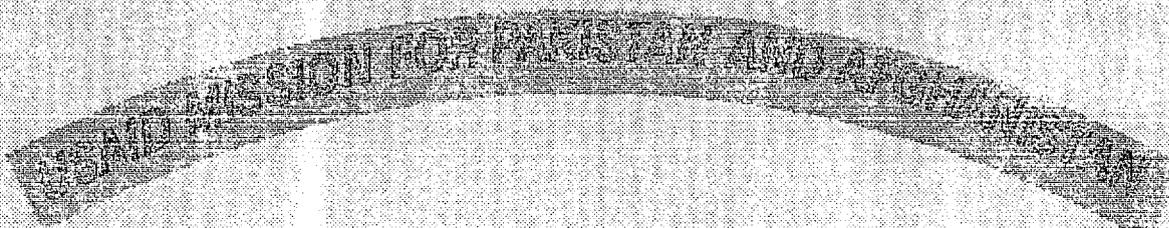


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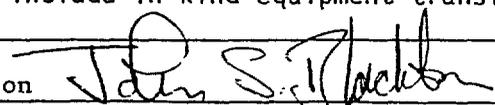


**AFGHANISTAN PROGRAM**

**PROJECT IDENTIFICATION DOCUMENT**

FOR

**MATERNAL AND CHILD HEALTH  
SERVICES PROJECT # 306-0214**

<b>AGENCY FOR INTERNATIONAL DEVELOPMENT PROJECT IDENTIFICATION DOCUMENT FACESHEET (PID)</b>				<b>1. TRANSACTION CODE</b> <input type="checkbox"/> A = Add <input type="checkbox"/> C = Change <input type="checkbox"/> D = Delete		<b>DOCUMENT CODE</b> Revision No. _____ 1			
<b>2. COUNTRY/ENTITY</b> Afghanistan				<b>3. PROJECT NUMBER</b> 306-0214					
<b>4. BUREAU/OFFICE</b> Bureau for Asia      A. Symbol ASIA      B. Code <input type="checkbox"/>				<b>5. PROJECT TITLE (maximum 40 characters)</b> Maternal and Child Health Services					
<b>6. ESTIMATED FY OF AUTHORIZATION/OBLIGATION/COMPLETION</b> A. Initial FY <input type="text" value="9"/> <input type="text" value="4"/> B. Final FY <input type="text" value="9"/> <input type="text" value="9"/> C. PACD <input type="text" value="9"/> <input type="text" value="9"/>				<b>7. ESTIMATED COSTS (\$000 OR EQUIVALENT, \$1 = )</b>					
				<b>FUNDING SOURCE</b>		<b>LIFE OF PROJECT</b>			
				A. AID		24,200*			
				B. Other U.S.		1. _____ 2. _____			
				C. Host Country		_____			
				D. Other Donor(s)		_____			
				<b>TOTAL</b>		<b>24,200</b>			
<b>8. PROPOSED BUDGET AID FUNDS (\$000)</b>									
<b>A. APPROPRIATION</b>		<b>B. PRIMARY PURPOSE CODE</b>		<b>C. PRIMARY TECH CODE</b>		<b>D. 1ST FY 94</b>		<b>E. LIFE OF PROJECT</b>	
				1. Grant      2. Loan		1. Grant      2. Loan		1. Grant      2. Loan	
(1) ESF						2,900		12,100	
(2) DA						900		12,100	
(3)									
(4)									
<b>TOTALS</b>				<b>3,800</b>		<b>24,200</b>			
<b>9. SECONDARY TECHNICAL CODES (maximum 6 codes of 3 positions each)</b>								<b>10. SECONDARY PURPOSE CODE</b>	
<b>11. SPECIAL CONCERNS CODES (maximum 7 codes of 4 positions each)</b>									
A. Code									
B. Amount									
<b>12. PROJECT PURPOSE (maximum 480 characters)</b>									
To improve quality and expand availability of MCH and EPI services in the targeted areas.									
<b>13. RESOURCES REQUIRED FOR PROJECT DEVELOPMENT</b>									
<b>Staff:</b> The project paper will be prepared in-house with outside consultant assistance in selected areas.									
<b>Funds:</b> Approximately \$100,000 will be required in Technical Services and Support Project (306-0200) funds to finance these consultant services.									
<b>*The \$24.2 million amount does not include in-kind equipment transfers from other Mission projects, valued at \$3 million.</b>									
<b>14. ORIGINATING OFFICE CLEARANCE</b>		Signature: John S. Blackton 				<b>15. DATE DOCUMENT RECEIVED IN AID/W, OR FOR AID/W DOCUMENTS, DATE OF DISTRIBUTION</b>			
		Title: Mission Director USAID Pakistan & Afghanistan				Date Signed: MM DD YY 09 10 19 93			
						MM DD YY 			
<b>16. PROJECT DOCUMENT ACTION TAKEN</b> <input type="checkbox"/> S = Suspended      CA = Conditionally Approved <input type="checkbox"/> A = Approved      DD = Decision Deferred <input type="checkbox"/> D = Disapproved				<b>17. COMMENTS</b>					
<b>18. ACTION APPROVED BY</b>		Signature		<b>19. ACTION REFERENCE</b>		<b>20. ACTION DATE</b>			
		Title				MM DD YY 			

# PROJECT IDENTIFICATION DOCUMENT (PID)

## Maternal and Child Health Services Project

### *SUMMARY*

The Mission requests authority to proceed with further development and authorization in the field of a five-year \$27.2 million project which focuses on maternal and child health care services and an expanded program of immunization in targeted areas of Afghanistan.

A healthy population is a fundamental building block for national development. Cost-effective investments in preventive health care reduce production losses by workers; increase school enrollments and improve learning ability; free economic resources lost to disease and expensive tertiary care for other productive uses; and free natural resources cut off from use because of the presence of endemic diseases.

Afghanistan, due to pervasive poverty and the results of 13 years of war, has one of the world's worst health situations. Estimates for 1990 place life expectancy at birth at 42.5 years. The average life expectancy throughout the Middle East was 61; in established market economies, 76. Infant mortality in Afghanistan is estimated at 169 per 1000 live births; 300 are dead by the age of 5. By contrast, infant mortality in the United States is estimated at 9 per 1000. For all the Middle East, the child mortality rate is placed at 111 per 1000. The implications of these basic health statistics for the Afghan household and the overall development of the country are grim.

These problems have become increasingly important targets of the current Afghanistan program under its Health Sector Support Project (HSSP), which began in 1986. While the project focused initially on curative care and the provision of medical supplies and pharmaceuticals needed primarily for war-affected Afghans, it has evolved in recent years to include significant work on immunization and maternal/child health services. This extensive body of experience, inside Afghanistan, was drawn upon in creating the new development strategy for Afghanistan approved by the Asia Bureau in April 1993. The development of the proposed new project is an outgrowth of that

experience and fully reflects the purposes of the newly approved country strategy.

The project is fully consistent with the Agency's approach to health assistance as outlined in its December 1986 policy paper on health. The thrust of that policy has recently been reinforced by the findings of the IBRD's 1993 World Development Report entitled Investing in Health, which also fully supports the interventions chosen for this project as among the most cost-effective per dollar spent. That report cited five groups of critical interventions that are most successful in cost-effectively adding years of productive life. The proposed project's scope is limited by the resources at our disposal; but tellingly, it will address three out of these five groups: services to ensure pregnancy-related care; family planning services; and prevention of and care for the common serious illnesses of young children.

The Maternal and Child Health Services Project will accomplish these ends by supporting maternal child health (MCH) activities and an expanded program for immunization (EPI) that will be implemented by local, indigenous, Afghan entities. Under the HSSP, responsibility for MCH and most EPI activities currently lies squarely within the purview of Afghan Regional Health Administrations (RHAs), and will continue to do so under the proposed project. These existing bodies constitute the health care systems in their respective regions, report to the local authorities, and are not a part of the central government structure. (Through another non-central government-affiliated organization, support will also continue for a limited number of residual EPI teams currently receiving HSSP assistance, that operate outside the RHA areas; and training will be implemented primarily by the non-governmental Institute of Public Health -- IPH). The three implementing RHAs, situated in a belt stretching across northern and central Afghanistan, have been selected on the basis of our experience under HSSP. The on-going project has provided ample evidence that these RHAs constitute functional

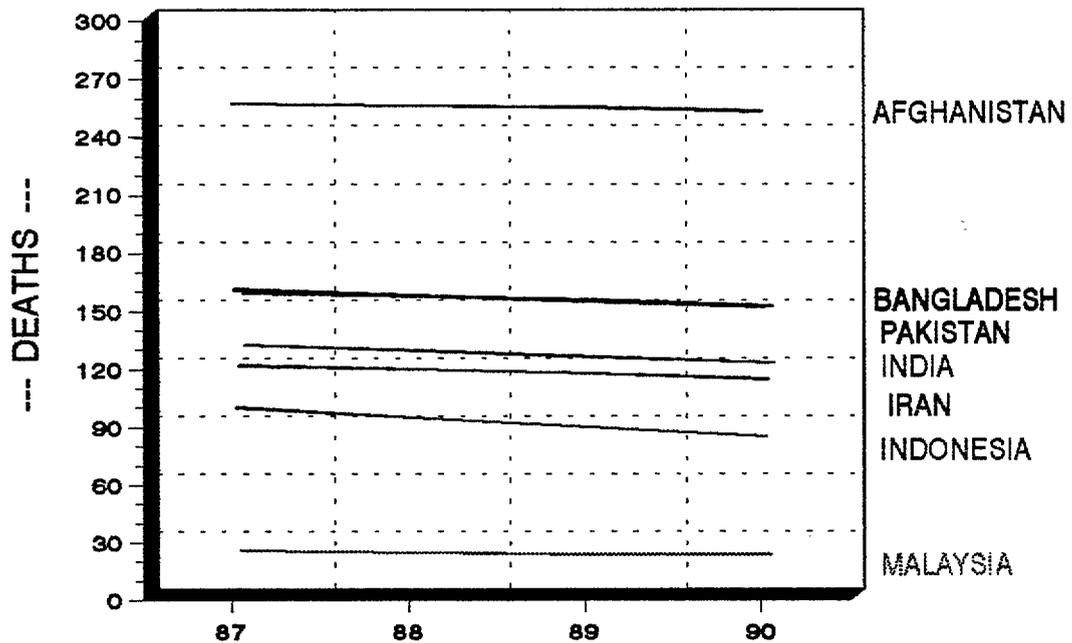
systems. Furthermore, in two of the three regions, ethno-cultural proclivities demonstrably support client receptivity to MCH services. Hence, these two regions, Northern and Central, will constitute the MCH target areas; EPI services will be provided in all three. The localized framework offers an unprecedented, ready-made opportunity to work with thoroughly decentralized models attuned and responsive to variegated, locality-specific needs.

The cross-border nature of the program dictates an enhanced role for the major technical assistance

contractor or grantee. The U.S. contractor or a major U.S. health-oriented PVO will be responsible not only for providing T.A., but also for providing training, undertaking most commodity procurements, covering MCH and EPI operating costs, and ensuring that USAID assistance reaches and is effectively used by the indigenous implementing organizations. The RHAs and other implementing entities, e.g., IPH, will be linked as subcontractors or subgrantees to the U.S. prime contractor or PVO.

The cross-border factor continues to be a con-

## **UNDER 5 MORTALITY RATE (PER THOUSAND LIVE BIRTHS)**



AFG	■	257	256	255	253
BD	■	160	157	154	151
INDO	■	98	93	88	83
IRAN	■	119	117	115	112
MALAYSIA	■	22	21	20	20
PAK	■	155	153	151	148
INDIA	■	127	124	121	118

Source: World Bank Social Indicators of Development, 1992

straint, but significantly less so than in the past. At present, the Ambassador has the authority to permit Americans to travel to Afghanistan, authority previously reserved by Washington. This augurs well for more direct monitoring.

The project will focus first on maintaining extant MCH and EPI coverage while contributing value added by significantly improving quality. Hence, a heavy emphasis on training is planned. The lack of qualified, trained female health personnel is one of the major factors contributing to the scarcity and inadequacy of health services for women. The project will initially finance a technical assessment of the level and quality of services provided, and will upgrade EPI, MCH and RHA staff through training and refresher courses.

Technical monitoring will constitute a critical element to ensure quality of services and personnel. The major T.A. contractor or grantee will implement a technical monitoring system and capacities for technical monitoring of MCH and EPI services will also be established within the Afghan implementing entities.

Areal expansion of coverage will be synchronous with availability of trained personnel. The number of MCH facilities established in the target areas under the HSSP will gradually be expanded from the extant 32 to 79. (No construction is contemplated; facilities are expected to be provided by the communities.) These facilities will provide pregnancy care; gynecological services; family planning; oral rehydration therapy; health and nutrition information; and treatment of diarrhea, acute respiratory infections, malaria, and other selected diseases. These services will be rendered by female health professionals, which include Maternal Child Health Officers (mid-level health professionals) and physicians. Dais (traditional birth attendants), and Volunteer Health Sisters (VHSs) will provide services in the home and at the village level.

EPI services will continue to be implemented in the rural areas by nearly 300 vaccinators plus 76 support staff using fixed point, outreach and

mobile immunization strategies. Vaccines for the EPI program will continue to be donated by UNICEF. The RHAs will operate nine vaccine storage facilities inside Afghanistan to accommodate a ready supply of vaccines in good condition. EPI services may be expanded to urban areas. In considering any such expansion, project management will be cognizant of legal restrictions prohibiting assistance to the Government of Afghanistan. Hence, district centers, provincial towns and secondary cities are more likely candidates than Kabul, until conditions change.

The project plans to immunize over one million children under two years of age in the targeted areas, and to provide MCH services to over 800,000 infants and children under 5 years of age and to over 400,000 women of childbearing age.

The project will finance T.A., training, contraceptives, syringes, MCH program expendables, selected cold chain equipment for an expansion of EPI, some operating costs, monitoring and evaluation. Most durable equipment needs will be met by in-kind transfers of excess equipment from earlier AID-funded projects being closed-out in Afghanistan.

Project designers will be mindful of the need to keep recurrent costs at a replicable minimum to ensure sustainability with modest donor support after the PACD. The project will fund only minimal MCH expendables and, in a departure from HSSP, will not provide pharmaceuticals, which are available on the market and costs of which are expected to be borne by the clients.<sup>1</sup> However, world-wide experience dictates insertion of a cautionary note that full financial sustainability without outside assistance is probably unattainable at Afghanistan's level of poverty.<sup>2</sup>

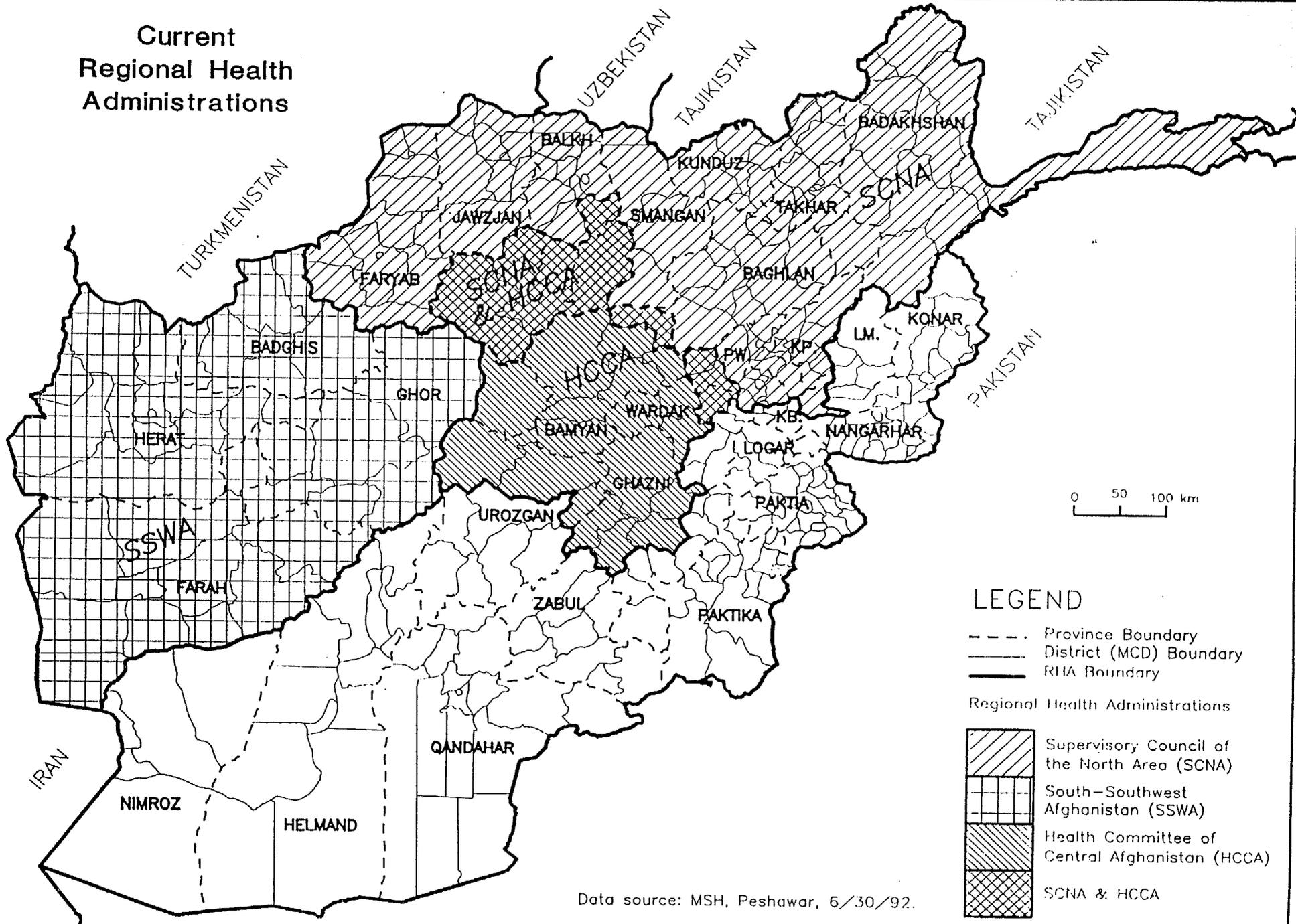
The project will seek to restrict activity to the most cost-effective delivery of services, focus on only the most critical maternal and child health issues, and reduce recurrent costs to a minimum. The PP will focus on developing models for approaches to cost recovery.

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<sup>1</sup> The Mission carefully vetted this approach to pharmaceuticals with RD/Health; it is in accordance with current AID practice worldwide.

<sup>2</sup> Martin, Richard, Evaluation of AID's Child Survival Program in Malawi, CDIE, 1992.

