

Health Care in MUSLIM ASIA

Development
and Disorder
in Wartime
Afghanistan

Ronald W.
O'Connor, M.D.

MSH
SCIENCE FOR HEALTH

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HEALTH CARE IN MUSLIM ASIA

*Development and Disorder in
Wartime Afghanistan*

Ronald W. O'Connor, M.D.



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MANAGEMENT
SCIENCES FOR HEALTH

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Dedication

To the thousands of Afghans who remained inside to sustain their communities and health services throughout the war; and

to Dr. S. M. Amin Fatimie and Dr. Bill O'Leary, whose examples confirmed to those privileged to work with them that competence, cooperation for the common good, commitment and good judgement can make a difference in development, even in the worst of times.

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Acronyms

ABC	Value analysis for inventory classification
ACBAR	Agency Coordinating Body for Afghan Relief
AHC	Alliance Health Committee
AHSA	Area Health Service Administrations
AHSSP	Afghanistan Health Sector Support Project
AID	Agency for International Development, Washington, D.C.
AIG	Afghan Interim Government
AMEG	American Manufacturers' Export Group
AMI	Aide médicale internationale
APO	Afghan Program Office (of UNICEF)
ARI	Acute Respiratory Infection
AVICEN	Afghanistan Vaccination and Immunization Center
BCG	Bacillus Calmette-Guérin (tuberculosis vaccine)
BHC	Basic Health Center
BHW	Basic Health Worker
CDD	Control of Diarrheal Disease
CHC	Comprehensive Health Center
CMC	Coordination of Medical Committees
COP	Chief of Party
DICP	Drug Inventory Control Package
DPTP	Diphtheria Pertussis Tetanus Polio (trivalent vaccine, including injectable polio vaccine)
EPI	Expanded Programme of Immunization
FHW	Female Health Worker
FIC	Fully Immunized Child(ren)
FM	Freedom Medicine (also Financial Management)
FO	Field Operations
GAC	German Afghanistan Committee
GLP	Good Laboratory Practice
GMP	Good Manufacturing Practice

HCCA	Health Committee for Central Afghanistan
HCPP	Health Committee for Paktya and Paktyka Provinces
HIM	Harakat Islami Mohseni
HSD	Health Services Development (of the MOPH)
IMC	International Medical Corps
IPPF	International Planned Parenthood Federation
IPV	Injectable Polio Vaccine
IRC	International Rescue Committee
ISI	Inter-Services Intelligence
IU	Immunization Unit
MCH	Maternal and Child Health
MCI	Mercy Corps International
MDM	Médecins du monde
MIS	Management Information Systems
MOPH	Ministry of Public Health
MSF	Médecins sans frontières
MSH	Management Sciences for Health
MTA	Medical Training for Afghans
NASR	Sazman e Nasr
NCA	Norwegian Committee for Afghanistan
NGO	Nongovernmental Organization
NWFP	Northwest Frontier Province
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
PAF	Pakistan Air Force
PDPA	People's Democratic Party of Afghanistan
PMD	Preventive Medicine Department
PPHO	Provincial Public Health Officer
PVO	Private Voluntary Organization
RHO	Rural Health Officer
RMO	Regional Medical Office
RONCO	Contract procurement agency
SAM	Soviet-designed, heat-seeking, ground-Air Missile
SCA	Swedish Committee for Afghanistan
SCF/UK	Save the Children Fund/United Kingdom
SCNA	Supervisory Council of the Northern Area

SMU	Salaam Mobile Unit
SSR	Socialist Soviet Republic
SSWA	Southern and Southwestern Area
SWABAC	South and West Afghanistan and Baluchistan Committee
TA	Technical Assistance
TBA	Traditional Birth Attendant
TT	Tetanus Toxoid
UNFPA	United Nations Fund for Population Activities
UNHCR	United Nations High Commission for Refugees
UNICEF	United Nations Children's Fund
UNOCA	United Nations Co-ordinator for Humanitarian and Economic Assistance Programmes Relating to Afghanistan
USAID	United States Agency for International Development (mission offices)
USIS	United States Information Service
VEN	Classification of drugs as Very essential, Essential, and Nonessential
VSF	Vaccine Storage Facility
WHO	World Health Organization

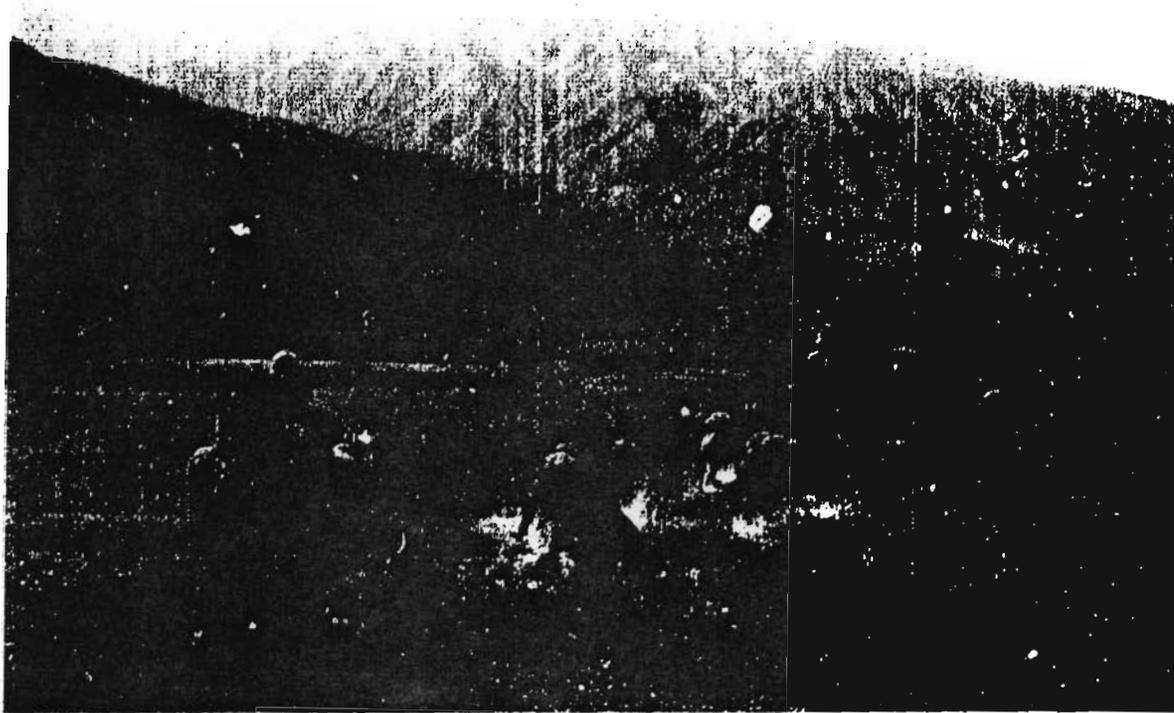


Figure I-1: Caravan across the border. Donkeys loaded with medical supplies, health workers set out for their villages.

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Preface: The Importance of Development in Afghanistan and the Moslem World

Why should the development community concern itself further with Afghanistan where, despite the enormous sums of money that have been spent, conflict, political infighting and disorder continue? Why not let the Afghans go on with their squabble and turn instead to more visible problems closer to home that seem more urgent? The simple answer is that the problems of Afghans cannot be put behind us.

The contrasting experience of the post World War periods should be instructive: the punitive and neglectful post World War I "settlement" led rapidly back to global war, in stark contrast to the catalytically constructive post Second World War era in which Europe and Japan were stimulated to rebuild themselves. Unfortunately, and ironically given the changes in the former Soviet Union's external interests, the beginning of the last decade of the century does not yet suggest that the lesson is being seriously applied to Afghanistan.

While aspirations for social justice motivate many individuals to promote development, immediate self-interest should also move the rest, and particularly the more advantaged. In today's global environment of interdependence and available destructive technology, some in the Moslem world (who see no realistic prospect of pursuing a better life for their families through peaceful means) are beginning to turn to terrorism. Frustrations and disenchantment among the young are being expressed in the bombing of airliners and buildings. At the same time, the communications revolution ensures that nightly TV images reinforce the disparity between the haves and the have-nots.

The future of Afghanistan remains an open question. For a small fraction of the vast sums spent on destruction, the more advantaged nations can, in their own self-interest, help Afghans along a path to reconstruction. Even though bitter

political and military infighting may continue in some areas of Afghanistan, large regions of the country are demonstrating success in dealing locally and effectively with development problems without waiting for a national political settlement.

Paul Kennedy, in his analysis of global prospects for the next century, observed the need for effective multinational support for development that can channel national energies constructively.¹ During the recent war period in Afghanistan, the sphere of health services development has demonstrated one platform of positive experience on which to build the prospect of a better future.

Today's generation of Afghans will create a future for themselves which will involve the larger world community in one way or another. With modest levels of encouragement and financial support from the world community, the Afghans can make their future a constructive one, which in turn may help the rest of us to concentrate on doing the same.

Note

1. Kennedy, Paul. *Planning for the Twenty-first Century*. Random House, 1993.

Acknowledgments

In the context of multinational efforts to aid Afghanistan, many efforts influenced the events and activities described here. From the earliest days of crystallizing cross-border effort in health, we drew on, and worked with, many colleagues and organizations.

Many organizations were active and contributed to the effort: The Swedish Committee for Afghanistan, Médecins sans frontières, and Aide médicale internationale were among the pioneers. AVICEN, International Medical Corps (IMC), Mercy Corps International (MCI), Save the Children Fund U.K., Freedom Medicine, Norwegian Committee for Afghanistan (NCA), Sandy Gall Afghanistan Appeal, the International Committee of the Red Cross (ICRC), and the Italian Cooperation for Development were all institutional partners of great energy.

In addition, many individuals made real differences, and some are noted below; I apologize for those who may have been omitted in my reconstruction of the last decade.

Mr. Zulfikar Ahmed contributed to the phase-in of financial management systems for cross-border financial controls and assumed full on-site responsibilities during the Gulf War crisis.

Mr. Mahmood A. Bajwa's dedication to managing a warehouse and distribution center which shipped millions of dollars of medical supplies to Afghanistan contributed immensely to making logistical support a reality over a decade of harsh operating conditions.

Carlton Bennett, A.I.D. Contract officer during the phase-out period, was knowledgeable, careful and extremely fair.

From the start of the immunization activities, we experienced smooth coordination with UNICEF, stimulated by the dynamic efforts of Mr. Akram Bireddine in New York and the UNICEF field staff in Peshawar. WHO provided a continuing focus for the sharing of data and construction and upgrading of health information systems.

Larry Crandall, A.I.D. Representative for Afghan Affairs, demonstrated bureaucratic daring and innovative leadership. His strong support for develop-

ment work in the face of political turmoil and his consistent good humor were often critical.

Hank Cushing, Regional Affairs Officer in Peshawar, was the "grand old man" to all expatriates in Peshawar.

Dr. Willy Demeyer, European Community Representative in Peshawar, shared a concern for coordination of donor effort and actively participated in establishing several multiagency coordination groups.

Nancy Dupree, certainly the doyenne of expatriate long-term commitment to the study and dissemination of Afghan cultural information, ran the Afghan Resource Center in Peshawar, the central repository of information for all who worked in the country.

Tom Eighmy's earlier work in Afghan geographic studies and demography was an invaluable asset when combined with his primary role as A.I.D.'s representative for cross-border technical work in the early years.

Anders Fange, the first Director of the Swedish Committee for Afghanistan, maintained a large pioneering health program, and founded the Coordination of Medical Committees, which brought together ten NGO health programs and their staffs.

Dr. Sayed Mohammad Amin Fa'imie, a catalytic force in forming the Institute of Public Health, provided dynamic leadership and organizational skills that were central to the success of training programs conducted under the auspices of Afghan political organizations in both Pakistan and Afghanistan.

Tom Goutierre, and his colleagues at the Afghan Studies Center at the University of Nebraska, were heavily involved in training through the early 1980s.

Roger Helms created the first efforts at geographic information system automation, which led to the mapping and display of service data for all agencies working cross-border.

Pam Hunte, another long-time student of Afghanistan, provided field experience in planning for women's program development.

Ariff Jan, MSH's first local employee and a senior staff member throughout the project, was a superb administrator with vast experience in program and people management, whose vitality and wise counsel contributed greatly.

Dr. Abdul Latif, Dr. Obeidullah, Mohammad Naveed and Ir. Enayat, their MOPH counterparts in Peshawar, the Area Health Service Administrations in Badakhshan, Taloqan, Mazar-i-Sharif, Maimana, Herat, Shindand, Ghazni Behsud, and Panshir, and the individual vaccinators in 122 of Afghanistan's 325 districts demonstrated that teamwork and flexibility could overcome many immense obstacles of time, resources, and geography as well as politics to make immunization a reality.

Dr. Mohammad Masood conducted field assessments throughout the war that enabled training program managers to adapt and improve continuing education for health workers throughout Afghanistan.

Mr. Ahmad Saeed Osmani became a key figure for the international assistance community through his computer mapping skills for field program management.

Douglas Palmer, Health Development Officer and Project Manager, was always anxious to help.

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Jonathan Sperling, Deputy A.I.D. representative, was always a good friend and strong supporter of the cross-border effort.

Youssef Tawfik led the cross-border survey planning and analysis that provided the first coherent picture of internal health activities across the country.

Tom Yemas, Director of the International Rescue Committee (IRC) was instrumental in establishing ACBAR, the Agency Coordinating Body for Afghan Relief.

Mr. Aziz Yusufzai supervised a team of young Afghans to maintain microcomputer systems, which were an essential asset in a complex cross-border setting.

Many MSH colleagues worked on aspects of the cross-border program over the life of the effort: John Eaton on management training; Michael Enright, Kip Eckroad and Randy Wilson on information systems; Diana Silimperi on women's program development; and Louis Bucciarelli on backstopping support and phase down.

Barbara Timmons worked extensively on early drafts of this material. Joanne Tighe completed the editorial and preproduction tasks with help from Alan Yost, Alden Detwiler, Claire Bahamon, Louis Bucciarelli, and Corinne Nagy.

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Introduction

Afghanistan in Recent Times

Geography has made Afghanistan a crossroads throughout the history of land travel, from the spice and silk routes, to Alexander the Great, Marco Polo, and the spread of the Moghul empire to India. In the nineteenth century, Russia and England saw themselves in the “great game” for central Asian hegemony that was played out on the middle ground of Afghanistan. As a crossroads in a high, often beautiful, yet harsh land, Afghanistan has become the home of many cultural and ethnic groups, with long histories of trade and conflict, both internal and external, commercial and cultural.

Afghanistan made overtures for Western military and development assistance after World War II, but the nation was receding from Western attention as Asian trade and communications shifted visibly to sea and air, bypassing the old crossroads of the land routes. This transition was documented in a photograph taken of President Eisenhower and King Zahir Shah at Kabul Airport in the late 1950s, where the presidential plane “Columbine” in the background reflected the last days of the short-hop, propeller-driven Constellations. The Boeing 707 would soon eliminate the need for a refueling stop between Istanbul or Teheran and south Asia.

Internally, tribal, ethnic, and commercial rivalries continued to dominate daily life. Externally, the cold war crystallized Soviet concerns for border spheres of influence and began to rekindle Western nervousness over “vital” interests: what if the Soviets walked through Afghanistan and Baluchistan to create unfettered access to warm-water ports?

Development issues began to emerge as proxies for political influence: as immediate neighbors, the Soviets shored up border security with strong military links, began to improve the Afghan road network southward from their border, and increased trade through exchanging grain for Afghan natural gas. Europeans favored trade and modest levels of cultural exchange, and the U.S., to balance Soviet visibility, opted for developing infrastructure: additions to the road network from the south and west, irrigation, schools, air transport, and, eventually, health.

The communist takeover and Soviet invasion in 1979 set the stage for the latest scrambled alliance of Western and conservative Muslim states; this time, the West and the Arab world saw parallel interests in responding when the communications revolution put Afghanistan right in the center of world attention on nightly TV. The Muslim world saw a godless takeover, and the West saw another case of superpower aggression, this time by the Soviets. Worldwide, everyone saw the spectacle of a brutal mismatch between high-tech helicopter gun ships and a tenacious people defending their homeland with their bare hands. Aid became popular, and resources flowed at rates which far exceeded anything ever experienced in that country. Throughout the 1980s, the struggle was primarily military and political, with hundreds of millions of dollars of covert aid flowing annually from the Persian Gulf states and the West, while humanitarian assistance was but a side show. The experience illuminates the emerging struggle for health in a dynamic yet traditional Muslim environment on the southern face of central Asia.

