; for the owner-operator, Afs. 2500; and for the sharecropper-renter, Afs. 1750. The latter two groups amounted to 89 percent of the farmers (and 87 percent of family members) and average per capita income for the two groups was Afs. 2300 or \$40-\$35. The authors note that the average shown in their report "present a somewhat overly optimistic picture of the economic situation for the majority of the populace many of whom must be subsisting at close to starvation levels". (p. 17) It would seem that the income of the great majority of the rural population is so low that the rural population as a whole easily qualifies as the target population of USAID projects.

The adverse effects of the project are due to an expected increase in population growth. It is because of this that USAID is stressing family planning. Acceptance of family planning services (and commodities) seems to be quite good. While there is not enough evidence yet to declare that there is an inverse relationship between acceptance rates and birth rates, it does seem reasonable to believe that such a relationship obtains. To the extent that it does exist, the family planning activities supported by USAID will blunt the impact of population growth. It is even conceivable that family planning eventually will reduce birth rates by more than health services will reduce mortality rates.

C. Social Analysis

This project will partially fund the construction of a network of Basic Health Centers to serve the population of rural Afghanistan. Unlike other construction programs, e.g. roads, irrigation systems, bridges, etc., the social impact of these health centers is contingent on the health delivery system of which these centers constitute the

PROJECT NO.	306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 51 of 59 PAGES
-------------	----------------	--	----------	-----------------	---------------------

physical infrastructure. The organization and implementation of the health delivery system is the responsibility of the Ministry of Public Health, which is assisted in that task by other AID projects and other foreign donors.

Any analysis of social impact must, of necessity, focus on the delivery of health services made possible by the existence of the clinics, rather than on the buildings themselves.

1. Traditional Societal attitudes towards Health and Medicine. Attitudes toward health and medicine are largely determined by traditional folk biology and folk medicine, which, in Afghanistan, consist of an attenuated understanding of Empedocle's theory of the four humors together with related use of herbal medicine and dietary practices. Add to this the folk belief that illness may have a supernatural or paranatural etiology, and the distinctions between physician and priest, and medicine and magic are blurred.

The cumulative effect of these beliefs is that health is considered to be the natural state, disease a result of humoral imbalance or supernatural interference, and medicine and magic are therefore viewed as primarily curative professions.

When a man is ill, he goes to one of the traditional practitioners, describes his symptoms or self diagnoses his illness, and is given herbs and a dietary prescription. They are not given physical examinations or tests of any kind. If he goes to a religious practitioner or magician he is given a talisman or amulet or told to perform some ritual. Women and children seldom go to either type of practitioner for medical purposes. ^{1/} It should be noted that almost all visits are made for curative assistance.

A few examples do exist however where preventive medicine and magic are practiced. Magic is resorted to as a preventive measure at major phases of the life cycle; birth, marriage, and death, as well as at other times of known potential danger. One

^{1/} Women often go to magicians for other purposes.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 52 of 59 PAGES
-------------------------------	--	----------	-----------------	---------------------

example of preventive medicine, which is the only known instance of awareness of germ theory, is the traditional practice of variolation, injecting smallpox scab material into a healthy person to prevent smallpox.

Cultural Impact of Basic Health Services

The primary emphasis of the Basic Health Centers will be preventive measures and only primary curative services will be provided. For this type of services to be effective a major educational effort will be necessary to convince the population that they are not the passive victims of capricious humors or evil spirits. The cultural preventive practices mentioned above will assist in the conceptual transition as it relates to vaccinations, which, due to a mass smallpox campaign, have already become an accepted practice.

Nutrition, environmental sanitation and hygiene will, however, pose problems. Because of accepted dietary restrictions, eggs and other nutritious foods are not given to infants. Foods, in general, are viewed in terms of their influence on the humors and their effect on the palate and the concept of nutrition and a balanced diet is virtually unknown. An effective nutrition program will have to alter these traditional beliefs and practices.

Islam, the religion of 98 percent of the population, stresses ritual cleanliness which requires ablutions at least daily. In the absence of an awareness of germ theory, the ablutions are not aimed at nor do they promote personal hygiene.

Although feces on the person or clothing of a Moslem makes him ritually unclean, open sewers and latrines are not generally viewed as undesirable. The traditional belief that running water that has rippled three times is clean allows the same stream to be used for drinking water, toilet functions, bathing and watering animals. A vigorous health education program along with elementary sanitary engineering projects will have to change these beliefs and practices if the goals of reduced infant mortality and improved quality of health are to be achieved.

The most profound cultural impact that this project will effect

55

PROJECT NO.	306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 53 of 59 PAGES
-------------	----------------	--	----------	-----------------	---------------------

is the extension of health services to women, provided by women paramedicals. Until 15 years ago women in Afghanistan played no role in public life and were considered in their place when they were "barefoot, pregnant and in the kitchen." Much has been done in the cities to change this, but the lot of rural women remains largely unchanged. The provision of health services to women will improve their health and reduce maternal mortality. Equally important, it will promote a subtle but basic change in the attitude of rural women towards the role that women can play, as they see professional female paramedicals working as equals with male colleagues.

Few of these changes in cultural belief and practice will occur quickly. Much of modern medicine will probably be categorized as another kind of magic or humor balancing agent. The more profound changes may take generations but the basic health center system and its personnel will be an exigent cause of these changes.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number) DATE 1-22-75	PAGE 54 of 59 PAGES
-------------------------------	--	-----------------------------	---------------------

D. Ministry of Public Health - Health Sector Administrative Analysis^{1/}

This analysis is illustrative of the conditions existing in the Ministry of Health and Health Sector in many of the developing countries. In addition to those actions already in process to address these problems (detailed herein) by the MSH team (Project 110.3) USAID proposed that additional inputs for BHC in-service training and retraining will be provided as a part of an expanded MSH scope of activities for funding in FY 75 and FY 76.

1. MPH Organization

The Ministry of Public Health has 6032 employees, 4150 with civil service status and 1942 contract employees. The distribution of these personnel at levels below that of the top Ministry leadership between line and staff seems reasonable. This distribution without any indication of the proportion of administrative personnel within the operation program is 4.1 percent administrative, 49 percent curative medicine, 33.2 percent field programs (BHCs, smallpox, TB and Malaria) and 13.7 percent Technical support.

a. Personnel Analysis Conclusion

A review of the existing organization and procedures in MPH personnel management brings several important sources of inefficiency to light.

(1) Because of the way in which new administrative personnel are recruited, the MPH has no assurance that the most highly qualified, reliable, and motivated personnel from the large pool of eligible personnel are entering its ranks.

(2) Although technical personnel are currently in short supply, there is neither any guarantee that the Ministry's needs will ever be met, nor that over-supplies and imbalances will be prevented due to the lack of coordination between the personnel, planning and training functions of the MPH.