# Current Regional Health Administrations



### LEGEND

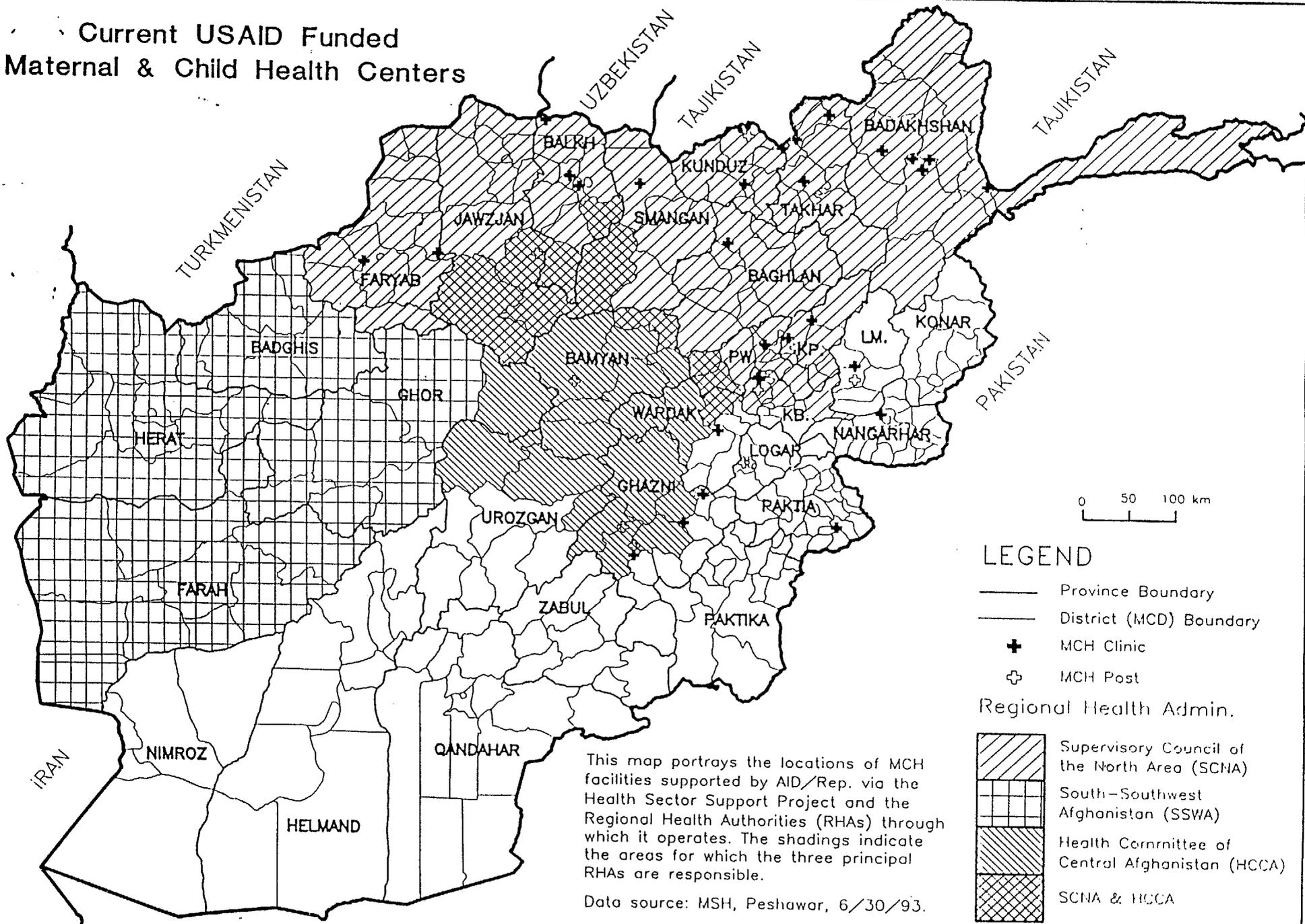
- - - - Province Boundary
- District (MCD) Boundary
- RHA Boundary

Regional Health Administrations

-  Supervisory Council of the North Area (SCNA)
-  South-Southwest Afghanistan (SSWA)
-  Health Committee of Central Afghanistan (HCCA)
-  SCNA & HCCA

Map by: DC&A Unit, S.A.SHAHIDI, 8/16/93

# Current USAID Funded Maternal & Child Health Centers



## LEGEND

- Province Boundary
- District (MCD) Boundary
- + MCH Clinic
- ⊕ MCH Post

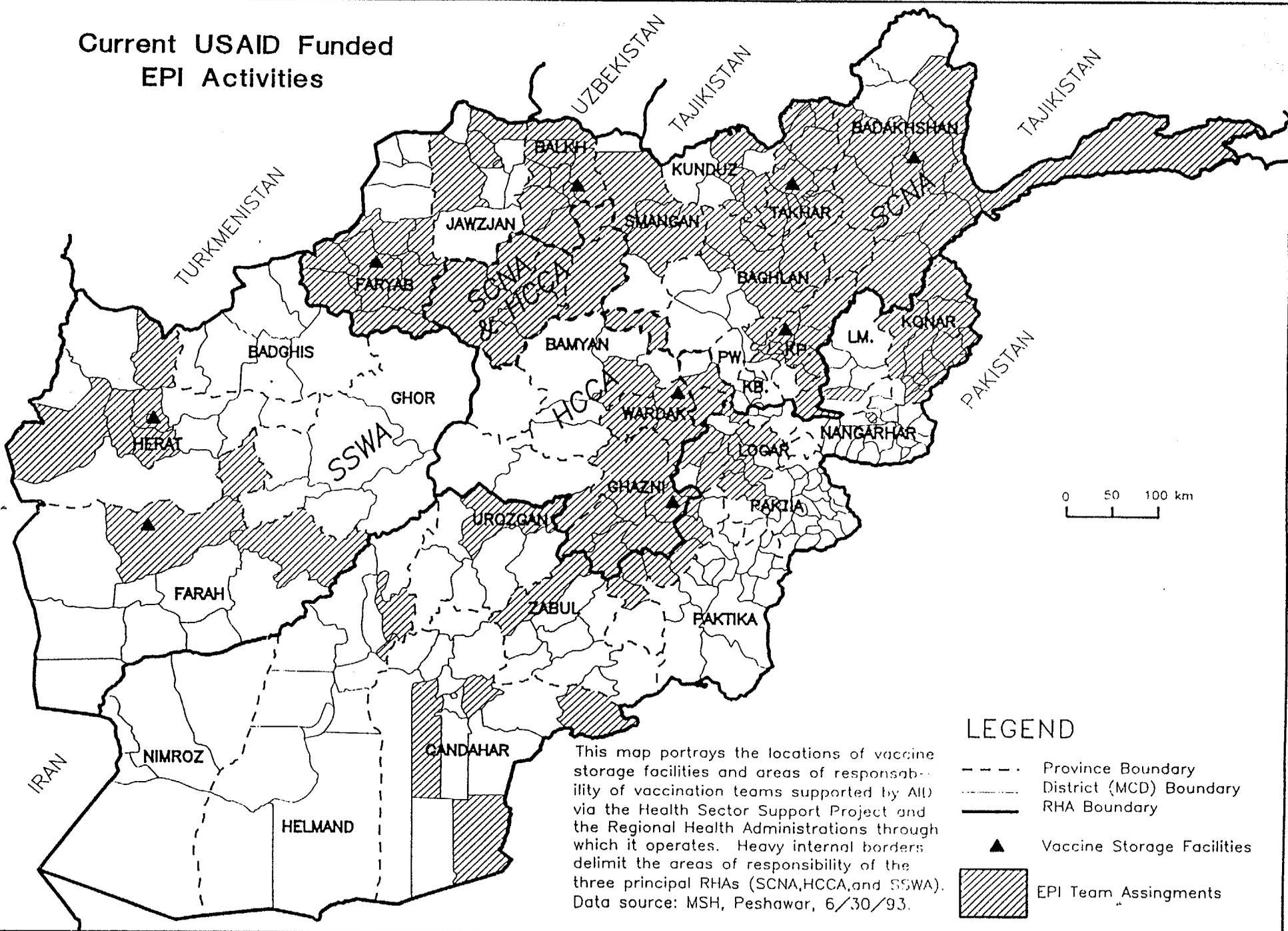
### Regional Health Admin.

- Supervisory Council of the North Area (SCNA)
- South-Southwest Afghanistan (SSWA)
- Health Committee of Central Afghanistan (HCCA)
- SCNA & HCCA

This map portrays the locations of MCH facilities supported by AID/Rep. via the Health Sector Support Project and the Regional Health Authorities (RHAs) through which it operates. The shadings indicate the areas for which the three principal RHAs are responsible.

Data source: MSH, Peshawar, 6/30/93.

# Current USAID Funded EPI Activities



## LEGEND

- Province Boundary
- ..... District (MCD) Boundary
- RHA Boundary
- ▲ Vaccine Storage Facilities
- ▨ EPI Team Assignments

This map portrays the locations of vaccine storage facilities and areas of responsibility of vaccination teams supported by AII) via the Health Sector Support Project and the Regional Health Administrations through which it operates. Heavy internal borders delimit the areas of responsibility of the three principal RHAs (SCNA, HCCA, and SSWA). Data source: MSH, Peshawar, 6/30/93.

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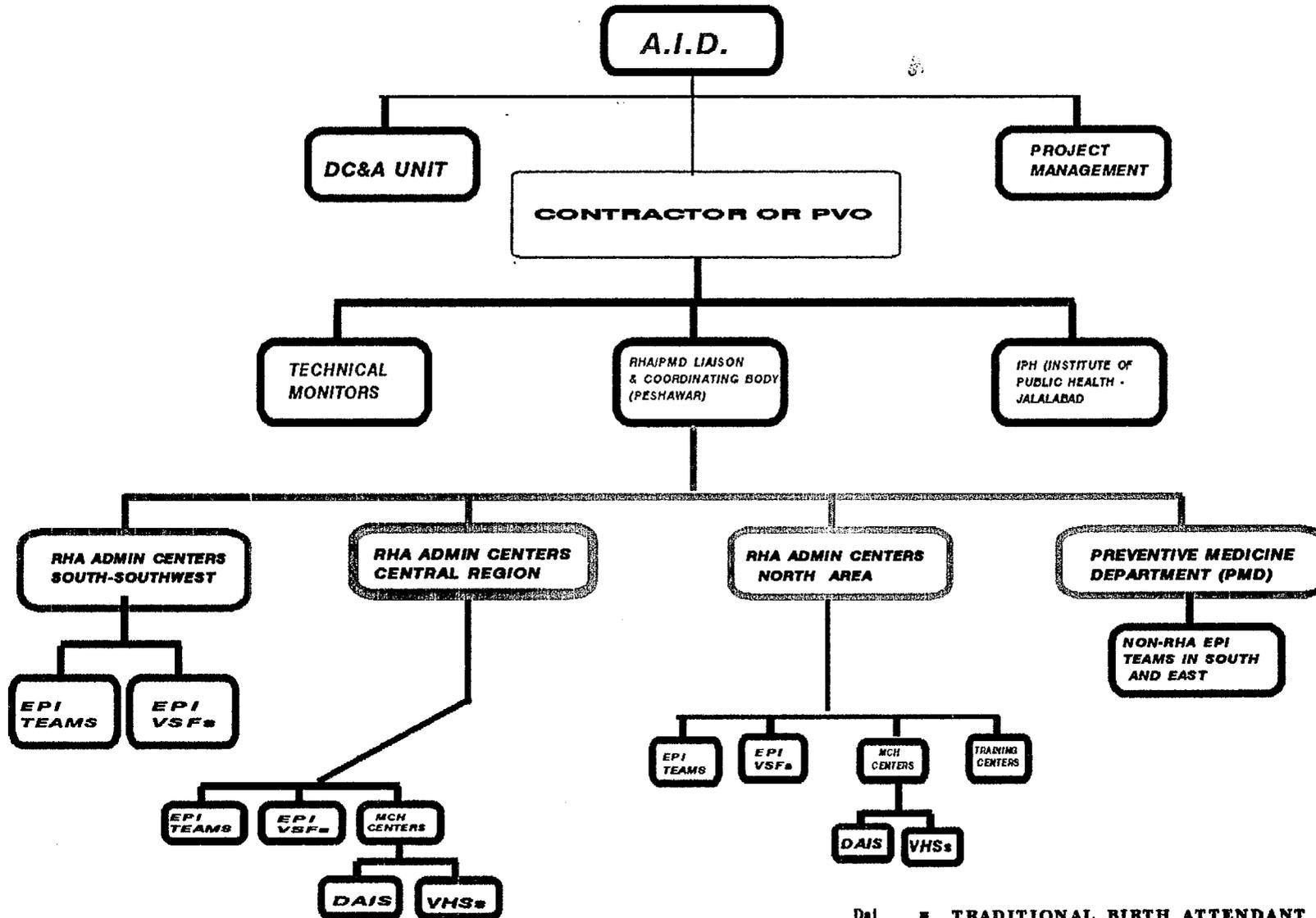
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## LIST OF ACRONYM

AIG	Afghan Interim Government
APO	Assistant Project Officer
AVICEN	Afghan Vaccination and Immunization Center
DALY	Disability-adjusted life year
DC&A	Data Collection and Analysis
EPI	Expanded Program for Immunization
FHW	Female Health Worker
GISA	Government of the Islamic State of Afghanistan
HSSP	Health Sector Support Project
IEE	Initial Environmental Examination
IMC	International Medical Corps
IPH	Institute of Public Health
IRC	International Rescue Committee
LOP	Life of Project
MCH	Maternal Child Health
MCHO	Maternal Child Health Officer
MCI	Mercy Corps International
MOPH	Ministry of Public Health
MSH	Management Sciences for Health
ORT	Oral Rehydration Therapy
PID	Project Identification Document
PMD	Preventive Medicine Department
PP	Project Paper
PSC	Personal Services Contract
PSP	PVO Support Project
RHA	Regional Health Administration
TT	Tetanus Toxoid
USAID	United States Agency for International Development
VHS	Volunteer Health Sisters
VSF	Vaccine Storage Facility
WHO	World Health Organization

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# FUNCTIONAL RELATIONSHIPS



- Da1 = TRADITIONAL BIRTH ATTENDANT
- DC&A = DATA COLLECTION & ANALYSIS UNIT
- EPI = EXPANDED PROGRAM FOR IMMUNIZATION
- MCH = MATERNAL CHILD HEALTH
- PMD = PREVENTIVE MEDICINE DEPARTMENT
- RHA = REGIONAL HEALTH ADMINISTRATION
- VHS = VOLUNTEER HEALTH SISTER
- VSF = VACCINE STORAGE FACILITY

## I. BACKGROUND

### **A. The Setting**

During the long period of war in Afghanistan, more than one million lives have been lost -- three times as many men than women, leaving an estimated 700,000 widows and orphans. More than half the population is now comprised of women. The 13 year war and its aftermath negated the few positive social achievements, such as increases in employment and education, which women had attained prior to 1978.

The impact on the already low pre-war status of health care was devastating. In 1990, life expectancy at birth was only 42.5 years. Even though the number of rural health facilities increased, the overall levels of health service resources, available trained technicians and health status of the people declined. WHO estimates that the present health system is able to provide health care to only one third of the population, with males being the primary beneficiaries.

Many of the project's services will be concentrated in rural areas in the northern and central regions of Afghanistan. These are areas of rugged mountains and plains, inhabited by a mixture of ethnic groups -- Tajiks, Hazaras, Pashtuns, Uzbeks and Turkomans.

### **B. AID Experience in Maternal Child Health (MCH) and Expanded Program for Immunization (EPI) Services in Afghanistan.**

The existing Health Sector Support Project (HSSP) (\$65 million L.O.P. funding) has been supporting health service activities in Afghanistan since 1986, and will terminate in 1994. It has included EPI services (since 1988) and MCH Programs (since 1991). Assistance was channeled through a U.S. PVO, Management Sciences for Health (MSH).

MSH conducts EPI activities in 25 of the 29 provinces of Afghanistan and MCH programs in 18 provinces, mainly concentrated in the Northern and Central Regions of the country. In the last several years, modest success has been achieved in redirecting services to infants, children and women. Approximately 36% of services are now provided to females (over 5 years of age); still, only roughly 18% of services go to infants and

children under 5. Maternal and child health care services have been established in areas where there is greatest receptivity, and immunization program activities have been implemented in rural areas formerly under Mujahideen control.

Significant accomplishments to date in the MCH Program include 39 active MCH centers, staffed mainly by female health providers. Of these, 32 are located in two regions of Afghanistan - the North (26) and Central (6), indicating a willingness in these two regions to implement services provided by women for women and children. Females and children are provided important preventive and curative services at these MCH facilities, which include pre- and post-natal services, family planning, oral rehydration therapy, health education, nutrition education and treatments for malaria, acute respiratory infections, diarrhea and other diseases. Training of dais (traditional birth attendants) is another important service provided by MCH facility staff.

In coordination with the Afghan Institute of Public Health (IPH), a body independent of the central government, training programs which concentrate on the delivery of health services to women and children were developed. Courses held for three levels of female health workers and numbers trained to date are as follows: Maternal Child Health Officer (mid-level training) - 10; village level training of dais (traditional birth attendants) - 290; and household-level training of volunteer village women - 83.

The EPI program has had similar success. AID currently supports over 295 vaccinators providing the six major immunizations, targeting diphtheria, pertussis, neonatal tetanus, measles, tuberculosis and polio. These vaccinators operate in 187 districts (well over half) in 25 Afghan provinces. To date, nearly 895,000 childhood inoculations and some 350,000 tetanus toxoid inoculations for women have been given. During FY 93, MSH's target of 212,630 children represents 19% of all children under 2 years of age in Afghanistan (the UNICEF and WHO recommended age group). MSH has targeted 198,500 women (5-45 years) to be immunized with tetanus toxoid (TT).

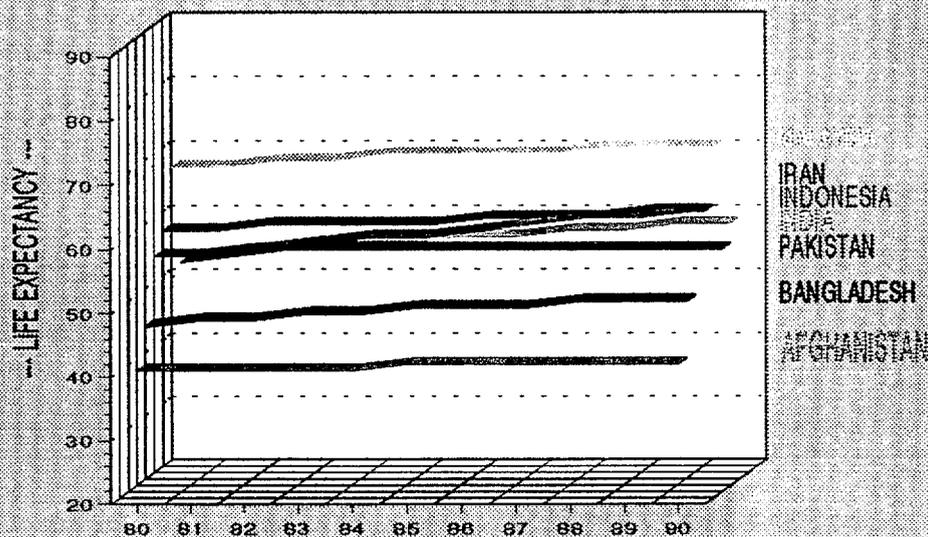
AID, through its PVO Support Project (PSP) also supported other MCH and EPI initiatives. Mercy Corps International (MCI), working in eight Southwest provinces, established three centers, one of which has been canceled. A major factor limiting

this program was the lack of trained professional female health providers in conservative southern Afghanistan. The International Rescue Committee (IRC) also supported two MCH projects: the Afghan Obstetrics and Gynecological Hospital, originally established in Pakistan and then moved inside Afghanistan in February 1993; and an MCH project implemented by Mujahid Emergency Medical Center. International Medical Corps (IMC), another USAID-funded PVO, supported up to 19 EPI teams, consisting of 45 vaccinators, in 10 northern provinces of Afghanistan over the last several years. Due to AID budget reductions and the planned phaseout of IMC's medical program, the EPI component was closed, with the majority of the remaining teams

being transferred to another EPI-implementing agency in December 1992.

This body of experience indicates the feasibility of operating, and the strong demand for, EPI and MCH services, even given the extremely difficult conditions which obtain in today's Afghanistan. Acceptance, particularly of MCH services, has been strongest in the northern and central areas of the country, reflecting both more settled conditions and a greater receptivity on the part of the local populations and administrations in these areas. This factor has played a key role in determining the geographic focus of the proposed project.

## FEMALE LIFE EXPECTANCY (IN YEARS)



SOURCE: World Bank Social Indicators of Development, 1992

### **C. The Afghan Counterpart Entities: MOPH/AIG, IPH, RHAs.**

With the lack of traditional host country counterparts, AID, through the HSSP, fostered the development of the capabilities of appropriate health representatives of the Afghan Resistance in Pakistan during the 1986 - 1992 period. Initially AID worked with the Alliance Health Committee, which, after the 1989 Soviet withdrawal, subsequently became the Ministry of Public Health (MOPH) of the Afghan Interim Government (AIG) - the Mujahideen's "government-in-exile."

The MOPH/AIG operated cross-border - directing and implementing their Afghanistan activities from Pakistan. One of the MOPH/AIG's objectives was to provide a network for supervision, administration and delivery of health services, including MCH and EPI, in their rural areas of influence. Unfortunately, the MOPH/AIG did not have the capability to establish the strong in-country presence necessary to effectively administer, supervise or supply a geographically widespread network of rural facilities. Therefore, a system was established under the HSSP to transfer supervisory and technical responsibility for the MOPH/AIG's health services to a series of Regional Health Administrations.

The Regional Health Administrations (RHAs) are indigenous structures in the former resistance-controlled rural areas of Afghanistan, which effectively plan, implement, monitor and supply health services in their regions. The proposed project will support MCH work under two such RHAs: the Supervisory Council of the North Area and the Health Committee of Central Afghanistan. The project will also support a third RHA, South-Southwest Afghanistan, which administers rural EPI activities. These three RHAs encompass 18 out of 29 provinces of the country, and will be key players in the project.

The MOPH/AIG's primary strength over the years was its Institute of Public Health (IPH) which initiated training programs, along with the production of training materials, for various levels of health personnel. The proposed project will maintain and support the MCH and EPI sections of the IPH for training of MCH female health personnel and some EPI staff, in order to utilize the considerable planning and training expertise

which has been established. The IPH, located in Jalalabad, is not under the control of the current Government of the Islamic Republic of Afghanistan (GISA) in Kabul. Current U.S. law prohibits assistance to whatever body forms the national government of Afghanistan.

## **II. PROJECT DESCRIPTION**

### **A. Perceived Problem**

Statistical data on Afghanistan are often unreliable and subject to political interests. Those that are presented in this paper represent the consensus of the major players in the Afghanistan health field, i.e., AID and the World Health Organization, and are published in the World Bank's World Development Report, 1993.