An appreciation of the ethnic palette of Muslim central Asia underlies an understanding of much that happens there. Things happen (or do not happen) in the Afghan context as a result of the ethnic diversity and group dynamics which form the substrata of Afghan life. Multiple social networks serve different purposes, and while health services may cross many of them, one cannot assume that delivering services using one network is compatible with paying for them using another. A brief discussion of some of these cultural complexities appears in Appendix A, and detailed studies by Louis Dupree and others exist.¹ The impact of these interactions on health systems is the focus of this work.

Finally, the war produced vastly different ethnic migration rates and refugee populations: while there has been no numerically dominant ethnic group, the Pashtu, who have dominated Afghan political life for the last century, formed the vast majority of the over three million refugees, leaving other groups internally in more prominent positions in the actual fighting and subsequent civil administration of large areas of the country. The newly enfranchised have demonstrated their abilities and will be unlikely to settle for a return to the old hierarchy.

Trends in Health Resources and Health Status

Afghanistan has long topped the international listings of morbidity and mortality for numerical as well as alphabetical reasons. While the available figures may be imprecise, few would argue that Afghanistan has long been a difficult place in which to raise a healthy family.

The absence of structures to collect the common health statistics of births, deaths, and illnesses led to spot surveys in the 1960s, such as the pioneering efforts by Buck.² Others followed in the 1970s,³ with a major national sample

survey giving the first serious public estimates of Afghan demographics.⁴ By 1991, the United Nations estimated that Afghanistan was experiencing the most extreme conditions in each category, with the highest birth, death, infant mortality, and fertility rates in Asia.⁵

UNICEF's annual *State of the World's Children* report ranks countries by rates of mortality of children under five. The list of 30 countries with the highest rates is abbreviated in Table I-1 to include the 1st and every 5th country in the top 30. Again, Afghanistan led the list of the least advantaged in infant mortality, life expectancy, and basic immunization, underscoring the particularly desperate circumstances of women and children, who are dying at rates 10 to 100 times those experienced in countries where development, education, and basic health services have largely controlled unnecessary and preventable causes of death.

This book will not try to refine these numbers but accepts them as a rough baseline to confirm that Afghan health prospects were never good and that war made them worse. It will describe the processes used through the war of the 1980s to deal with the health issues underlying these indicators, when war and civil disorder destroyed much of what previous efforts had accomplished in building access to health services for the Afghan people.

Table I-1
Basic Health Indicators (1988)

Very high < 5 Mortality Rate Countries	< 5 Mortality Rate	Infant Mortality Rate	Life Expectancy at Birth	% Imm. with DPT	% Preg- nant Women Immu- nized against Tetanus
1. Afghani- stan	300	171	42	25	6
5. Sierra Leone	266	153	41	25	50
10. Niger	228	134	45	16	8
15. Rwanda	206	121	49	80	43
20. Yemen	190	115	51	29	3
25. Sudan	181	107	50	53	20
30. Haiti	171	116	55	49	56

Source: UNICEF, *State of the World's Children*, 1991.

The Health Environment in Prewar Afghanistan

Prewar trends and actions in health services are described elsewhere,⁶ and are only summarized here:

(1) With few alternatives, Afghans used nongovernmental sources for much of their health-seeking: *hakims* (local healers), *dais* (traditional midwives), medicine sellers, and shopkeepers were the first line of approach once they looked beyond traditional remedies and outside the family circle. Sources of health communication were few: TV was unknown, radio largely unused, schools primitive, and literacy low. The most active health entrepreneurs were merchants and drug representatives; yet health was a priority, with rural people spending scarce resources, often several percent of their annual income, for drugs and treatment.

(2) International assistance efforts fell into two categories: direct aid in patient care and strengthening individual local clinics, supported by private voluntary organizations (PVOs) at modest levels, and large-scale public health and prevention programs for immunization, malaria control, water supply, and (in the 1970s) primary health care through government services.

(3) Tensions between centralized, hospital-oriented curative care and more decentralized, community-centered primary care shifted as government policy makers tested, and began to appreciate, the limits of direct government services and financing. Positive experiences with the potential of village *dais* and basic health workers, properly trained and supported, fostered a greater focus on creating coherent national policy guidelines and less on centralized provision of services: community mobilization and local initiative began to emerge in health.

(4) Administrative reforms, such as the promotion of essential and generic drug use, began to make perceptible changes in government approaches to health management, and encouraged those who were inclined to see local responsibility and management of services as more productive than central control.

The War Period

With the war, health services rapidly became limited to secure enclaves and then to the cities alone. Many professional and government workers were at risk in factional fighting among parties; doctors and health workers fled the country,

with a few escaping to rural areas to wait out the struggle with relatives or to work with resistance groups. The war made progress in health services development a remote prospect for the entire country.

Why try to promote development in such confusion? At the beginning, interest grew from three motivational camps which were often compatible and reinforcing:

- those who felt it imperative to give noncombatants hope for a better future through evidence that the world remembered their plight. They wanted to demonstrate that compassion for individuals and families endures in the face of political and military conflicts;
- the politicians who opposed a communist power grab, whose funds exceeded their military needs and gave them enormous influence;
- the development wallahs, who believed that investments in training and institutional development can occur in the face of, and outlast, conflict.

This book describes practical attempts to demonstrate that some meaningful advancement in basic health services can be produced even in times of war and social disorder.

Notes

1. Louis Dupree, *Afghanistan* (Princeton: Princeton University Press, 1973).
2. Alfred A. Buck, *Health and Disease in Rural Afghanistan*, Johns Hopkins Monographs in International Health (Baltimore, Md.: York Press, 1972).
3. "A Field Survey of Health Needs, Practices and Resources in Rural Afghanistan" (Boston: Management Sciences for Health, 1975); "A Health Survey of Three Provinces of Afghanistan" (Boston: Management Sciences for Health, 1977).
4. *National Demographic and Family Guidance Survey of the Settled Population of Afghanistan*, vols. 1 and 2 (Buffalo, N.Y.: State University of New York, 1975).
5. United Nations Fund for Population Activities, *State of the World Population*, 1991.
6. Ronald W. O'Connor, ed., *Managing Health Systems in Developing Areas: Experiences from Afghanistan* (New York: D. C. Heath, 1980).



Figure 1-1: PVOs in Peshawar. Dozens of private voluntary agencies arose to serve refugees who had fled the war in Afghanistan.

Chapter 1

From Working Alone to Working Together

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Vignette: Working Inside under the Bombs

The air is still as the brightening dawn begins to warm the valley. People stir, squatting in the sun to watch the horse and rider led up the hillside to the mud house between the rocks. Two women with a limp child in arms make a quick exit to make room for the rider being carried into the hut, where an Afghan team and a French doctor begin to unwrap the stump of a leg wound.

Midmorning, the air begins to vibrate. In a few seconds, the thudding of helicopter gunship rotorblades scatters the villagers into gullies and the shade of the few trees left along the empty watercourse. The gunship turns up another valley and the thudding dies away. The horse tied in front of the aid station calms down, and people return to their work. No attack today.

Appearances deceive. A village is pulverized to rubble, with no sign of life, while one in the next valley appears untouched. A second look reveals that in the obliterated village, an early warning permitted everyone to escape with prized belongings to refugee camps over the Pakistan border. In the village that looks untouched, the child playing in the path has no fingers from picking up a toylike bomb months earlier, and there is no water in the canals, which for generations reliably irrigated the land. Others have died of dehydration and pneumonia, the able men have been conscripted, and hunger is widespread.

What Was Happening Inside?

Conflicting views of what was happening inside Afghanistan persisted throughout the post-invasion period. The outsider's view (often valuable for drumming up support) was that the Soviet invasion and consistent war pressure from Kabul had reduced the country to rubble, creating a vacuum where social structures, market life, transport, education, and health services had been eliminated over large areas, and creating the largest cross-border flow of refugees in our time.

The view from inside was often surprisingly different; the isolation of mountain-bounded valleys produced patchwork patterns where severe war damage coexisted within a few miles of untouched villages. Even fiercely contested zones such as the Panshir Valley harbored many unexpected findings:

In Panshir, 14 months after the Russian invasion, even while the valley was under sustained attack, I could see that a vigorous life remained: Local leaders were rallying the remaining population to carry on; they were collecting taxes locally; schools for both boys and girls were open; a jail and judiciary system operated; a library was open; and within 3 days of our arrival the local Panshir organization had repaired the roof and floor of the bomb-damaged hospital. We started medical training with 17 male students, training for women in the villages, and, after 3 months, a vaccination campaign in the valley.

Even large areas, like Nuristan, covering 4 districts, or Hazarajat, covering about 40 districts in 11 provinces, were virtually free of government garrisons and were bothered only by aerial bombings.

Vignette: A Trip to Jaghori

In September 1983, little pointed to the presence of an occupying force. The trip by pick-up from Quetta was pre-arranged by the Jaghori Hazara transporters, and even an encounter with a government tank column on the Kabul-Kandahar highway did little more than provoke short-lived nervousness. The revolutionary Islamic council (shura) of Hazarajat, formed in 1979, had created an alliance of all resistance parties in 9 provinces and 39 districts. Fighting was limited to the periphery in the east and the north.

The main bazaars prospered from trade with Pakistan and Kabul, even though no male between 15 and 40 would venture into the cities, fearing forcible enrollment in the army. Occasionally, the bazaars would be targeted for bombings, but the resistance's intelligence sources were usually able to inform the population a day ahead. Only once, in mid-winter with one and a half meter

of snow on the ground, was the hospital evacuated. Heavy snow prevented the jets from finding their target; by the time the weather cleared, they had lost interest in attacking.

The governor of Jaghori, elected by the shura, supervised transport and bazaar prices and negotiated between disputing parties and interest groups. He would also judge and sentence criminals and government infiltrators. Taxes (up to 20% on income and harvest) were levied, and every able man had to serve six months in the mujaheddin forces, supported by his family. Schools for boys and girls existed, and in Ghujur, one library even had a special women's section.

The hospital of Médecins sans frontières (MSF), leveled in 1981 by aerial bombing, was rebuilt on the mountain slopes, away from population centers, just in case it became a target again. Patients came from as far away as eleven days' walking distance, and more than 400 chronic cases, most of them TB patients, received regular follow-up care. About 40% of all villages in Jaghori were vaccinated by December 1983. Women made up more than 50% of all outpatients and 85% of all house visits for emergencies.

The fact that people were able to survive, and to maintain age-old social structures, did not diminish the deprivation that was felt the hardest: a large portion of the active male population was unavailable, since they had been drafted into the army, had become part of armed resistance groups, or had died. In most places, life at the subsistence level could continue, since even before the war the population was largely dependent on its own agricultural production. The only difference in agriculture was that it was now taken over by women or the elderly and had diminished in yield. The educated had left, and very few medical professionals were available in the first few years. In addition, in the places where traditional structures had broken down, insecurity increased and often led families to a final decision to leave the country.

A Mix of Conventional and Guerrilla Warfare

While a few places—the Panshir Valley and the plains around Khost, western Herat, and Kandahar—were the scenes of major conventional offensives, much of the rest experienced sporadic guerrilla attack and response: outside major cities, dispersed settlement patterns and lack of heavy equipment on the side of the resistance precluded widespread, generalized battles.

Many people were killed, many were hurt, and many more lost their dwelling places, but fighting was localized and episodic. Even if major military operations involving tanks, armored personnel carriers, helicopters, and jets went on in one valley for weeks, those working only 10 kilometers away as the crow flies could feel quite tranquil, being separated from the action by two mountain ridges. Journalists were often frustrated, since they could pass months in an area without seeing any action.

Major danger came from indiscriminate bombings by jets and helicopters of suspected mujaheddin strongholds, helicopter raids on suspected caravans, butterfly mines dropped along suspected trails, and minefields left behind government outposts. Reprisal bombings after ambushes by the resistance would target the closest villages. The second danger was the omnipresent AK47 assault rifle, the Kalashnikov, which, in the hands of inexperienced and very young users, often resulted in wounding or killing the user or bystanders.¹

More than actual fighting, the fear of air attack, in the absence of defense systems to bring down the enemy, interfered with normal life by disrupting trade routes and local bazaar hours. Farmers could not use available land which created artificial shortages on the local market.

Vignette: Bazaar life in Balkh

In Balkh, after four months of intense fighting in early 1985, the valleys in the northern foothills were again under mujaheddin control. The major bazaars, normally held until 1:00 p.m., were systematically bombed in a pattern that continued for months. As bomber fighters from Dushanbe would reach the bazaar around 11:00 and drop a load, the hours were shifted to 5:00 to 11:00 a.m.

A small hospital, a 30-minute walk from the bazaar, adapted its schedule to finish consultations by 11:00, when all hospitalized patients were transported to caves for protection against air raids. Patients who were difficult to move (e.g., with a broken femur in traction) were left permanently in the caves. Typically, the sighting (or more often hearing) of reconnaissance helicopters left enough time to evacuate all visitors. Outpatients were only permitted to come from a nearby village in groups of 20, to prevent crowding on the hospital grounds. The caves had limited space, and a hit with splinter bombs would have had disastrous consequences.

Although much respected by the local population, expatriate health personnel were always accompanied by armed bodyguards. Several commanders had been assassinated by young boys (11-12 years old) in different bazaars. Since the Kabul government would pay prizes for such activities, and the youngsters escaped the scrutiny of the many mujaheddin checkpoints, local authorities feared that the foreigners might be targeted in a similar way.

Vignette: Reaction to Rumors of Weapons Escalation

When word got out that new weapons had reached the area, bombing increased. Jets would circle and draw fire, until the anti-aircraft sites were identified and taken out by the armored MIG-24s. When all anti-aircraft sites were destroyed, Soviet aircraft raided the valley, with flares protecting them from the few surface-to-air missiles. They burned the suspected village with phospho

rus bombs and targeted all former anti-aircraft sites and the hospital with fragmentation bombs. Twelve women and children died in the village, and some 20 more—of whom 4 died soon after—were seriously burned. Two mujaheddin were hurt by shrapnel. The hospital took some fragments but suffered no direct hit. For two days nobody even thought of coming to the hospital, since rumor had it that it was destroyed, which inevitably left some of the wounded without lifesaving care. The “new weapons,” mortars with increased range, were used a few days later to destroy the living quarters of Soviet engineers and their families in the Shebergan gas installations.

The Role of the Commanders

The often confused external views of what was happening inside were in large part a product of the clouded perception in Peshawar of mujaheddin “commanders.” By the end of 1979, many local rebellions had kicked out or confined to besieged garrisons the central government administration. Local power structures remained intact in many places, however, and central administrative activities had been largely limited to tax extraction. Traditional rural leaders (*ulema*, *khans*, and tribal elders), who had been targeted under Daoud and the early communist regime as the pillars of medievalism and backwardness, reemerged as the new references of authority. A few survivors of the aborted 1975 Islamist coup gained much respect for prophetic foresight.

Military skills and firepower rapidly became the prerequisites for survival in many parts of the country. Faith and dedication to the cause proved sufficient for resistance, if backed by reasonable firepower, which could be obtained from the Soviets and the Kabul regime through raids on garrisons and trade. The traditional rural leaders would either lead the battle themselves or delegate the task to others with more military experience. Soon anybody at the head of a group of armed men, and not aligned to the Kabul government, became a commander.

Most refugee families in Pakistan delegated at least one family member for active fighting. Weapons could be obtained through the political parties, or through privileged relations with the Pakistani Inter-Services Intelligence (ISI). Weapons would be distributed through various intermediaries by the U.S. and the Arabs, with the Pakistani ISI as the inevitable last intermediary. Any refugee receiving a handful of firearms also became a commander.

The “political map” of Afghanistan was often constructed by linking areas with the political party that had provided the latest arms shipment, and therefore it reflected a bias towards the favored counterparts of the ISI. Local power structures inside Afghanistan were often disrupted by small-time would-be kings returning from Peshawar with a handful of heavily armed men.

From 1984 onwards, three different types of commanders could be distinguished:

- leaders of a group of armed men, extracting whatever was needed by whatever means from the local population and passing caravans;
- leaders of large, more or less organized, fighting groups, which secure a forceful local peace by suppressing any opposition (governmental or other); and
- leaders of large, organized fighting groups, providing military security in areas under general civil administration.