(3) Incentives for good performance are lacking. Blame for this falls largely on the civil service system because of its low starting salaries and miniscule incremental steps for good performance and the Afghan economic

^{1/} MSH Work Plan dated March 1974

PROJECT NO.	SUBMISSION (Number)	DATE	PAGE	of	PAGES
300-11-590-144	<input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION	1-22-75	55	of	59

environment which makes it possible for a doctor to vastly increase his personal income at the expense of his official performance. (Ministry regulations provide that physicians may carry on an outside practice.)

(4) Without making any value judgments, sub-optimal utilization of personal resources is but one clear danger of the intervention of personal influences in the transfer process. That this practice should exist is hardly surprising, given the scale and importance of family and social ties, and the lack of either a rational transfer system or an effective means of rewarding performance.

(5) Financial difficulties in cutting back redundant or obsolete personnel makes it almost impossible to upgrade the MPH staff during times of budgetary stricture.

(6) Lack of easily accessible personnel record information compounds the problems of program administration and personnel management.

(7) Shortages of trained personnel managers and supervisors exist at all levels.

The above inefficiencies all deserve attention. However, because the area of personnel management is complicated with cultural values and legal strictures the initial MSH work plan (March 1974) was limited to the following:

(1) The development of a personnel index to which program managers will have access.

(2) Formal training in personnel management for available suitable candidates.

(3) Assistance in recruitment practices in terms of geographical distribution of candidates for training, and placement of personnel in locations where they speak the language, know the culture and are acceptable to the population.

b. Materials Management ^{1/}

The fact that the MPH does indeed function is proof that some minimal materials management system does exist. But there are indications that this

^{1/} MSH Work Plan dated March 1974

PROJECT NO.	SUBMISSION	(Number)	DATE	PAGE	of	PAGES
306-11-590-144	<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1-22-75	56	of	59

area may become a serious bottleneck unless some improvements are made before the MPH steps up the overall level of its program. The MPH has recognized these problems. Performance of the material management functions in the MPH is presently limited by deficiencies in facilities, systems (procedures), organization and personnel.

(1) Central Warehouse

The MPH has recognized that the lack of a modern central warehouse is responsible for some of the problems it encounters in running its programs. A new building was started two years ago and will be completed early in 1973. Current plans are for the contents of most of the existing storehouses to be consolidated into the central warehouse. The establishment of the new warehouse and a new information system to go with it was the first task given to the MSH team.

(2) Information Flows

The dominant characteristics of the present MPH system is that a large amount of information enters it and is processed, but remains largely unused for management purposes.

(3) Organization

The materials management organization is too decentralized for effective functioning in some areas, and too centralized in other respects. Adherence to certain archaic institutions of personal responsibility for property and for decision-making results in inefficiencies which will persist regardless of other changes. The obvious effects of establishing the central warehouse will be a step towards centralization of facilities for the MPH by consolidation of six to eight storehouses, and an improvement in the physical storage and access of its supplies.

(4) Management Decision-making

There is a need for the development of a true management decision-making capability, so that the information which will have been made available in useful form can be used. The MSH team is addressing the training of administrators within the ministry's line departments to interface with the new system.

PROJECT NO.	SUBMISSION (Number)	DATE	PAGE	of	PAGES
306-11-590-144	<input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION	1-22-75	57	of	59

(5) Rural Health Services

A rational system of determining the material needs of BHCs procuring them efficiently, and distributing them in a timely manner is required so that services can be delivered. Working within the Basic Health Services administration, the BHC is currently developing and implementing an inventory control and reporting system operating from the health center level which will allow the restocking of only needed items.

c. Field Organization

The MPH's field organization operates at four levels - Regional, Provincial, Woleswali and Village.

(1) Regional Level - With the exception of the Malaria and Smallpox Programs, there is as yet no substantial personnel function performed through the regional supervisory structure.

(2) Provincial Level - The PHO has only a limited role in the management of the BHC personnel getting involved only in cases of transfer for flagrant misconduct. He has no responsibility for smallpox or malaria personnel, but is responsible for rating the performance of the BHC doctors.

(3) Woleswali Level - The BHC doctor has principal personnel responsibility for the BHC. Although job descriptions exist in the Five-Year Plan for Basic Health Services until recently there were no job descriptions in actual use within the BHCs to serve as personnel review guidelines.

(4) Village Level - There is no Basic Health Service organization at the village level.

2. MPH Generic Drug Initiative

The MPH has recognized that considerable amount of foreign exchange was being spent annually on medicines, particularly on proprietary (brand name) drugs, yet relevant medicines were not always available, especially in rural areas, and were often too costly. The GOA has been moving towards the establishment of a national drug policy, especially with regard to the purchase of low cost (generic) drugs. Basically, the drug policy would encompass (1) revising the Afghan National Formulary to include mostly generic drugs with a much

60

PROJECT NO.	306-11-590-144	SUBMISSION	(Number)	DATE	PAGE	58	of	59	PAGES
		<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1-22-75					

reduced list of drugs approved for import, (2) establishing a central procurement board for procurement of drugs imported into Afghanistan for both the public and private sectors, and (3) educating pharmacies, physicians, wholesalers, and public concerning generic drugs, (including educating physicians in prescription writing using generic drugs). The establishing of this policy has been proceeding according to a series of steps suggested by MSH. (Ref MSH Work Plan dated March 1974.) However, it is a complex issue, and while successful achievement is possible should the government decide to proceed, it cannot happen overnight. The ground work and organization must be carefully built to insure that the final result is improved health for the Afghan people.

E. Technical Analysts

In Section A the known facts of the state of health of the Afghan population were outlined. Despite the evident imprecision and incompleteness of the data, certain major problems are evident. The intestinal infestations, tuberculosis, trachoma, ear infections, upper and lower respiratory disease (acute and chronic) are endemic. There is a high rate of infant and childhood morbidity and mortality. Underlying this high rate of infant and childhood mortality is malnutrition, in conjunction with diarrheal diseases and the acute infectious diseases which attack the malnourished, they receive little or no rational obstetrical care, and they are victimized by uncontrolled conception. The general status of women is such that there is no other acceptable role for them except housekeeping and the bearing and raising of children - preferably males.

All of these problems are at least related to, perpetuated by, marginal living conditions. Housing is poor and crowded with humans and animals often sharing the same living area. Food and water are frequently contaminated. Add to these, faulty human waste disposal, poor personal hygiene and a deficient diet and one has a fairly accurate picture of the quality of health of much of the population. The majority of these conditions will not yield to immunization programs. Some of these conditions result from the families' lack of economic strength to raise their living standard. Others will yield only when there is an enlightened understanding of cause and effect as it relates to health, and a concomitant change in cultural beliefs and practices. In short, much of the depressed state of health is the product of a lack of knowledge, cultural beliefs and practices and the influences of family poverty in the midst of national poverty.