The health status of women and children in Afghanistan ranks among the worst in the world today. This is reflected in the dramatically high infant, child and maternal mortality rates. Among other factors, these high rates are caused by: lack of access to safe drinking water, poor sanitation, poor hygiene, cultural practices and ignorance.

The infant mortality rate of 169 per 1,000 live births is among the highest in Asia. The under five mortality rate is 304/1,000, giving Afghanistan the lowest child survival rate among developing countries. Even though children under 5 years comprise only 20% of the population, they account for sixty percent of all deaths.

The high incidence and prevalence of vaccine-preventable diseases such as measles, neonatal tetanus, whooping cough, diarrhea and acute respiratory infections are major causes of morbidity and mortality. The leading causes of death for under fives continues to be diarrhea, acute respiratory infections and malnutrition.

The crude birth rate is 48 per 1,000 population. The crude death rate is 28 per 1,000. The maternal mortality rate is 64 per 10,000 live births, which is the result of two main factors: a high fertility rate and the high risk of dying associated with each pregnancy.

Prior to the last 5-6 years, EPI services were almost non-existent in the rural areas of Afghanistan. In 1991, immunization coverage was very

low - 19% for measles, 23% for DPT3/OPV3 and 21% for BCG. The highest incidence of EPI diseases was also in the most difficult to reach rural areas. Current information also indicates a great need for assistance in the provision of EPI services to urban residents, who represent approximately 20% of the entire population.

Surveys performed in rural Afghanistan have found that 50% of children with measles die during a measles epidemic. EPI diseases remain major contributors to high childhood mortality and morbidity. Problems involved in successfully carrying out EPI services in Afghanistan include high costs due to lack of infrastructure, irregular availability of vaccines, climatic conditions, difficult terrain, cold chain failures and lack of female vaccinators.

Surveys show a clear need for more female nurses, doctors or health workers capable of diagnosing and treating females with gynecological problems, whom males cannot examine due to cultural constraints. The lack of qualified, trained female health personnel is one of the major factors contributing to the scarcity and inadequacy of health services for women. Improving the health of women has been shown to be an important cost-effective means of improving the related health of children and the household in general. Further, promotion of women's health is an important factor in allowing them to become stronger contributors to the socio-economic development of Afghanistan.

### B. Project Goal and Purpose

The goal to which this project contributes is to improve the health status of women and children in Afghanistan. The purpose of this project is to improve quality and expand availability of MCH and EPI services in targeted areas.

Over a five year period, the project will help decrease mortality of infants, children (<5 years), school age girls (5-14 years) and women of child-bearing age (15-45 years). The project endeavors to build on the existing, demonstrably successful features of AID-funded MCH and EPI systems with a focus on improving the quality of services delivered.

The recently published World Development Report 1993, Investing in Health, (The World Bank,

June 1993), lists health interventions which are most successful in adding years of productive life, while being highly cost-effective. Five groups of critical interventions are identified, each of which addresses very large disease burdens. The proposed project, with limited resources at its disposal, will provide three out of these five groups: services to ensure pregnancy-related care; family planning services; and prevention of and care for the common serious illnesses of young children - diarrheal disease, acute respiratory infection, measles, malaria and acute malnutrition.

### C. Expected Achievements/Accomplishments

The project will result in 1) increased numbers of females, infants and children under 2 years of age immunized through EPI services; and 2) expanded availability of MCH services.

#### *EPI Program:*

1. Over <sup>400,000</sup> 1,000,000 children under 2 years of age in the targeted areas vaccinated over a five-year period. <sup>27 MONTH</sup>
2. Over <sup>315,000</sup> 900,000 females in the targeted areas vaccinated with tetanus toxoid immunizations over a five year period. <sup>27 MO</sup>
3. Three RHAs with significantly enhanced capabilities to manage the delivery of EPI services, as evidenced by their increased ability to plan, implement, supply, monitor and supervise.

#### *MCH Facilities:*

1. Over <sup>246,000</sup> 800,000 infants and children (<5 years) attending the MCH facilities to receive treatment for and reduce the incidence of: diarrhea; acute respiratory infections; malaria; and other selected diseases.
2. Over <sup>530,000</sup> 400,000 women attending the MCH facilities to receive the following services: pre-and post-natal care; family planning services; nutritional, preventive health and environmental health information; and other selected MCH services.
3. Two RHAs with significantly enhanced capabilities to manage the delivery of MCH ser-

vices, as evidenced by their increased ability to plan, implement, supply, monitor and supervise.

- Increase the number of MCH facilities in operation from 32 to 79 in areas of project implementation. <sup>45</sup>

**Female Health Personnel participation:**

- Increase from 52 (current) to 165; in number of female health professionals at MCH centers who are trained and in service. <sup>87</sup>
- Increase of over 1000 dais and 200 Volunteer Health Sisters (VHS) who are trained <sup>770</sup> <sup>110</sup>

and in service.

- Increase of female health trainers from three to ten on the IPH and RHAs' training staffs.

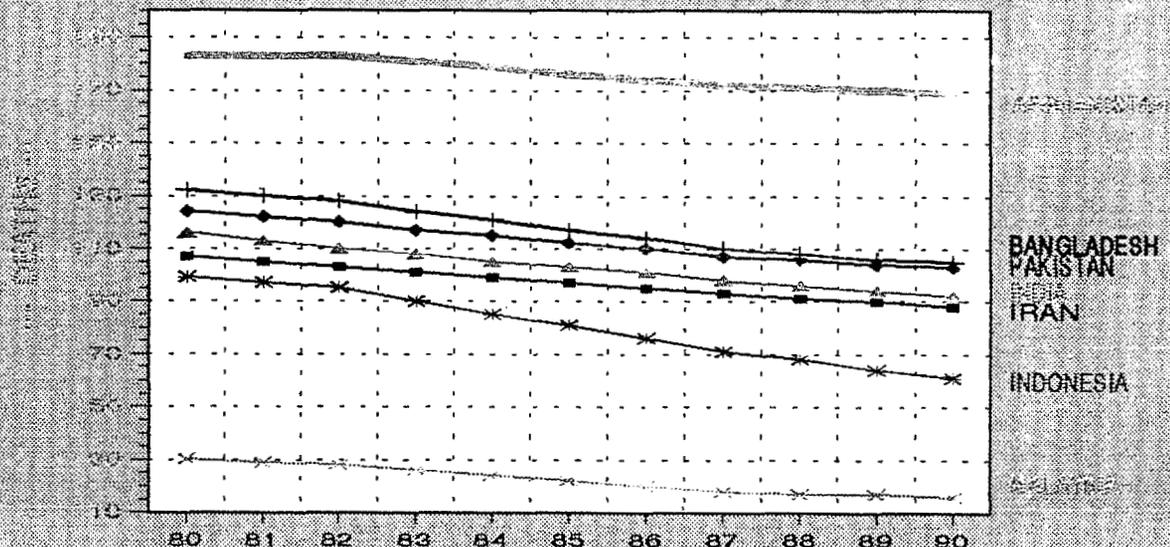
**D. Project Outline and How It Will Work**

**1. The MCH Program**

**a. Areas of Project Concentration**

The MCH program component will be implemented in the North and Central regions of the country, which encompass 14 provinces. The other 15 provinces of Afghanistan were not selected for MCH project implementation for two main reasons - lack of an administrative support

# INFANT MORTALITY RATE (PER THOUSAND LIVE BIRTHS)



	80	81	82	83	84	85	86	87	88	89	90
AFG	183	183	183	181	179	176	174	172	171	170	169
BD	132	130	128	124	121	117	114	110	108	106	105
INDO	99	97	95	90	85	81	76	71	68	64	61
IRAN	107	105	103	101	99	97	95	93	91	90	88
MALAYSIA	30	29	28	26	24	22	20	18	17	17	16
PAK	124	122	120	117	115	112	110	107	106	104	103
INDIA	116	113	110	108	105	103	101	98	96	94	92

Source: World Bank Social Indicators of Development, 1992

structure or poor MCH program implementation during the past three years. The MCH project component will focus initially on improving the quality of selected interventions in areas where the program is currently operating. After two years, an evaluation of the project will help determine whether expansion to other areas of the country is advisable.

Site selection for any warranted geographic expansion in these two regions will be based on the following criteria for an area:

1) strong health administrative capacity; 2) active community participation and support for the center (i.e., donation of the building, acceptance of services provided by women); 3) population of 30,000 or more in a 10 kilometer radius of the site which is demonstrated to be underserved; 4) no other MCH center in a 10 kilometer radius; and 5) availability of necessary female medical staff (at least two female mid-level health workers or doctors).

#### *b. The MCH Program Activity Model*

The MCH Center will continue to be the nucleus of the program, as its staff provides health care specifically for women and children, as well as being the referral source and providing supervisory support for the village-level dais and VHSs. The MCH center staff may refer to a hospital or higher level clinic in the area, as well as refer patients back to a VHS or dai in the village/community for health promotion activities. Females and children are provided important preventive and curative services at the centers, including: pregnancy care; gynecological services; family planning; oral rehydration therapy; health and nutrition education; and treatments for malaria, acute respiratory infections, diarrhea and other diseases.

Dai and VHS training are also conducted at the center. A VHS/dai supervisor directly supervises the VHSs and dais. Dais provide services to pregnant women in the community, with neonates (newborns) and small children as a secondary target group. The VHSs provide services and health education to women and children in their own homes, to extended families and neighbors and to the community at large.

Each MCH center is staffed with a minimum of two trained female health workers, with at least 6-

12 months basic training (a mid-level worker such as a nurse, midwife or MCHO graduate), or a doctor, who have undergone MCH refresher/upgrading training. If, due to cultural constraints in an area, females are not allowed to work without the presence of a male health worker, one male may be hired to work in the MCH center.

#### *Health and Nutrition Education*

An essential component of the MCH program will be health education which includes messages and information on health, nutrition, environmental sanitation, personal hygiene, safe motherhood and communicable disease prevention. A health and nutrition education program will be conducted at each MCH center for the benefit of the target group. Health education will be provided by MCH center staff, dais and VHSs. In the present model, the staff utilizes health message posters and flip charts as teaching aids during health education transmission. Demonstration techniques are utilized to teach the proper use and preparation of ORS. Nutrition education is taught by discussion regarding good nutrition for children and mothers, as well as demonstration and preparation of locally available weaning foods for severely malnourished children.

One of the primary roles of the VHSs is providing health education to women and children in their homes and community. The dais, when providing their services in the homes, focus on teaching health messages by demonstrating three major simple health interventions which have the ability to save countless lives: proper hand washing, use of ORS, and clean cutting of the cord during delivery.

In this project, we expect to continue to support the present MCH system by financing the following: contraceptives; a small amount of expendable clinic supplies (dressing materials, ORS, disposable syringes/needles, etc.); small clinic equipment (blood pressure cuffs, etc.); freight from Peshawar warehouse to MCH center; MCH staff salaries; and travel costs. Pharmaceuticals and large durable equipment and furniture for MCH activities are expected to come from non-AID-funded sources.

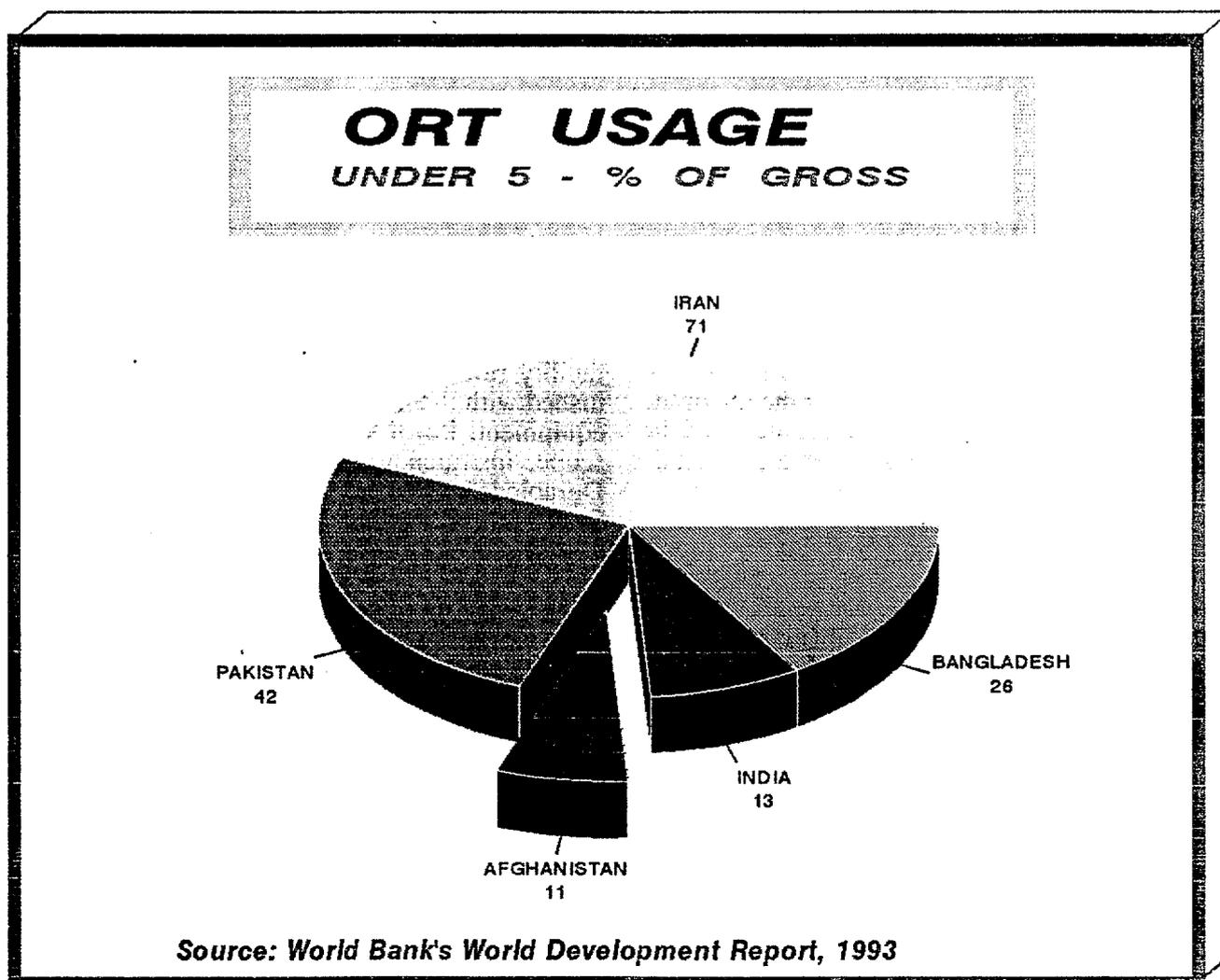
#### *c. Improvement of Quality and Efficiency of MCH Services*

In addition to the maintenance of this existing system, the principal focus of the new MCH project will be to improve the quality and efficiency of services delivered. The full range of MCH services envisaged in the new project is also not currently provided in all 32 existing centers. Therefore, activities will concentrate on assessing the level, type and quality of services provided, and upgrading the centers by training/refresher training of staff to adequately perform all services required.

#### *Technical Assessment of the On-going MCH Program*

As a first step, prior to the start of operations of

the major contractor/grantee, an on-the-ground assessment will be conducted to determine the technical effectiveness of current delivery systems and to recommend improvements. This kind of assessment represents a departure from the administrative/management evaluations and assessments undertaken under the on-going projects. This assessment, covering the 32 current MCH centers plus the dais and VHSs in the area of program implementation, will analyze the skills and knowledge of the health workers, the availability of essential staff, and the type and quality of services being provided. Based on this analysis, needed improvements in the efficiency and quality of the program will be determined. The capability of the RHAs to deliver MCH services will also be reviewed. Based on the assessment,



the necessary training activities will be planned. Through this process, the quality of clinical services will be improved and the support structure provided by trained dais and VHSs in the community will be strengthened.

### *Training Activities*

1) MCH Training for Facility Personnel. All health personnel presently working in (or newly hired to work in) an MCH center will undergo a minimum 21 day in-service training program (depending on individual needs), if they have not already done so. This course is intended to upgrade their skills and knowledge of MCH, primary health care, dai training, EPI, management and supervision, activity monitoring and nutrition.

2) VHS Training Course. Each MCH center will offer VHS training. It is envisaged that each VHS training site will graduate a minimum of 8 VHSs per year from a 6 months long course. In addition, a VHS/Dai Supervisor course will also be conducted, with one supervisor trained in a one month course for each MCH center established.

3) Dai Training. Dai training will be conducted at each MCH center by the female staff. It is a 6-8 week course in essential topics, followed by continuous refresher training. Each dai training site at an MCH center will graduate a minimum of 10 dais per year.

4) Training of Trainers Courses. A number of health trainers will be educated over the life of the project to help meet training requirements of the MCH program components. Training female trainers will be a priority.

5) Monitoring Skills Training. Technical monitoring is essential to this new project. A course will be developed which will enable personnel to monitor and evaluate MCH and EPI activities. On another level, a course will be developed and taught to the implementing staff of the EPI and MCH programs so that they will be able to monitor their own activities as well.

### *Establishing a Technical Monitoring System*

A key component of the new project is a technical monitoring system for MCH (and EPI) program

activities. This will build on the previous USAID-HSSP non-technical monitoring system, which provided mainly quantitative data, such as numbers of staff and facility locations.

Monitoring teams will consist of Afghan health professionals who will be specifically trained to evaluate MCH and EPI services. They will conduct periodic qualitative assessments of personnel skills and services delivered. The qualitative data will then be utilized to define problem areas and revise program plans. AID's own monitoring unit, the Data Collection and Analysis (DC&A) Unit, will periodically test the capability of this technical monitoring system.

Essential training and follow-up supervision will be provided to build the capacity of both the MCH and EPI program staff to monitor their own activities (e.g., to track females receiving prenatal care or children who have been inoculated). RHA medical personnel, who have the most frequent contact with local program staff, will also be trained in supervision, technical monitoring and evaluation skills.

### *d. Geographic Expansion of MCH Services*

Over time, the MCH center network in the Northern and Central regions will be expanded. New MCH centers will be housed in existing structures which may either be rented or provided as a donation by the community. AID will not provide facility running costs. Each center will be furnished with the necessary small medical/surgical equipment, i.e., blood pressure cuff and stethoscope, instruments and sterilization equipment. Durable large equipment and furniture will come from non-AID-funded sources (i.e. the community or other donors). Support for staffing and operating costs will follow the same model established for existing centers. The provision of training will be a key element in the proper development of these new centers including a Maternal Child Health Officer (MCHO) course. This is a nearly year-long course designed to train females, with approximately a 10th grade education, in the delivery of MCH services.

community support

### *2. The EPI Program*

### *a. Area of Project Concentration*

The EPI component will concentrate on rural areas covered by the present AID-funded program encompassing 187 districts in 25 of Afghanistan's 29 provinces. Expansion of EPI services to urban areas may also be considered. However, EPI in many of these areas is the responsibility of the MOPH of the Government of the Islamic State of Afghanistan (GISA); consequently any potential AID support must be carefully examined in light of prevailing legal restrictions.

The AID-selected area of coverage has been influenced by: presence of other implementing agencies; area accessibility; population density; political stability; military conflict; the strength of the administrative body in the area; and availability of trainable personnel. The AID-funded program does not operate in isolation. Its activities are coordinated with those of 7 other EPI implementing agencies (6 NGOs and the MOPH/GISA) which also cover portions of the same districts plus additional districts.

During the last 16 months, great strides have been made by the EPI Steering Committee in formulating a common, coordinated immunization strategy for EPI coverage, designed to eliminate redundancy of coverage. This strategy is followed by all organizations involved in immunization. AID - along with the European Community, UNICEF, WHO, the MOPH/GISA and the 6 EPI implementing agencies - played a large role in the success of this coordination effort.

### *b. The EPI Program Activity Model*

The project will continue to support the existing AID-funded EPI program implemented by nearly 300 vaccinators plus 76 EPI-related support staff. Management of delivery of EPI services for 161 districts is provided by three RHAs. The staff of these administrative bodies plan, implement, supply, monitor and supervise EPI service delivery in their areas. The administrative body for the remaining 16 EPI service districts is the Preventive Medicine Department (PMD) of the former MOPH/AIG, located in Peshawar. The PMD does not have a presence inside Afghanistan, and the EPI teams in these districts are resupplied directly from Peshawar.

Nine Vaccine Storage Facilities (VSFs) are oper-

ated in distant regions of the RHAs in order to accommodate a ready supply of vaccines in good condition. The overall management and supervision of the VSFs is provided by the RHAs. In areas with VSFs, the VSF staff provide the technical supervision of the EPI personnel, pay salaries, dispense supplies and provide refresher training to staff when they return for resupply. Vaccines are stored in a vaccine warehouse in Peshawar and then transported to the VSFs.

The project uses fixed point, outreach and mobile immunization strategies, adapted to the presence of available personnel and the level of community support. The project focuses now on the integration of immunization into the existing primary health care system, with emphasis on using existing rural health facilities, particularly those with MCH activities.