No distinct dividing line existed between combatants and noncombatants; many degrees of active military involvement existed:

- full-time resistance soldiers, called *matlaki* (professionals) or *nizan* (soldiers), organized in mobile groups (*gruhe motaharek* or *gruhe sayyar* usually attacking regime strongholds and coming closest to the conventional picture of guerrillas;
- part-time resistance soldiers, called *mahalli* (locals) or *molki* (civilian forces), organized in *comiteh* by valley, or by large village, and mobilize for defense or for reinforcement of the full-time resistance during major operations; and
- anyone carrying weapons or in any other way assisting the first two and thus considered mujahed.

Likewise, anyone providing medical care to the fighters was involved in jihad. For many commanders, the first duty of a medic (whether an M.D. specialist or a basic health worker with three months' training) was to deliver care to the wounded fighters at the front. Caring for women and children dying from curable and preventable diseases came second.

The fronts were changeable in the early years and very porous for the local residents whose land and villages were being fought over; though the Soviet troops stood out, Afghan noncombatants—i.e., anyone without a gun at that moment and particularly women, children, and the elderly—could pass across the front relatively easily. To the Russians, all Afghans looked the same anyway. In the government troops, there were few distinguishing characteristics and civilians to trigger suspicion and for the first few years, many cross-border medical referrals were made. Even referrals from (illegal) expatriates working in the rural areas were accepted by doctors working with the government in 1

cities. The elderly, women, and children were readily referred for more sophisticated care (in Mazar, Kabul, Ghazni, and Wardak). In a few cases, government doctors would send patients back to the same expatriates for care. From 1984 onward, attempts to penetrate the resistance pushed the regime to harass patients crossing the line for information when they came for care, and so this early phase of humanitarian collaboration tapered off.

The First Cross-border Aid Committees Arrive

In February 1980, a few months after the Soviet invasion of December 1979, representatives from three French private voluntary organizations (PVOs)—Aide médicale internationale (AMI), Médecins du monde (MDM), and Médecins sans frontières (MSF)—were in Peshawar. MSF tried to start refugee health assistance in Peshawar but was rebuffed by the Pakistani government. Attention was refocused on the inside, contacts were made through different intermediaries, and by June, all three French PVOs were providing medical assistance inside Afghanistan.

Operations were completely illegal but tolerated by the government of Pakistan as long as a very low profile was preserved. Doctors and nurses would enter Pakistan on one-month tourist visas, often smuggling medical equipment in their luggage. Lodged by sympathizing expatriates, or in hotels, they made contacts with the mujaheddins' representatives. Drugs and medical supplies were ordered, and they were transported, sometimes bit by bit on rickshaws, to mujaheddin safe houses, where they were repackaged for transport inside. None of the organizations had an office in Peshawar since it was too expensive for some and impossible under Pakistani law for all. Trips to the border generally started at dawn, with the women under burkas and the men disguised as Afghans. Detection at one of the multiple Pakistani checkpoints could jeopardize the whole mission.

The International Committee of the Red Cross opened a hospital for Afghan war wounded in Peshawar in 1981 and began a one-month first aid training program for cross-border work led by Dr. Amin Fatimie, later the head of the Institute for Public Health.

In 1982, the Swedish Committee for Afghanistan became the first PVO with an office in Peshawar and started supporting cross-border health workers from its Peshawar base. Other European committees from Belgium, Luxembourg, Switzerland, and Holland began to raise money for small-scale relief programs (e.g., cash for food and cash for work) inside Afghanistan.

By 1983, the European Coordination of Humanitarian Aid for Afghanistan had become a forum for fundraising and political lobbying for 21 nations for work inside. British Afghan Aid and the German Afghanistan Committee opened offices in Peshawar. The German group began a six- to nine-month training program in Peshawar and opened a clinic in Afghanistan.

By the end of 1984, Soviet military pressure, particularly through air attacks, pressed the resistance to its limits at a time of minimal foreign interest and aid, and made life in some rural areas untenable. Several of the medical groups had to close down sites which they had had since the beginning of the war. Some, like AMI, drew on their experience to start training mid-level health workers for positions inside Afghanistan.

The Flood of Refugees Draws International Attention

The mix of conventional and guerrilla war in the early 1980s produced uneven and widespread internal disruption ranging from price escalations, shortages, and corruption as the major manifestations in some rural areas, to extended bombardment and scorched earth in others. Large-scale refugee movements and lack of direct experience in Afghanistan among external groups created confusion about what was really happening inside. Anecdotes from journalists and courageous workers who ventured inside on their own produced many conflicting stories and left observers in Peshawar to deal with whomever came to hand: commanders who represented significant forces and increasing civil control internally, alongside those who represented themselves well because they had been educated in the West, and who acted primarily in their own interest in communicating with the growing body of expatriates in Pakistan.

After years of lobbying pressure strengthened by eyewitness testimony from European volunteers who had worked inside, the US Congress voted for Afghan aid in 1985. A large part of the aid provided by foreign agencies that was already in place had been to individuals, small commanders or health workers who were located in the provinces situated close to the Pakistani border. There were two reasons for this. (See Map 1-1, Health Facilities inside Afghanistan.)

First, along the border, the tribal structure of the society had not permitted the emergence of a civil administration capable of managing a health system even at the district level. Second, because of easy access, anyone could go to Peshawar and ask for aid by crossing the 2,000 km of border between Pakistan and Afghanistan. In addition,

- The great majority of the Afghan refugees in Pakistan were coming from these provinces;

- The majority of the Afghan staff recruited in the aid agencies were from those provinces and, of course, were inclined to help direct aid to their own area; and
- Eighty to ninety percent of the expatriates responsible for humanitarian programs for Afghanistan had never been in Afghanistan before or during the war; they were discovering Afghanistan through the Afghans they could meet, mainly those coming from nearby provinces; they had very few or no opportunities to make contact with Afghans coming from the north, center, or west of Afghanistan.

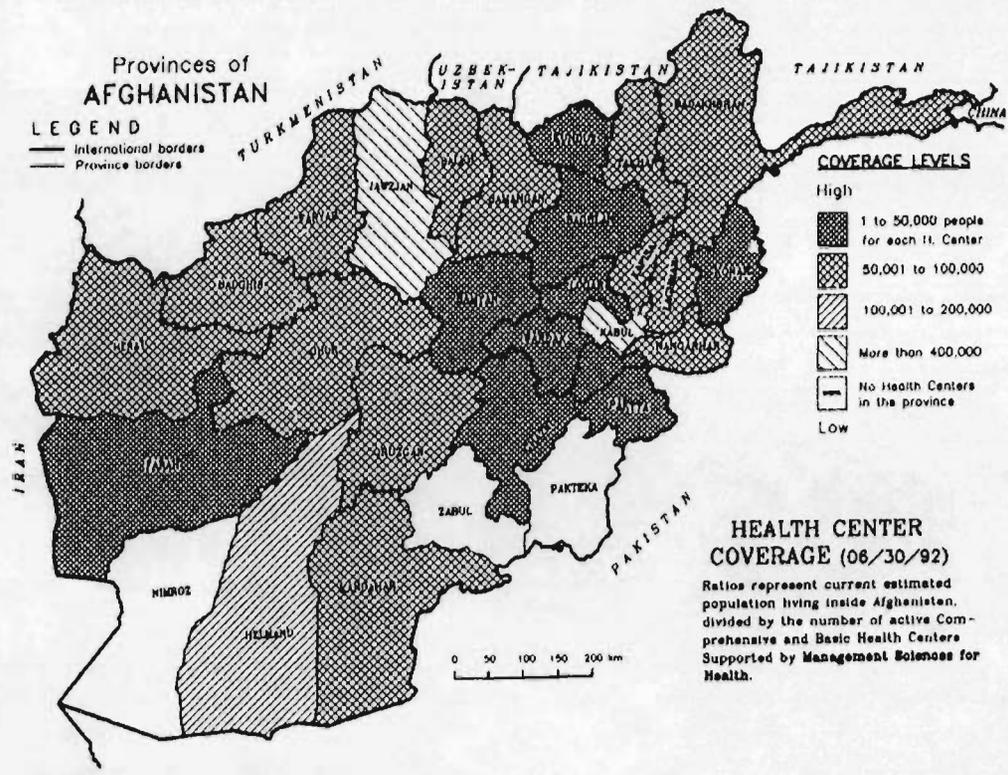
Vignette: The Peshawar Circus in the Mid-1980s

It was the perfect backdrop for an Indiana Jones thriller: the route of Alexander the Great and the Moghul invasion, the Khyber pass, the farthest outpost of the British Raj, the start of the Grand Trunk Road to Calcutta, the great game for hegemony in south Asia, and the U2 spy plane from Peshawar shot down by a Russian missile. There were veiled women and turbaned men with big mustaches and big guns; tents, horses, camels, dust, and LandCruisers; the Northwest Frontier Province Border, a tribal no man's land with smugglers' shops that were selling guns, refrigerators, drugs, and VCRs. There were modern-day Flashman surrogates looking for excitement. Politicians would be photographed for the folks at home with the supplies for humanitarian (and other) causes, then squeeze off a few bursts on a Kalashnikov and fill their free military transport home with souvenirs. There were dozens of volunteer and PVO groups arriving to do good and/or do well. And there was Dan Rather, focusing the U.S.'s attention on the conflict each evening from behind enemy lines for CBS-TV.

Shifting International Perceptions of the Refugees in Peshawar

The increasing visibility of the "menace just across the border" had crystallized international attention and gave outsiders something to rally against. Large amounts of military and social aid were authorized, particularly by the U.S. Congress, and resources flowed freely above and below the table, transforming the quietly colorful frontier town of Peshawar into a bustling center for entrepreneurial intrigues and scams.

The picture in Peshawar was complicated. The refugees were readily visible, articulate, and needy; it was easy for visiting Congressional delegations to see and decide what should be done: military support for the resistance, some humanitarian aid for the refugees, and perhaps some medical care for the



... .. in Health Centers inside Afghanistan

wounded mujaheddin and civilians caught in the crossfire. Not so easy though, said the eyewitnesses and TV reporters covering the struggle of the majority left behind in Afghanistan.

Around Peshawar, three million refugees were received with characteristic Muslim hospitality in the largest cross-border influx of refugees in our time. The Pakistanis had to settle them among not-very-prosperous villagers who could grow to resent the presence of outsiders, even brothers of the faith, who received so much attention. The refugees concentrated in the Northwest Frontier Province (NWFP) and Baluchistan, with the majority living in camps that resemble small, packed Afghan towns and villages more than the traditional tent-and-barbed-wire image of "refugee camp." Although Pakistan sheltered the single largest refugee population in the world for more than ten years, little friction emerged between the refugees and the indigenous population; no large-scale violent clashes occurred, and the only major demonstrations against the refugee presence took place in Lahore or Islamabad, led by people who had probably never seen an Afghan refugee except on television.

Louis Dupree saw four reasons for this:²

- (1) NWFP is a very Islamic area and sensitive about the concept of jihad;
- (2) One of the major duties of the Pakhtunwali is *melmastya* (giving shelter and hospitality to anyone who requests it, a principle to be defended to death);
- (3) Eighty-five percent of the refugees were Pashtu, the same ethnic group as the Pathans in Pakistan; and
- (4) The refugee situation was put in the hands of the Pakistani military, where decisions are not challenged, but executed.

Whole sections of the city metamorphosed into refugee areas and Afghan partisan enclaves, with lifelines of money and political support, some seeming to diffuse into the air, some actually reaching refugees near at hand, and very little reaching the three-quarters of the Afghan people who remained inside as refugees trying to preserve their own country.

***Vignette: The Changing Scene on Ghazni Plain:
"The Best Development Assistance"***

In the plain of Ghazni in 1986, no one would travel by daylight in groups of more than two people; helicopter patrols regarded bigger groups as enemies. Cars and trucks off the main road were destroyed on sight. Many fields, formerly

irrigated and in use, were left untended out of fear of helicopter gunships. Ye a year later, one could easily travel on bicycle through the plain in broad daylight. Vehicles also circulated openly, and many fields were back in use. The only decisive difference was the presence of a few Stinger missiles. Delivered to commanders, they virtually removed the threat of helicopters.

Confusion Experienced by Donors of Development Aid

Traditions of Afghan independence and an absence of central authority combined to fragment the organization of social services. The refugees include prominent politicians, businessmen, intellectuals, professionals, religious groups and, within these, both the committed as well as the opportunists of every stripe. With the foreign community ill-equipped by training or experience to differentiate among these groups, con men and rip-off artists vied successfully with patriots and community interest groups in a free-for-all scramble for attention and money. Emerging Peshawar-based political leaders often acted as if they were playing buzkashi, or a zero-sum game: They had nothing to gain when successful in-country organizations and leaders documented that they could make progress inside Afghanistan and be supported directly. Both the well-intentioned and the adventurers from outside were often easy marks for some of the greatest traders in Asia.

In Peshawar, the priority was for action to meet the pressing needs of those in Afghanistan who were reachable. For the front-line providers, life was simple and often fulfilling: the recipients got something, there was work for expatriates plus a few Afghan refugees and Pakistanis, and some real needs were being met. Perhaps a hundred organizations sprang up in Peshawar and a dozen in Quetta sprouting signs, raising rents, and stimulating the local construction industry to build housing and offices. Operating with resources from private contributors and the intermediaries who were fronting for government agencies that were not accustomed to or desirous of direct visibility, a Wild West bazaar of foreign assistance shops went into modest business for themselves. Least visible and often most important to the mujaheddin were the contributions of the Arab world, often made in cash and sent directly to the fighting groups inside Afghanistan. Operational details such as staffing, training, procedures, and priorities for resource use and recipient attention were left to the discretion of those on the front line.

The pioneering agencies were still doing whatever they knew best; their activities were as important for demonstrations of concern about and witness to the war as for their direct impact on the problems addressed. By this time in transition, their momentum had built constituencies, donor bases, staffs, budgets and appreciative recipients. As larger PVOs and international organizations arrived, they began to question the rationale for scatter-shot action by

pioneers in their search for overall strategy and policy. Refugee health and casualty care for the mujaheddin dominated the thinking of large donors, though the Swedish Committee for Afghanistan stood out for its continuing commitment to avoiding the burgeoning Peshawar bureaucracy and supplying in-country, basic health services directly.

Working Together: The End of the Buzkashi Period in Afghan Cross-border Development

Vignette: The Game of Buzkashi

Buzkashi is a traditional Afghan sport where horsemen gather on a huge field in two loosely arranged factions to contend for the headless carcass of a sheep or goat. Men try to grab it from each other, hoist it across their saddles or secure it under one leg, and break through the melee of dozens of independent opponents. Racing for a goal line, they are pursued and struck with whips by the other contestants. Players wear heavy clothing and large boots for protection, but injuries and broken limbs are common. The object is possession of one carcass which begins to disintegrate in the course of an afternoon's match.

The arrival of major international interest groups in Peshawar resembled the game of buzkashi in some respects. The prospect of significant resources was accompanied by the players who attend such events: interest groups who wanted resources, bureaucrats who administer and justify them, politicians who claim credit for obtaining them and achieving results, and technicians who apply them in "rational" ways for the pursuit of donor-specified goals. In contrast to the early supporters of the "boutique" action agencies, the major international groups required an explicit project design, often accomplished by their usual, if expedited, processes of assessment, analysis, and projection of impact. While the already active groups sought out, and were sought by, large agencies that needed to move money quickly to demonstrate action, the frontier days of the unfettered assistance market were now tempered by the prospect of deliverables, cognizant technical officers, and auditors.

Major Donor Strategies Emerge

The Afghans in Peshawar

The refugee enclaves had collected in ethnic and tribal groupings and gravitated toward seven parties that acted as intermediaries with the external aid community. As local patronage organizations, they claimed adherents through

jobs created for males and rations distributed to the families. Only two groups, Hezbi and Jamiat, existed before the refugee influx, while all the others arose in response to the opportunity to use aid as a vehicle to foster patron-client relations. All the parties were driven by the immediate needs of the hundreds of thousands of refugees in Peshawar who were visible on the doorstep; the large majority of the population remaining in Afghanistan, often displaced and in much more precarious circumstances, was not the primary client base of the Peshawar parties.

The major donors could not deal with both the large numbers of splintered interest groups among the Afghans and their own aid operations at the same time, especially when increasing international concern was producing large amounts of development financing for the first time. They had to require a semblance of coherence and cooperation from both recipients and technicians as a prerequisite for support. In contrast, many Arab official and individual donors would hand over large sums of money to anyone to whom they took a liking. The Islamic Relief Agency and the Saudi Red Crescent made efforts to channel the money to useful aid programs, which resulted in an Islamic Coordination Committee in 1987.