The technology exists at least to eradicate the majority of the health problems. Eradication however is dependent on other changes, economic and

PROJECT NO.	306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 59 of 59 PAGES
-------------	----------------	--	----------	-----------------	---------------------

cultural. The basic components of a program to attack these problems include: rational health education in nutrition and personal hygiene, minimal curative services, and those immunization services that are effective. Paralleling this effort there must be programs that will increase the family's purchasing power to make ways for improved housing, and a higher level of environmental sanitation. Changes in agricultural practices that will insure adequate and varied food supplies are also necessary as are cultural changes that will reduce the impediments to adoption of new weaning practices and contraception. When these basic changes have occurred and the health care delivery system is functional, only then will it be possible slowly to add increasingly sophisticated services.

Director Certification of 25 Percent Requirement

The estimated value of Government of Afghanistan's contribution to the Basic Health Services Project 306-11-590-144 will be as follows:

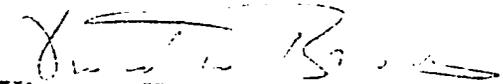
(\$ US Millions)

	FY 1975	%	FY 1976	%	FY 1977	%	FY 1978	%	Total	%
GOA	1.69	41.7	1.99	41.2	2.08	56.5	2.27	^{1/} 96.2	8.03	53.8
A.I.D.	1.38	34.1	1.74	36.0	1.60	43.5	.09	3.8	4.81	32.2
Other ^{2/}	.98	24.2	1.10	22.8	--	--	--	--	2.08	14.0
Total	<u>4.05</u>	<u>100%</u>	<u>4.83</u>	<u>100%</u>	<u>3.68</u>	<u>100%</u>	<u>2.36</u>	<u>100%</u>	<u>14.92</u>	<u>100%</u>

1/ Projected

2/ Projected-UNICEF Rural Water Supply and EHC System Development Projects.

The value of the Government of Afghanistan's contribution equals 53.8 percent of the total project cost during the FY 1975-78 period of active A.I.D. involvement. A written assurance to this effect will be received prior to or as part of the Project Agreement.


Vincent W. Brown, Director
USAID Mission to Afghanistan
January 22, 1975

PROJECT NO. 306-11-500-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE <u>1</u> of <u>7</u> PAGES
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Appendix BENGINEERING MONITORING AND INSPECTION

Appendix to proposed rural projects in development of health centers, schools and infrastructure such as roads, bridges, and irrigation works.

I. INTRODUCTION

The FY 75 and FY 76 Mission project papers involved 119 rural work projects, 91 basic health centers and 170 school sites, all of which will require a coordinated and uniform Mission approach to the engineering design, construction monitoring, and inspection inputs. Planning is ongoing for a small-scale irrigation project the size of which is as yet unknown. Concurrent with this Mission need it has also become apparent as a result of discussions, field inspections and meetings with GOA technical staffs that there is a common need for the establishment of design and construction standards and monitoring organizations which will assure that those construction activities receiving AID financial support will meet appropriate standards.

These projects will be financed under the fixed cost reimbursement procedure which stresses the GOA's responsibility for producing the planned outputs of a project. Of primary importance under this system is agreement as to identification and delineation of projects, and their costs, prior to the start of actual work. This requires that details of design and construction be established beforehand and then strictly followed to assure that projects completed will meet the requirements for reimbursement. The engineering monitoring/inspection role described below is necessary to attainment of long lasting quality work and to assure the financial integrity of AID's investment.

II. ENGINEERING SCOPE OF WORK1. Approval of Project Designs and Specifications

This is the first step necessary to agreement between the GOA and USAID as to a project's or subproject's physical configuration and arrangement, the specific materials to be used, and specifications for the manner in which they are to be assembled. The location and site conditions for each project are unique and require close study and agreement to preclude construction of projects on unsuitable plots or at undesirable locations.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 2 of 7 PAC
-------------------------------	--	----------	-----------------	-----------------

-2-

Appendix B

The establishment of adequate standards for design and construction is required in order that the designer's intent can be understood, and a determination made as to adequacy of the plans. It is not the intent that USAID or any USAID contractor would provide assistance to the GOA in improving their capability to design projects, write specifications, or establish standards, since the UN and other agencies are providing this expertise, but rather to emphasize that these inputs are needed to enable USAID to determine whether plans submitted are adequate.

2. Selection of Cost Estimating Procedures

Detailed forms for the identification of project labor and material components will be prepared and used for identifiable, direct project costs. The forms used in the Rural Works pilot project have been developed from field experience and revised as dictated by project implementation needs. These forms are recommended for use on other projects. The objective here is to develop the simplest system for estimating costs that will meet USAID's need to justify costs and assure reasonableness of price when compared to market prices. This is not expected to create great problems in project implementation.

3. Construction Monitoring and Inspection

This aspect of project implementation will be very time consuming because of the wide dispersal of projects throughout Afghanistan and their rural location where access is most difficult. Normally, sites would be visited at least once prior to the start of construction, during construction, and after completion of construction. Ad hoc visits would also be made as needed to cover troublesome projects. Little difference in monitoring requirements is expected to be encountered between projects being built by force account as distinguished from projects being built by local construction contractors.

This creates an extremely heavy monitoring and inspection workload during FY 76 and 77 which the Mission feels can best be handled by a contract with a construction management firm.

PROJECT NO. 3 06-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 3 of 7 PAGES
--------------------------------	--	----------	-----------------	-------------------

-3-

Appendix B

III. OPTIONS FOR OBTAINING A USAID MONITORING/INSPECTION CAPABILITY

There are several options for securing the engineering capability discussed above in the areas of drawing and specifications review and construction monitoring and inspection:

1. A U.S. firm;
2. A "Selected Free World" Code 941 Source Country firm;
3. An Afghan firm or agency.

The use of a U.S. firm for this work would result in contract costs exceeding 20 percent of the value of all construction and is therefore prohibitively high. The use of an Afghan firm or semi-private agency such as Afghan Construction Unit (ACU) or the Helmand Arghandab Construction Unit (HACU), although desirable, cannot be recommended at this time because of the limited number of trained personnel available and reservations concerning the availability of personnel that could perform objectively in an environment where social and family pressures could be brought to bear on the inspection work.

The USAID's recommended approach is the use of a "Selected Free World" Code 941 Source firm (e.g. Indian, Philippine, Korean, Egyptian) to supply the needed services. This arrangement would be less costly than securing the services of a U.S. firm. The costs developed below are based on this option.

The proposed contract would involve a maximum of seven persons and would cover an initial period of 12 months with provision for extension if required. Manning of the contract team would be geared to the actual progress of the projects with the first members arriving in country early in FY 76.