The UNICEF contribution to the EPI program consists solely of vaccine. All other program costs are funded through AID. These include: salaries; non-vaccine supplies; freight (from Peshawar storage facility to VSF or place of work); per diem for outreach and mobile teams, and reporting personnel; and travel costs. Durable equipment (refrigerators, cold boxes, etc.) is not a cost item in the extant program, as all EPI units are fully equipped, with adequate amounts of spare parts.

### *c. Improvement of Quality and Efficiency of Present EPI Services*

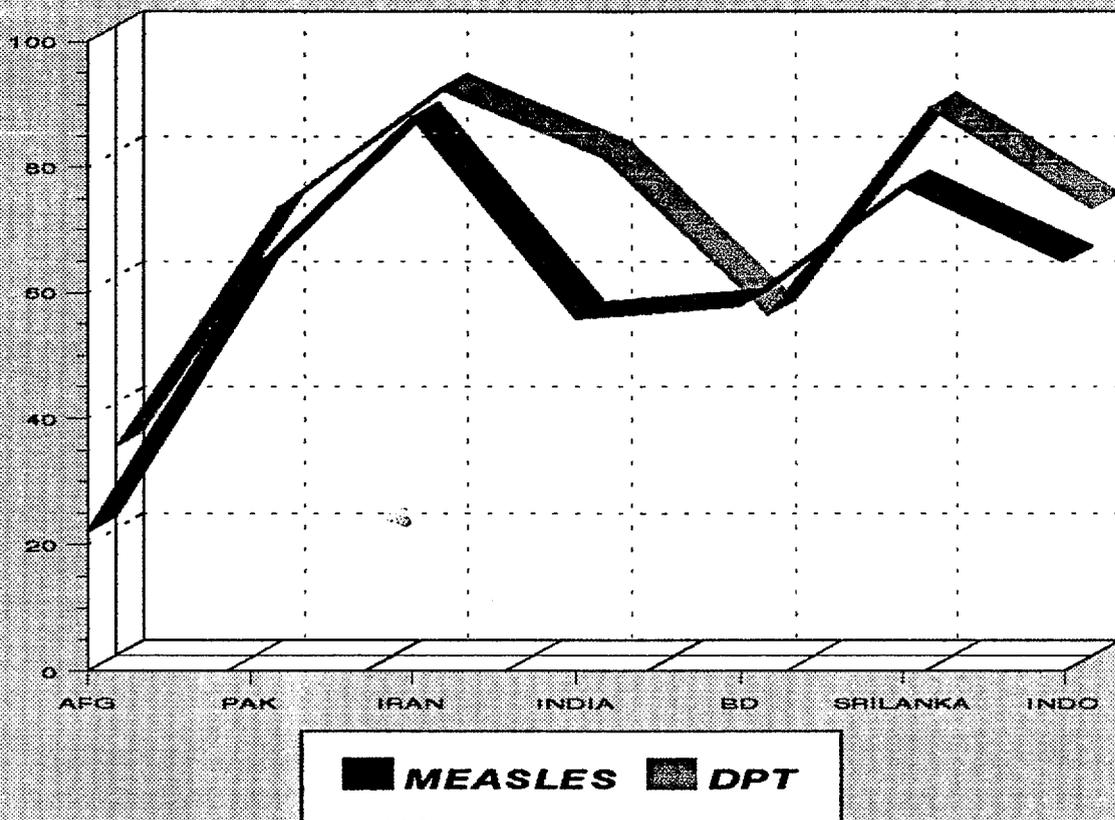
Quality and efficiency of service delivery will be a principal focus of the EPI component. The project will concentrate on assessing the level, type and quality of services provided, and upgrading the EPI and RHA staff through training and refresher courses.

#### Training Activities

Refresher Training for EPI Personnel. All health personnel presently working in the EPI program will undergo a continuous in-service training program (depending on individual needs). This course is intended to upgrade skills and knowledge by specific job category. Another course will be developed and taught to implementing staff so that they will be able to better monitor their own activities.

# MEASLES & DPT IMMUNIZATION

(Under 12 Years - % of Gross)



Source: World Bank's World Development Report, 1983

**Training of New EPI Personnel.** If necessary to supplement existing staff, the project may offer courses for new vaccinators, cold chain technicians and cold chain supervisors. Training of female vaccinators will be a priority. Of the present 298 vaccinators, only four are female. The addition of female vaccinators would greatly enhance the EPI program efficiency. To enhance the capabilities of the responsible RHAs, medical personnel will be recruited and trained in EPI service delivery, to be able to effectively plan, implement, monitor, supervise and supply.

**Monitoring Skills Training.** A course will be developed which will enable personnel to monitor and evaluate EPI activities. The course will be conducted for the new project technical monitors plus the RHA medical staff.

**Training of RHA Staff to Increase Efficiency.** RHA administrative staff are to collect and report data which are analyzed to determine program status and its level of success. The current system is extremely inefficient. Afghan Vaccination and Immunization Center (AVICEN), one of the two largest EPI implementing agencies, has developed a computer program for collection of EPI data. The project will support the installation of this program at RHA administrative centers. Use of this system will increase reporting efficiency and improve the RHAs' ability to manage their EPI programs. It will also provide a standardized reporting format for use by UNICEF which compiles data for all Afghan EPI programs. The same computer program can be modified to enable the staff to more efficiently input data for the MCH program.

Training in the operation of this new system can be provided at low cost. Most of the equipment needed can be obtained through reallocation from AID projects which are now being phased out.

#### Assessment of the on-going EPI Program

As in the MCH component, an assessment of skills and knowledge of staff and types and quality of services currently offered will be required for EPI. The amounts and types of training needed to support the proposed project can then be properly planned. Both the MCH and EPI assessments can be conducted concurrently by a joint team over a 3.5 month period at the start of the proposed project.

#### Establishment of a Monitoring System

Development and operation of a technical monitoring system, as detailed for the MCH component, is also critical to the success of EPI activities. Without such a system, the means are unavailable for judging program quality, defining problem areas and proposed solutions, as well as adjusting program plans to meet current needs. The project will place major emphasis on assistance needed to support establishment of the necessary monitoring system.

#### *d. Geographic Expansion of EPI Services*

Expansion of EPI services to urban areas, which includes district centers as well as cities, is also being considered. The feasibility and extent of this expansion will be determined by: (1) a needs assessment conducted prior to the start of operations of the major contractor/grantee; and (2) determination of the modalities for working in urban areas. This determination will involve resolving any legal difficulties involved in working with EPI units which are part of the MOPH/GISA or identifying an appropriate NGO as an alternative source of delivery.

Project support for urban area EPI could take several forms: training of additional EPI personnel if needed; supply of necessary EPI cold chain equipment i.e., refrigerators plus gas to run them, cold boxes); technical expertise (e.g. training by cold chain technicians for repair of equipment);

refresher training for EPI vaccinators; logistical support; or urban EPI program operating cost support.

### *3. Implementation Arrangements*

#### *a. Project Management*

##### The Role of AID

The new project will be managed by a senior USDH Health Project Officer. This officer will be supported by two PSC Assistant Project Officers (APOs), one to be project-funded and based in Peshawar and the other to operate from Islamabad. Later in the design stage, the possibility of adding an Afghan FSN physician APO will be explored. The hiring of an Afghan APO with knowledge of local languages and cultural practices and with greater freedom of movement would enhance USAID's ability to evaluate program progress first-hand.

Required contracting, procurement, financial management, legal and other support services will be obtained from the combined USAID Mission as available, or from other regional or AID/W sources if necessary due to the phaseout of the USAID/Pakistan program pursuant to the Pressler Amendment.

##### The Role of the Regional Health Administrations (RHAs)

The three RHAs involved with the project will continue to manage and supervise the programs in their target areas, supporting the existing network of staff, facilities and outreach agents necessary for the delivery of EPI and MCH services. The RHAs will play the key role of principal counterparts/implementors for project activities in rural areas (two for MCH, three for EPI). The project will provide operational support to enable the RHAs to continue to perform their important oversight functions. The project will finance RHA operating costs and training, through the major contract or grant.

The project will provide intensive strengthening of RHA administrative staffs, specifically local-level personnel, thus enabling them to sustain their health operations.

The RHAs will be linked in a subcontractual or subgrantee relationship to the major contractor/grantee, and will provide periodic reports to the prime contractor/grantee.

All of the RHAs are represented in a Liaison and Coordination Body located in Peshawar. This will continue to be the main point of administrative interaction between the RHAs and the major contractor/PVO.

#### The Role of Preventive Medicine Department or Alternative Entity

Rural EPI services in sections of Southern and Eastern Afghanistan where there are no RHAs will be implemented by 18 existing teams of the former MOPH/AIG. The project, working through its principal contractor/grantee, will identify an appropriate Afghan intermediary body to administer these teams inside Afghanistan. At present, this function is performed by the Preventive Medicine Department of the former MOPH/AIG, in Peshawar. The selected body will also be a subcontractor or subgrantee.

#### The Role of the Institute of Public Health (IPH)

The principal training entity will be the Institute of Public Health (IPH), located in Jalalabad. The IPH will have overall responsibility for training course design, curriculum development and production, and implementation of training activities. Training of female health providers will be an important program component. The project will finance IPH operating costs as well as training, through the major contract or grant. IPH will be a subcontractor or subgrantee.

The IPH will continue the Maternal Child Health Officer (MCHO) one year course presently being conducted in Jalalabad, with expansion to another appropriate training site during the first year, if feasible. Dai training, the MCH Course, Training of Trainers courses, and monitoring skills courses will be taught by the IPH, as well as the RHA training staff, as appropriate.

#### The Role of the Implementing Contractor/PVO

The contractor/PVO will be responsible for all technical as well as day-to-day administrative

aspects of the project including: procurement of commodities (other than contraceptives); warehousing; payment of implementing personnel salaries and program operating costs; operating costs and training to strengthen capabilities of RHAs and IPH; monitoring back-up; training support; and technical guidance to the implementing agencies. The contractor/PVO will utilize the findings of the previously discussed assessment of MCH and EPI program status to continue support, and improve and ultimately expand the EPI and MCH services in the areas of project implementation. The RHAs and other implementing entities, e.g., IPH, will be subcontractors or subgrantees to the implementing contractor or PVO. The prime contractor/grantee will be responsible for monitoring and ensuring RHA compliance with terms of the subcontracts or subgrants.

#### *b. Procurement*

##### Technical Assistance

To achieve its objectives, the project will work through a U.S. implementing entity. We envisage a private commercial firm with expertise in health or a major health-oriented PVO in this role. The entity will be selected through full and open competition. RHAs and other Afghan implementing entities will be in a subcontractual or subgrantee relationship with this entity.

The contractor will provide a strong, dynamic expatriate team of three advisors. The team members must possess a mixture of technical knowledge and skills which include the following: EPI and MCH program expertise and experience; training education, expertise and experience; procurement and financial management expertise; and experience in managing complex, AID-financed, overseas projects.

##### Local Administrative staff

The actual program implementation will rely on Afghan professional counterparts, such as those presently working in the EPI/MCH programs and non-medical management fields. Overall, program implementation will capitalize on the available experience and resources that have been developed during the last seven years of AID's assistance.

## Commodities

Medical and a small amount of daily expendable supplies needed for MCH operations will be primarily locally procured, i.e., in Pakistan, by the contractor/PVO. Vaccines will be provided by UNICEF and will not constitute a project cost. Contraceptives will be procured through the standard AID/W process. Durable large equipment and furniture will come from non-AID-funded sources (i.e. the community or other donors). Pharmaceuticals will not be supplied in this project; they are available in the market and will be purchased by the clients.

An option is being explored to supply MCH centers with a standard MCH kit (exclusive of pharmaceuticals) from 935 source/origin. In the event design determines 935 procurement, an appropriate waiver will be included in the project authorization. Given prevailing conditions, disposable syringes (procured in the U.S.) may also be required.

For the EPI program, expansion may require kerosene refrigerators and cold boxes (to be procured locally). Expendables such as cotton, alcohol, and office/training supplies are to be procured locally. Disposable syringes will be procured from the U.S.

Wherever possible, necessary equipment for program management and implementation (i.e., vehicles, photocopiers, computers, printers) will be acquired through transfer from other AID-funded projects which are being phased out prior to April 30, 1994. At this stage, these equipment needs have been overestimated in order to meet requirements at a very optimal level. Hence, obtaining all the identified equipment is not Mission-critical. The project would still be able to operate with about 70 percent of what we hope to acquire.

Authorization for local source procurement mentioned above will be included in the Project Authorization.

## 4. Monitoring and Evaluation

Monitoring will be conducted by trained technical personnel in all areas of project implementation. RHA medical personnel will also perform monitoring functions for EPI and MCH activities in

their areas of influence. The possibility of external technical reviews, in the manner of Pakistan's malaria program, is being considered. The Mission's own monitoring unit, the Data Collection and Analysis Unit, will test data reliability and the validity of the methodology employed by the contractor/PVO's monitoring system.

The cross-border nature of the activity is likely to pose less of a monitoring problem than was the case in the past. As this PID is being written, the American Ambassador to Pakistan has the authority to allow members of the official American community to travel to Afghanistan. Further loosening of constraints is likely.

Required audits will be carried out in accordance with the terms and conditions of the agreement with a U.S. contractor or grantee.

Outside firms will be contracted through IQCs to perform two program evaluations. After two years, a midterm evaluation will be conducted in order to: 1) analyze progress to date and recommend mid-course corrections; and 2) consider the advisability of expanding the areas of program concentration. A final program evaluation will be done at the end of the project.

## **E. Estimated Costs**

The project is planned for five years, with a total cost of U.S. \$26.2 million. Estimated costs are as follows:

<u>Expense Category</u>	<u>5 Year Total Costs</u>
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### *I. Major Contract or Grant*

1. Technical Assistance (including logistics)

a. Long-Term Expatriate 6,550,362

b. Short-Term Expatriate 1,305,437

c. Local (Professional and Support) 2,022,009

2. MCH Program Supplies /Equipment 778,856

3. Oral Rehydration Salts (ORS)	83,691
4. EPI Program Supplies /Equipment	1,848,572
5. Syringes/Needles	483,200
6. MCH Program Operating Costs	1,112,400
7. EPI Program Operating Costs	2,761,775
8. RHA Program Oversight	871,596
9. Training:	
a. Program Costs	659,042
b. IPH Costs	849,402
10. Warehousing	766,682
11. Monitoring	1,962,602
<b>Sub-Total (I):</b>	<b>\$ 22,055,626</b>

II. Contraceptives (AID-Direct Procurement)	543,505
III. Technical Assistance (U.S. PSC)	350,000
IV. Initial Technical Assessment	250,000
V. In-kind Equipment Transfers from a/ other Mission Projects	3,000,000
VI. Evaluation/Audit	400,000
VII. Contingency	600,869
<b>GRAND TOTAL:</b>	<b>\$ 27,200,000</b>

**III. PROGRAM FACTORS AND FACTORS AFFECTING PROGRAM SELECTION AND FURTHER DEVELOPMENT**

**A. Conformity with Policy, Strategy and Cost-Effective Practice**

This project is in full conformity with the Agency's policy regarding health, which places its strongest emphasis on infant and child health and on the interrelated health of women. The project is a direct outgrowth of the Mission's new development strategy for Afghanistan, approved by the Asia Bureau in April 1993, which focuses specifically on infant, child and maternal health as well as primary education. The new project builds on work already begun under predecessor AID projects. It complements, but does not duplicate, work underway by other donors and private voluntary organizations in Afghanistan. The interventions which have been selected are among those which the Agency and other international authorities regard as the most cost-effective means for improving health worldwide. AID, working in association with the U.S. health community, has a proven capability to implement these interventions effectively, even under some of the world's most difficult conditions.

**B. Social Constraints**

The primary beneficiaries of this project will be those Afghan women and children who obtain greater access to EPI and MCH services. Secondary beneficiaries will be persons, many of them women, who receive new technical and administrative skills or whose implementation skills are upgraded. Also, the families and communities served by MCH and EPI services will benefit from the improved health, and increased knowledge of health and nutrition, of their members.

These benefits must be achieved in the face of: continued factional fighting; instability of the government; low literacy levels; an extremely high level of poverty; lack of revenues/resources; an environment of religious and cultural conservatism; tradition-mandated limitations on female mobility, especially in rural areas; and a fear of foreign cultural influence.

Success under these circumstances will come only through heavy involvement of each affected community. The approval and active participation of community leaders, influentials and interested laymen (both men and women) - are crucial in implementing MCH and EPI activities. Evidence of such involvement will be sought when selecting

<sup>a</sup>/This amount is not reflected on the PID facesheet because these are in-kind transfers that will not require new funds.

sites for new MCH facilities or training programs. The project will initially concentrate its efforts in the Northern and Central regions, which include large ethnic populations of Uzbeks, Turkomans, Hazaras and Tajiks. Experience has shown these regions and ethnic groups to be receptive to the health services planned for the project.

The family unit is basic to the community. The health needs of the family, as perceived by both male and female members, need to be considered in planning MCH services, in order to successfully implement programs. In the family unit, men who know and support the purpose of health-related activities can influence their wives; also, a husband's permission is necessary for a wife's participation in many cases. MCH program personnel will actively elicit the support and participation of both men and women in the planning of the new MCH program activities.

### C. Economic Analysis (Synopsis)

The Mission will use the World Bank's "disability-adjusted life year" (DALY) as the unit of analysis for measuring both the burden of the diseases as well as the effectiveness of the proposed health interventions, as indicated by the reductions in the disease burden. The DALY is calculated as the present value of the future years of disability-free life that are lost as the result of premature death or cases of disability occurring in a particular year. A combination of discounting and age weights produces a pattern of DALYs lost by a death at each age. For example, the death of a newborn baby girl represents a loss of 32.5 DALYs; a female death at age 30 means the loss of 29 DALYs; and a female death at age 60 represents 12 lost DALYs. The sum across all targeted age groups, conditions and locations totals the burden of the diseases for the target groups.

The project's interventions over a 5-year period will result in increased numbers of females, infants and children < 2 years immunized through EPI services and expanded MCH services for women. Under the EPI program, 1 million children < 2 years will receive vaccinations, while 900,000 females will receive vaccinations in targeted areas. Through expanded MCH services, over 800,000 infants and children < 5 years will receive treatment for and benefit from

reduction in the incidence of diarrhea, acute respiratory infections (ARI), malaria and other selected diseases. In addition, over 400,000 women attending MCH facilities will receive pre- and post-natal care, family planning services, as well as other selected MCH services such as nutrition information, health education and environmental sanitation information.

Given a common "currency" for measuring cost and a unit for measuring health effects, different interventions can be compared by what it costs to achieve one additional unit of healthy life. Outcomes are measured in the same unit of "disability-adjusted life years" (DALYs) used to estimate the burden of disease. The ratio of costs to health benefits (DALYs) gained is used to determine the cost-effectiveness of the intervention. The lower the number, the greater the value for money offered by the intervention. These ratios in dollars spent per DALYs gained, vary widely, from as little as \$1 to as much as \$10,000. For example, the treatment of leukemia has a cost per DALY gained of more than \$10,000, whereas immunization against measles has a cost per DALY gained of \$10. Clearly the latter is a more cost-effective intervention of preventing death than is the former. The results of cost-effectiveness analysis confirm the value of the primary health care interventions included in programs to reduce childhood malnutrition and mortality, while several hitherto neglected interventions are also very cost-effective, among which is integrated prenatal and delivery care. Many of the most cost-effective interventions are preventive in character. The DALY method avoids assigning a dollar value to human life implicit in the Human Capital Method and the Disease Eradication Benefits Approach; it also avoids the impracticability under the circumstances of the Willingness to Pay Method as a technique for measuring what value individuals place on reducing risk to death and illness.

For common health services packages such as immunizations, costs are compiled on a joint basis rather than separately for each intervention of the package. Future gains from current interventions are discounted at 3 percent per annum, which has little effect on ranking of interventions which are felt quickly. The IBRD's World Development Report, 1993, Investing in Health, finds that the Expanded Program on Immunization (EPI) is highly cost-effective, at about \$25 per DALY gained. The same report finds that five groups, or clusters, of clinical intervention are important in

essential clinical packages. The MCH component of the proposed project addresses three out of those five critical interventions: prenatal and delivery care, family planning services, and management of the sick child. Family planning services are found to be highly cost-effective means of improving maternal and child health. Inducing behavioral change -- through information and education enabling families to improve their health status and diets -- are often the most cost-effective ways toward this end. The proposed project includes nutrition information, health education and environmental sanitation information as essential components to its MCH package.

Finally, the report finds that households with more education enjoy better health and nutrition, both for adults and for children. This finding is particularly relevant because the Mission is currently also designing a parallel primary education project aimed at increasing enrollments. For example, the advantages that a mother's schooling confers on the children's health are felt even before birth.

(For a more detailed version of our approach to the Economic Analysis of the proposed project, please see Annex - 1.)