The Technicians

The aid agencies had responded largely to the visible flood of refugees, and very little to the situation inside Afghanistan. Most projects worked in Pakistan, and of the few that worked inside Afghanistan, almost none reached beyond the border areas. Clinics, hospitals, training and supply programs that started with private resources, or support from covert intelligence sources in the era when anything went, were now less acceptable to the major donors. Few aid agencies in health were interested in cooperation when that meant changing their direction and momentum; only the specter of lost funding could weigh against the combination of vested technical and political interests which had grown over the previous five years.

This situation was complicated by the fact that what expatriates knew of the Afghan scene was primarily a byproduct of what they heard from their own Afghan staff, who were usually refugees from one of the five provinces along the border. Frequently combined with an urban, elitist background and little experience in their own country beyond their home provinces and the capital their perceptions about the majority of the country did little to balance the picture for the technicians planning the assistance effort. Since they were refugees themselves, their own problems and needs differed from those of the people inside.

With pressure and funding from the U.S. Agency for International Development (USAID), the Swedish Committee, and the United Nations, coordinating committees such as CMC (Coordination of Medical Committees) and ACBAI

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Figure 1-2: The game of buzkashi. Factions of men on horseback compete for a goat's carcass in the national game of Afghanistan.

(Agency Coordinating Body for Afghan Relief) were established as initial forums for information exchange. (CMC was established when the Americans—IMC, MCI, and Freedom Medicine—arrived, since A.I.D. demanded formal coordination. ACBAR was established after UNHCR/Operation Salaam implied in 1988 that money would only be available if NGOs coordinated better.) They eventually became vehicles for joint planning with Afghan counterparts from the Peshawar parties, the Afghan Interim Government (AIG), and later representatives of the in-country leaders who were fighting the war.

Local Afghan Leaders

Only remotely known to most in Peshawar were the principal leaders of the jihad, the mujaheddin commanders who, with varying degrees of success, were pursuing the resistance effort throughout the country. Along the border provinces the resistance was weakest, factionalized, and most dependent on the parties and influences of Peshawar. Elsewhere throughout the majority of the country commanders arose and developed substantial military and civil administrations

The Balancing of Central and Area Forces

Resentments and misunderstandings between Peshawar and the commander intensified the competition for donor assistance and made pursuit of a coherent assistance effort a particular challenge: the pressure from Peshawar was all for backing the local party structures as the legitimate representatives for Afghanistan. The few who had direct experience inside Afghanistan beyond the immediate border area knew that the only viable way to reach most of the country was through the organizations of the local commanders, who had little faith in the Peshawar expatriates. The commanders saw them as most concerned with political infighting, use of aid as patronage, and rake-offs of donor support.

The donor community in Peshawar reacted variously. There were those who were committed to or captured by local Peshawari Afghan interests on one side and those who had access to, experience in, and concern about the situation inside Afghanistan on another. The Swedish Committee for Afghanistan, long the largest force for internal Afghan support, strongly favored direct aid to local efforts, since they had little faith in the expatriate Afghan community. USAID arriving later, was persuaded with time and persistence that a worthwhile parallel approach involved attempting to strengthen the AIG as a possible nascent national government, while at the same time allowing work directly with the regional commanders who made things happen in the country for the majority of the Afghans who remained and struggled on.

Vignette: Terrorism in Peshawar

The well-intentioned and the scoundrels of the donor and Afghan communities did not labor alone in Peshawar. Strong and unpredictable perceptions of personal honor and sometimes just plain cussed behavior combined to create a precarious atmosphere. Terrorist activities could be difficult to distinguish from interpersonal feuds.

Item: International agency-related vehicles were registered with special yellow plates and numbers that identified the country of origin. An MSH staff member is driving through an area of the old city where ammunition shops have sprung up to serve the active frontier market. A shop just happens to explode as he passes, smashing the car's windows and rear end, but missing the occupants.

Item: A letter containing death threats is thrown over the walls of a team member's house.

Item: Driving into Peshawar for work one morning, the head of the Austrian Relief Committee finds a large truck in front of him slowing down. Then it drops its tailgate and men spray his car with AK47 fire, killing him.

Item: The Chief of Party of an education project is ambushed one evening in University Town, an area populated with the international community and Afghan agencies. Pickup trucks close the road and rake his car with gunfire, wounding him and killing the driver.

Item: In 1990, CNN relayed the threat of war in the Persian Gulf live, fueling local resentment and frustration with foreigners in Peshawar: death threats showed up in mailboxes and were thrown over garden walls. On 24 hours' notice, chartered flights for nonessential (i.e., nondiplomatic, nonspy) foreigners were grounded, and for several months, local colleagues inherited the challenge of sustaining cross-border health activities until the situation calmed down.

Notes:

1. Marek Stiwinski attributes 46% of casualties to aerial bombardment and 33% to bullets, in: "Evaluation des conséquences humaines, sociales, et écologiques de la guerre en Afghanistan." Preliminary report, Paris, December 1987. Table III.
2. Louis Dupree, personal communication with Paul Ickx in Peshawar in 1988.



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Figure 2-1: Caravan formation. Supplies are loaded onto horses and donkeys in preparation for the return to Afghanistan.

Chapter 2

Cross-border Project Design and Its Context

William Oldham and John W. LeSar

Introduction

Overview

Why did anyone bother with the complexities of cross-border support when there were millions of refugees right at hand along the border of Pakistan's Northwest Frontier Province, daily reminders of immediate, accessible need? Political and humanitarian reasons intertwined: the political imperative emerged from a desire to help, and be seen as helping, the mujaheddin; the larger, humanitarian objective stemmed from increasing awareness that the ten million Afghans remaining in country had health problems as bad as or worse than those of the expatriate refugees, and that conditions inside Afghanistan were as bad as or worse than any in the world.

Courageous efforts by several European groups—the Swedish Committee, the Germans, and the French—had supported health services over the border throughout the 1980s, often almost alone, by adding a doctor to the staff at small clinics and outposts for a few months at a time. The Swedish Committee pioneered a more leveraged approach: resupplying and training Afghans who then returned to their villages inside.

Throughout the early and mid-1980s, large segments of the population—indeed, the majority who remained outside the urban areas that were controlled from Kabul—were without access to organized health services and formed the rationale and target for a major, A.I.D.-supported cross-border program, envisioned in 1985 and begun in late 1986. This chapter examines the successes and failures that should be remembered in the future.

The Call from Washington

August has always been a great time in Boston, and 1985 was no exception. The economy was booming; the Charles River was crowded with boaters; joggers and walkers filled the parks; and the outdoor cafes at Harvard Square, along Newbury Street, and at Faneuil Hall resonated with the buzz of people enjoying the warm days and pleasant evenings. At MSH, many staff were on vacation and those at work couldn't wait until lunch break and the end of the day's work so that they could enjoy the daylight hours. Life in Boston, and generally throughout America, was satisfyingly good for most families and MSHers shared in those pleasant times.

Abroad, East-West competition was still in full swing, but there were no major new crises to increase world anxieties. President Gorbachev had only recently come to power in the Soviet Union, and in the U.S., President Reagan had just been re-elected. Europe was generally stable, and the Japanese economic machine was only on the edge of most Westerners' consciousness. The situation in the Middle East was as chaotic as usual but there were no major crises at the time. Both superpowers had stable policies, with the Soviet occupation of Afghanistan being the most visible point of commotion and conflict. However, the war had gone on for over five years and, to the public eye, appeared to be stalemated. Most informed citizens in the world knew that the U.S. was supplying covert arms and advice to the Afghan resistance to defend themselves against the Soviets, but the noncommunist world was generally supportive of the American policies. While Congress, the State Department, and the United States Agency for International Development (A.I.D.) knew that the situation in Afghanistan was deteriorating, it was not so clear to the public.

So it was a surprise to receive a call from A.I.D. asking if MSH would be interested in helping design a humanitarian assistance program for Afghans *still living in Afghanistan*. The caller explained that MSH's experiences in Afghanistan in the 1970s had prepared the organization to develop health services and programs inside Afghanistan—not in the refugee camps of Pakistan.

MSH's officers and board of directors discussed the philosophical and moral issues of becoming involved in helping set up better health services in a war zone and also the potential ramifications for MSH's work in other parts of the world. They decided that MSH could commit itself to helping plan and develop the health program but would not decide to help implement any program until the details of the program became clear, until MSH had experienced the situation in Pakistan, and until satisfactory working relationships had been worked out with the USAID Mission and the Embassy.

Meetings in Washington with A.I.D. and State Department officials made clear that developing the health and other humanitarian assistance programs were high priorities for the U.S. government. During these meetings, MSH representa-

tives met with experts from the University of Nebraska at Omaha, who would help develop the educational programs, and with representatives from Volunteers in Technical Assistance (VITA), who would help develop the agricultural programs. Each organization had experience in Afghanistan prior to the 1978 coup d'état and felt that it was being asked to participate in an important humanitarian activity, but all were anxious about the political aspects of the program and about the personal security of their staff. Working in a war setting was new to all.

The First Visit to Pakistan

Three MSH staff and one outside expert comprised the initial planning team that went to Pakistan in November 1985. They represented skills in health services planning, pharmaceutical and supply logistics, maternal and child health, and military medicine. The purpose of the visit was to analyze the health situation of war-affected Afghans, to develop an overall strategy for A.I.D.-financed humanitarian assistance in health, and, if possible, to develop an operational plan and budget for the first three years of the program. They met with USAID and Embassy officials in the national capital of Islamabad. In the cities of Peshawar and Quetta, the major border cities where Afghans were concentrated, they met with Afghan resistance leaders, Afghan health leaders, government of Pakistan officials, staff of private voluntary organizations (PVOs) carrying out relief efforts for refugees, staff of PVOs already working across the border, and individual mostly European expatriates who had travelled extensively in Afghanistan providing limited health services to Afghans.

The team members were both excited and anxious during that first visit to Peshawar, a city of half a million people located 48 kilometers from the Khyber Pass, a centuries-old border crossing between Pakistan and Afghanistan. Peshawar sits on a plain about 24 kilometers from the beginning of the mountains that form the border. For over 200 years, the British and the Russians had played the "great game" for control of India in the mountains of Afghanistan and around Khyber Pass. This time the Russians were only 48 kilometers away, judging from the sounds of shelling around Khyber Pass. On some nights, military ordnance would light up the sky.

In addition, the seven major Afghan leaders lived in Peshawar. They were heavily guarded and made their movements secretly. They did not get along well and feared Soviet-inspired assassination or perhaps assassination from members of other resistance groups. Hundreds of Afghan men carried automatic rifles on the streets each day. Bandoliers of ammunition festooned their chests. Spies were said to frequent the coffee houses and restaurants. The American Consulate in Peshawar was heavily fortified, and Pakistani and U.S. officials worried about a Soviet attempt to head off the humanitarian assistance programs through an

incident involving one of the humanitarian teams. While the government of Pakistan provided (mostly invisible) security to the teams, team members would often wake up at night from some unusual sound or from gunfire in the streets and wonder if they were "soft" targets (easy to hit because they were not heavily guarded).

In Peshawar, a 24-hour airplane journey from Boston, joggers and walkers did not fill the parks. Although the weather was warm, the nights brought anxiety, not pleasure. Over 1.5 million Afghans lived in refugee camps, not their own homes. Many had lost relatives in the war. Tension and poverty set the tone of life. One felt on the edge of freedom and tyranny, with responsibilities and risks closely interwoven.

Health Programs for Afghan Refugees

Foreign-operated programs: In late 1985, the stream into Pakistan had reached over 3.5 million people and the social problems of the Afghan refugees were immense. The United Nations High Commission for Refugees (UNHCR) took the lead in funding refugee assistance and by 1985 had already spent over \$450 million to help house, feed, clothe, educate, and provide health services for the Afghans living outside their country. The largest part of the UNHCR program, including the health programs, was implemented by the government of Pakistan (GOP), which by 1985 was operating 133 clinics for refugees. Foreign PVOs from Islamic and Western countries operated another 58 clinics in the refugee camps along an 800-kilometer border.

Most of the Pakistani-operated UNHCR clinics were staffed by Pakistanis, as the GOP used the opportunity to create jobs for Pakistani citizens. The PVO clinics were usually operated by foreigners from other Islamic countries or from the West, with the participation of about 59 Afghan doctors and 100 Afghan nurses.

In addition to UNHCR, Afghans, and PVOs, international relief agencies like the International Committee of the Red Cross provided health services to Afghan refugees and border medical care for war-injured Afghans. The political parties had 16 facilities along border crossing points, the PVOs had 1 facility and 11 mobile teams, and the international relief agencies had 6 facilities and 7 mobile teams. The mobile teams had medical staff and emergency supplies and gave ambulance support to Peshawar or Quetta.

Afghan-operated programs: The political parties were hard pressed to carry on the war and, at the same time, try to help the millions of refugees who surrounded them, let alone help the Afghans living in Afghanistan. Even though the refugees had access to 191 UNHCR-funded clinics, they often preferred to seek health care through the parties, because they preferred the Afghan doctors

and nurses working in Afghan-operated clinics and hospitals. To meet this need, the political parties and two Afghan doctors' associations operated 14 facilities in Peshawar and Quetta, of which 8 had hospital beds. In 1985, about 95 Afghan doctors and 150 nurses worked with the political parties' limited health funds to provide medical assistance to the border program and the refugees. Afghans living inside Afghanistan usually went without assistance.

The Afghans living in Pakistan were much better off than those staying inside Afghanistan. They were in a secure environment and had food, shelter, clothing, job training, and health care. Many families had more services than they had ever had in Afghanistan. Many men became small business entrepreneurs in Pakistan. Many went into Afghanistan "on jihad" once each year for a few weeks or months, but nearly all spent their winters in Pakistan. The women had opportunities, if their husbands permitted, for job training primarily in handicrafts. Many of the children, especially boys, went to schools operated by the political parties. The relatively fortunate refugee situation augmented the Soviet strategy of emptying the Afghan countryside, and the political parties focused heavily on refugee activities rather than on helping the Afghans inside the country. In turn, the parties became estranged from the Afghans inside, who were loyal to their military commanders.

The Health Situation inside Free Afghanistan in 1985

The Environment inside Afghanistan

Most of the time, the mujaheddin controlled about 90 percent of the land and 80 percent of the population, but the territory was not peaceful; bombardment by planes, sorties by helicopter gun ships, and incursions by Soviet and Afghan troops were frequent. Nearly 20 percent of the population had been displaced. In 1985, the Soviets tried to seal off the border areas. As a result it was difficult to move personnel and supplies into the country, and casualties regularly poured into Pakistan. The security situation drove up transport costs, and clinics inside the country had to be in secure areas or be mobile. Losses of health personnel due to military action were thought to be about 15 percent that year.

Health Problems inside Afghanistan

The health situation in Afghanistan was among the worst in the world at the time of the Soviet takeover in 1978. The infant mortality rate was 150 to 180 deaths per 1,000 live births. Life expectancy was about 40, and almost 60 percent of all deaths occurred before age 5. The main killers were respiratory problems, dysentery/diarrhea, malaria, and other infectious diseases. Low birth

weight and malnutrition were major contributors to deaths in children. Maternal mortality was extremely high.¹

Between 1978 and 1985, the situation of the Afghans in areas where warfare was common deteriorated terribly. In 1985, a United Nations report, commonly called the Ermacora Report, estimated that, since 1978, over 500,000 Afghans, mostly civilians, had died; 4 million had fled the country; and over 1.5 million were internal refugees, displaced from their homes as a result of military action.² By 1985, war damages were estimated at \$12 billion in a country that had had a GNP of \$1.7 billion in 1978. Prices had risen 600 to 1,000 percent while per capita income, only \$110 in 1978, had seriously declined. To survive, many Afghans who did not leave the country moved into the communist-controlled Kabul area. However, in 1985, over 8 million Afghans remained in "free" areas, where they lived in perilous conditions. The Soviet strategy, which focused on destroying villages and economic livelihood in active military zones as well as direct combat with the mujaheddin, was having a severe impact on the civilian population. Combat deaths were thought to amount to about 8 to 12 percent of total deaths, but over 33 percent of the total were deaths of children under five years of age: there were 3 to 4 child deaths for every mujahed death.³

War injuries had three main causes: bombardment, mines, and gunfire. The first two were the major causes of civilian deaths, which were thought to exceed mujaheddin deaths by three or four times. While some died instantaneously of a war injury, most did not and many of these would have been saved by modern military medicine. A great many eventually died of infections, and few people with head, chest, or abdominal injuries ever reached Pakistan alive. At the border clinics, 99 percent of wounded patients had serious infections. Those patients usually had limb injuries, and many required amputation, which could have been prevented in many cases if adequate wound care had been available.