IV. CONTRACT SUPERVISION

This contract would be supervised by the Capital Development and Engineering Division. The three direct-hire engineers will assure coordination among the Mission's technical divisions overseeing the rural projects and the contractor for monitoring and inspection. The direct-hire staff would also actively spot-check the

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number) DATE 1-22-75	PAGE <u>4</u> of <u>7</u> PAGES
-------------------------------	--	-----------------------------	---------------------------------

-4-

Appendix B

work of the contractor. As experience is gained in these projects it may be possible to reduce the number of site inspection visits and reduce project monitoring costs. This could only be accomplished, however, after the capacity of the GOA agencies has been developed and tested and the credibility of the firmness of USAID monitoring is clearly established.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 5 of 7 PAGE
-------------------------------	--	----------	-----------------	------------------

V. REQUIREMENTS AND COSTSAppendix BA. Work to be Accomplished in Two Years

<u>Project/Work</u>	<u>Number of Visits</u>	<u>Average No. of Days Per Visit</u>	<u>Total Field Days</u>	<u>Corrective follow-up Days (20%)</u>	<u>Total Field Days</u>
RURAL SCHOOLS					
(Sites to be inspected)					
1st - year - 109	3	1.0	327	65	392
2nd year - 61	3	1.0	183	37	220
Total - Rural Schools					<u>612</u>
RURAL WORKS					
Projects					
1st year - 70	3	2.0	420	84	504
Roads					
2nd year - 13	2	2.0	52	10	62
Sub-total 1st year					(566)
Projects					
2nd year - 29	3	2.0	174	35	209
Roads					
2nd year - 7	2	2.0	28	6	34
Sub-total 2nd year					(243)
Total - Rural Works					<u>809</u>
HEALTH CENTERS					
Completed partial construction					
1st year - 54	2	2.0	216	43	259
Completed partial construction					
2nd year - 11	2	2.0	44	9	53
New Construction					
Health Centers - 26	3	2.0	156	31	287
Sub-total - 2nd year					(240)
Total - BHCs					<u>499</u>

68

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1-22-75	PAGE 6 of 7 PAGE:
-------------------------------	--	----------	-----------------	-------------------

B. Total Field Days RequiredAppendix B

1st year = 1217
 2nd year = 703
 1920 field days

C. Man Year Requirements

If there are 226 days available in a working year, and if 75% of the available days are spent in the field (169 field days per man year), then the total man year requirement (1,920 field days divided by 169) equals 11.36 man years.

D. Draft Budget for Monitoring/Inspection Contract with Third Country Firm

	(1) <u>Position</u>	(2) <u>Base Salary</u>	(3) <u>10% Overtime</u>	(4) <u>Housing Allowance</u>	(5) <u>Overhead (50% of 2.)</u>	(6) <u>Sub Total</u>
	Contract Chief	\$20,000	\$2,000	\$2,400	\$10,000	\$34,400
	Civil Engineer	\$10,000	\$2,000	\$2,400	\$ 5,000	\$18,400
	Admin. Asst.	\$ 5,000	\$ 500	---	---	\$ 5,500
		(7) <u>1 yr. cost (1 x 6)</u>	(8) <u>2 yrs. cost (2 x 7)</u>	(9) <u>Per Diem field days x \$14</u>	(10) <u>Round Trip Travel and Transportation</u>	<u>TOTAL (8 + 9 + 10) Two Years</u>
		\$34,400	\$ 68,000	\$ 4,732	\$ 5,000	\$ 78,532
		\$92,000	\$184,000	\$23,660	\$25,000	\$ 232,660
		\$ 5,500	\$ 11,000	--	--	\$ 11,000
						\$ 322,192

E. Transportation

1. 1920 field days X 100 miles per day x 20.3¢ per mile equals \$39,000 \$ 39,000

F. GRAND TOTAL MONITORING AND INSPECTION (D. and E.) \$ 361,192

Appendix B

G. Allocation of Monitoring/Inspection Costs Among USAID Projects
\$361,192 divided by 1,920 field days = \$189 per field day.

Year	Project			Total
	Rural Schools	Rural Works	Health Centers	
1. FY 76 inspection (FY 75 obligation)	(392 f.d.) \$74,088	(566 f.d.) \$108,974	(259 f.d.) \$48,951	(1,217 f.d.) \$230,013
2. FY 77 inspection (FY 76 obligation)	(220 f.d.) \$41,580	(243 f.d.) \$45,927	(240 f.d.) \$45,360	(703 f.d.) \$132,867
Totals	(612 f.d.) \$115,668	(809 f.d.) \$152,901	(499 f.d.) \$94,311	(1920 f.d.) \$362,880

Estimate of Requirement for third year of contract:

3. FY 78 inspection (FY 77 obligation)	(187 f.d.) \$35,343
Total - BHCs only	(686 f.d.) \$129,654

Notes:

- Rural Works projects finished in the last quarter of FY 75 will be inspected directly by USAID/A.
- There are 170 village and primary schools and 40 teachers' hostels but approximately 170 sites only.
- FY 76 is a fifteen month fiscal year: July 1, 1975 through September 30, 1976.
- F.d. = field days.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE <u>Cover</u> of <u>7</u> PAGES
-------------------------------	--	----------	-----------------	-------------------------------------

Appendix C

Fixed Cost Reimbursement Procedure

1. Copy, Memorandum - Brown to All Division Chiefs, December 15, 1974, Fixed Cost Reimbursement Procedure.
2. Copy, Memorandum - McMahon to Sligh, December 10, 1974, Policy Proposal for the Fixed Cost Reimbursement Procedure.

PROJECT NO.	30G-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE <u>1</u> of <u>7</u> PAGES
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MEMORANDUM

Appendix C

TO : All Division Chiefs Date: December 15, 1974

FROM : Vincent V. Brown, Director

SUBJECT: Fixed Cost Reimbursement Procedure

The attached memorandum, dated December 10, 1974, provides guidance in the application of the Fixed Cost Reimbursement Procedure. The guidance should be followed in developing new projects which may be suitably financed through use of this technique. As we gain more experience with the FCR procedure, we will reexamine and perhaps modify the guidance set forth in the paper.

Please ask members of your staff to read the memorandum.

PROJECT NO	306-11-590-144	SUBMISSION	(Number)	DATE	PAGE	of	PAGES
		<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1/22/75	2	of	7

MEMORANDUM

Appendix C

TO : Mr. Frederick Sligh, DD Date: December 10, 1974

FROM : Terrence J. McMahon, CO

SUBJECT: Policy Proposal for the Fixed Cost Reimbursement Procedure

1. The DAC has met twice to discuss the Fixed Cost Reimbursement procedure. We have considered the basic elements of the procedure as described in AIDTO Circular 513 and have reviewed our experience with the Rural Works pilot project. Our concern now is that the procedure be efficiently and prudently applied to future construction projects involving schools, basic health centers, irrigation systems and additional rural works. This paper attempts to summarize the essential points discussed during our meetings.

2. Legitimate Cost Factors

When possible, it is advisable for AID's reimbursement to be determined on the basis of readily identifiable items such as those goods and services which the implementing agency must buy through contracts or other procurement procedures. Ideally, AID will cover additional costs incurred by grantees or borrowers in project implementation. This approach generally will preclude AID financing of regular salaries and overhead costs incurred by these agencies. It is important that the reimbursement amount be determined from cost estimates that are clearly definable as legitimate.

Additional cost financing may not be practical for all projects; when projects are constructed through use of Borrower/Grantee-owned equipment and directly employed engineering staff and labor force, the "additional" material cost may not represent a sufficient increment. The RDD project has also demonstrated the educational value of cost estimating assistance, and we are financing a percentage of virtually all cost components other than administrative overhead.