## **D. Project Development Issues**

### ***1. Financial Sustainability***

As noted previously, central government financing of Afghanistan's health system is presently almost non-existent. This is at the same time a critical problem and a key opportunity. In the midst of such a vacuum, there is a chance to obtain greater financial participation from families, communities and local autonomous governing structures like the RHAs. The PP design must focus on developing a model or series of models for approaches to cost recovery. Designers must also concentrate on determining the most cost-effective delivery of services. Given the financial environment in which the project will operate, designers must look for means to: reduce recurrent costs to a minimum, promote donor and international agency coordination to prevent overlap of services, and maintain focus on only the most critical maternal and child health issues. However, on full financial sustainability, the Mission must also be mindful of experience-based

cautionary views, such as those expressed in the findings of a 1992 CDIE evaluation of AID-supported child survival activities in Malawi. The evaluation found that, while some progress toward sustainability had been made, it may be unrealistic to expect so poor a country to support the needed interventions without outside financial assistance.

### ***2. Institutional and Administrative Analysis***

Afghanistan has never been known for a strong central institutional structure. The current situation is particularly confused. The PP design must further probe the existing institutional framework, focusing on the RHAs and IPH, to determine strengths and weaknesses, and lay plans for strengthening key institutions, again at least cost, so that they can support the project over its life. There is a possibility, if an effective institutional and financial model can be developed, that the model could serve as the basis for strengthening of the entire health system in Afghanistan.

PP designers must also take note of the substantially changed structure of the recently merged USAID Mission to Pakistan and Afghanistan. By Congressional mandate, the Pakistan part of the Mission is in a phase-out mode. Further, the structure of the Afghan program is also changing so that procurement and other support services which were available through former AID/REP supported projects are no longer available. The PP design must take these changes into account and assure that provision is made for the proper conduct of technical oversight, procurement and accountability functions.

### ***3. Social Issues***

The constraints on female mobility and participation in activities outside the Afghan home are well known. The PP design must further examine these constraints within the context of an analysis of household decision making and resource allocation. In order for the project to be a success, the value of health care within the household must be assessed and means devised to realize latent demand for health care. Means must also be identified at the PP stage to promote the inclusion of community leaders and household heads, male and female, as stakeholders in project activities.

#### 4. Economic Issues

The importance of a least-cost approach to the project has already been discussed. Economic analysis for the project will be based on recently developed "disability-adjusted life year" (DALY) method of analysis.

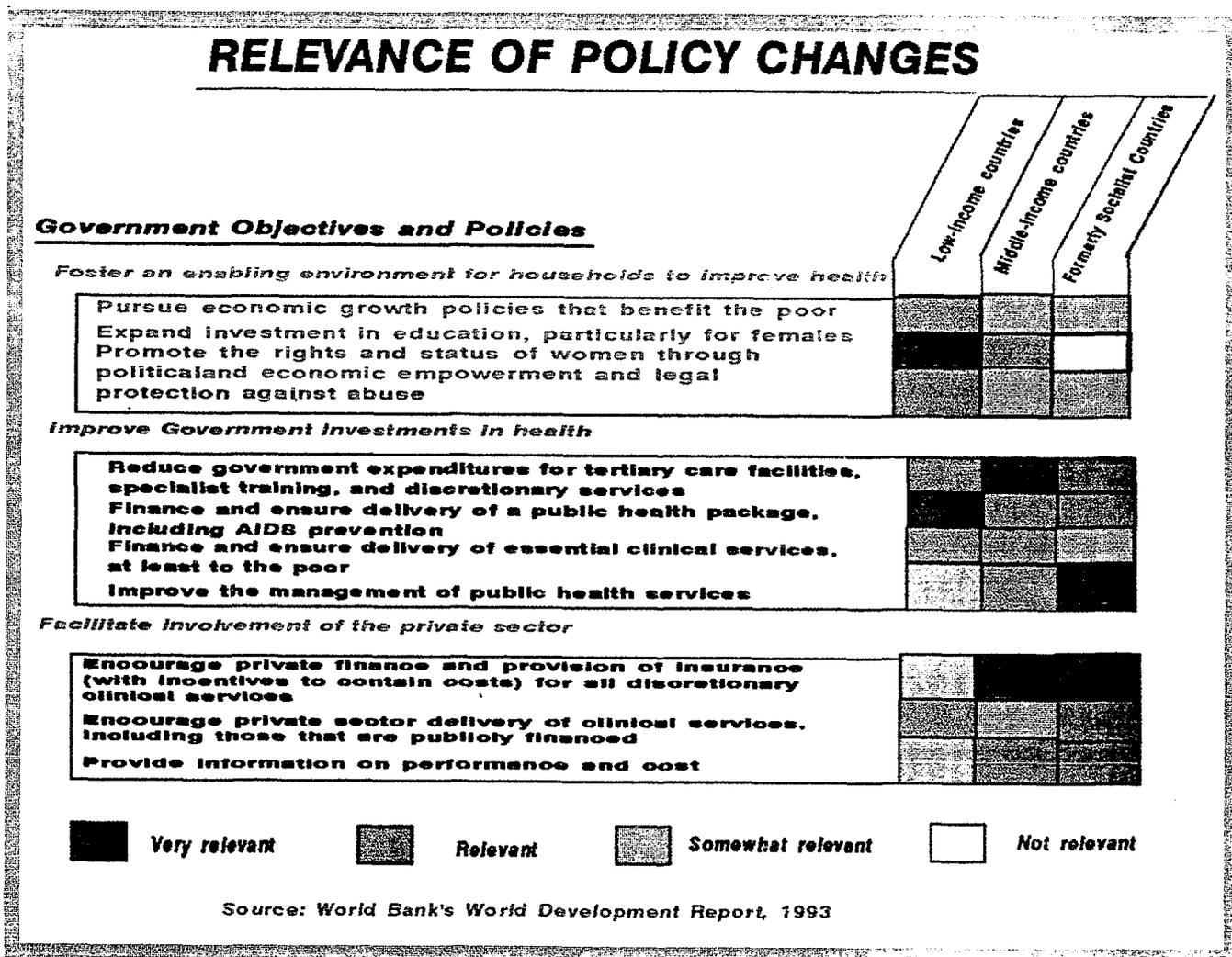
#### 5. Technical Issues

The technical approach to EPI and MCH interventions has been refined by many years of international field experience. Nevertheless, the cross-border setting further exacerbates the often difficult problems of supervision, monitoring and quality assurance. The mechanics of vaccine supply and cold chain integrity are also complicated, both by the cross-border mode of operation and the weak institutional and security structure in

Afghanistan. The PP design must take these factors into account and focus on means to strengthen quality of service delivery.

#### 6. Program Integration

Maternal/child health and primary education are both part of the Mission's overall development strategy. There is a symbiotic relationship between health and education which is significant to the development process. Increased levels of education, particularly for girls and women, positively affect the health of all family members. Improved health, as a result of decreasing levels of disease and improved nutrition, strengthens the ability to obtain education and retain what is learned. Given these linkages, one of the most cost-



effective measures to improve health status is improvement of the level of education of the population.

Educational messages on such topics as nutrition, environmental health, and communicable disease prevention are planned under this project. Synergistic effects between health and education offer a strong argument for a single project strategy for this proposed effort and the planned Afghanistan primary education initiative. The Mission will decide on the feasibility of a one project vs. a two project approach at the time of submission of the education PID. However, each project builds on a history of sectoral experience. Hence, whether under a single project or under two projects, the points of departure will necessarily be two sectoral activities; integration may be an appropriate target to work toward over the life of the projects(s). Finally, a separate PP design for this project would examine the feasibility of, and the economies that may be achieved by, having a single, dually qualified contractor provide major T.A. services to both projects.

#### E. Design Strategy

The current Health Sector Support Project ends on September 30, 1994. The structure of the Afghan program dictates that obligations are synonymous with the signature of grants or contracts. Therefore, to assure program continuity, contract or grant signatures are needed by September 30, 1994 or earlier. Assuming 6 to 9 months for the complete process of procurement of services under full and open competition, the project must be authorized by the end of December 1993. PID approval must be obtained no later than mid-October 1993 to allow sufficient time for preparation of the Project Paper.

The following services will be required to complete the project design:

<u>Service</u>	<u>Source</u>	<u>Length</u>
MCH/EPI technical analysis	IQC	5 person/weeks
Project Paper design	PSC	7 person/weeks
Project Paper design/tech.	AID/W	3 person/weeks
Administrative analysis	PSC	2 person/weeks
Social soundness analysis	AID/W	2 person/weeks
Sustainability analysis	Buy-in	2 person/weeks
Economic and Financial Analyses	Mission	2 person/weeks
Project Development Support	Mission	2 person/weeks
Technical support	Mission	8 person/weeks

The Mission's design team will be mindful of all applicable anti-narcotics legislation and regulations during the design process.

The Mission is requesting authority to proceed with further development and authorization of the project in the field.

#### F. Recommended Environmental Threshold Decision

The project seeks to improve the health status of women and children in Afghanistan through increased access to MCH services and through an expanded program of immunization for females and children under two years of age. The project includes a family planning component. Over the long-term, this project component will have a positive effect on the environment of the Islamic State of Afghanistan in that it will reduce pressure on its natural resource base. The specific elements of this project will not have a direct effect on the natural or physical environment and fall well within the criteria for "Categorical Exclusion," which is recommended for approval in the attached Initial Environmental Examination.

## ECONOMIC ANALYSIS

For purposes of analysis, the Mission will use the World Bank's "disability-adjusted life year" (DALY) as the unit used for measuring both the burden of disease and the effectiveness of health interventions, as indicated by reductions in the disease burden. It is calculated as the present value of the future years of disability-free life that are lost as the result of the premature death or cases of disability occurring in a particular year. This gets around the problems inherent in earlier approaches to measuring the NPV of a representative person's income stream resulting from reduced mortality attributable to a health project (the Human Capital Method); the impracticality of using the Willingness to Pay Method as a technique for measuring the value which individuals place on reducing risks of death and illness; as well as the Disease Eradication Benefits Approach, calculating the benefit of averted mortality/morbidity from project interventions on the basis of deaths/illnesses averted. These all try to measure the value of a human life saved.

A combination of discounting and age weights produces a pattern of DALYs lost by a death at each age. For example, the death of a newborn baby girl represents a loss of 32.5 DALYs; a female death at age 30 means the loss of 29 DALYs; and a female death at age 60 represents 12 lost DALYs. The sum across all targeted age groups, conditions and locations totals the burden of the disease(s) for the target groups.

Because poverty has a powerful influence on health, it is not just income per capita that is relevant in examining costs and benefits of health interventions, the distribution of income and the number of people in poverty matter as well. In developing countries the number of people in poverty is an important reason for differences in health. Within countries, too, health correlates strongly with poverty. Poor people are vulnerable to disease and death not only because of poor living conditions but also because of ignorance. Finally, the distribution of income within families/households also affects health. Studies based on individual households found that a 10 percent

advantage in income reduces infant mortality by between 1 and 2 percent in Nigeria, Sri Lanka, Thailand and several Latin American countries and by as much as 4 to 8 percent in Ivory Coast and Ghana. Also, households with more education enjoy better health, both for adults and children. This is particularly relevant because the Mission is currently also designing a primary education project aimed at increasing enrollments. For example, the advantages that a mother's schooling confers on her children's health are felt even before birth.

Reduction or alleviation of poverty provides a straight-forward rationale for public intervention in health. Investment in the health of the poor raises their educability and productivity. Investing in the health of the poor is an economically efficient and politically acceptable strategy for reducing poverty and alleviating its consequences. Public goods and externalities are forms of market failure which may justify public intervention. Many public health interventions are nearly pure public goods for which only the government (including local authorities) can ensure provision. No matter how health services are organized and paid for, what they actually provide are health interventions: specific activities meant to reduce disease risk, treat illness or palliate the consequences of disease and disability. Knowing cost-effectiveness of health interventions -- the net gain of health (compared to doing nothing) divided by the cost -- can be extremely useful for both public and private decisions.

The project's interventions over a 5 year period will result in increased number of females, infants and children < 2 years immunized through EPI services; and expanded MCH services for women. Under the EPI program, 1 million children < 2 years will receive vaccinations in targeted areas, while 900,000 females will receive tetanus toxoid immunizations in targeted areas. Through expanded MCH services, over 800,000 infants and children < 5 years will receive treatment for and reduce the incidence of diarrhea, acute respiratory infections (ARI), malaria and other selected

diseases. In addition, over 400,000 women attending MCH facilities will receive pre-and post-natal care, family planning services, as well as other selected MCH services (nutrition information, health education, etc.).

Given a common "currency" for measuring costs and a unit for measuring health effects, different interventions can be compared by what it costs to achieve one additional unit of healthy life. Outcomes are measured in the same unit of "disability-adjusted life years" (DALYs) used to estimate the burden of disease. The ratio of costs to health benefits (DALYs) gained is used to determine the cost-effectiveness of the intervention. These ratios in dollars spent per DALYs gained, vary widely, from as little as \$1 to as much as \$10,000. For example, the treatment of leukemia has a cost per DALY gained of more than \$10,000, whereas immunization against measles has a cost per DALY gained of \$10. Clearly the latter is a more cost-effective intervention of preventing death than is the former. The results of cost-effectiveness analysis confirm the value of the primary health care interventions included in programs to reduce childhood malnutrition and mortality, while several hitherto neglected interventions are also very cost-effective, among which is integrated prenatal and delivery care. Many of the most cost-effective interventions are preventive in character. The DALY method avoids assigning a dollar value to human life. Costs are assessed at market prices. For non-tradable (internationally) inputs, costs will be lower in developing countries. For common health services packages such as immunizations, costs are computed on a joint basis rather than separately for each intervention of the package. Future gains from current interventions are discounted at 3 percent per annum, which has little effect on ranking of interventions which are felt quickly.

The results of joint World Bank/World Health Organization cost-effectiveness analyses of health interventions confirm the value of primary health care included in programs to reduce childhood malnutrition and mortality, chiefly from infectious diseases. Several hitherto neglected interventions were found to be also very cost-effective, including integrated prenatal and delivery care. Many of the most cost-effective health interventions are preventive in character. In general, most cost-effective interventions can be performed outside hospitals. It was also found that immunization in an environment in which children are undernourished and many die from

preventable diseases, is more cost-effective than if children are otherwise healthy and face little risk of dying.

Priority should be given to those health problems that cause a large disease burden and for which cost-effective interventions are available. In general, the cost-effectiveness ratio varies not only with local condition but also with the degree to which an intervention penetrates or covers a population or target group. Cost-effectiveness is also influenced by the presence of other interventions that might affect costs (through sharing of joint costs) or outcomes. For some of these interventions (for example, family planning and girls' schooling) the cost per DALY is sufficiently low to make them attractive on health grounds alone; other benefits only strengthen the case. Using cost-effectiveness to select health interventions for public financing does not necessarily mean spending the most resources where the burden of the disease is greatest. Instead, it means concentrating on the interventions that offer the greatest possible gain in health per public dollar spent. In the world as a whole, almost half the existing disease burden is from preventable communicable diseases, nutritional disorders and maternal and perinatal causes. However, consumer demand for cost-effective services is often weak. Low demand may also reflect deficiency in supply. Most cost-effective interventions can be delivered at primary care sites, but in poor countries like Afghanistan, more than half the population lives more than 10 km from the nearest primary care center. Partly because of lack of access, the poor generally consume fewer health services.

The World Development Report 1993 "Investing In Health" finds that the Expanded Program on Immunization (EPI) is highly cost-effective, at about \$25 per DALY gained. Population-based health services such as EPI rely on personnel with limited training to provide health services directly to specific populations -- in schools, at work sites and in households. Costs are less than \$10 per DALY gained for measles immunization and less than \$25 for a combination of polio plus DPT. These vaccines, together with BCG immunizations against TB and immunization of pregnant women against tetanus, form the EPI.

Women suffer more than men from iron deficiency, anemia, from stunting caused by protein-energy malnutrition (PEM) and from iodine deficiency. Women's nutritional problems are worst

in South Asia where prevalence of anemia, PEM and vitamin-A deficiency are the highest in the world and where, as a result of widespread discrimination, girls and women suffer disproportionately. Small pelvic size among stunted women increase the risk of maternal and infant mortality, as does maternal anemia. Iodine-deficient mothers give birth to more infants with cretinism and other congenital diseases. A significant proportion of pregnancies end in poor maternal and infant health as a direct consequence of maternal malnutrition. Both vitamin A and iodine deficiency are particularly common in Asia and Sub-Saharan Africa. People may eat more poorly than their incomes allow because of ignorance. Better nutritional status reduces communicable diseases. Inducing behavioral change -- thus enabling families to improve their diets even without additional income -- is often the most cost-effective way to improve nutritional status. Nutrition education is an integral part of the project's MCH component.

All pregnancies and births carry some health risks to the mother and the child. But the risks are higher to women who have health problems that could be aggravated by pregnancy, when pregnancies come too early or too late in a woman's reproductive life, when they are too closely spaced, and when they occur to high-parity women. Short birth intervals pose substantial risks to child health throughout the first five years of life. Family planning services can help women reduce the health risks from mistimed and unwanted pregnancies. Family planning services provided through community-based distribution, such as proposed under the project's MCH component, are highly cost-effective means of improving maternal and child health. In countries where both mortality and fertility are still relatively high, such as in Afghanistan, the cost per child death averted is extremely low. In Mali (West Africa), for example, it averages about \$130, which corresponds to a mere \$4 to \$5 per DALY gained.

For poor people and poor regions, it is the household environment that carries the greatest risk to health. By providing information on reducing pollution in and near the home, public authorities can deploy potent low-cost mecha-

nisms to improve this environment. Many women work in the home and thus suffer disproportionately from the health risks in the household environment. Health and sanitation education are an integral part of the MCH component of the project.

Five groups, or clusters, of clinical interventions are important in essential clinical packages: prenatal and delivery care; family planning services; management of the sick child; treatment of tuberculosis; and case management of sexually transmitted diseases. The MCH component of the project addresses three out of five interventions. Four preventable (or easily treatable) infectious diseases of children account for nearly 7 million child deaths annually. Unsafe child birth is responsible for half a million maternal deaths each year. Most of the services can be delivered by nurses, basic health workers and midwives in MCH clinics. In Botswana and Zimbabwe, the rapid decline in infant mortality and rise in life expectancy during the 1980s were strongly influenced by public sector action to expand the health infrastructure and by the use of public funds to finance an array of public health and clinical services. The project proposes to increase the number of MCH facilities in operation from 32 to 79 in areas of project implementation. According to the World Development Report 1993 (pp 114-115), low-cost rehabilitative measures, interventions which respond to conditions that will become increasingly common with the epidemiological transition, can cost as little as \$200 to \$300 per DALY. Including them and other interventions of similar cost-effectiveness would reduce the current disease burden by between 5 and 10 percent. The remarkable improvements in health status in China, Kerala State in India, and Sri Lanka are attributable in fact to policies that emphasized the financing of cost-effective clinical services such as MCH, directed especially at the rural poor.

For a total investment over a five year period of \$27.2 million under this project, the potential improvements in health status and the declines in infant and maternal mortality in the project's target areas, at relatively modest DALYs, are enormous.

INITIAL ENVIRONMENTAL EXAMINATION (IEE)  
FOR  
MATERNAL AND CHILD HEALTH SERVICES PROJECT

1. Project Country : Afghanistan
2. Project Title & Number : Maternal and Child Health Services (306-0214)
3. Project Funding : The LOP funding will be \$27.2 Million in Grant funds\*
4. Life of Project : FY 1994 - FY 1999
5. Reviewed and Concluded by : John B. Swanson  
Mission Environmental Officer

Signature John B. Swanson

Date Sept. 1, 1993

6. Recommended Environmental Action : Categorical Exclusion

7. Mission Director's Concurrence : Signature [Signature]  
John S. Blackton

Date Sept 1, '93

8. Decision of Environmental Coordinator, Bureau for Asia : Approved \_\_\_\_\_
- Disapproved \_\_\_\_\_
- Date \_\_\_\_\_

\*including \$3 million in-kind equipment transfers from USAID projects for Afghanistan that are phasing out.

INITIAL ENVIRONMENTAL EXAMINATION (IEE)  
FOR  
MATERNAL AND CHILD HEALTH SERVICES PROJECT

1. Project Country : Afghanistan
2. Implementing Agency : The project interventions will be implemented by indigenous Afghan entities, including three Regional Health Administrations. Training will be provided by the Afghan Institute of Public Health. These entities are not linked to the central Government of the Islamic State of Afghanistan.
3. Project Title & Number : Maternal and Child Health Services (306-0214)
4. Life of Project : FY 1994 - FY 1999  
(Five years)
5. Project Funding : The LOP funding will be \$26.2 Million in Grant Funds

6. Goal and Purpose of Project

Goal: The goal of the project is to improve the health status of women and children in Afghanistan through increased access to Mother Child Health (MCH) services.

Purpose: The purpose of the project is to improve quality and expand availability of MCH and Expanded Program of Immunization (EPI) services in targeted areas of Afghanistan. This \$27.2 million project, over a period of 5 years will help decrease mortality of infants, children, school age girls and women of child-bearing age.