With the exception of war-related deaths, the majority of deaths were caused by the same conditions that existed in the 1970s, magnified by the economic decline, rising food prices, and displacement of persons from their homes into caves and substandard, crowded dwellings. Respiratory diseases, diarrhea, and malaria, exacerbated by malnutrition, still killed most of the children. Since immunization levels had dropped to zero for children born after 1978, measles and whooping cough (pertussis) epidemics were reported to have swept through villages periodically, wiping out large numbers of children. Most pregnant women were anemic, of low weight for height, and at very high risk when their pregnancies were complicated. There was virtually no care for gynecological problems or for pregnancy prevention inside Free Afghanistan, and neither men nor women could find help for medical, surgical, or dental problems except through traditional healers (many of whom had left the country), or the rare Afghan or foreign doctors still found in a few villages. Health problems were

particularly severe in active military zones where, to escape bombardment, many families lived in caves or under ledges in the mountains.

Health Programs in Afghanistan in 1985

To understand the issue of access to health services, it is important to have a mental picture of the geography of Afghanistan, which stretches over 800 kilometers from east to west and 640 kilometers from north to south. The mountainous center and northeast are surrounded by dry plains, with over 14,000 villages, mostly small, scattered along the meager watersheds. It is a very difficult place in which to provide health services due to the dispersion of the population and the limited number of paved roads. About 50 clinics operated by the Afghan parties, PVOs, and international relief agencies were the main source of medical care. Most were either close to the Pakistan border or in the northeast. Given the lack of transportation and the difficult terrain, these clinics served populations within a 16- to 19-kilometer distance at best. Probably only 250,000, about 3 percent, of the 8 million people in Free Afghanistan had access to clinic-based care. While the precise locations of clinics were kept secret for security reasons, it is clear that whole sections of the country were without doctors or nurses at all.

No true hospitals—defined here as facilities able to provide moderately complex surgical care—existed in Free Afghanistan in 1985. Difficult cases had to try to get to either Pakistan or Iran, a perilous journey; most undoubtedly died.

Party-operated health programs: In late 1985, the parties were focusing most of their attention on military affairs and on refugee health care. Since the Afghans in Free Afghanistan were days to weeks away and without telephones or other communications channels, they were much less visible than the refugees camped in front of party leaders' headquarters each day, demanding health services. The parties, dependent on foreign funding, could attend to only a small proportion of the health needs of people living inside Afghanistan. The parties knew it, the government of Pakistan knew it, and both the Soviet and American governments knew it. The Soviets exploited these facts in their propaganda, which depicted the parties as uncaring and their leaders as fat cats sitting in luxury in Pakistan.

In Free Afghanistan, the most numerous health workers were first aiders, who had been minimally trained by the resistance parties to support the mujaheddin. With one to two months of training in Pakistan, they were supposed to be able to bandage wounds, splint fractured limbs, and treat a limited set of common illnesses. They were assigned to commanders who had affiliations with the political party that had trained them.

More substantial care was provided by about 34 clinics operated by Afghans, most through political parties and about 6 through two Afghan doctors'

organizations. Two parties, the Jamiat-e-Islami and the Hezbi-Islami party of Gulbadin Hekmatyar, were most active. Jamiat-e-Islami, which had wide military control in northern, Persian-speaking areas, operated about 10 clinics. The other clinics, operated by Pashtu-speaking parties and the doctors' organizations, were near the Pakistan border in southeastern Afghanistan.

Picture a small building, usually staffed by 2 Afghan doctors, 4 to 8 male nurses, and some guards and cleaning people. First aiders assisted the doctors and nurses, who had relatively few instruments, drugs, and medical supplies, brought from Pakistan or secretly bought in pharmacies in the major cities of Afghanistan. The clinics seldom had electricity or a refrigerator. Telephones were not available. When no fighting was going on, the clinic provided primary care. When a battle or raid/ambush was planned, a male nurse and some first aiders gathered their few supplies and went with the mujaheddin but usually stayed a safe distance from battle. They provided first aid to the wounded soldiers and sent them back to the clinic to be seen by the doctors, who had little with which to work: no blood products, seldom any intravenous fluid, no transportation capability, and no training in surgical care of trauma victims. Most of the time, the clinic saw men and children and provided basic primary care (but no childhood immunizations due to lack of a refrigerator for the vaccines) and psychological support for the villagers in the vicinity.

The political parties did not provide the clinics with much support or contact. Usually, a doctor or nurse could leave Afghanistan and travel to Peshawar when supplies ran out. There, his party headquarters and health committee could do little for him, except occasionally find a nurse or first aider to go back with him; more often staff came through his commander. For supplies, he went to the Swedish Committee and either carried them himself or arranged shipment with other items through the transport system operated by the military affairs committees.

PVO and relief agency programs: In 1985, nine PVOs and international relief agencies were operating about 17 clinics inside Afghanistan, mostly in areas where military action was uncommon. The best known were the French organizations Médecins sans frontières and Médecins du monde. Each offered services in 4 or 5 sites, mostly in the north, where the Jamiat party was in control. In addition, the Kuwait Rescue Committee, the German Afghanistan Committee, and the (American) International Medical Corps had small clinics, mostly near the Pakistan border, the activities of the others could not be verified. Most were staffed with 2 foreign doctors (usually one female and one male for the European-operated clinics), 4 male Afghan nurses, and various support staff. Some had first aiders acting as medical assistants. Usually, these clinics had more supplies and equipment than the Afghan clinics, and the doctors were more technically advanced in trauma care. However, like the Afghan clinics, most of

the time they provided routine health care and served women, children, and men in large numbers, with occasional trauma victims from the war.

Transportation support for health programs: Transportation of pharmaceuticals, supplies, and equipment was costly and colorful. By late 1985, the Swedish Committee provided about two-thirds of all medical supplies inside but did not provide transportation. The transportation system developed during the previous years was primarily for military supplies and equipment and, therefore, a prime target for Soviet and Kabul air and ground forces. It was operated mainly by private transporters who moved supplies mostly by mule from border depots into Afghanistan. They charged fees based on the estimated demand at the time of a particular trip, the length of the trip, and the danger expected along the way. Since they did have significant losses, their prices were high, ranging from \$1.80 per kilo for short, safe trips to \$5.50 for long and/or risky trips. In 1985, losses from bombardment and animal deaths exceeded 30 percent. It took four to six months for pack animals to recover after long trips into Afghanistan and back, which lasted up to three months.

Transportation for the wounded was also usually by animals. Besides the costs and uncertainty of transport availability, the situation of the wounded was much worse due to their physical condition; many died from bleeding, septicemia, and peritonitis along the evacuation trails before they reached Pakistan.

Transport costs were a major burden on the parties and the PVOs, and since military supplies had top priority, health supplies could not always be sent at the time expected. Because of the timing and cost problems, some PVOs with clinics close to the borders set up their own transportation systems.

Health Resources for Afghanistan in 1985

Trained human resources: The estimated number of personnel by type of organization inside Afghanistan is shown in Table 2-1.

Table 2-1
Estimated Medical Personnel inside Afghanistan in December 1985

	Doctors	Nurses	First Aiders
Afghan Organizations	50	277	925
PVOs & Relief Agencies	34	70	381
Totals	84	347	1,306

An acute shortage of health manpower existed inside Afghanistan. Before the coup d'état in 1978, there were about 1,000 physicians in the country, 84 percent of them in metropolitan Kabul. Approximately 750 left Afghanistan for Europe or the U.S. between 1978 and 1985. About 200 doctors, mostly general practitioners, remained in Pakistan (it was easiest for the specialists to migrate), and perhaps 50 were inside Afghanistan. Most medical students had also left the country.

If the population of Free Afghanistan was about 8 million in 1985, the ratio of population per doctor in 1985 was over 95,000 to 1 (the U.S. ratio is 1,350 to 1), and for nurses the ratio was over 23,000 to 1. The U.S. had over 70 times more doctors and nurses per capita than Free Afghanistan. Worse, few, if any, of the medical personnel were female; few providers were trained in trauma care; and vast areas of the country had few, if any, providers.

Afghan doctors in Pakistan were reluctant to work inside and thought that the lack of facilities, supplies, and equipment made them relatively ineffective anyway. Few felt adequately trained in surgery, especially trauma surgery. Most were working in party clinics, hospitals, or small private practices in Pakistan. The majority had wives and children with them in Pakistan. Educated people themselves, they had serious concerns about the education of their children and the future of their families should they be killed. Their wives were less educated, had few employment skills, and were culturally unable to work easily in public. Life insurance was not generally available or affordable for Afghans in Pakistan and was absolutely unavailable for Afghans participating in the war in Afghanistan. The parties could not afford death benefits for Afghans killed in action. The doctors knew that if they went into Afghanistan, their income would drop, as party salaries were low (for doctors, roughly equivalent to \$150 per month) and they had some chance of being killed. Thus, for doctors, there were strong incentives to stay in Pakistan and disincentives to return to Afghanistan.

Nurses were also in short supply. Afghanistan had never trained many female nurses, due to cultural constraints and the consequent paucity of educated women. Most female nurses had worked in Kabul hospitals. Few were skilled in outpatient care, especially in rural areas under conditions of war. Many female nurses had remained in Kabul. The few in Pakistan worked in party hospitals and lived with their relatives or husbands, who would not allow them to return to Afghanistan to work, since women were not allowed to travel or live outside of their family homes.

Male nurses, always the backbone of the rural health services in Afghanistan, were in better supply. In 1985, roughly 350 were estimated to be in Free Afghanistan and over 300 were in Pakistan. These men were younger, less likely to be married, less educated, and more rural, and less concerned about expensive education for their children.

The facts were clear: The war had depleted the country of educated people, including health personnel. Free Afghanistan was populated mostly by minimally educated rural villagers who fought and died for their country. Few health workers were willing and available to work inside the country under conditions of war. Even if the war ended, the future of the health sector was problematic, not only due to economic devastation, but, more importantly, due to loss of trained health staff.

Since neither the population inside the country nor the resistance parties outside had their own funds for health programs, any expansion of the cross-border effort would need to be wholly financed by donors, who faced a serious, multiyear commitment to the health sector, including the financing of supplies, equipment, and, most important, salaries for health workers working inside Afghanistan. Even if the war ended, the country was financially destitute and would need long-term donor support to sustain a reasonable level of health services.

Health Program Design (January-August 1986)

Key Issues in Program Design

The key issues in design included: security problems; the decline in economic well-being and health status inside the country; traditional cultural views toward women, which resulted in few trained female health workers and the near-impossibility for women to receive health care from men; competition between the parties; ebbs and flows of power between parties and commanders; acute manpower shortages coupled with incentives to stay in Pakistan and disincentives to work in Afghanistan; shortages of drugs and equipment; and high transportation costs. Other important issues are discussed below.

Managerial capacities of the parties and PVOs: While the parties and PVOs had experience in small medical programs inside the country, coverage was only about 3 percent. A massive expansion, which the Afghans and PVOs had neither the experience nor the organizational structure to plan and implement, was needed. In addition, the environment was militarily hostile, and the Soviets were expected to try to disrupt humanitarian programs, including health.

Only one of the Afghan health professionals in the political parties had held any managerial position in a training institution before the war, and the doctors in administrative positions were simply not aware of the complexities of planning and operating a large health program. The staff of most PVOs had a medical background, lacked managerial experience, and were young, highly motivated, adventurous clinicians who preferred direct service and hands-on training over the coordination, direction, and monitoring required for large-scale management.

Coordination among Afghan party committees: In late 1985, the seven political parties worked independently and competitively in the health sector. In December 1985, they announced the formation of a Seven Party Alliance Committee, which came to be known as the Alliance Health Committee (AHC). When the planning team returned in May of 1986, the AHC had not met except when requested by the PVOs. Although the health professionals in each party were very busy with refugee needs, first aider training, and some support to clinics inside Afghanistan, five months after formation, the AHC really only existed on paper.

Coordination among PVOs: The PVOs also tended to work independently—of each other as well as of the Afghan political parties. They were extremely busy as well, with training of paramedical personnel and support of their clinics. Some PVOs had national linkages, while others were fiercely independent and, in many cases, secretive. However, A.I.D., which funded many of the PVOs, saw benefits in coordinated development of curricula, standard lists of drugs, and treatment protocols for paramedicals, and in better coordination with the party health committees and recently formed AHC. The PVOs thus formed a body called the Coordination of Medical Committees, or CMC, in February 1986. Not all PVOs supported this coordination and many remained remote, but, since their main donor, A.I.D., had encouraged (and funded) the CMC, they did join.

Coordination between the AHC and the CMC: The CMC initiated some meetings with the AHC members in March and April of 1986, but serious differences between the two bodies threatened the planned expansion of health services inside Afghanistan. The PVOs felt that the party committees were not organized, did not follow up on agreements, were primarily politically motivated, would divert supplies from Afghans inside Afghanistan to party hospitals or to personal uses, and just were not reliable. The AHC members felt that the PVOs did not respect them, refused to acknowledge the parties' desire to coordinate health affairs inside Afghanistan, and acted independently in Pakistan and within Afghanistan (which posed security problems and loss of status for the Afghan parties). PVOs, with foreigners operating them, were getting funds that the Afghans could use more effectively at much lower costs.

While the PVOs' perspective held some truth, they were not sensitive to the importance of political unity and control by Afghans inside Afghanistan to support the war effort and to demonstrate leadership for the people inside the country. Nor did they realize the demands that refugees placed on the political parties, their preoccupation with fighting the Soviets and the communist government in Kabul, their never-ending scramble for financial resources, and their dependence on a variety of donors.

The complex donor environment: In addition to all the other coordination problems, the donor environment was very complex. The Afghan parties tried to attract support from Islamic countries, Western countries, and private donors. Donor countries had serious foreign policy differences between them. Wealthy private citizens would arrive with promises of millions of dollars if their causes could also be advanced. The Islamic countries were concerned that with Western aid would come Western values, so that philosophical differences were magnified. In addition, the United Nations was active in the refugee program, and UNICEF was providing medical supplies to the communist government in Kabul as well as to the Afghan parties.

At the center of everything was the government of Pakistan: the activities were taking place on its territory and it had welcomed the millions of Afghan refugees. Although this was never admitted, it also provided the sanctuary for the mujaheddin who, along with their military equipment, crossed the border into Afghanistan in scores of places. Pakistan truly was a front-line state in the war effort and demanded that donor activities be coordinated through its government. Pakistani advisors were the key links between donors (both governments and PVOs) and foreign implementing agencies, and the Afghan parties. Since they also coordinated the military equipment and clandestinely trained Afghan soldiers, the parties were very dependent upon them. Any health program required their coordination and approval.

Principles for Cooperation and Coordination

For the planned vast expansion of health activities inside Afghanistan to succeed, it was necessary for the party leaders to agree on how their parties and A.I.D. would cooperate. The two meetings with the party leaders were crucial in this regard. The second set out the principles of cooperation for the health program effort (Figure 2-2).

These principles for cooperation formed the basis for the eventual agreement between A.I.D. and the Alliance Health Committee.

Overview of the Planned Program

The goal of the program was always to improve the health of the Afghans living inside Afghanistan. The project, as designed in 1986⁴, had three main purposes: to provide medical and surgical care for war casualties; to provide general health care for the civilian population and the mujaheddin; and to improve the capability of the health committees of the Seven Party Alliance to plan and manage health activities to support the war effort and national reconstruction.

The first two purposes were clear from the situational analysis. The third purpose was clarified by the principles of cooperation. The following pages provide an overview of the program's components, while later chapters give detailed descriptions.