The clearly identifiable and "additional cost" approaches described above should be followed in applying the fixed cost

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE <u>3</u> of <u>7</u> PAGES
-------------------------------	--	----------	-----------------	---------------------------------

Appendix C

reimbursement procedure to the majority of projects and should be accepted as the general rule. Exceptions can be considered after cost components are identified during the project planning process.

3. The 25 Percent Requirement

Section 110 (a) of the FAA requires that 25% of the costs of AID-financed projects and programs be borne by the recipient government. This provision will not necessarily limit AID financing to 75 percent of reimbursable estimated costs. The "additional cost" approach, which should explicitly identify reimbursable costs, will not include budgeted Borrower/Grantee (B/G) costs which are attributable to the project and which may be estimated to determine compliance with the legislation. AID might then finance a fixed percentage higher than 75% after having concluded that the GOA will still meet the legislative intent through attribution of B/A costs to the project. We should take a conservative position in establishing percentage reimbursements above 75% to be certain that compliance with Section 110 (a) is clearly determined.

4. Cost Estimating

AID's reimbursement amount is ideally fixed before project inception on the basis of detailed and justifiable cost estimates. Deficiencies in the estimating process may result in payments which are substantially less or more than actual project costs. Extreme variations between payments and actual costs will produce critical implementation problems and discredit the fixed cost reimbursement procedure. Provisions are going to have to be made to document the basis for the cost estimates and to justify the estimates as not above market value.

Cost estimating should improve with experience. Consequently, we should attempt to divide projects into logical segments which can be financed sequentially. Cost estimating deficiencies identified during the course of implementing any segment may then be remedied before estimating and "fixing" the amount to be reimbursed for the next segment. This technique may be accomplished through ProAg

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE <u>4</u> of <u>7</u> PAGES
-------------------------------	--	----------	-----------------	---------------------------------

Appendix C

amendments to incrementally increase funding or by subordinate agreements such as those now being used for the RDD Project.

5. Negotiation of Reimbursement Amount

Reimbursement should normally be established in dollars based on the exchange rate at the time of negotiation. This procedure will prevent the problem of insufficient funds, to cover the agreed upon level of activity, arising from deteriorations in the value of the dollar. We have established a procedure for the Rural Works project which results in the Afghani estimate being converted to dollars at the exchange rate in effect on the date the USAID Director signs the individual project agreement. The RDD then assumes the risk of exchange rate gains or losses from date of signing to date of payment.

There are several advantages to establishing the dollar amount at the time we agree to the reimbursable cost. The most obvious problem of converting Afghani reimbursable costs to dollars on the reimbursement date is that the dollar amount of grant funds committed for an individual project segment cannot be accurately determined until payment is made. Practical application of this policy of converting at time of negotiation will require project planning which precludes a long elapse of time between agreement dates and payment dates.

6. Renegotiation Provisions

Unexpected events beyond the control of U.S. or Afghan Governments may occur during project implementation which will justify renegotiation of the reimbursement amount. Such events would include dollar devaluations and natural disasters but would not include ordinary cost overruns or other variations between estimated and actual costs. We should not open the door to a variety of renegotiation petitions, but it may be advisable to include a ProAg provision for renegotiation if an event occurs which materially effects the implementation of the project. In order to make it legitimate for the Mission to renegotiate when external factors make it desirable, it may be desirable to state an "intent" when specifying reimbursement, such as "the intent is to reimburse for a listed bill of materials."

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 5 of 7 PAGES
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Appendix C7. Implementing Agency Cash Flows

We must determine that the GOA will have available the cash necessary for operations before projects are undertaken. Additionally, we must review the adequacy of total project funding to determine if the implementing agency can complete the project before receiving the reimbursement from AID. Advances can be made and subsequently recovered through deductions from reimbursements, but providing advances partially defeats the primary purpose of the fixed cost reimbursement procedure, i.e., that the implementing agency will assume the risks of poor project management. If advances must be made to assure project achievement, no more than 10 to 15% of U.S. funds should be "at risk".

We may wish to require the use of a "blocked" bank account to ensure that funds are available before projects are undertaken. This concept would require that the GOA deposit funds in a local bank account and that the funds be used by the implementing agency solely for project costs. AID reimbursements for completed segments of the overall project could also be deposited in the blocked account if the GOA wishes to avoid total advance funding.

We do not know how the GOA will budget funds for these projects or how reimbursements will be treated. The Ministry of Finance may provide total project financing and require that reimbursements be paid directly to the Ministry, or implementing agencies may be given only the GOA portion of project financing. It would be advisable for us to meet first with the Ministry of Planning to discuss the FCR procedure in detail and to then suggest that Planning meet with Finance. We should attend this latter meeting to provide explanations and offer suggestions, but the Ministry of Planning should initiate these discussions with the Ministry of Finance.

8. Unacceptable Work

Prospective B/C's should be cautioned that reimbursements will not be made for completed projects which fail to meet pre-determined requirements. Unacceptable work and denial of reimbursements will obviously produce severe problems for the

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 6 of 7 PAGE
-------------------------------	--	----------	-----------------	------------------

Appendix C

implementing agency. Unacceptable construction can be minimized or prevented through application of adequate construction standards and properly-timed, adequately-performed engineering inspections.

One problem we must face is that of assuring that the implementing agency does not get an unabsorbably large investment in a substandard project before the issue of substandard work is raised. That is, the realities are that we will get into a difficult political situation if a GOA agency gets a large (by its standards) commitment which we refuse to reimburse because of our assertion of substandard work. At least in the beginning, our rate of inspection must be adequate to prevent the occurrence of situations where the GOA's losses are so great that they would seriously fight nonreimbursement.

9. Construction Standards and Inspections

The social and economic requirements for AID-financed projects can be evaluated before construction is undertaken, and we can assume that these requirements will be met to our satisfaction as a pre-requisite to project approval. Acceptance of the project for reimbursement will therefore be essentially an engineering determination. The USAID engineer will approve design plans and construction specifications, inspection plans, project sites and final construction. No reimbursements will be made until the Controller receives a certification from the USAID Engineer that the project has been completed in accordance with pre-determined standards and specifications.

Project plans must clearly state how and when inspection will take place, the standards to be employed, the procedures for certification and rejection, the channels for communicating deviations, the GOA commitment to the procedures and the GOA's obligation to react.

10. Uniformity of Approach

There will be a wide variety of implementation procedures followed in completion of future FCR projects, and we should expect a similar variety of financing requirements. There will probably be variations in our approach to "additional cost" financing, percentage of reimbursement and perhaps advances. These variations should be determined on the basis of suitability for project implementation

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number) DATE 1/22/75	PAGE <u>7</u> of <u>7</u> PAGES
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Appendix C

and should be explained to implementing agencies before project agreements are finalized. We must avoid giving the impression of multiple standards in applying the PCR procedure.