7. Project Description

The new project will improve the health status of women and children in Afghanistan through increased access to MCH services and through an EPI for females and children under two years of age. Under the MCH component, females and children will be provided preventive and curative services, including: pre-and post-natal care, gynecological services; family planning; oral rehydration therapy; health and nutrition education; and treatments for malaria, acute respiratory infections, diarrhea and other diseases. Dais (traditional birth attendants) and Volunteer Health Sisters (VHSs) will provide health outreach services and in-home care. Under the EPI component, females will receive tetanus toxoid immunizations and infants and children will receive inoculations for diseases such as diphtheria, pertussis, neonatal tetanus, measles, tuberculosis and polio.

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The managerial and administrative capabilities of indigenous Afghan administrative bodies will be strengthened, and the skills of health service providers will be enhanced through the provision of training. Technical monitoring of project activities by trained Afghan health professionals to assure quality will be an integral component of the project.

No construction of facilities is planned under the project. Facilities will either be leased or provided free of cost through community contribution.

#### 8. Social Impacts

The primary social impact will be an improvement in the overall health status of women and children in Afghanistan. Studies show a correlation between an improved health picture and increased learning. Promotion of good health is an important factor in allowing women to become stronger contributors to the socio-economic development of Afghanistan.

An indirect result of the family planning services conducted under the project will be an increase in birth spacing and an overall decrease in the birth rate for women served by the project. As a result of this intervention, the following benefits will accrue to the women served and their families:

- reduction in premature mortality rate among women through better health and the reduced incidence of deaths resulting from complications of pregnancy and childbirth;
- more family resources per capita to invest in education, proper nutrition, and shelter; and
- increased options for mothers or young women to participate in income generating activities or to take advantage of educational opportunities.

As a whole, this project will have a positive impact on the socio-economic conditions in Afghanistan and will reduce pressure on the country's natural resource base which is a step forward for environmentally sound and sustainable development.

#### 9. Environmental Concerns

The following areas of concern are foreseen:

- Proper disposal of waste generated in the form of used syringes, empty vaccine vials, etc.
- Proper disposal of used condoms, etc.

Project implementors will insure that the above concerns are appropriately addressed during training and counselling sessions.

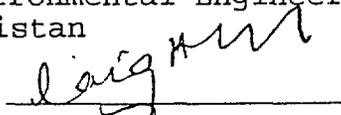
10. Recommendation

The goal of project is to improve the health status of women and children in Afghanistan through increased access to MCH services and through an EPI for females and children. The project also includes a family planning component. This will be done by achieving the project objectives as outlined in item-7 above. Expected social and economic impacts of this project are mentioned in Item-8 above. Item-9 identifies some of the expected environmental concerns. It is recommended that these concerns be addressed during training and counselling activities.

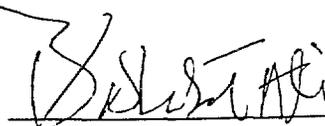
USAID Regulation 22 CFR 216.2 sets forth conditions by which a project would qualify for categorical exclusion from the need to do further environmental examinations, assessments or environmental impact statements. Part c(1)(i) of the regulation states "The action does not have an effect on the natural or physical environment" and part c(2)(viii) identifies "Programs involving nutrition, health care or population and family planning services except to the extent designed to include activities directly affecting the environment (such as construction of facilities, water supply systems, waste water treatment, etc.)". The project meets the criteria for "Categorical Exclusion" and thus qualifies.

The recommendation for categorical exclusion is thus consistent with USAID Regulation 22, CFR Part 216 Section 216.2(c)(1)(i) and c(2)(viii) and is appropriate for this project.

11. Recommended Environmental Action : Categorical Exclusion

12. Prepared by : Chaudhary Laiq Ali  
Mission Environmental Engineer  
USAID - Pakistan  
Signature   
Date 8-30-93

13. Reviewed and concurred by : Douglas Palmer  
Project Officer, O/AFO  
Signature   
Date 8-30-93

Basharat Ali  
Chief, PSD  
Signature   
Date 8/30/93

PROJECT DESIGN SUMMARY

Life of Project:  
From FY 94 to FY 99

LOGICAL FRAMEWORK

Total U.S. Funding \$26,200,000  
Date Prepared: July, 1993

Project Title & Number: Afghanistan Maternal and Child Health Services (306-0214)

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
<p><i>Program or Sector Goal: The broader objective to which this project contributes:</i></p> <p>To improve the health status of women and children.</p>	<p><i>Measures of Goal Achievement:</i></p> <p>Reduction of disease specific mortality</p>	<p>Project Evaluation Donor generated data</p>	<p><i>Assumptions for achieving goal targets:</i></p> <p>Continued cross-border activities remain viable</p>
<p><i>Project Purpose:</i></p> <p>To improve the quality and expand the availability of MCH and EPI services in targeted areas.</p>	<p><i>Conditions that will indicate purpose has been achieved: End of project status.</i></p> <p><u>EPI:</u></p> <ul style="list-style-type: none"> <li>- Over 1 million children &lt; 2 years vaccinated</li> <li>- Over 900,000 women receiving TT immunizations</li> <li>- 3 RHAs with enhanced capability to manage the delivery of EPI services</li> </ul> <p><u>MCH:</u></p> <ul style="list-style-type: none"> <li>- Child health service provided to over 800,000 infants and children</li> <li>- Maternal health services provided to over 400,000 women</li> <li>- 80% of MCH patients receiving proper case management</li> <li>- 90% of MCH facilities offering family planning services</li> <li>- 2 RHAs with enhanced capability to manage the delivery of MCH services</li> </ul>	<p>Project Evaluations Project monitoring system Data Collection &amp; Analysis Unit MCH and EPI records</p>	<p><i>Assumptions for achieving purpose:</i></p> <ul style="list-style-type: none"> <li>- continued political stability in target areas</li> <li>- RHAs remain influential in their respective areas of influence</li> <li>- effective strategies developed to reach women</li> </ul>

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<p>Outputs:</p> <ul style="list-style-type: none"> <li>- EPI services operating in 187 districts in 1) existing clinics, hospitals and MCH centers; 2) outreach activities; 3) mobile clinics</li> <li>- Expanded MCH program in 14 provinces</li> <li>- Increased number of female health workers trained and in-service</li> </ul>	<p>Magnitude of Outputs:</p> <ul style="list-style-type: none"> <li>- Fully trained staff in all districts</li> <li>- All districts with fully operational cold chain equipment</li> <li>- Increase # of MCH facilities in operation from 32 to 79</li> <li>- Increase # of trained female health professionals from 52 to 165</li> <li>- Additional 1000 dais and 200 VHS's trained</li> <li>- Increase in # of female health trainers on IPH and RHAs' training staff from 3 to 10</li> </ul>	<p>Monitoring System feedback</p>	<p>Assumptions for achieving purpose:</p> <ul style="list-style-type: none"> <li>- female health providers are available in target areas</li> </ul>																										
<p>Inputs</p> <ol style="list-style-type: none"> <li>1. Major Contract or Grant <ul style="list-style-type: none"> <li>- TA</li> <li>- Commodities</li> <li>- Program Operations</li> <li>- Training</li> <li>- Warehousing</li> <li>- Monitoring</li> </ul> </li> <li>2. Contraceptives</li> <li>3. TA (US PSC)</li> <li>4. Initial Tech. Assessment</li> <li>5. In-kind Equipment Transfers from other Mission Projects</li> <li>6. Evaluation/Audit</li> <li>7. Contingency</li> <li>TOTAL:</li> </ol>	<p>Implementation Target (Type and Quantity) (U.S.\$)</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 80%;">9,877,808</td><td style="width: 20%;"></td></tr> <tr><td>3,194,319</td><td></td></tr> <tr><td>4,745,771</td><td></td></tr> <tr><td>1,508,444</td><td></td></tr> <tr><td>766,682</td><td></td></tr> <tr><td>1,962,602</td><td></td></tr> <tr><td>543,505</td><td></td></tr> <tr><td>350,000</td><td></td></tr> <tr><td>250,000</td><td></td></tr> <tr><td>3,000,000</td><td></td></tr> <tr><td>400,000</td><td></td></tr> <tr><td>600,869</td><td></td></tr> <tr><td><u>27,200,000</u></td><td></td></tr> </table>	9,877,808		3,194,319		4,745,771		1,508,444		766,682		1,962,602		543,505		350,000		250,000		3,000,000		400,000		600,869		<u>27,200,000</u>			<p>Assumptions for providing inputs:</p> <p>Funds availability</p>
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# ADMINISTRATIVE ANALYSIS

## EXECUTIVE SUMMARY:

The Afghanistan Maternal and Child Health Services Project will be implemented through the three existing Regional Health Administrations (RHAs) which have worked most effectively during previous years in delivering health services. These local indigenous Afghan entities developed from the popular community support for the resistance in the North, Central, and Western areas of the country, and were established by local commanders to provide a civil administration in the areas under their control. The RHAs are part of a decentralized administrative system based in the regions and responsible to the communities and to the regional political parties. They have the capability to manage and ensure the effective delivery of health services that are responsive to the needs of the people. The new project also will use the Government's Institute of Public Health (IPH), a training institute established by the Afghan Interim Government in Peshawar in 1989 and then moved, in 1992, to Jalalabad, in Afghanistan.

These RHAs developed between 1981 and 1985, and are at varying stages of development. Supervisory Council of Northern Afghanistan-Health Committee (SCNA), formed in 1985, is strong and the best organized. The South and South West Afghanistan-Health Committee (SSWA) was formed in 1981, and has a strong regional political base. The Health Committee of Central Afghanistan (HCCA) was formed in 1988 when two political groups began to cooperate to bring services to a previously under-served area. Each of these groups has a political and administrative structure which recognizes the need for health services and has worked to deliver them.

Financial control at the RHA is managed through the administrative centers with funds being sent from MSH through the Liaison Office to the Zonal (or area) Administrative Center. The Zonal Administrative Centers are responsible to the RHA director for the proper use of the funds and he is responsible to the (political) finance committee in each area. There is a great deal of local community supervision of the health program work and people report irregularities to the commanders and the mullahs.

Drugs and supplies are sent directly from MSH to the Drug Depots accompanied by the RHA representative or his designee. Information is sent to both the Zone and the RHA regarding all shipments. Good information is received on shipments, receipts, and stock levels, although the records have been over 6 months out of date due to the problems of movement of goods in the winter.

All of the RHAs have liaison offices in Kabul or are in the process of establishing them. The SSWA-HC will establish its office

shortly. The HCCA is establishing 2 offices, one for each political party, which cooperate in planning work and channeling funds for programs. The SCNA-HC, because of its influence will be the most important. It's director has brought staff to Kabul, but his authority is with the Tanzeem (party) health committee in the Northern region. He has acted as the prime advocate for a decentralized health system.

Planning and implementation takes place in the zones. Annual program plans are made by each zonal officer and then proposed to and discussed with the area director who amalgamates them into one overall RHA plan. Central planning in each region is on the basis of zonal recommendations to the political bodies RHA finance committee and authorizations to the zones and the clinics.

The zonal administrative center incorporates both administrative and technical control functions. They usually have a zonal health director, accounts and logistics officers, and technical officers. In each zone, the director supervises his own clinics and both district and zonal level activities. Zonal monitors and logistics officers supervise in the field and report on equipment and supply movements and health activities.

Supervision is very weak in terms of morbidity and other data and assessments of clinical activities. There is little information on quality of care, diagnosis and treatment. Much of the evaluation is through an informal network of information about clinical activities. Zonal and regional administrative directors recognize the need for more technical supervision and data collection.

#### EPI

The present EPI program is a combination of mobile, outreach and fixed (clinic-based) approaches, which is appropriate for conditions currently prevailing in Afghanistan. It is implemented in the field by vaccinators trained, supervised, and monitored by the cold-chain technicians and the local "in-charge" at the Vaccine Storage Facility (VSF). The zonal RHA office supervises the EPI program. The VSFs are based in the zones and linked to the zonal administrative centers and small hospitals.

The EPI program is part of an overall system in which the community is directly and continuously involved. The program in the field is strongly supported by the local people, who request vaccination programs in their areas and provide transportation and lodging for the vaccination teams. Organization and management support has been provided and training for the vaccination program supervised and assisted directly by MSH.

Data collection has been a problem in the EPI program. Reports are prepared monthly by the zonal EPI in-charge and sent to MSH. However, report receipt may take several months and are mostly service delivery and numbers vaccinated with no calculation of coverage. Another problem is the time lag between the field work

implementation and provision of new supplies for the next year.

#### IPH

IPH could provide technical backstopping, program planning and organization and curricula development services for a national MCH training program. It is staffed and organized to plan, develop and implement training programs. It also has the capacity to develop and publish training materials, manuals, health education pamphlets, newsletters, etc.. In addition, it is experienced with developing training budgets, receiving and accounting for funds, disbursing funds as specified, clearing advances, and reporting accurately on program expenditures.

#### CONCLUSIONS

The institutions identified for this project are managerially and administratively capable of adequately performing the work which will be assigned to them. The RHAs and zonal administrations have the capacity to control and manage both MCH and EPI work in their areas. The IPH has the capacity to develop training materials and to support training and community education programs in the field.

The RHAs have the capability to prepare annual work plans with input from the different areas or zones which they cover. They have the authority and management capability to implement those plans, although it should be recognized that in the cultural, geographic and political context of Afghanistan, there cannot be the same level of implementation capability that can be expected in many other countries.

The management and administrative technical capability of the personnel who have worked in the institutions involved in this project needs improvement. Supervision and monitoring reflect a system of program controls rather than an effort to plan ahead and manage work responsibly to achieve program objectives. Management assistance, focused on planning, monitoring and supervision should be provided at all levels of the MCH and EPI program.

One institutional question the project must face is with regard to the ability of the RHAs and administrative centers to recruit women and to adequately support them to work in the clinics. If this project is to adequately serve the population for which it is intended, it will have to more effectively recruit, train, supervise and support women workers at all levels of the system.

# ADMINISTRATIVE ANALYSIS

## BACKGROUND

The Afghanistan Maternal and Child Health Services Project will be implemented through the three existing Regional Health Administrations (RHAs) which have worked most effectively during previous years in delivering health services. These local indigenous Afghan entities developed from the popular community support for the resistance in the North, Central, and Western areas of the country, and were established by local commanders to provide a civil administration in the areas under their control. The RHAs are part of a decentralized administrative system based in the regions and responsible to the communities and to the regional political parties. They have the capability to manage and ensure the effective delivery of health services that are responsive to the needs of the people. The new project also will use the Institute of Public Health (IPH), a training institute established by the Afghan Interim Government in Peshawar in 1989 and then moved, in 1992, to Jalalabad, in Afghanistan.

## REGIONAL HEALTH ADMINISTRATIONS

In the early days of the war, several of the stronger commanders realized the need to organize the local popular support for the resistance. They developed systems of civil administration in the areas they controlled to provide for the needs of the people and also the back stopping they needed for the war. They established committees to mobilize community participation and manage different areas of civil administration. In several of the areas, health committees were formed, initially to provide first aid and military medical services and later to provide health care for the people. These health committees formed the basis for the Area Health Committees and the Regional Health Administrations (RHAs) on which the current decentralized health system is based.

The South and South-West Afghanistan-Health Committee (SSWA) was started in 1980/81 covering four provinces in the Herat area under the regional commander, Ismail Khan. Commander Ismail Khan now has been appointed Governor of Herat. The Supervisory Council of the Northern Area Health Committee (SCNA) was established in Takhar, in 1985, by Dr Sahar in the area under Commander Masood. This includes 10 provinces with its headquarters in Takhar. Dr Sahar now has been made Deputy Director, Ministry of Public Health, in Kabul. The Health Committee of Central Afghanistan (HCCA), includes two political groups (HIM and NASR) which combined to form a health committee which has cooperated in the delivery of a range of services in the central areas of Afghanistan. The Health Committee of Paktya Pakteka (HCPP), one of the last to be formed in

1989 has been one of the weakest. This region will not be included in the new project.

In 1989, Management Sciences for Health (MSH) started working with the regions in Afghanistan which, in addition to military strength, had some semblance of civil authority, including provision of schools, development of roads and a limited tax generating capability. Funds were raised from the community-at-large and provided to war-affected families and communities and the military effort. Health committees (then called "Area Health Service Administrations" and now called "Regional Health Administrations" - RHAs) had been formed in four areas and MSH began to work with these committees.

Because of the political uncertainties and realities relative to the establishment of a new Kabul Government, after the war, MSH supported the development of decentralized health care services through the RHAs. These programs are managed by the four health committees, the HCCA, the HCPP, SCNA, and the SSWA. These committees are at varying stages of development. SCNA, formed prior to association with MSH in mid-1987, is the best organized committee. MSH began working with SSWA in 1987, with HCCA at the end of 1989 and with HCPP in 1991. All four committees had liaison offices in Peshawar which now have moved or are moving to Kabul.

The liaison committee staff in Peshawar met on a regular basis to coordinate activities and work on common issues. Liaison staff also coordinated with MSH on program initiatives and served as a link back to the health committees in their cross-border areas and oversaw transport of supplies and equipment and salaries to destinations within their areas. MSH worked extensively with the RHAs and feels that they are strong proponents of Primary Health Care (PHC). In addition, they are also an important link for training and development of recent program initiatives such as EPI, MCH and fee-for-service initiatives.

The RHAs also have the capacity to create a local tax base from which to support programs. While the MOPH may be reconfigured under a new government, the RHAs are likely to continue to have a considerable degree of local autonomy due to popular support and established leadership under strong Mujahiddin commanders. All RHAs have agreed to work as decentralized primary health care programs in cooperation with the Kabul MOPH.

## PRIMARY HEALTH CARE

In the early years of the war, an Alliance Health Committee (AHC) was established in Peshawar, initially by health representatives of the most powerful political parties and area commanders. The AHC later became the MOPH of the Afghan Interim Government (AIG). MSH worked with and through the AHC/MOPH while other NGOs and implementing entities dealt directly with political parties or commanders in Afghanistan. Each valley had its own health structure. By the time the MSH project had started, larger structures had been created, linked to the recognized area commanders and the political parties which had been established in Pakistan. The RHA committees in Afghanistan have administrative and technical oversight of the health programs in their areas.

The MOPH and the RHAs both have attempted to develop health systems using primary health care (PHC) concepts, with use of hierarchal referral structures of manpower and facilities. The RHAs have been more successful than the MOPH because of the latter's inability to establish and maintain an effective cross-border presence and identity. However, the Basic Health Workers (BHWs) trained by the MOPH's Institute of Public Health formed the community health worker base for both systems. Refresher training for the BHWs increasingly emphasized PHC, and was later decentralized to 6 sites within Afghanistan. Medical logistics resupply and payment of health workers similarly was decentralized and increasingly cross-border health workers received resupply and salaries from the RHAs.

In July 1988, BHW training began inside Afghanistan in the RHAs, the first being by the SCNA. Subsequently, all new and refresher training has been moved from Peshawar to 6 cross-border sites, five RHA and one MOPH site. Although no comprehensive evaluation of the cross-border training has been attempted, it is the strong impression of the IPH, the RHAs and MSH that such training is superior to that which had been conducted earlier in Peshawar. These impressions are based on: (1) the fact that students trained near home and their trainers are much more familiar with local health conditions and emphasize material appropriate for that area; (2) since 1988, the basic standard curriculum has been extensively revised and updated along PHC lines, and is greatly superior to the curriculum given earlier; and (3) MSH has had the in-country training assessed on-site by a seasoned Afghan trainer on its staff, and it is his professional opinion that the current training and refresher training are superior and have much greater relevance to need than did earlier training.

## THE EPI PROGRAM

The EPI is a combination of mobile, outreach and fixed (clinic-based) approaches, which is appropriate for conditions currently prevailing in Afghanistan. It is implemented in the field by vaccinators trained, supervised, and monitored by the cold-chain technicians and the local "in-charge" at the Vaccine Storage Facility (VSF). The zonal RHA office (regions are divided into zones, provinces, districts, etc.) supervises the EPI program. The VSFs are based in the zones and linked to the zonal administrative centers and small hospitals.

Sites are selected by the RHAs based on recommendations from the zonal to the RHA committees. The VSF in-charge is usually a doctor who reports both to the RHA central office and to MSH. Plans and reports are submitted both directly to MSH and also to the RHA. Money for salaries, per diem, etc., is sent through the central RHA administration to the zonal administration center and then to the VSF. However, money for transportation of vaccines is paid directly. The VSF in-charge collects the vaccine and supplies from MSH and transports them to the VSF.

The EPI program is part of an overall system in which the community is directly and continuously involved. If there are any problems with the vaccination program, the Mullah and local commanders are informed and complaints made to the RHA central office. The program in the field is strongly supported by the local people, who request vaccination programs in their areas and provide transportation and lodging for the vaccination teams (however, increasing poverty in the rural areas is beginning to cause problems with the supply of local support for all programs).