Figure 2-2
Principles for Cooperation in Health

1. Humanitarian assistance will support the objectives of the jihad and the preservation of Afghan culture.
2. The first priority for humanitarian assistance will be to provide basic sustenance (food, clothing, and shelter) to the civilian population. Improving health care will be the second priority.
3. Humanitarian assistance in health will give equal priority to civilian health care and war casualty needs.
4. Health assistance will encourage maximum population coverage by training more workers for shorter periods of time with a limited set of skills to a defined level of quality.
5. Health assistance should strengthen the power of the parties vis-à-vis donors, foreign governments, and foreign advisors; strengthen party-commander relationships; and strengthen the ability of the combined party health committees to provide systematic health services.
6. Health assistance will build on the strengths of existing party and PVO programs, but to improve effectiveness and efficiency, will establish coordinating mechanisms.
7. While health assistance will give top priority to immediate support for the civilian population and war efforts, it will also support activities that will be important during national reconstruction.
8. Health assistance must be feasible, practical, and flexible. A.I.D. should recognize that the Soviets and Kabul government will develop strategies and tactics to undermine these humanitarian efforts.

Medical and Surgical Care for War Casualties

The first purpose of the health program was to improve the war casualty system, which had four components: emergency care at the battleground, urgent care at the clinics and perhaps some hospitals, a transportation system for evacuation of the wounded, and continuing care for casualties in Pakistan.

Emergency care was envisioned as being provided by first aiders at or near a battlefield and supported by male nurses three to five kilometers away. These workers would also be deployed to bombardment sites. First aiders would be trained in basic life support skills, and nurses would be trained in more advanced life support, while both would be trained in transportation of the wounded.

Urgent care would be provided in nurse-led clinics, doctor-led clinics, small mobile hospitals, and, if feasible, larger semipermanent surgical hospitals. Clinics would stabilize patients, prevent and treat infections, and hold 5 to 20 patients for up to three weeks. Nurse-led clinics were expected to provide fracture stabilization and medical care for infections. Doctor-led clinics were envisioned as performing uncomplicated surgical and orthopedic procedures and providing medical care for complex cases until they were able to be evacuated. A few mobile hospitals and surgical hospitals, staffed by doctors and nurses, were envisioned as offering more complex surgery to prevent or minimize permanent disabilities from wounds.

Transportation services for evacuation were envisioned as having a staging area for collection of patients, evacuation stations about every two days along the evacuation route for patients needing to rest or those having complications, and an end at the border clinics. Transportation was expected to be by pack animals in most cases and by motorized vehicles where available and appropriate.

The continuing care system would consist of hospitals in Pakistan, primarily in Peshawar and Quetta, where infections and complications could be treated and restorative surgery performed as necessary.

Expanded General Medical Care for Civilians and Mujaheddin

The second purpose of the program was to expand medical care for civilians, since most deaths and most excess deaths occurred in children, usually from infectious disease. The general medical care system would have three components: primary health care, immunization campaigns, and public education campaigns.

Primary health care services would focus on basic maternal and child health care and care for adults. Workers would be taught about respiratory disease, diarrhea, eye and skin infections, malaria, tuberculosis, and other common problems. First aiders and male nurses were expected to provide the bulk of the care. Attempts would be made to recruit female nurses and doctors,

but no one was optimistic. In the late 1970s, before the coup d'état, MSH had helped the Afghan government train traditional birth attendants (TBAs), village females who were already relied on by village women for birthing problems. Using TBAs was considered but thought to be difficult and of lower priority than meeting the immediate needs faced by the civilian population and mujaheddin as a whole. It was expected that primary health care services would be rendered by first aiders in villages and nurses and doctors in clinics and hospitals.

Immunization campaigns that would focus on childhood immunizations, especially measles and DPT (diphtheria, whooping cough, and tetanus), were planned. These campaigns would be organized on a village-by-village basis in a valley or some other natural grouping. The main issue, besides manpower, was keeping the vaccines at the proper temperatures through use of the cold chain. It was expected that nurses and first aiders would carry out the work.

Public education campaigns for selected health problems were viewed as important but hard to accomplish due to the difficulty of communicating with Afghans living inside the country. An early feasibility study was planned to determine the potential for reaching the Afghan people with health programs on radio, using Voice of America or other shortwave stations that would broadcast in Dari or Pashtu, the two major languages of the country.

Improving the Capability of the Party Health Committees

The designers planned to strengthen the capability of the Alliance Health Committee so that it could eventually plan and manage an expanded health system itself and, if the communist government fell, return to Kabul able to operate the Ministry of Public Health. This would require a considerable expansion of staff and an improvement in their management infrastructure and skills, not only for staff living in Pakistan, but, more important, for additional administrative staff that would be placed in Afghanistan. Health planning, health services administration, personnel management, supply management, training, management information systems, and financial management were envisioned as major areas for skill improvement. Since the AHC was not yet functioning, it was clear that A.I.D. funds would need to provide office space, supplies, transportation costs, and, most important, salary support for all AHC staff if these goals were to be met.

Planned Accomplishments of the Program

In the summer of 1986, heavy emphasis was placed on training first aiders, nurses, and managerial/supervisory personnel; increasing the numbers of first aiders and clinics, and adding some mobile surgical hospitals; expanding the administrative infrastructure within the country; implementing vaccination

programs; and testing the feasibility of public education programs. In addition, the program envisioned, in later years, some support for education of medical and nursing students who could provide services in a reconstructed Afghanistan once the war ended. The plan also included additional beds for women and children in Pakistan due to a shortage of continuing care beds.

Administrative Arrangements and Technical Support for the Program

From the first planning visit, it was clear that A.I.D. would need assistance in the financial management of this complex program with its ambitious targets, especially since considerable funding would go to the Afghans, including salary support, and since the intent of the project was to provide services in Afghanistan, where accountability for expenditures would be very difficult. The Office of the A.I.D. Representative for Afghan Affairs did not have the staff to disburse funds regularly or to maintain financial accountability under these circumstances. In addition, the pharmaceutical component would probably require procurement both from Pakistan sources and international sources—something that USAID was not staffed to do and an area where A.I.D./Washington wanted to maintain tight control.

It was also clear from the first planning visit that the Afghans would need technical assistance if they were to play a major role in the vast expansion of the health system inside Afghanistan. They lacked the management infrastructure and experience to manage these efforts without help. They also did not have physicians with experience in planning and operating health services and immunization programs, in implementing feasibility studies for public education, in training large numbers of health personnel, or in operating a supply management service. In addition, A.I.D. had to decide whether it wished to have funds disbursed to individual parties, only to the Alliance Health Committee, or to both.

The plan provided PVOs with a major role in training, especially of mid-level paramedical workers, although it was not clear whether the PVOs would need technical support for their training efforts. In addition, A.I.D. had to decide whether to disburse its PVO health funds through a fiscal intermediary or retain these grants within its own office. This decision was complicated by the fact that A.I.D. wished to fund PVOs from a variety of countries.

A third administrative issue concerned the role of the government of Pakistan. Should it have a fiscal role, a technical assistance role, a coordinating role, or a more limited clearance role? They agreed to a coordinating and clearance role rather than to a role of managing funds themselves.

Discussions about these arrangements occurred over a six-month period in Pakistan and in Washington. The final decision by A.I.D. was to fund each PVO directly, using one-year grants managed by the Office of Afghan Affairs in

Islamabad. In addition, A.I.D. would also fund the CMC, to perform technical support and coordination.

For the Afghans, A.I.D. would employ a fiscal intermediary which would be responsible for managing all A.I.D. funds. This intermediary would fund activities of the Alliance Health Committee rather than political parties or commanders. In addition, there was a clear need for technical assistance to the Afghans, and A.I.D. intended that the fiscal intermediary and technical assistance roles be implemented by the same organization.

One advantage of this administrative approach was the close control of A.I.D. funds through the use of an intermediary who would disburse funds and commodities directly to the AHC. Since the AHC would receive funds, it would be considerably strengthened in its role as coordinator and leader and the parties would seriously contribute staff and time to its development. The intermediary would have auditable record systems for all financial transactions occurring in Pakistan but would have a reduced level of accountability for transactions occurring in Afghanistan. A.I.D. would work out accountability standards for expenditures occurring in Afghanistan. Since the intermediary would also provide technical and managerial assistance to the Afghans, the program would be more coherent, which was expected to speed implementation.

To PVOs, with their individual boards of directors from many countries, A.I.D. would provide grants directly. This decision gave A.I.D. flexibility based on performance and also fostered international cooperation. The AHC would set up monitoring systems for activities inside Afghanistan. The fiscal intermediary would monitor the Afghans, and A.I.D. would monitor and evaluate the fiscal intermediary and its PVO grantees. A.I.D. also planned to organize an outside evaluation in the second year of the program.

MSH's Decision to Undertake This Program

The decision by MSH to assist in implementing this program was not an easy one. While the MSH board of directors, upon the advice of the officers, had agreed to assist in the planning of the program, they had not agreed that MSH would help with implementation. MSH's officers followed the planning process closely and, in the summer of 1986, they discussed the pros and cons with nearly every MSH employee, even those based overseas.

The philosophical issues were paramount: Should MSH work in a war zone? Was the project strictly humanitarian? How should MSH avoid pressures, if they occurred, to provide intelligence information that would affect the war or political efforts rather than humanitarian ones? How did MSH feel about paying the salaries, even indirectly, of health workers inside Afghanistan who were likely to carry weapons and fight?

There were also serious operational issues, such as the personal security of the long-term advisors residing in Peshawar and the short-term consultants visiting Pakistan. Were MSH employees willing to be stationed there? Did MSH have a current employee to lead the project? Could we implement a project where U.S. staff could not enter Afghanistan? Could MSH structure an agreement with A.I.D. that gave it the right to terminate its services if the humanitarian purposes could not be achieved or if other pressures of a nonhumanitarian nature seriously impeded its work?

These discussions at MSH were fascinating and wide-ranging. Thomas Aquinas, Gandhi, and Martin Luther King were quoted. The history of medicine during wartime was reviewed. Gandhi's example provided the clearest guidance: in his youth he had been a medic in South Africa, after deciding that providing health care to wounded soldiers or civilians was of high moral purpose even if that war, or war itself, was inherently immoral. In the end, MSHers agreed to follow this example. They believed in the moral purpose of the program and, since MSH had special knowledge of Afghanistan, they felt that it was important to use it to help Afghan citizens. However, MSH would not directly pay salaries of health workers. The AHC would assume this responsibility and would monitor the activities of the health workers inside Afghanistan.

Project Development and Evolution

Getting Started

The MSH technical assistance team opened for business in Peshawar in November 1986 in Room 2 of the Dean Hotel, a relic of the British Raj which was laid out stablewise among green lawns. The hotel management was acutely anxious about the numerous visits to Room 2 by our long-bearded and turbaned Afghan colleagues. The Afghan communists were carrying on an intensive terrorist bombing campaign in Peshawar at that time, and the management feared we would get the hotel blown up. They pleaded with us to stop the Afghans from visiting, but we were able to ignore the requests politely without getting kicked out of the hotel. The Dean Hotel remained headquarters until February, when permanent offices in the University Town section of Peshawar were established.

The first few months were spent in fielding the project's technical assistance team and in preparing a detailed work plan for the first year. Initially, the team was composed of three people: Jack LeSar, the MCH Program Director from MSH in Boston, who stayed on as the Acting Team Leader until Bill Oldham, the MSH Project Director for the AHSSP, could move up from Cairo in early January; Dick Johnson, the Training Advisor, who had worked on the project's design and who had had long experience in Pakistan and Afghanistan; and Laurence Laumonier, a French physician with considerable wartime experience

inside Afghanistan with the mujaheddin, as our Field Operations and Medical Advisor. A Financial Officer, Len Chang, and a Management Advisor, Anibal Mejia, followed.

A major concern was adjusting the design of the project to a limited budget without losing sight of two main objectives: rapid development of basic health services, delivered by well-trained and well-supplied health workers and facilities; and development of health management systems to plan, manage, and supervise health delivery systems inside Free Afghanistan.

The project actually kicked off in February 1987, with the ordering of emergency supplies for all seven parties. However, three of the parties decided not to join the project and did not accept the commodities. One, the Khales faction of the Hezbi-Islami Party said it opposed the concept of the Alliance. Two other parties, the Hekmatyar faction of the Hezbi-Islami Party and Sayaf's Itihad-e-Islami-e-Mujaheddin Afghanistan Party decided to await the establishment of an office by the government of Pakistan that would serve as an intermediary between MSH and the parties, since they felt it was improper for them to receive assistance from an "infidel" organization.

Alliance Health Committee

Could the Afghans actually set up a multiparty health structure to meet the management needs of an organization performing the role described above? We spent considerable time negotiating the structure of the Alliance Health Committee (AHC) with the chairmen of the party health committees of the Alliance of Seven Parties. There was suspicion within each party's health committee that the others would cheat them or get a bigger share of the assets to be provided by MSH. Initially, the committees would meet with MSH in our Dean's Hotel office, but they soon felt that it was not politically correct to meet there. After a few weeks of running around Peshawar, meeting in obscure offices and hospitals, the four participating parties organized themselves into the Alliance Health Committee and occupied offices leased by MSH.

The Alliance Health Committee showed steady development during the latter half of the first year and its members demonstrated that they could work effectively together, although there must have been some real scraps between the various parties before all the arrangements were agreed upon. The chairmen of the health committees of the four parties in the AHC became its officers, with rotating positions, and formed a High Council to provide management oversight and policy direction.

A senior administrative officer was appointed, and four departments (finance and administration, medical services, logistics, and training) were established and staffed with, on the whole, reasonably qualified personnel. Great care was taken to insure that the salaried positions were distributed equitably among the four

parties. The departments were anxious for technical assistance and soon began to function better.

Lack of Trained Manpower

A major problem throughout was the paucity of trained managers and technicians. The jihad was made up chiefly of rural tribesmen; the highly trained professionals, managers, and technicians had either stayed on in the communist-governed areas or departed as refugees to the West. Later in the war, more doctors and technical people crossed over to join the mujaheddin but not in large enough numbers to alter the manpower shortage significantly. The AHC doctors frequently feared that the professionals in Kabul would capture most of the top positions in the new government's Ministry of Public Health and that they (the mujaheddin) would be left out in the cold. They often urged the establishment of medical schools for the mujaheddin so that the balance could be altered.

Training of basic health workers (BHWs) in primary health care and emergency first aid was the major activity of the AHC during 1987. The training was conducted in four separate training camps, one per party, located in the mujaheddin guerrilla camps surrounding Peshawar. The camps were established and equipped; the faculties selected and trained; the students (25 per party) selected; and the candidates tested. The first training session of three months graduated 100 BHWs on July 15, 1987. The admission testing, training, and final exams were supervised by the AHC Training Center. From the start, the AHC Training Center demonstrated excellence, in large part due to the outstanding director chosen to lead it and the close relationship he developed with his counterpart.

The graduates were immediately deployed and established 94 health posts in 20 of Afghanistan's 28 provinces. This deployment initiated a major joint activity. The MSH Field Operations Division (Dr. Laumonier) and the AHC Medical Services Division collaborated in overseeing the deployment and supply (and resupply) of health posts, clinics, and other facilities inside. In addition, Dr. Laumonier began planning for extensive monitoring to be carried out inside Afghanistan. We had to have some idea of what was happening to the millions of dollars in supplies and salaries that we were going to send sight unseen across the border. Expatriate advisors were not allowed to cross the border, since the State Department thought it would be too dangerous and possibly even politically embarrassing if one of us were captured.

Need for Supplies and Logistics

The medical logistics program, initially managed by the MSH Field Operations Division, became much more expensive and laborious than envisioned

in the project design or in the first work plan. With our first procurement of simple emergency medical supplies, it became evident that the role of the American Manufacturers' Export Group (AMEG), a commodity procurement and distribution contractor for A.I.D.'s Afghanistan program, had been misunderstood by all concerned. During the design phase, MSH proposed that it provide the procurement services for medical supplies, but A.I.D. decided that AMEG would provide all logistics services for all four of the projects overseen by the Office of the A.I.D. Representative. It was assumed by MSH and A.I.D. that these services would include warehousing and repackaging for delivery to the client, since these are logistical activities.

Unfortunately, AMEG had not understood that warehousing and repackaging were to be their responsibilities and would have required an amendment to their contract to provide the specialized personnel and warehouse space to carry them out. The arrival of the emergency medical supplies forced a solution when AMEG did not have the warehouse space to store them: the medical supplies were delivered to MSH, which soon ran out of storage space in its offices and in tents on the surrounding grounds.

MSH leased a large house and converted it into the first warehouse, foreshadowing a medical logistics service that eventually became the largest undertaking in the project. During the first year, MSH spent \$1.86 million on medical supplies, which were repackaged into kits to supply 340 basic health posts and 40 clinics. Over 24 tons of supplies were shipped on 80 caravans to 20 different provinces inside Afghanistan before the end of September 1987.