11. Audit

Borrowers and grantees should be advised that the Fixed Cost Reimbursement Procedure cannot preclude legal requirements for right of audit.

PROJECT NO. 306-11-590-144	SUBMISSION		DATE	PAGE COVER of 9 PAGES
	<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION _____	1/22/75	

Appendix D

REPORT OF
AID/W HEALTH/FAMILY PLANNING TEAM
November 4-10, 1974
Kabul, Afghanistan

November 10, 1974
Kabul, Afghanistan

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE <u>1</u> of <u>9</u> PAGES
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Appendix DPurpose of Visit

The agreed purpose of the Team visit was to conduct an overall review of the Government of Afghanistan's (GOA) health/family planning sector with a view towards assessing, and as appropriate suggesting modifications to the USAID's FY 75/76 proposals for (1) expanding Afghanistan's Basic Health Centers program, (2) expanding the Afghan Family Guidance Association (AFGA) Clinic efforts, and (3) designing low-cost health delivery systems. The Team would also consider other areas/activities/programs which might make a significant contribution towards expanding health/family planning services.

In the conduct of the review, it was agreed that careful consideration would be given to:

- (1) Confirming GOA willingness, intentions and financial/manpower capability to sustain any proposed activities in the future to assure the long-run viability of the proposed health delivery systems;
- (2) Identifying the most feasible strategy for proceeding by (a) exploring ways/means to expand health/family planning coverage to the maximum extent possible and (b) outlining various alternatives/options;
- (3) Determining the relative priority of the various alternatives/options; and
- (4) Defining a course of action for the Mission to proceed with required project documentation, in order to meet GOA and AID/W planning deadlines for FY 75 and 76.

The Team made the following general observations:

PROJECT NO.	306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 2 of 9 PAGES
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-2-

Appendix DGeneral Observations

The clearly stated intention of the Republic of Afghanistan, as expressed by Minister of Public Health Dr. Nazar Mohammed Sekandar, supporting staff within the Ministry, and international donors contacted by the Team, is to seek means to reach a majority of the population with integrated low cost health services in the shortest possible time and designed in such a way as to be economically supportable. This stated intention represents a shift from previous government priorities towards an emphasis on the development of innovative methods of reaching a majority of the people.

It was clearly recognized by all of the officials and individuals contacted by the Team that serious problems remain unresolved: The need to continue to strengthen GOA planning capabilities and its coordinated health services delivery system operating from the center to the periphery; the need for assuring a higher priority for allocation of Government resources to the health sector; and the need to assure that adequate manpower and logistical support are made available to sustain the expanded efforts in health.

A large number of organizations, bilateral and multi-lateral, and several private organizations, are currently involved in or planning to assist the GOA in the health and family planning sector. Among these are (in addition to the United States) the USSR, West Germany, France, India, the People's Republic of China, and the U.N. system including the UNDP, VFP, UNICEF, WHO and UNFPA. From the contacts made by the Team it appeared that efforts to date by these donors have been directed more to the central and intermediate levels rather than to the development of delivery systems which reach the periphery (village level). As the GOA moves further into the extension of low-cost health services, careful consideration must be given by the GOA to effectively coordinating these several external resources.

USAID/Afghanistan's current involvement within the health/

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 3 of 9 PAGES
-------------------------------	--	----------	-----------------	-------------------

-3-

Appendix D

family planning sector is designed to (1) improve the health/family planning management capacities in the Ministry of Public Health (MPH); (2) establish a demographic information base to facilitate planning; (3) train auxiliary nurse midwives for Afghanistan's rural basic health centers; and (4) provide limited participant training opportunities and commodity support for the MPH and AFGA, all of which have helped to provide a sound base for the further extension of services.

The USAID has proposed, for initiation in FY 75 and 76, activities which would help support (1) an expanded Basic Health Center Program and (2) an expanded AFGA effort; and also to help design meaningful low-cost nutrition and health services.

Discussion

One of the greatest problems yet to be faced by developing countries over the coming decade is the identification and implementation of methods of delivery of low-cost, basic health, nutrition and family planning services appropriate to particular country conditions and ultimately at a level sustainable within the constraints of available national resources. Afghanistan is endeavoring to meet this challenge. The Government has identified a several-tiered health care delivery system it believes will be able over time to satisfy the objective of providing basic services to a majority of the people. It is actively engaged in constructing needed infrastructure, providing training to meet the expanding manpower requirements, particularly in the paramedical field, and addressing the problems of improving administrative mechanisms necessary to support an expanded health services delivery system. Although delivery methodologies and supporting service systems are currently being developed to permit the completion of the system's expansion to the woleswali (District) level, the GOA has only begun to systematically examine the complex range of issues and policy alternatives that will need to be addressed to permit the extension of services to the village level.

It is clear that both in the short term and probably for

PROJECT NO. 306-11-590-144	SUBMISSION (Number)	DATE	PAGE 4 of 9	PAGE
	<input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	1/22/75		

-4-

Appendix D

some time to come the Government of Afghanistan will require some degree of continued external assistance from several donors. The Team believes that the modest support which AID has provided over the past several years has been used effectively, and has helped set the stage for the Government's proposed expanded effort. It has been estimated that extension of health services to the Basic Health Center level, by itself, would directly benefit only some 30% of Afghanistan's largely rural population. On the basis of the Team's familiarity with other developing country experience, and despite the severe economic and manpower constraints, the Team believes it is technically and economically feasible to reach a population majority by extension of services to the village level, and that the Government's proposed program is a reasoned and viable first step - perhaps the only logical first step - in that direction. Starting from the mutually agreed objective of providing basic services to a majority of the people, and assuming the necessary incremental increases in the allocation of Government resources to the health sector that will have to occur if meaningful levels of services are provided, no system other than one stressing the linkages between current limited government services and a much larger network incorporating auxiliary health workers, volunteers, and private sector resources is likely to be economically viable in Afghanistan within the next decade. The Team believes that the program which the GOA has outlined for this "first step", with perhaps some minor modifications suggested below, offers significant potential not only towards meeting the Government's expressed desire to provide services to a population majority, but also in creating employment, involving both men and women in the rural areas more directly in the development process, and providing over time a range of benefits which will substantially improve quality of life in the rural areas.

Recommendations

Against the above background, the Team examined in detail the several project activities either ongoing or under discussion with the Government of Afghanistan. The Team's view is that in the aggregate these programs address directly and appropriately the perceived needs of Afghanistan's population planning and health sector, but that

PROJECT NO.	SUBMISSION	(Number)	DATE	PAGE	of	PAGES
306-11-590-144	<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1/22/75	5	of	9

-5-

Appendix D

given the linkages which exist, the effort would be strengthened by the preparation of a more comprehensive strategy statement leading to the integration of the several discrete activities into one unified program. Moreover, the Team recognizes that there are important resource linkages both within Afghanistan's health sector more broadly defined and between sectors (i.e. Agriculture and Education and Malaria programs incorporate systems for reaching large segments of the rural population). The Team understand that some of these linkages will be examined in the Government's forthcoming Country Health Programming exercise which is to be conducted with the assistance of the WHO.