Training for the vaccination program has been supervised and assisted directly by MSH. Senior personnel, cold chain technicians and vaccinator trainers were trained informally, at MSH, Peshawar. MSH is following a curriculum for vaccinators based on the WHO-UNICEF world-wide standards which is very close to the one WHO-UNICEF has certified for cross-border immunization and also for the national program. MSH asked the RHAs to provide them with people with training background, who were then trained to train the vaccinators in the field. The training has been conducted in Herat in SSWA, in Talogan and Mazar-e-Sharif in SCNA and in Behsud and Qara Bagh in HCCA.

The trainers work with the VSF in-charge to recruit, train and supervise the vaccinators. Most vaccination teams have four vaccinators, which has been seen to be the most efficient number. The cold chain technician supervises the cold chain and monitors technical aspects of the vaccinators' work, and the zonal in-charge monitors the books and records. The zonal in-charge makes the plans for the vaccination campaign or program and follows up to ensure that the plan is implemented.

The Preventive Medicine Department of the former MOPH/AIG is based in Peshawar. It has only 7 staff members and little capability to do training or supervise the EPI program. The PMD does work with the international cooperating agencies to plan the EPI and vaccine requirements. Most EPI training for the PMD program is conducted directly by the NGOs and international coordinating agencies.

Data collection has been a problem in the EPI program. There are no good figures of total or target populations, numbers of under twos, ones, etc.. The EPI community (in Peshawar) has accepted a combination of a UN projection from a 1976 sample survey and a calculation by Thomas Eighmy based on previous data. These two calculations are within 5% of each other. However, neither of these is sufficiently accurate for actual work planning at the district level at which the EPI must work, much less in at the community or valley level.

Reports are prepared monthly by the zonal EPI in-charge and sent to MSH. However, report receipt may take several months and are mostly service delivery and numbers vaccinated with no calculation of coverage. The VSF maintains good records of vaccine stock received, distributed, and balance and this, in combination with the vaccinator records, provides the best estimates of program effectiveness. The in-charge checks vaccinator's records and compares them with stock records to prepare the program reports.

One of the major problems which is faced by the EPI is the time lag between the implementation of field work and the provision of new supplies for the next year. Reports are collected after the Summer vaccination season and transmitted in the Fall to MSH which releases additional vaccine on the basis of the reports. The vaccine cannot be sent during the Winter when the passes are blocked so it is sent in the Spring and often reaches the zonal VSFs in the Summer, with insufficient good weather remaining to organize and conduct a vaccination program that year. There may be an 18-month gap between vaccination programs due to the time lag in sending reports and receiving supplies.

Standardization has not been a problem with cold chain equipment as there are only a limited number of types of equipment suitable for the conditions in Afghanistan. However, there have been problems with standardization of vaccine protocols and program approaches. Coordination of plans of action has been undertaken by an EPI task force, comprising of all EPI implementing agencies, including UNICEF, AVICEN, MSH, WHO, and MOPH/Kabul, which are working effectively together. The group meets to identify and assign areas of work, and to offer technical cooperation to each other in the vaccination areas. The MOPH representative from Kabul has participated in the coordination meetings in Peshawar, and supported the current approach. He has endorsed the participation of NGOs and other implementing agencies operating from Peshawar in providing vaccination services in Afghanistan.

## REFERRAL SYSTEMS

The Alliance Health Committee, at an early stage of the program, adopted an area health system model designed to deliver primary health care to the rural communities within a pyramidal referral system. The model uses primary health care workers operating from clinic bases which provide basic curative services and referrals up the pyramid to increasingly sophisticated secondary and finally, tertiary services. The area health systems also include the necessary support systems such as administration, training centers and supply depots. The MCH program established at a later date, builds on the basic primary health care system. The MCH program uses the established referral centers and hospitals in addition to local (mainly private) clinics and hospitals in the larger towns. These are usually sub-standard. The levels of service currently existing in the RHAs, in the pyramidal primary health care system are defined as follows (facilities may have one or more of the categories of worker noted):

- A. Health Post - Basic Health Worker (with three months training)
- MCH Post - Nurse or mid-level female health worker
- B. Basic Health Center - nurses, mid-level health workers, lab technician.
- MCH clinic - MD (most), MCHO, nurse, Med. tech.
- C. Comprehensive Health Center - Doctor, nurses, paramedics, lab and dental technicians - may have 2-5 beds;
- D. District Hospital - 10-20 beds - Laboratory, dental, X-Ray, surgery, etc.
- E. Provincial Hospital - 50 beds (only one of these - in Taloqan, SCNA).

The referral system within the areas in which the program will be working, SCNA, HCCA, and SSWA, includes a total of 137 health facilities which have been supported by MSH. MSH has supported one 50-bed provincial hospital, 13 district hospitals with 10-20 beds, 92 Comprehensive and Basic Health Centers, and 32 MCH facilities (including clinics and posts). There also are 380 Basic Health Worker posts. The RHAs are responsible for the health workers and facilities, provide supplies on a regular basis, disburse salaries to workers and provide technical oversight, supervision and training. Although the IPH initially trained all new workers, the RHAs now have taken up the training of the BHWs through the establishment of regional training facilities.

## ORGANIZATION, MANAGEMENT, AND SUPERVISION

Three Regional Health Administrations (RHAs) will be the primary implementation agencies responsible for delivering maternal and child health services through this project. These RHAs developed between 1981 and 1985, and are at varying stages of development. SCNA, formed in 1985, is strong and the best organized. The SSWA was formed in 1981, and has a strong regional political base. The HCCA was formed in 1988 when two political groups began to cooperate to bring services to a previously under-served area. Each of these groups has a stable, cooperative political and administrative structure which recognizes the need for health services and has worked to deliver them. In each of these RHAs health services are demanded by the constituent bodies. The Regional Health Committees hold the health directors responsible for improving the health of the people. However, the program organization and management is different in each area.

### A. SUPERVISORY COUNCIL OF THE NORTHERN AREA (SCNA):

The Shura-e-Nazar Health Committee which is responsible for health services in the SCNA has its headquarters in Kabul and a representative in Peshawar. The Director of the Health Committee has been appointed Deputy Director, MOPH. The SCNA has defined 6 health zones among the 10 provinces of the region, according to program phasing, geographic and logistic difficulties and management capability. Planning is done at the zonal level with authority for plans and work resting with the zonal director. The RHA director is accountable to the financial committee and responsible for achievements to the Shura-e-Nazar.

#### ZONES

1. Kunduz, Takhar, Baghlan: 1 Administrative Center, 1 Drug Depot, 1 Training Center and 1 VSF located in Takhar; 7 MCH facilities, 125 dais and 5 VHSS;
2. Parwan and Kapisa: 1 Administrative Center, 1 Drug Depot and 1 VSF in Panshir, 3 MCH facilities and 4 dais;
3. Balkh and Samangan: 1 Administrative Center, 1 Drug Depot, 1 VSF, 1 Training Center located in Mazar-e-Sharif and 4 MCH facilities;

- 4. Suburbs of Kabul: 1 Administrative Center and 1 Drug Depot in the Kabul Liaison Office, and 4 MCH facilities;
- 5. Badakhshan: 1 Administrative Center and 1 Drug Depot located in Faizabad, a VSF in Baharak, 4 dais and 5 MCH facilities;
- 6. Jawzjan and Faryab: 1 Administrative Center and 1 Drug Depot now being organized; 3 MCH facilities.

Total MCH facilities = 26 (as per MSH-25/10/93)  
 Total facilities = 93 (including 10 hospitals and 57 health clinics)

B. HEALTH COMMITTEE OF CENTRAL AFGHANISTAN (HCCA)

In Central Afghanistan, two political parties, Harakat Islami Mohsini (HIM) and Hesbi-e-Wahadat-NASR (NASR) have cooperated for the past seven years to bring health services to what has been the most under-served area of the country. There are two health directors, each reporting to his own party and each party is in the process of establishing a Kabul office. They have separate facilities and lines of authority and a political need to define two different systems with administrative centers and drug depots in the stronghold of each party.

In planning and technical work, there appears to be no problem between the two parties. Both groups collaborate to plan health services, discuss technical issues, and coordinate program implementation. One of the groups, the HIM, is better developed as MSH has worked with them for the past five years. The NASR has a drug depot, but needs an administrative center under the control of their Health Committee to manage the program for their people. Both power bases now are divided between Kabul and the central area where they have been implementing programs for seven years. The two leaders are in Kabul, but local commanders and the party headquarters remain in the central provinces. The facilities currently in place are as follows:

AREAS (zones are not used in Central Afghanistan)

1. Ghazni: 1 Administrative Center, 1 Drug Depot, 4 MCH facilities, 48 dais and 16 VHSS in Ghazni under HIM - 1 Drug Depot in Jaghatu and 1 MCH clinic under NASR - and 1 VSF in Kakrak;
2. Wardak: 1 Administrative Center and 1 Drug Depot under HIM in Behsud, and 1 VSF in Behsud, and 1 MCH facility under NASR in Bamyan;

Total MCH facilities = 6 (as per MSH-25/10/93)  
Total facilities = 38 (including 3 hospitals and 29 health clinics).

C. SOUTH-SOUTHWEST AFGHANISTAN HEALTH COMMITTEE (SSWA)

The leading resistance commander of the area, who is now the governor of Herat, has integrated resistance health personnel with the old regime's government workers. This has created both technical and political problems which are being slowly resolved. Planning is done at the central office, based on zonal recommendations with review of all programs by the finance committee and implementation responsibility with the health director. Zonal directors are in place, but are less powerful than in the SCNA. Two of the zones are virtually managed from Herat, although they have a zonal administrative structure in place. The SSWA authority will have an office in Kabul, but its power base is in the region. The facilities currently in place are as follows:

ZONES

1. Herat: 1 Administrative Center, 1 Drug Depot, 13 dais, and 1 VSF in Enjeel, Herat;
2. Badghis: 1 Administrative Center and 1 Drug Depot in Qala Nau, Badghis, and 1 VSF in Maymana, Faryab;
3. Farah: 1 Administrative Center, 1 Drug Depot, 34 dais and 1 VSF in Shindand, Farah;
4. Ghor: 1 Administrative Center and 1 Drug Depot in Ghore Taywara, Ghor.

Total facilities = 10 including 6 health clinics.

## LEGAL ISSUES

The formal legal status of all government and non-government agencies in Afghanistan is open to question. The transformation of the Afghan Interim Government (AIG) into the Government of the Islamic State of Afghanistan (GISA), integrating elements of the previous regime with the new government, and recognizing the role and status of the regional resistance political bodies, has created a fluid administrative organizational situation which only will be resolved over time. Within this context, the three RHAs and the IPH with which this project would relate are responsible and capable of making and observing agreements for project work.

The RHAs can and will approve contracts and act without obtaining approvals from other agencies or governmental bodies. The SCNA-HC, the SSWA-HC, and the HCCA, the responsible parties in the RHAs are committees of the regional political bodies responsible for health. The regional governments functioned autonomously from any central authority for many years. They may be expected to act as independent federated units collaborating with the central government authority.

The IPH is an autonomous government agency which can approve and sign contracts and act without obtaining specific approvals from other agencies or government bodies. It was created originally as the Training Center of the Alliance Health Committee and then reconstituted by the Afghan Interim Government (AIG) as the Institute for Public Health (IPH). It has both technical and managerial autonomy although it coordinates its work with the MOPH of the Kabul government.

## FINANCIAL CONTROLS

Financial control at the RHA level is managed through the administrative centers with funds being sent from MSH through the Liaison Office to the zonal (or area) administrative center. The zonal administrative centers are responsible to the RHA director for the proper use of the funds and he is responsible to the (political) finance committee in each area. There is a great deal of local community supervision of the health program work and people report irregularities to the commanders and the mullahs.

The establishment of the Government in Kabul has changed the financial and commodity management procedures for health projects. The RHAs have moved their liaison offices from Peshawar to Kabul. Prior to this, Peshawar controlled the flow of funds to the Zonal administrative centers. Receipts were sent from zonal administrative centers to the RHA HQ and then to MSH. Payments flowed in the opposite direction. Now, payments are sent to the Kabul Liaison Office which disburses directly to each zonal administrative center.

Drugs and supplies are sent directly from MSH to the Drug Depots with the RHA representative or his designee on the truck. Information is sent to both the zone and the RHA regarding all shipments. Good information is received on shipments, receipts, and stock levels, although the records have been over 6 months out of date due to the problems of movement of goods in the winter.

The IPH has an administrative center which manages and accounts for its funds. It maintains its own accounts and can directly disburse funds for program work. The IPH receives no money from the Afghan Government. All IPH funds are provided by donors, and it accounts promptly and accurately on the use of money.

#### ORGANIZATION and MANAGEMENT

One of the primary reasons this project decided to work with SCNA, HCCA, and SSWA-HC is that these regional health administrations have been functioning longer than other Afghan health institutions and have a history of greater relative stability and implementation capability than other groups located and working in Afghanistan.

In each area (SCNA, HHCA, and SSWA), there is an official letter from the political/military leader appointing the health director. In HCCA, there are 2 health directors, each appointed by the political leaders of the two parties controlling the areas. The SSWA is homogenous. The resistance commander, Ismail Khan, is recognized as the dominant power in the region and has been appointed Governor by the Government of the Islamic State of Afghanistan (GISA). The SSWA health committee appoints the health director and manages health activities in the region. In the Northern areas, the Shura-e Nazar health committee is an officially elected group. The regional government has a finance committee, a health committee, an education committee, civil administration, etc. The Shura-e-Nazar has an elected health director who reports to the finance committee on the use of funds and to the regional body on health achievements.

The director selects his staff, and appoints zonal (administrative center) administrators in consultation with zonal commanders and other authorities. The zonal administrators recruit and select technical staff for the Zonal health program (MCH, EPI, etc.), who are proposed to MSH for enrollment on the project lists. The SCNA health director, Dr. Sahar, has been appointed deputy director, MOPH, Kabul, and now has taken the liaison office staff from Peshawar to Kabul which has become the effective headquarters of the SCNA health committee.

All of the RHAs have liaison offices in Kabul or are in the process of establishing them. The HCPP has established its office and appointed a liaison officer. The SSWA-HC will establish its office shortly. The HCCA is establishing 2 offices, one for each

political party, which cooperate in planning work and channeling funds to support programs. The SCNA-HC, because of its influence, will be the most important. It's director has brought a large staff to Kabul, but his authority still is with the Tanzeem (party) health committee in the Northern region. He has acted as the prime advocate for a decentralized health system.

Planning and implementation takes place in the zones. Annual program plans are made by each zonal officer and then proposed to and discussed with the RHA director who amalgamates them into one overall RHA plan. Each zonal director explains the limits of his program and what he can and cannot accomplish in MCH, EPI, etc.. Central planning in each region is on the basis of zonal recommendations to the RHA's finance committee and authorizations to the zones and the clinics.

The zonal offices in the SSWA-HC are less defined than in the SCNA. Badghis and Ghor offices are weaker and under the control of Herat, but the other offices are independent. The main problem is the mixture of resistance health workers with those from the old regime, and the need to integrate the old government program with the Jehadic health system. For both political and technical reasons, the old regime could not be merely discarded. However, this has created problems which are just now being resolved.

#### STAFFING

##### Administrative Centers:

An Administrative Center usually has at least the following:

- Administrative assistant or supervisor (or MD acting director)
- Fiscal manager or accounts officer
- Storekeeper (in-charge of the drug/supply depot)

Many of the administrative have the following staffing:

- Administration director, deputy director or assistant director (often several administration assistants)
- Fiscal manager and/or Accounts officer
- Storekeeper
- Computer operator
- Logistics officer
- Supervisors/monitors (several)

##### Drug/Supply Depot

Storekeeper (large Administrative Centers may have larger drug depots with 2 or three storekeepers)

## Vaccine Storage Facility

EPI in-charge  
Cold chain supervisor  
Cold chain technician  
EPI trainer (not all VSFs)  
Logistic officer  
Vaccinators - numbers of vaccinators vary greatly (7-52)  
depending on the program in the area;

## Training Centers

1 MD trainer in-charge  
1 mid-level trainer  
1 administrator/management trainer

MCH Facilities: An MCH clinic is a medical facility providing health care for women and children including pre and post natal care, nutrition/health education, dai and VHS recruitment, training, and supervision. An MCH post (to be expanded into a clinic in this project) now is a single female worker medical facility. MCH facility staffing is usually as follows:

Clinics should have at least the following:

Nurse, diploma nurse, or female mid-level health worker  
Nurse helper or dai  
(they also may have a doctor)

MCH Posts (to be upgraded) have the following staff:

MCH Officer, female mid-level health worker, nurse

A Dai is a traditional birth attendant. MCH facility personnel are recruiting, training and supervising dais as female community level workers. Trained dais work in their village areas using the MCH center as their supply and referral base. The MCH department of the former MOPH/AIG is training the MCH facility personnel for this work.

A Volunteer Health Sister (VHS) is a village woman with no prior educational background who is recruited, trained and supervised by the MCH center staff to provide preventive health, hygiene and nutrition education and referral services in her village area.

## CONCLUSIONS:

Staffing at the RHA and administrative center level seems adequate for the management systems currently being followed. The focus seems to have been on financial controls, checking of commodity movements, and inventory controls. Staff at the area central offices, administrative centers, drug/supply depots, VSFs, etc seems sufficient for these functions, and based on the financial and commodity reports, they seem to be performing their work well. Monitoring reports point to problems of staff turn over and recruitment. There may also be a developing problem in the integration of the staff from the RHA health services with the old central government system. This has already resulted in problems of staff overlap, confusion of roles and lack of clear lines of authority. These will continue to be a problem as the system develops. It will be necessary to pay increased attention to management monitoring and organizational guidance to ensure that the system continues to perform its work adequately.

Staffing at the MCH Clinics and Posts varies greatly from place to place. The definitions of the clinics, and the recruitment of staff seem to depend on the local leadership as well as the availability of women for MCH positions. The MCH program needs to focus more directly on the need to recruit and train female workers to work in the MCH program and to create the conditions in the clinics (health posts should be upgraded to clinics in all locations) which will encourage women to use the services they provide, and reach out to improve the health of the women and children in the communities.

## MONITORING AND SUPERVISION

The zonal administrative center incorporates both administrative and technical control functions. They usually have a zonal health director, accounts and logistics officers, and technical officers. In each zone, the director supervises his own clinics and both district and zonal level activities. Zonal monitors and logistics officers supervise in the field and report on equipment and supply movements and health activities. Commodity control is tight with warehouse/depot vouchers and receipts for all commodity movements.

However, the supervision is very weak in terms of morbidity and other data and assessments of clinical activities. There is little information on quality of care, and even on diagnosis and treatment. Much of the evaluation is through an informal network of information about clinical activities. There is a great deal of community involvement and community supervision of the health work with comments and criticism at all levels. Zonal and regional administrative directors now recognize the need for more technical supervision and data collection.

Service and technical information is weak, and little data is collected or reported on service levels, and the quality of health care provided. The primary form of monitoring is the community involvement in the clinics and their complaints about the quality of care. The zonal and area authorities take community concerns very seriously and act quickly on reported personnel infractions. However, there is little information or capability to correct medical/technical problems and to improve the quality of care.

Program organization and management at the area, zonal and clinic/health post or other levels do not seem sufficiently or properly monitored. The RHAs and MSH monitor the number of units of service delivered, but not coverage, effectiveness, quality of care, or program management. Supervision of MCH services seems oriented towards checking forms and ensuring conformity with regulations. There should be greater use of monitoring and supervision to assist in developing women and family centered programs responsive to the specific Afghan economic and cultural conditions and to the needs of the community.

#### AFGHANISTAN GOVERNMENT DEPARTMENTS

The Ministry of Public Health of the former Afghan Interim Government (MOPH/AIG) began as the Alliance Health Committee in which each political organization (tanzeem) of the Afghan Resistance Movement appointed a representative of the Tanzeem Health Committee to develop common approaches to health services. The major focus of this work was on developing first aid workers as medical back-stopping to assist the Mujahideen with managing war injuries and casualties. This primary objective led to a second program of developing medical capability in the rural areas inside Afghanistan in which the mujahideen were working. This led to a health program initially curative and casualty related and later oriented towards rural based primary health care.

The Alliance Health Committee was transformed into the former MOPH/AIG with the departure of Russians in 1989. With the establishment of the Government of the Islamic state of Afghanistan (GISA), much of the interim government has moved to Kabul.

The former MOPH/AIG departments participating in this program are as follows:

##### **A. The MCH Department:**

The MCH department of the former MOPH/AIG provides training for MCH workers and supervision for the MCH officers (MCHOs). It is based in Peshawar, but its director general, who has been appointed director of the national MOPH MCH program in Kabul, will shortly move the MCH program there and integrate it with the existing

MOPH/MCH department. The IPH assists the MCH Department in curricula and materials development and production and has worked closely with MCH in all aspects of its work. The MCH department has worked closely with MSH in developing the MCH program and extending the MCH training and supervision services to the rural areas. The MCH department has a staff of four professionals, including 3 doctor-trainers and a mid-level health trainer. Its current responsibilities are as follows:

1. It trains the staff of MCH centers in MCH and retrains upper (MD) and mid-level health workers (nurses, etc.) to participate in the MCH program.
2. It developed and implemented the dai training program (under MCH) and the VHS training program;
3. It developed the MCH-RHO (MCH Regional Health Officer) and supervises these officers with RHA/Area-wide MCH responsibilities.