At the end of 1987, fifty-one tons of supplies were stored in the warehouse, most of which had been repackaged into kits for mule transport. Twenty tons were reserved for BHW graduates in the second year.

Predictably, the logistics service grew as the project fielded more and more facilities. By October 1991, we had shipped over 1,000 metric tons of supplies and had a logistics center that included three large industrial warehouses, generators, vaccine cold storage, 25 air conditioners to keep the drugs reasonably cool during the fierce Peshawar summers, and a large number of personnel to manage the warehouses and prepare the kits for shipment inside Afghanistan.

Initial Miscalculations and Adaptations

The original program budget developed early in 1987 supported a series of outputs (project accomplishments) felt to be the minimum required to have an impact on the health and emergency casualty care of the people living and fighting inside Afghanistan. Costs had been estimated with almost no experience in building, from a distance, a health system in a countryside exposed to bitter warfare and bombardment. Eight months of experience made evident that much

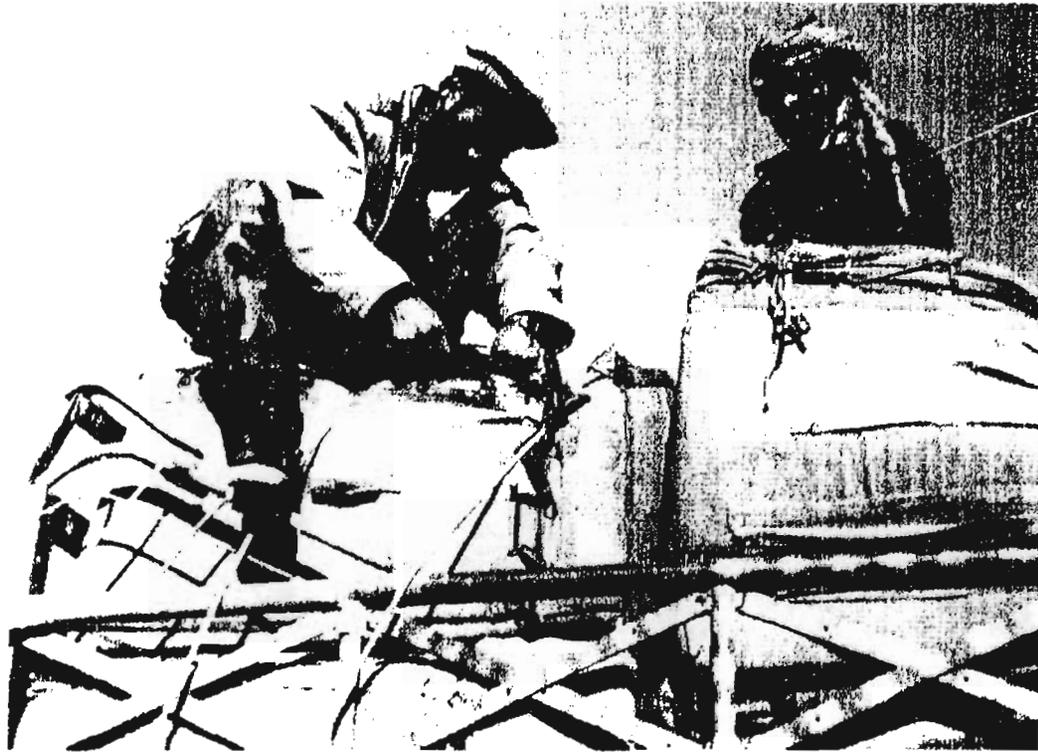


Figure 2-3: Transporting supplies. Trucks were used whenever possible to transport heavy equipment on both sides of the border.

of the data on which the estimates had been based were erroneous, and, consequently, that many of the costs in the project's design were underestimated.

The major underestimation involved the salaries of the BHWs. This category of health worker had originally been perceived as a combat medic, and no salary had been planned since they would be assigned to the main-line units and be treated just like the other mujaheddin troopers. Between design and implementation, this perception changed substantially. The training was considerably upgraded, and BHWs turned out to be spending most of their time in the villages, providing for the general population, and going on operations with the mujaheddin only infrequently, when there was an actual battle. Since other donors paid their personnel a stipend, we ended up paying BHWs \$40 per month, which added greatly to the project's cost, and set a problematic precedent for the long term. The argument was that the BHWs had families to support and if they did not get a monthly salary, they would be off the job farming most of the time.

The cost of transportation of supplies by caravan to locations inside Afghanistan had also been underestimated. The design team believed that this cost would be minimal because A.I.D. was supplying mules by the hundreds (on 747s from Tennessee) for the transport of humanitarian supplies. We soon found they were fully booked for carrying in food, clothing, and other supplies. Since we issued supplies directly to the personnel of the clinics and health posts, they had to compete with the armaments and other supplies being sent in by the parties. Our transport cost at one time equalled 40 percent of the value of the medical supplies being transported.

Building the Local Staff

One of the happier experiences during the start-up year was recruiting local staff. With very few exceptions, they proved loyal, hard working, and highly motivated. A first-class administrator, Ariff Jan (who became the Acting Chief of Party when expatriate staff were evacuated during the Gulf War, January to April 1991), a multilingual head driver, Mohammed Ali, and a retired Deputy Director of Logistics, Pakistan Air Force-North, Mahmud Bajwa, formed the core of this team.

Then the debate started. Laurence Laumonier (Field Operations) correctly argued that the program was an Afghan project and would be moving into Afghanistan one day. She felt strongly that we should hire only Afghans. Len Chang (Financial Management) had surveyed the financial management expertise among the Afghans and Pakistanis and decided that he had to have Pakistanis to manage his complex financial activity. Ariff Jan argued that our procurement service for local commodities, which he directed, needed Pakistani personnel since he believed the Pakistani merchants would take the Afghans to the cleaners on purchases.

As is usually the case, both sides were right. We decided to hire Afghan employees whenever possible but to hire Pakistanis when we could not find the necessary expertise in Afghan applicants. Although we started with 8 or 10 local employees, by January 1, 1992, we had 239—about 82 percent Afghans and 18 percent Pakistanis (see Table 2-2). While there was always a slight underlying tension between the two national groups, all appeared friendly and there was very little badmouthing about anybody. This is remarkable, since spreading rumors about someone you did not like often seemed to be the national sport of both nationalities.

Table 2-2
Distribution of Local-hire Personnel

Categories of Workers	Nationality			Total
	Pak	Afghan	Other	
Supervisors	4	5	1*	10
Deputy Supervisors	1	8	-	9
Physicians	-	7	-	7
Accountants	4	-	-	4
Accounts Assistants	3	2	-	5
Computer Supervisors	-	2	-	2
Computer Operators	-	5	-	5
Secretaries	3	8	-	11
Clerks	7	13	-	20
Translators	-	5	-	5
Trainers	-	2	-	2
Cartographers	-	2	-	2
Storekeepers	2	2	-	4
Senior Monitors	-	9	-	9
Monitors	-	65	-	65
Laborers (Warehouse)	3	27	-	30
Security Guards	9	11	-	20
Drivers	3	9	-	12
Custodial Workers	<u>3</u>	<u>14</u>	-	<u>17</u>
	42	196	1	239

* U.S. citizen of Afghan origin

The Evolving Focus on Prevention and Women's Health Programs

When the project was approved in 1986, our first priority was to establish basic health services throughout Afghanistan as rapidly as possible. The major emphasis of those services was casualty care, but preventive services and health services for women and children were essential if we were to assist the Afghans in developing an effective health delivery system in rural Afghanistan. Reports from expatriate medical personnel working in Afghanistan and knowledgeable Afghan physicians warned that the health status of the people there was grim. Widespread malnutrition, poor sanitation, absence of adequate maternal health services, rampant tuberculosis, and lack of preventive health services contributed to the deteriorating situation. The health status of women and children was especially bad. UNICEF reported in 1990 that Afghanistan had a maternal mortality rate of 650 to 1,000 per 100,000 live births and an under-five mortality rate of 300 per 1,000, the highest in the world.⁵ These issues had to be dealt with even though care for the war-injured was a high priority. A balanced health care system, emphasizing cost-effective preventive and primary care, was needed.

Therefore, in 1987 an immunization program focusing on the six preventable childhood diseases for which WHO recommends immunization worldwide in its Expanded Programme of Immunization (EPI) was the first major activity of the Preventive Medicine Department. It took well over six months to receive essential cold chain equipment, so the Alliance Health Committee was not able to field its first vaccination teams until September 1988. The EPI program grew steadily after that, using vaccines contributed by UNICEF and equipment and training funded by MSH. We added immunization with tetanus toxoid and treatment with iron and folic acid tablets for anemia as women's health interventions. At first, we feared the program might fail because the vaccinators were male, but, overall, the intervention was well accepted and the coverage of fertile and pregnant women in the areas served by the expanding EPI program was much higher than anticipated.

The Preventive Medicine Department expanded its child survival and disease control activities to include treating diarrhea with oral rehydration and treating acute respiratory infections early and appropriately. A tuberculosis control program was badly needed but difficult to establish. Follow-up of patients under treatment to insure compliance was difficult to accomplish, since the health personnel deployed inside Afghanistan were untrained in tuberculosis program management. Instead, pilot treatment centers were set up, with staffs especially trained in managing tuberculosis control programs, with the hope that these facilities would serve as the base for expansion into a national program. With the exception of the tetanus toxoid immunization of pregnant women and th

distribution of iron and folic acid tablets by the vaccinators, very little was done to provide health services for women.

Initially, health personnel deployed in Afghanistan were exclusively male, but they were trained in some maternal and child health work. While child health programs were popular, the approach to maternal health was necessarily low-key and introduced cautiously due to the very conservative nature of the male-dominated Afghan society. Male health workers simply do not directly treat women in Afghanistan, and there are almost no trained female health personnel outside of the cities. The result was grim: women got little or no health care in rural Afghanistan.

In the first two years of the project, little was done for women's health services because we lacked the experience with the culture to know how to approach the issue without stirring up the conservative Afghan community. In 1989, a full-time expatriate MCH advisor, Linda Tawfik, arrived, and she noted the following constraints to the development of women's health services in Afghanistan:

- There is an extremely low female literacy rate (less than 10 percent).
- The underlying problem of the low status of women makes all women's programs socially and politically vulnerable.
- Qualified female health personnel, including trained traditional birth attendants, are scarce in rural Afghanistan. Women can be examined only by a female health worker in most areas, so their illnesses and complications, especially those which cause maternal mortality, go unattended.
- Most women are in purdah, which restricts their ability to seek care. The security situation imposed by the war made it even more dangerous for women to travel to distant health facilities or training centers. The barriers created by this immobility of women have severe implications.
- In terms of health interventions which could have the greatest impact, family planning would be the single most important intervention to save women's lives. As in most countries at war, the countervailing pressure was to repopulate. Fertility rates in several of the Afghan refugee camps reached world-record highs. Krijgh reported in 1987 that the total marital fertility rate in ten Afghan refugee camps in Pakistan, based on current age-specific fertility rates, would reach an average of 13.6 live births per woman.⁵ The highest previous total marital fertility rate was 10.5 in Yemen, as reported in 1985 by the World Fertility Survey.⁷

These constraints were compounded by the fact that the project's headquarters were located in Pakistan. The cross-border MCH program needed women trainers and clinicians who could travel back and forth between Afghanistan and Pakistan, which was the model for other MSH program activities. However, a cadre of such women who could travel cross-border was nonexistent in a society that does not allow women beyond compound walls.

The MCH advisor quickly developed a rapport with our Afghan counterparts and worked effectively with the expatriates and Afghans working on MCH programs either inside Afghanistan or for Afghan refugees in Pakistan. An MCH Directorate of the MOPH was established, and real interest in developing maternal and child health programs began to sprout in the ministry. A male pediatrician director and a male deputy director were appointed, a set of offices were provided by the ministry out of its own resources, and several female technical personnel were hired to work on the training curricula.

While the women's health program was still relatively small and still viewed with suspicion by many conservative Afghans, the growth of the interest in women's health programs was extraordinary. The Area Health Committees as well as the MOPH quickly showed interest in developing maternal services, admittedly more for the children's component than for the maternal portion. Still, as long as women were seen and treated by female health workers, most Afghan health leaders were enthusiastic about programs for women. Almost all BHWs were trained in how to approach and train dais (traditional birth attendants) in their villages in sterile technique and other aspects of maternal care. Dai training centers staffed by the female personnel of the clinics were set up in over 33 MCH clinics, and over 14,000 dai kits and 100,000 sterile delivery packs were distributed throughout Afghanistan. A school was established in the MOPH to train mid-level female MCH health workers to staff and supervise the maternal and child services. Immunization programs were developed in well over half of the provinces, and ORT corners were set up in the clinics to train mothers in the treatment of diarrhea in their children. This overview of the evolution of Afghan women's health programs will be completed in Chapter 7.

Developing a Sustainable Infrastructure

By the fifth year of the project, MSH and A.I.D. recognized that the time had come to do something to ensure the sustainability of the health infrastructure set in place by the cross-border health programs. Scores of organizations of all sizes, mostly small, were supporting health services inside Afghanistan or providing services directly with their own expatriate personnel (see Table 2-3). There was also considerable support, financial and direct, from Muslim countries, particularly Saudi Arabia and other Gulf countries, although the details of this assistance were kept secret. All of these agencies, Muslim and Western alike,

supported or provided free cross-border services. Their interest was relief, not development, and it did not occur to them that they should work to ensure that the services would continue after their support was withdrawn.

Looking at Finances

In 1989, MSH brought a team to Peshawar to study health delivery costs and mechanisms for cost containment and sustainability. Lectures and round table discussions with MOPH officials and the Area Health Committees aimed to train the responsible officials in basic planning, cost containment, and income generation. They welcomed the introduction to planning but completely rejected the idea of income generation as politically too explosive. Despite warnings to the contrary, they could not believe that the West would cease or drastically cut its humanitarian assistance any time in the near future:

The Afghans: The war is still on, isn't it?

MSH: Unfortunately, not to the average American and to Congress. They have made the mistake of thinking that it was won when the Russians pulled out.

The Afghans (in keeping with their wonderful character): Well then, we'll just have to make it on our own, won't we!

Chapter 5, "Planning for Sustainability and Health Impact," describes the work of MSH's team.

Checking on and Adapting to Reality

By mid-1991, the reality of the situation became more apparent. Many PVOs had withdrawn or drastically cut their programs. On the brighter side, the Americans and the Russians had agreed to cut all military assistance to both sides before January 1992.

The Area Health Committees were less sanguine about their future and enthusiastically planned income-generating schemes and rotating drug funds during the annual senior managers' workshop held in the late summer 1991. All the senior managers of the Health Committees attended, including the chairmen. It was an impressive three weeks, even though all were very nervous about the reaction of their people to the concept of fees for services previously provided without cost as part of the jihad. The MOPH did not send senior personnel to the workshop but sent two senior management trainers with the understanding that a similar workshop, with MSH assistance, would be conducted separately.

Table 2-3
Health-sector Humanitarian Assistance for Inside Afghanistan

Nongovernmental Organizations (NGOs)		1987	1988	1989	1990 Planned
AAA	Afghan Aid Association	N/A	N/A	N/A	N/A
AMA	Afghan Medical Aid	0	0	50,000est	150,000est
ANH	Afghanistan Nothilfe	86,805	55,493	146,914	
AVICEN	Afghanistan Vaccination and Immunization Center	N/A	N/A	1,616,062	2,337,540
AMI	Aide médicale internationale	20,833	33,296	90,646	520,804
CFID	Council for International Development	N/A	N/A	N/A	N/A
DCAR	Dental Clinic for Afghan Refugees	0	16,648	59,582	94,576
FM	Freedom Medicine	628,179	862,395	1,978,998	1,360,998
GAC	German Afghan Committee	1,157,407	1,387,347	1,469,147	2,477,793
GAF	German Afghan Foundation	N/A	N/A	N/A	N/A
HI	Handicap International	0	16,648	47,276	130,902
IMC	International Medical Corps			2,000,000est	2,000,000est
ISRA	Islamic Relief Agency	N/A	N/A	N/A	N/A
JAMS	Japan Afghan Medical Services	0	0	39,177	23,375

MSH	Management Sciences for Health	2,251,157	5,133,185	8,000,000est	8,500,000est
MDM	Médecins du monde	N/A	300,000	1,038,197	500,000
MSF-B/H	Médecins sans frontières, Belgium/Holland	N/A	190,895	200,000est	200,000est
MSF-F	Médecins sans frontières, France	659,722	843,507	1,349,957	5,236,500
MTA	Medical Training for Afghans	See AMI			
MCI	Mercy Corps International	N/A	N/A	625,420est	1,000,420est
NCA	Norwegian Committee for Afghanistan	150,000est	400,000est	450,000est	500,000est
PCA	Psychiatry Centre for Afghans	0	0	122,428	125,000est
SCAA	Sandy Gall Afghanistan Appeal	0	0	0	0
SCA	Swedish Committee for Afghanistan	1,360,000est	2,360,000est	3,623,256	3,976,744
International and Other Organizations					
Arab	Arab donors	2,000,000est	3,000,000est	3,000,000est	3,000,000est
UNICEF	United Nations Children's Fund			2,000,000est	1,500,000est
WHO	World Health Organization			500,000est	2,000,000est
Estimated Total Assistance*		8,062,831	14,254,456	24,865,293	31,190,085

Notes: NGO amounts taken from ACBAR *Directory of Members*, 1990; N/A = not available; est = estimated

* Estimated Total Assistance = Sum of amounts for each year minus double counting. For example, UNICEF funds cross-border immunization through NGOs listed above, so UNICEF's contribution is subtracted from the total to avoid counting funds twice.