Beyond these general observations, the Team has the following recommendations:

General

That the USAID continue discussions with the Government of Afghanistan with a view towards assisting the Government with the rapid development of mutually acceptable project activities, not waiting for complete definition of the methodologies which remain to be developed before extending basic health services beyond the woleswali level to the periphery;

That the USAID work closely with the Government of Afghanistan to seek ways of accelerating the process of identifying and testing alternate methods of delivering services to village populations;

That the USAID encourage the Government of Afghanistan to actively involve other donor agencies (UNICEF, WHO, UNFPA, etc.) in the development and implementation of project activities which support the GOA effort to expand services rapidly to the woleswali level; and

That the USAID continue to work closely with the Government of Afghanistan in developing cost data for the expanding delivery

PROJECT NO.	306-11-500-144	SUBMISSION	(Number)	DATE	PAGE	of	PAGES
		<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1/22/75	6	of	9

-6-

Appendix D

systems, as appropriate, to help ensure that adequate budgetary provision is made for the additional one-time and recurring costs that will be incurred as the health system is expanded.

Specific

That the USAID continue Basic Health Center project development discussions with the Government of Afghanistan along the lines of the project description contained in the FY 1976 PDS, looking to as rapid an expansion to complete coverage at the woles-wali level as is technologically feasible. The USAID should be assured that Centers are adequately staffed with trained personnel and adequately supplied with the necessary medical equipment and supplies, and provision is made for a reliable expendable commodity supply and delivery system. The Team has some concern over assumption of costs that are basically recurring (i. e. hardship differential payments) as opposed to non-recurring (i. e. a percentage of basic costs of construction and equipping of centers), and this issue may need more careful examination;

That the USAID proceed with its discussions with the GOA and AFGA, generally along the lines of the USAID's draft project paper dated November 5, 1974, looking towards an expansion of clinics to the Provincial level and the improvement of training facilities as rapidly as is technologically feasible within manpower and supply constraints. The USAID should keep in mind AFGA's need for some degree of assurance of sustained support which would permit effective internal planning, and it should consider whether cost and recruitment/placement efficiencies might not be obtained by decentralizing training facilities to the provincial or regional level.

That the USAID and the Government of Afghanistan might consider the desirability of an expansion of the scope of the ongoing management improvement sub-project to incorporate a nutrition demonstration/delivery testing element (described below), and also an accelerated and sustained effort to identify and test alternate methodologies for delivery of basic services to the periphery. Such alternatives should not be limited to use of pharmacies, dokhans

PROJECT NO.	SUBMISSION	(Number)	DATE	PAGE	of	PAGES
306-11-599-144	<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1/22/75	7	of	9

-7-

Appendix D

and village health workers, but also might consider upgrading the skills of existing local people such as itinerant pharmacists and barbers, village dais and traditional or folk healers and in an information-conveying sense, village headmen and other local authority figures. The Team's impression is that this sub-project has been peculiarly effective in responding to the Government's expressed needs, and may well have the potential for expansion to incorporate nutrition, outreach methodology, or other elements yet to be identified as the Government defines more clearly how to extend basic services to the population majority.

That the USAID and the GOA continue with the Demographic/KAP sub-project as planned, completing the remaining basic demographic work. There may well be a short-term requirement for more detailed analysis of the present data which could be considered for separate USAID assistance following completion of the present contract team's activities.

That given the pressing need for assuring adequate provision of trained manpower for Afghanistan's expanding health service systems, the USAID and the GOA continue the Auxiliary Nurse Midwife sub-project as planned. As in the case of AFGA, the USAID and GOA may wish to consider the appropriateness of establishing regional training facilities.

Other Health Areas, Nutrition

The Team gained the impression from the Minister of Health, his senior ministry staff and field staff during its visit to Parwan/Kapisa that the Government already accepts the principle that child nutrition is an essential element of its proposed national health program to combat an extremely high child mortality rate (estimated to be as high as 50% of all children below the age of five years). More specifically, the field visit confirmed that the Ministry of Public Health is already providing, in a limited way, the essential component of the current AID nutrition proposal through the Basic Health Center program, i.e. Vitamin A, weaning food (WFP sources) and advice on use of local Afghan foods, personal hygiene,

PROJECT NO. 300-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 8 of 9 PAGES
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-8-

Appendix D

sanitation, and family planning. Less direct (only curative) services are being provided on iodine supplementation although the problem of goitre is recognized. In principle, the Government is convinced of the importance of nutrition.

The Ministry of Public Health is also aware that its efforts are inadequate and therefore AID assistance in this area would be supportive of existing GOA goals and strategy.

The Ministry of Public Health is now proceeding on the basis that the experiment in Parwan and Kapisa Provinces should demonstrate alternative choices for reaching the population majority with MCH services (including nutrition) through village health agents and others as the AID draft nutrition proposal suggests. If the benefits of nutrition programming are to be replicated nationally through a village health agent system, the Team considers it important that experimentation be carried out within the context of current Ministry of Public Health efforts to achieve the same results.

The appropriate assistance strategy (as opposed to technical strategy of food fortification and weaning food preparation) is to avoid multiple vertical systems of health services delivery which compete for scarce manpower and financial resources. Accordingly, AID should encourage inclusion of weaning food and other nutrition emphasis within the existing MOPE delivery system rather than beginning, at this time, with nutrition experimentation which is distinct from the emerging GOA health system. The Team believes that intervention in the Parwan/Kapisa project area offers ample opportunity for joint participation by USAID nutrition/health/family planning support staff.

On technical grounds, there is justification for better vehicles for introducing key nutritional components. The Team endorses Mission initiatives in seeking ways to fortify tea or locally available Afghan foods with Vitamin A and iodine. The development of prepared weaning foods appears to be an important direction to support and would probably expedite acceptance of the principle of early introduction of food supplementation during the first year of life. The Mission should be aware, however, that the economic constraints affecting provision

81

PROJECT NO.	306-11-590-144	SUBMISSION	(Number)	DATE	PAGE	9	of	9	PAGES
		<input checked="" type="checkbox"/> ORIGINAL	<input type="checkbox"/> REVISION	1/22/75					