**B. The Preventive Medicine Department (PMD):**

The PMD supervises vaccinators, and is responsible for vaccination program supplies, equipment, planning and supervision in the areas not covered by the RHAs, or one of the international EPI cooperating agencies. It works closely with the international NGOs, bilateral and international agencies participating in the Afghan EPI. The PMD's EPI has a small program with 18 units in the field. The PMD has a small 7-person staff and limited planning or coordination capability. It relies heavily on technical assistance from international NGOs to plan and manage its program. It is currently based in Peshawar, but plans to move to Kabul.

**C. Institute of Public Health**

The Institute of Public Health is the former MOPH/AIG training facility. It was initiated in 1987, as the Alliance Health Committee's training committee, originally to train a cadre of primary health workers who would work in the communities of each member of the political tanzems (parties) which made up the Alliance Health Committee. Initially, training sites were set up in each of the mujahideen camps in Pakistan and then a centralized training center was established in August 1987. The training center managed curriculum development, and training methodologies, planning and conducting seminars, workshops and refresher training, testing and certification of health workers, assessment and evaluation of training programs, developing and publishing training and public education materials, audio-visual support, a reference library, management and administrative support, and coordination within the AHC and with other agencies.

At the time of the creation of the Afghan Interim Government's Ministry of Public Health, in April 1989, the Training Center was reconstituted as the Institute of Public Health. The objective was to achieve a degree of autonomy particularly for technical decisions within the training structure, to be able to provide technical training and related services to all participating organizations. Another objective was to begin to move the focus of the program from curative, first-aid services to primary health care. In addition to the training carried out by IPH, MSH also supported the development of BHW training centers in Afghanistan at what are now the RHAs. These training centers have focussed on Basic Health Workers and the primary health care system. Area training centers were established in Takhar and Balkh, in the Northern area, and were initiated in the Central area, in Ghazni and the South-South West, in Herat. However, the 2 training centers in the SSWA and HCCA have been cancelled due to lack of support.

Technical capabilities were developed first in the IPH Training Center and then expanded and transferred to the IPH. Technical sections were established to provide support in the following areas: A fully equipped audio-visual unit with 35mm and overhead projectors, 35mm cameras, VCR cameras, editors and players, etc.; a printing and publications unit which includes photocopy and duplicating facilities, photo-offset printing, etc.; a graphic arts and calligraphy unit which now has the capability to develop and produce visual aids suited for training programs and education for workers and a mainly illiterate clientele; and a reference library to provide access to a range of background materials. These sections provide the IPH with a high level of technical training support capability.

The focus of the IPH training program has been Primary Health Care, including training and refresher training for Basic Health Workers (male) and training of BHWs as Rural Health Officers. It has also provided PHC training for a range of curative health personnel and specific technical and management training. In 1992, it initiated training for female MCH officers for assignment to the MCH posts.

In October 1992, the IPH moved most of its activities from Peshawar to Jalalabad. The IPH director General has been appointed Minister of Health and the IPH will move to Kabul as soon as arrangements can be made for an appropriate building. The Paramedical Training Institute has been identified as the proposed site and the IPH's acting director has visited Kabul to make arrangements. It is expected that the principle technical units will move to Kabul and the Jalalabad institution will continue to function as an area training center.

IPH could provide technical backstopping, program planning and organization and curricula development services for a national MCH training program. It also has the capacity to develop public

educational and information materials and programs which should be a part of an MCH effort. The IPH is staffed and organized to plan, develop and implement training programs. It also has the capacity to develop and publish training materials, manuals, health education pamphlets, newsletters, etc.. In addition, it is experienced with developing training budgets, receiving and accounting for funds, disbursing funds as specified, clearing advances, and reporting accurately on program expenditures.

#### CONCLUSIONS:

The institutions identified for this project are managerially and administratively capable of adequately performing the work which will be assigned to them. The RHAs and zonal administrations have the capacity to control and manage both MCH and EPI work in their areas. The IPH has the capacity to develop training materials and to support training and community education programs in the field.

The RHAs have the capacity to prepare annual work plans with input from the different areas or zones which they cover. They have the authority and management capability to implement those plans, although it should be recognized that in the cultural, geographic and political context of Afghanistan, there cannot be the same level of implementation capability that could be expected in many other countries. The personnel in place in the area central offices and the zonal and area offices have a history of technical cooperation to achieve program goals. They seem to realize that health program work is worthwhile and should be done responsibly.

The management and administrative technical capability of the personnel who have worked in the institutions involved in this project needs improvement. Supervision and monitoring reflect a system of program controls rather than an effort to plan ahead and manage work responsibly to achieve program objectives. The program managers at all levels need to learn to assist the cooperating agencies with which they work, to improve their programs so that they can achieve mutually agreed objectives. Management support and assistance should be provided at all levels of the MCH program.

One institutional question the project must face is with regard to the ability of the RHAs and administrative centers to recruit women and to adequately support them to work in the clinics. There does not seem to have been adequate effort to establish and continue MCH clinics and to recruit and train women to work in the existing facilities. Male workers have been assigned to work in the MCH program and in facilities which were to have been staffed by women. If this project is to adequately serve the population for which it is intended, it will have to more effectively recruit, train, supervise and support women workers at all levels of the system.

10/25/93

## TECHNICAL ANALYSES

### 1. DESCRIPTION OF THE PROBLEM

National health statistics for Afghanistan are virtually nonexistent. Although often not precise, for planning purposes health, social and economic data are utilized from a variety of sources. Census figures and projections, demographic and health surveys, and Ministry of Public Health morbidity and mortality rates from government facilities are the most extensively applied. Such sources and statistics are impossible to obtain for Afghanistan.

The last census was conducted in 1975; difficulty in calculating current population figures based on twenty year old data is exacerbated by the long period of armed conflict concomitant with massive internal and external migration. In 1993, the population for Kabul is estimated to be that of either one million or two million, representing the enormous difficulty of establishing - much less maintaining - minimum demographic and health information statistics.

In the absence of empirically-based data, a combination of sources provides the best available population figures and disease-specific data for Afghanistan. The United Nations Office for Rehabilitation

Strategy in Afghanistan (UNORSA) 1993 report furnishes the most generally accepted figures and rates; isolated surveys and observations provide limited information, although hardly representative of the entire country. Neither UNICEF nor the 1993 World Development Report is able to report many of the most fundamental health statistics due to a lack of data availability.

Health is improved through a functioning delivery system with clients utilizing the services provided. An additional area of sparse data is the lack of knowledge regarding the beliefs and health seeking practices for infant and child illnesses and reproductive health. It is critical to define the principal causes of maternal, infant and child morbidity and mortality, and just as importantly to take into account the situation of families and children at risk and the determinants of their preventive and care-seeking practices. One of the few certain cultural influences dictates that female health providers are required to provide any meaningful reproductive health services.

Prior humanitarian assistance programs in Afghanistan were handicapped by the inability to conduct social science research; post war results are less than anticipated due to deficient recognition of the need for such information. Although extensive behavioral science research probably will not be able to be collected, any projected activities must include attention to the behavioral underpinnings of health and health seeking behavior.

Of the 12.9 million deaths of children less than five years of age from developing countries worldwide in 1991, 34 percent were associated with Acute Respiratory Infections; 29 percent related to malnutrition; 25 percent diarrhea related; eight percent from malaria; and nine percent from measles.<sup>1</sup> Although these figures reflect a loss of life from largely preventable causes, their applicability to the causes of Afghanistan child mortality is illustrative rather than definitive given the immense discrepancies between the Afghan context and most other developing countries. As an example, given the low measles coverage - less than 20 percent of the population - the proportion of deaths attributable to measles in Afghanistan would be much higher than the nine percent figure since measles coverage worldwide is more than 70 percent.

Given the lack of quantitative and qualitative information routinely used to ascertain the most effective and efficient interventions for a health project, the fundamental determinants of child survival and reproductive health serve as the basis for the Afghanistan Maternal and Child Health Services Project. These interventions are based on the A.I.D. Child Survival Strategy and the Agency's Health Assistance policy paper. Investing in Health, the 1993 World Bank Development Report, further supports these interventions and strategies as those that have proven to be the most cost-effective and successful in adding years of productive

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<sup>1</sup> World Health Organization, 1993.

life around the world.

## 2. Project Outcomes

The mix of reproductive health and child survival interventions to be provided thorough this project are well documented methods to decrease death and disease. Based on the technical justification and combined with additional training, education of families and health system delivery strengthening, the project stands a plausible likelihood at achieving the Project Goal.

The indicators to measure performance progress among the target population in the Afghanistan Maternal and Child Health Services Project include:

- \* exclusive breastfeeding rates sustained;
- \* increased administration of appropriate fluids for diarrheal dehydration;
- \* increased early recognition of pneumonia and referral to clinics;
- \* increased immunization coverage;
- \* increased use of modern family planning methods; and,
- \* increased access to reproductive health care services.

It can be expected that as a result of these activities the following outcomes would be achieved:

- \* decrease in diarrheal disease mortality;
  - \* decrease in deaths due to pneumonia;
  - \* decrease in vaccine-preventable mortality and morbidity;
- and,
- \* decrease in obstetric related morbidity and mortality.

### 3. BREASTFEEDING

Child survival begins before birth: deficient nutrition during gestation and multiple pregnancies without proper birth spacing are the primary causes of malnourished infants. Weight at birth is the most important factor in survival; an infant with a low birth weight of 5.5 pounds (2,500 grams) is at the highest risk of mortality. Nutrition continues to play an essential role in the four - six month period between birth and the introduction of food other than breastmilk. Exclusive breastfeeding is of major importance during the first months of life since this is the most critical period of child growth. An infant's health is sensitive to infection; breastmilk provides a balanced diet and natural protection from diseases. Exclusive breastfeeding can also provide natural family planning benefits for the mother.

For the first six months of life exclusive breastfeeding appears to be the accepted mode of infant feeding. Using Pakistan data as a proxy for Afghanistan breastfeeding practices, exclusive breastfeeding is the prevailing form of infant feeding; activities

in the project should reinforce this behavior to sustain the practice and ensuing positive benefits.

#### 4. DIARRHEAL AND RESPIRATORY DISEASES

An infant's nutritional requirements double after the initial six months of life; although breastmilk is still essential, supplemental foods are also required to meet the increased growth needs. Providing solid foods and liquids introduces common contaminants into the child's system; greater mobility by crawling and exposure to more than just the immediate family presents an additional opportunity to contract diseases in the environment and those carried by other children and adults. Illness (diarrheal, respiratory and communicable diseases) during the weaning period is also affected by the decline in passive immunity inherited from the mother.

One of the principal causes of infant and child death and illness around the world - as well as a major contributor to childhood malnutrition - is diarrheal diseases. Inadequate quantities and quality of water and absent or inadequate sanitary facilities are the principal reasons for diarrhea. Oral rehydration therapy (ORT) is a means to combat the life threatening dehydration from diarrheal diseases through oral rehydration solution (ORS) and nutritional therapy during and following the diarrheal episode. Although ORS does not cure diarrhea, the water-based solution of

sugar and salt replenishes the electrolytes and water lost during diarrhea thus allowing the body to restore and maintain its critical fluid balance until the infection subsides. Continued feeding with breastmilk and other foods controls the severity of the negative nutritional impact on the child from a diarrheal episode.

ORT starts at the household level with the administration of home-based fluids and, should symptoms persist, continues with referral for ORS using premixed packets at the MCH center level. ORT has been a major medical advancement in child survival, second only to the advent of vaccines.

Acute respiratory infections (ARI) are reported to be a major cause of Afghan infant and child morbidity and mortality. There has not been an ARI survey conducted inside Afghanistan, however ARI was the leading ~~case~~<sup>cause</sup> of death among children less than five years in the refugee camps. Records from patient registers in rural Afghan health facilities correspond with high ARI related deaths and illnesses.<sup>2</sup>

ARIs are divided into two categories: upper respiratory tract infections and acute lower respiratory infections (ALRI). Although children in both developed and developing countries experience a

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<sup>2</sup> The United Nations Office for Rehabilitation Strategy in Afghanistan (UNORSA), 1993.

high number of respiratory infections, bacterial infections of the lower respiratory tract resulting in pneumonia are much more life-threatening than common colds. Climatic conditions, overcrowding and poor hygienic practices are major contributors to a high incidence of ALRI. Young children, especially under one year, with low birth weight and poor nutritional status run the greatest risk of becoming infected and dying from ARI. The situations present in Afghanistan place children throughout the country at high-risk of ALRI.

The first course of action in decreasing ARI mortality is to prevent respiratory infections from two vaccine-preventable diseases included in EPI: measles and pertussis. As DPT (diphtheria, pertussis and tetanus) and measles vaccine coverage increases, many acute respiratory infections will be prevented. Curative care for ALRI is dependent upon early recognition and treatment with oral antibiotics. Following the approach described in A.I.D.'s Guidelines for Acute Respiratory Control, the project will focus on early detection of pneumonia and referral to MCH Centers for appropriate case management.

Universal agreement exists that despite the dearth of Afghan health statistics, diarrheal and respiratory diseases constitute the main causes of child mortality. It is highly probable that malnutrition in infants and children is a related cause of these deaths, being simultaneously a result of and a predisponent for enteric and

respiratory diseases. Given that the socio-economic and environmental situation of nearly all inhabitants is gravely deficient throughout Afghanistan (provision of potable water, handling and preservation of foodstuffs, living conditions, systems for the disposal of excreta and solid domestic residues), a high-risk of enteric and respiratory infections persists.

With most of the Afghanistan population living under such precarious circumstances combined with low levels of education - assuming that the standard of living will not dramatically improve during the remainder of this century - it is unlikely that a decline in the high incidence of these diseases is feasible. What can be attempted for effective mortality control is identification of diarrhea cases to be treated with traditional home-based fluids, therapeutic measures with ORT, and identification and referral to the MCH center for pneumonia control. Achieving such indicators should result in a decrease in deaths from dehydration due to diarrheal diseases and pneumonia.

#### 5. IMMUNIZATION

A major cause of mortality and morbidity of infants and children worldwide is vaccine-preventable diseases. Immunization programs are the cornerstone of any child health program and currently cover six target diseases: measles, tetanus, pertussis, polio, diphtheria, and tuberculosis. Vaccinating infants, children and

women in even the poorest countries of the world has proven to be the single most effective child survival intervention. Even when social, political and economic factors are unfavorable immunizations are mandatory for improvement in child survival rates. No other child survival intervention approaches the gains made by providing immunizations: the World Health Organization estimates that immunization programs prevent 3.2 million deaths per year around the world from measles, neonatal tetanus, and pertussis as well as over 400,000 cases of paralytic poliomyelitis.

Supporting an immunization program can gain political credibility and public goodwill to generate support for work in less visible areas such as control of diarrheal diseases and institution-strengthening. A.I.D.'s experience since 1985 demonstrates that EPI can be the beginning of a sustainable health system accessible to even the most deprived and most remote families. A benefit of immunization activities is that of immediate success: families quickly realize that contact with health workers can result in their children living past the first few years of life and health workers are motivated to continue providing services despite the obstacles and constraints they face every day.

The latest available coverage rates for Afghanistan are for 1991, estimated at two percent for tetanus toxoid (TT), 21 percent for

BCG, 23 percent for DPT 3 and 19 percent for measles.<sup>3</sup> The most significant challenge to expanding coverage is that of TT for women of reproductive age: coverage will continue to remain low until both sufficient numbers of female health workers provide TT immunizations and strategies are developed to reach women.

Rural surveys found that 50 percent of children with measles die during measles epidemics.<sup>4</sup> Given the extraordinary impact measles has on mortality, the deleterious effect on a child's nutritional status more serious than any other common infection, and its contribution to diarrhea and pneumonia, measles immunization is the most cost-effective public health measure available to improve the health of children. Without measles vaccination anyone regardless of age is susceptible; given such a low coverage level epidemics are a serious potential for entire segments of the country's population.

Most Afghan programs report number of doses provided instead of coverage rates due to inconsistent standardized reporting, absence of population-based data, deficient supervisory systems and difficulties in conducting surveys. Conventional reporting is further complicated because Afghanistan programs include children

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<sup>3</sup> Expanded Programme on Immunization, Information Summary for the WHO Eastern Mediterranean Region. World Health Organization, 1993.

<sup>4</sup> United Nations Office for Rehabilitation Strategy in Afghanistan, op. cit.

less than two years of age (instead of the standard children under one year) to assist in dispensing as much protection against death as possible due to vaccine-preventable diseases since EPI services were close to nonexistent for such an extended time period.

Acceptance of immunization does not appear to be problematic in Afghanistan; injections are perceived to be modern medicine and the low levels of coverage do not necessitate addressing substantial attention to efforts such as knowledge, attitude and practice studies necessary to motivate communities to take advantage of immunization services -- with the notable exception of tetanus. Should the EPI component achieve 60 percent coverage, to sustain that level and incorporate additional families will require much more concentration on motivation and enabling factors.

Given the apparent high acceptance of vaccines, cost recovery through users fees may be a possible approach. Even in the poorest countries, more than half of health care cost is provided through private out-of-pocket payments although the health service utilization effect due to imposing user fees is inconclusive.<sup>5</sup> Caution for implementing user fees given the Afghanistan context is severalfold: the poorest and most in need might go unprotected; communities are already providing in kind contributions of time, transport and forgoing income to be vaccinated; a financial and

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<sup>5</sup> Investing in Health. The World Bank Development Report, 1993.

administrative system would have to be established; Afghanistan is a cash restrictive, i.e. barter based, society; and all organizations providing vaccines would need to follow a common strategy.

Immunization activities are delivered through the vertical program mode, i.e. provided by a stand alone system. Given the weak infrastructure and very high rates of infant and child mortality and morbidity, substantial support for both immunization and MCH services is required to produce meaningful results. The rationale to integrate EPI and MCH for financial and staff resource cost containment is premature given the conditions in Afghanistan. Lessons from A.I.D.-assisted programs support introduction of health interventions as separate, vertical programs. Once new services are fully functional and accepted, consideration can be given for them to be integrated permanently into the existing public health system.<sup>6</sup>

## 6. REPRODUCTIVE HEALTH

Women throughout the world in circumstances comparable to those in Afghanistan -- subsistence level living, low literacy, absence of obstetric care, poor economic conditions and analogous cultural practices -- are at high risk of life threatening complications

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<sup>6</sup> A.I.D.'s Child Survival Program: A Synthesis of Six Country Case Studies. AID/CDIE/E/POA, 1993.

and death from pregnancy and delivery. Close to 80 percent of maternal deaths in developing countries result from pregnancy-related causes. Hemorrhage, unsafe abortion, hypertensive disorders, sepsis and obstructed labor are the five main causes of death.<sup>7</sup>

In 1975 the National Demographic Survey reported a maternal mortality rate of 690 per 100,000 live births: 200 times higher than those in industrial countries. Given the absolute deterioration in the living conditions of women since the survey was conducted, the 1975 rate is considered to be highly optimistic although the actual magnitude of the problem and its causes can not be precisely assessed.

A typical Afghan woman is isolated from education, health information, powerless in the decision-making process, and perceived as a producer and caretaker of sons. Most women have poor nutritional status, are frequently pregnant with ~~closely~~ births and are assisted in labor and delivery by traditional birth attendants - dais - or family members. Her contact with the health system for reproductive health services is further complicated by the lack of specialized health care for women and an acute shortage of trained female health workers.

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<sup>7</sup> Tinker, Ann and Marjorie A. Koblinsky. Making Motherhood Safe. The World Bank, 1993.

Family planning services, particularly when delivered through community-based distribution, are among the most cost-effective means of improving maternal and child health. (Maternal mortality profoundly affects child survival: the chances of dying for children less than five years increase by up to 50 percent when a mother dies.) Family planning can also provide an efficient means of improving the welfare of poor families, especially where private medical care is unavailable. Short birth intervals pose substantial risks to child health throughout the first five years of life. If closely spaced births were delayed for twenty-four months from the previous birth, overall child mortality might be reduced by more than 20 percent.<sup>8</sup>

To provide for safe pregnancy and delivery in the limited health infrastructure of Afghanistan will depend on developing skilled female health workers. Not only can such women become competent in safe and hygienic delivery practices but their training should include recognizing danger signs during delivery with appropriate referral. An effective service to be performed by trained female health workers would be to schedule a visit to examine the mother and infant at the end of the 40 day postpartum seclusion period.

With increased use of modern family planning methods and expanded access to reproductive health care services it is conceivable that the project could achieve a decrease in obstetric related morbidity

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<sup>8</sup> The World Bank Development Report, op. cit.

and mortality.

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