-9-

Appendix D

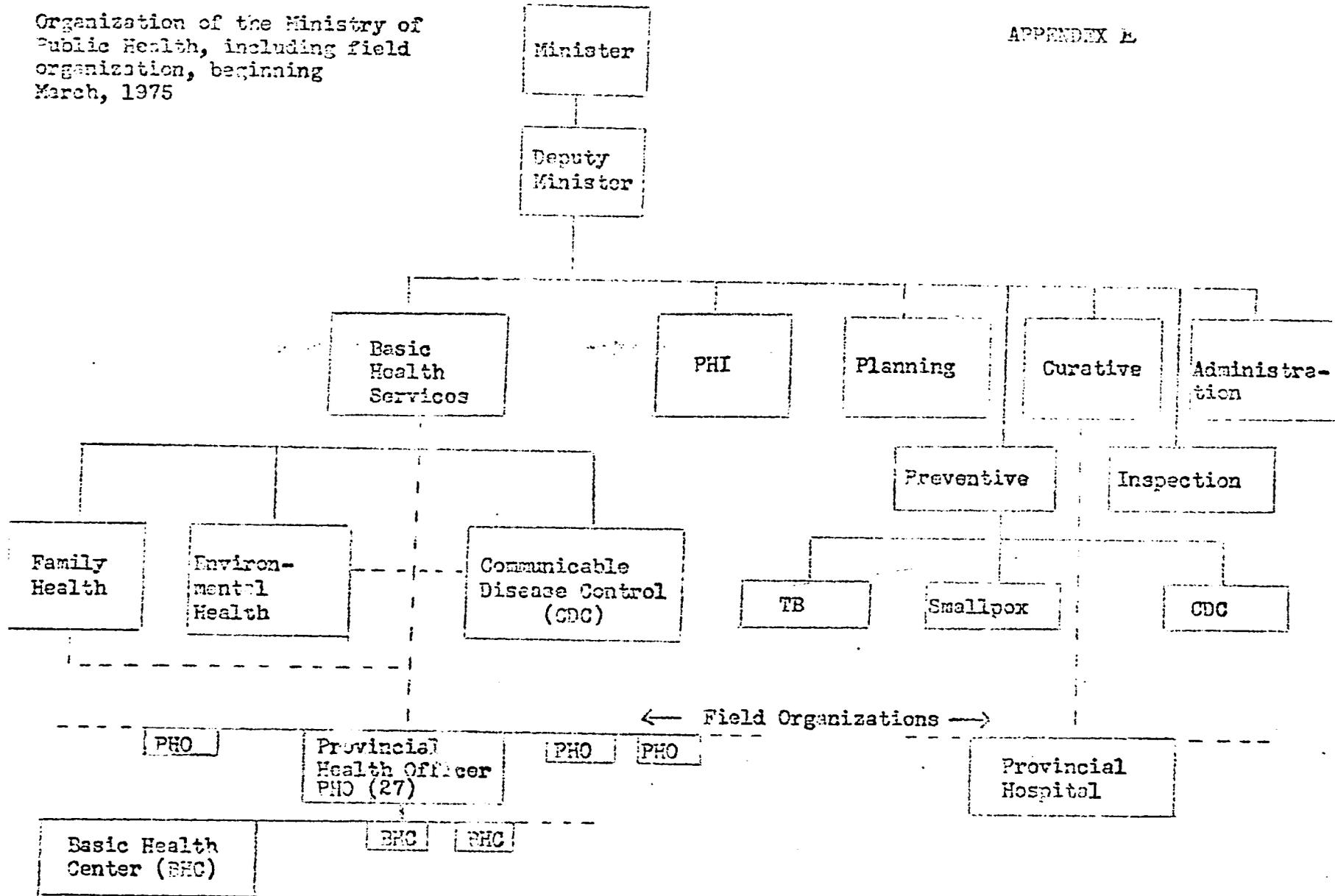
of rural service may leave no other practical options for the rural majority than to prepare local Afghan foods within reach of the household rather than the use of introduced prepared weaning foods. There is ample evidence from nutrition experimentation in Africa and other parts of the world to know that such a village based educational program is feasible and acceptable.

The Team suggests that the Mission consider redrafting Nutritional proposal along these lines with a view to ensuring better coordination and replicability within the context of the current national health program.

88

Organization of the Ministry of Public Health, including field organization, beginning March, 1975

APPENDIX E



PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 1 of 2 PAGES
-------------------------------	--	----------	-----------------	-------------------

Appendix F

PARWAN PROVINCE BASIC HEALTH
SERVICES MODEL PROJECT

Since the establishment of the Basic Health Center System in 1955, it has been fraught with problems ranging from inadequate numbers of personnel to poorly equipped and supplied clinics. Because of these and other factors the system has operated marginally at best.

In September 1974 the Parwan province pilot health center project was initiated by the Ministry of Health with the advisory assistance of the Management Sciences for Health (MSH) team. One purpose of this pilot project is to evaluate the health center system as conceived by the MPE after it has been activated and made fully operational. A second purpose is to study the system at work and to make appropriate changes in the operation, staffing etc. to develop a viable replicable system.

In order to achieve these goals, the MPH and the MSH team developed training materials, information and supply flow mechanisms, a support capability, and a pre-project data base. During September the MPE filled most of the vacant positions within the six clinics of Parwan province and began in-service training of the clinic personnel. Mobile teams, composed of MPH and MSH personnel, implemented the training program, and have monitored the pilot operation.

The evaluation of this effort to bring 3.4% of the health centers in the system up to the MPH's own standards is continuing. By late spring 1975 more will be known, but it will be fall 1975, following one full year of operation, before fairly certain judgements can be made. Preliminary reports indicate the following:

1. The attendance of women and children at the six clinics has more than doubled within the last four months, averaging 600-700 women with children per clinic, per month. Project personnel attribute this to the fact that the clinics are operating with adequate female paramedical personnel and supplies. The MSH team has also identified the use of patient screening, which greatly reduces waiting time, as a factor in increased clinic attendance.

PROJECT NO. 306-11-590-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE 2 of 2 PAGES
-------------------------------	--	----------	-----------------	-------------------

-2-

2. The MPH has determined that there needs to be an extension of services beyond the BHC. However, the type of services and method of delivery still remain to be determined. It must be economically feasible, supportable by the BHC, deliver a useful service and be acceptable to the potential user. This pilot project will be used to determine the most viable model or models.
3. A system of job descriptions, task assignments, work protocols and work plans has been developed. These have been taken to the field and installed by a training team in each health center. The initial appraisal of this effort indicates acceptance and use and improved clinic function.
4. The initial cost accounting of a health center has been nearly completed, and indications are that the cost will approximate Afs. 1,000,000 (\$16,500) yearly. Nearly 50% of this cost is attributable to the WFP commodities.
5. The new management systems for supplies, and information flow have been installed. Their relationships to regional management use have been specified. Thus far the system appears to be functioning well.

PROJECT NO. 306-11-500-144	SUBMISSION <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISION _____	(Number)	DATE 1/22/75	PAGE <u>1</u> of <u>1</u> PAGE:
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Appendix G

Environmental Impact Statement

The Basic Health System project is intended to have direct, positive effects on the environment. The long term project goal assumes an increasing utilization of basic medical services and application of nutrition and hygiene information provided through the vastly expanded health system.

For the goal to be achieved will require improvement of the immediate environment of the people, including an increase of pure water supplies, improvements in waste disposal, control of infectious diseases and improvements in dietary habits.

117 buildings will be completed in order to provide the skeletal network from which health services will reach the population. The construction of the buildings, their care and maintenance, place no demands on scarce resources. The buildings will be designed by engineers; the construction will be monitored to insure adherence to specifications. These buildings will provide for villagers models of sound construction, serving thereby as examples to be followed.