Field Operations Management and Operations Research

Two provincial household surveys carried out in Afghanistan in 1991 showed that even with the austere conditions existing there, families still had a small amount of disposable income which they used for private medical consultations and for the purchase of pharmaceuticals from private local pharmacies. We emphasized this to our colleagues, but they were still uneasy about the proposition of fees.

On the other hand, they were even more uneasy about selling drugs from a clinic pharmacy, since they wanted to set up outside pharmacies in the local markets that would be supported through rotating drug funds and not identified with the health facilities. The Supervisory Council of the North, the largest and best developed of the Area Development Committees, wanted to set up a centrally managed rotating drug fund that would support local pharmacies throughout their catchment area. Initially, they planned to supply the system from a warehouse in Taloqan, the town of their headquarters.

In its sixth-year work plan, MSH elected to approach sustainability by cutting salaried health providers by 25 percent on April 1, 1992, as an incentive for joining a fee-for-service scheme. A promotional campaign to advertise the reason for the cut and present a fee schedule that the MOPH and the Area Health Committees would agree to was presented to the senior staff of the Area Health Committees at the senior managers' workshop, and they agreed that it was the most reasonable approach.

Notes

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Chapter 3

Training and Manpower Development

Richard Johnson

Introduction: The Setting in 1986

When the Afghanistan Health Sector Support Project (AHSSP) team arrived in Peshawar in November 1986, information about the availability of and access to health care services in the mujaheddin-controlled areas that covered most of rural Afghanistan was scanty. No single source could provide a comprehensive picture of the health services and manpower actually in place.

In Peshawar and Quetta, many Afghan and foreign organizations attempting to establish health services in Afghanistan were training health care providers. They were then either supported by their respective organizations to work in their own clinics in Afghanistan, or referred to the Swedish Committee for support.

Some private voluntary organizations established paramedical training programs, which focused on medical/surgical care for mujaheddin. By 1986, over a dozen such programs were being carried out in Pakistan, as Table 3-1 shows. Although these organizations shared the goal of preparing health care providers for work in Afghanistan, the skills and knowledge levels taught varied significantly, as did the lengths of courses, which ranged from six to eighteen months.

Table 3-1
Principal Organizations
Training Afghan Paramedical Staff in Pakistan, 1986

Organization	Funding Source
Freedom Medicine	USAID
German Afghanistan Committee	Private & USAID
International Medical Corps	USAID
Islamic Relief Agency	Private
Jamiat Hospital	Jamiat Tanzeem
Medical Training for Afghans	PVOs, French, & Belgian
Medical Refresher Training for Afghan Doctors and Nurses	PVOs, French, & USAID
Union of Afghan Medical Doctors	Private Donations
Al Jihad Hospital, Quetta	Private
Hezbi-Islami Hospital	Tanzeem (Hekmatyar)

Training Strategy

In order to expand and strengthen health services inside Afghanistan as rapidly as possible, many first aiders and nurses needed training and doctors required refresher training. The number of mid-level health workers appeared to be sufficient to meet the immediate manpower needs for the delivery of clinic-based services. However, village-based primary health care workers virtually did not exist. With Afghanistan's rural population scattered in thousands of small villages, often separated by mountains and rivers, access to trained health care providers was very limited or totally lacking. Therefore, MSH concentrated on developing a cadre of primary health care workers, who could have a significant impact on morbidity and mortality, particularly when trained and equipped for child survival interventions. These primary health care workers were also prepared to provide first aid for war-related casualties.

For all practical purposes, the health care system in rural Afghanistan had been destroyed. Most health professionals had become refugees, clinics and hospitals had been abandoned, and production of trained health manpower for mujaheddin-controlled areas was totally disrupted. The training efforts of some mujaheddin political organizations and PVOs in and around Peshawar and other secure locations were frequently uncoordinated, and many of these organizations lacked qualified trainers. When the AHSSP was launched, no organization with

the potential for establishing coordinated training programs could be identified, except the emerging Alliance Health Committee.

The challenge was to develop a training strategy for Afghanistan while much of the relief effort focused on offering care, often by expatriates. For long-term impact, the focus had to be on developing training skills and knowledge within Afghan organizations so that when peace was restored, a core of experienced trainers and training administrators would be available to assist with reconstructing the health care system. To implement this strategy, MSH concentrated on establishing training centers run and managed by Afghans. Technical assistance focused on developing training policies, strategies, and materials, and providing administrative backstopping. Implementation of policies and strategies remained the responsibility of the Afghan counterparts. Because experienced trainers and training program managers were not available in the beginning, MSH played an active role in designing and developing training plans and materials but turned over responsibility for their implementation to their Afghan counterparts as soon as possible.

Buddy Care Training

With the war inside Afghanistan creating many casualties, it was critical to train as many mujaheddin as possible in basic, lifesaving first aid measures. A two-day training program, patterned on the International Committee of the Red Cross model, was developed by the training center; ten paramedical staff members were recruited and trained as first aid trainers. These staff members were assigned to conduct full-time first aid training for the mujaheddin who were rotating through the military camp. The training, primarily in trauma stabilization, was designed to enable a mujahed to provide lifesaving measures for his "buddy" in the field. At the end of the training, each mujahed was given a sterile compress to carry in his kit. Over 36,000 mujaheddin were trained before the reduction in military activities began to eliminate the need for such training.

Development of the BHW Training Program

MSH suggested that the High Council—the governing body composed of health committee chairmen from each participating political organization (tanzeem) of the Alliance Health Committee—begin training a cadre of primary health workers to provide a limited range of health services in their own communities. Afghan health planners had expressed a need for large numbers of first aid workers to assist with managing war injuries. Because a large civilian population remained in Afghanistan, training in management of common clinical problems was included. Due to the acute shortage of trained health workers in Afghanistan, people were demanding medical care, and health workers, whether

qualified or not, had to meet the demand. Rather than placing health workers in the field who were unqualified to provide limited clinical services, who would perhaps prescribe potentially dangerous drugs, Basic Health Workers (BHWs) were trained to manage some common clinical problems. The High Council agreed with this approach for rapidly expanding health care services.

Since training materials were not available, a subcommittee on training was formed, including a medical doctor from each tanzeem. The main problem was to convince subcommittee members to limit course content to a level that a trainee without prior medical experience could learn and competently apply in two to three months. Course content was adapted from *The WHO Community Health Worker, Where There Is No Doctor, The MEDEX Series*, and other references.

While developing course materials, tanzeem health committee chairmen were searching for doctors and nurses or mid-level medical technicians to become trainers. In addition, a crash program was launched to procure supplies and equipment needed for setting up a residential training camp.

The next step was a week-long training of trainers workshop, as none of the proposed trainers had had any prior teaching experience. This workshop began in March, and the first training class was launched in April, less than three months after the discussion on training with the High Council.

Recruitment of Trainees

Each tanzeem recruited trainees from inside Afghanistan who were literate and would return to work in their home area. Trainees had to:

- be willing to participate in the jihad in Afghanistan after completion of the BHW training,
- be Muslims who had participated in the jihad,
- have immediate family members residing in Afghanistan,
- have achieved an educational level of not less than 10th class,
- be at least 16 years old, preferably 20 to 30,
- come from the locality where they were expected to work,
- not be employed in Pakistan, and
- agree to live in the training camp during the BHW training period.

Altogether 100 trainees, 25 per tanzeem, were selected for the first BHW training course.

Training Sites

After the High Council opposed the suggestion that training sites be set up to accommodate trainees from all tanzeems, it was decided that training should take place in each of the tanzeems' mujaheddin camps that surrounded Peshawar, completely separate from refugee camps. Each tanzeem established and administered its own camps; health committee chairmen were unanimous in specifying that a trainer or trainee from one tanzeem would not be allowed to work or study in camps controlled by the other tanzeems. At first, members of the High Council were concerned with ensuring that each received an equal share, perhaps because past efforts at launching joint activities had not been very successful. Since A.I.D. had adopted an "aggressive implementation" policy, a crash program was launched to set up BHW training camps within the participating mujaheddin camps.

Development of Logistical Support for BHWs

Based on the BHW curriculum, the MSH team, in consultation with members of the subcommittee on training, developed a list of drugs and medical supplies which a BHW should be taught to use in the field. Examples of all items in the list were provided to the training camps for demonstration and practice (see Chapter 8, *Logistics Management*).

A health post was established close to each training site. These posts were staffed with doctors and mid-level technicians to provide supervised clinical practice for BHW trainees and, secondarily, to provide services for camp residents. Drugs, equipment, and supplies were limited to the items that a BHW would be issued to set up his health post inside Afghanistan. Since these posts were located in the mujaheddin camps, clinical experience was limited to adult males. To overcome this constraint, arrangements were made for trainees to receive additional clinical experience in tanzeem hospitals set up in Peshawar and to expose them to common clinical problems of women and children.

Expansion of Training

After the first BHW training class in 1987, the number of BHWs for deployment inside expanded rapidly. Class sizes in the four tanzeem BHW training camps were increased from 25 to 60 trainees per camp, with a significant increase in the training staff. To maintain quality and coordination between camps, the training center (described below) held regular weekly meetings with the trainers, and workshops were conducted to train new trainers

and upgrade the skills of existing trainers. The training center regularly sent technical staff to the BHW training camps to provide guidance and support. As members of the High Council became acquainted with each other and with the program objectives, training staff were able to exchange visits between training camps and eventually act as external monitors for final testing and certification of BHWs.

Vignette: A Trip to Takhar Province

I was assigned to the BHW training course in Takhar with two other doctors. We traveled to Shah Salim, where we stayed overnight in a motel, lodged in a tent. After riding and walking, experiencing numerous difficulties and hardship, we reached Taloqan City on July 13, 1991.

The next day, the representative of the health committee of the Supervisory Council, Dr. Sahar, received us very warmly. He spoke of the accomplishments of the health committee, which supervises all health activities carried out in the Supervisory Council's area: aid to health personnel, hospitals, training programs, clinics, and preventive programs (such as tuberculosis control and vaccination programs in the northern areas). The committee endeavors to set up clinics and hospitals in the widest possible range of regions. Its organizational structure encompasses procurement, accounting, finance, transportation, and personnel offices. Each department has a separate director, who is responsible to the health committee. As a rule, the directors report their activities and needs to the health committee, and the health committee offers guidance and fills requests. The health committee personnel maintain biodata records, certification forms, and salary receipt cards. The activities of the health committee are evaluated every six months and revised where necessary.

While in Takhar Province, I worked with Taloqan Hospital, Farkhar Hospital, and Warsaj Clinic, as well as the BHW course. The course had been conducted in the Khytab region, but after the historic liberation of Taloqan City from occupation by the Kabul regime, the Takhar training course was moved there. When the course was first relocated, there were only a large training room adjoining the hospital and two health committee rooms used as a hostel.

The trainers participated in examining and treating hospital patients as well as lecturing to the trainees. In the fourth and fifth sessions, the trainers followed the curriculum of the Peshawar courses, for which simple language, slides, filmstrips, and charts were used. I updated the trainers on the topics in the newly printed BHW training manual and presented them with a copy to use in the sixth session and the refresher training course.

Since the trainers were expected to conduct BHW assessments, I also explained how to conduct effective assessments using the BHW evaluation forms.

The forms were distributed in Taloqan and Farkhar to allow the trainers to gain some familiarity with assessment methods.

After completion of the theoretical section of the course, the trainees received their practical training in the hospital. During the course the trainees took four tests, and these scores, combined with the score on the final exam, determined whether or not they passed.

Taloqan Hospital, which I visited next, had at that time a staff of 60, nine of whom were M.D.'s. The hospital, financed by MSH, includes departments of surgery, internal medicine, pediatrics, tuberculosis control, and maternal and child health, as well as x-ray, laboratory, and dental facilities. Each department is led by a chief physician, and these physicians are responsible for all hospital affairs.

There are only 40 beds in the hospital, but during my visit about 60 war-wounded patients were hospitalized there. As many as 150 patients are examined and treated daily, 40 to 50 of these for tuberculosis.

The maternal and child health department's activities include the administration of TT (tetanus toxoid) vaccines to women between the ages of 15 and 45, child health and sanitation education for mothers, and dai training. As of summer 1991, the hospital had trained about 30 dais. Demonstrations of food preparation for children and treatment of obstetrical and gynecological diseases constitute the main activities of the department. Food for mothers and children is also distributed through this department. It had 8 staff members, including 2 nurse-midwives who worked as trainers in the dai training program. I interviewed two dais in this department and provided necessary assistance to them.

The vaccination program was very organized and active in Takhar Province. Before I arrived, vaccinators, equipped with four cold-chain systems, had completed two campaigns and had traveled as far as Khanabad, in Kunduz Province, to provide vaccinations. According to one vaccinator, about 110,000 doses had been administered.

I next traveled to Farkhar Hospital, whose 10 beds are used primarily for the hospitalization of internal medicine and war-wounded patients. The hospital includes departments of internal medicine, surgery, and dentistry, and laboratories. All hospital affairs are the responsibility of the director/chief physician. This hospital provides medical examinations and treatment to 40 to 60 patients a day.

The maternal and child health clinic at Farkhar is housed in four or five rooms near the hospital. The activities of the clinic include physical examinations for mothers, maternal health education, and the distribution of foods including beans, milk, and biscuits. The Farkhar Clinic also trains dais. The clinic was supplied and supported by MSH and staffed by 6 people, including 1 nurse-midwife and 2 midwives.

The Warsaj clinic, situated on the bank of a roaring river near the Warsaj bazaar, was staffed by 2 medical technicians supported by IMC. The clinic has 5 hospital beds and treats and examines 30 to 40 patients a day.

by Dr. Mohammad Masood

Development of a Training Center

A training center was established in August 1987, to support AHC training programs and to develop Afghans' capacity to plan and manage their own activities. It developed curricula and training methodologies; planned and conducted seminars, workshops, and refresher training; tested and certified health workers; published training and public education materials; provided audiovisual support; maintained a reference library; and coordinated training activities within the AHC and with other agencies.

To support training activities, several technical sections were eventually established: audiovisual, printing and publications, graphic arts and calligraphy, and a library. The audiovisual section was equipped with 35-millimeter and overhead projectors and screens, 35-millimeter cameras, a video camera/recorder, and video editing and playback equipment. The section was run by an audiovisual technician with the ability to produce video presentations.

The printing and publications section grew from a small activity using standard photocopy and duplicating machines to a unit that ran an offset printing press and produced high-quality manuals, pamphlets, and other publications. The graphic arts and calligraphy section produced visual aids to support training activities, and health education materials in the form of posters and handouts. Calligraphy is an essential component for production of educational visuals.

A small library of reference materials relevant for developing primary health programs and focused on mid-level and community health workers was established. The library also contained most of the standard medical and surgical references available in Pakistan to support refresher training for doctors and the Afghan medical community in general.

Evolution of the Training Center into the Institute of Public Health

With the creation of the Afghan Interim Government's Ministry of Public Health in 1989, the training center was reconstituted as the Institute of Public Health (IPH). Each participating *tanzeem* was responsible for running its own BHW training camps—selecting trainers, recruiting trainees, and carrying out general administration and quality control—according to the training center's



Figure 3-1: Health worker training. Health workers receive basic childbirth education from a midwife.

technical and administrative guidelines and under the umbrella of the Alliance Health Committee.

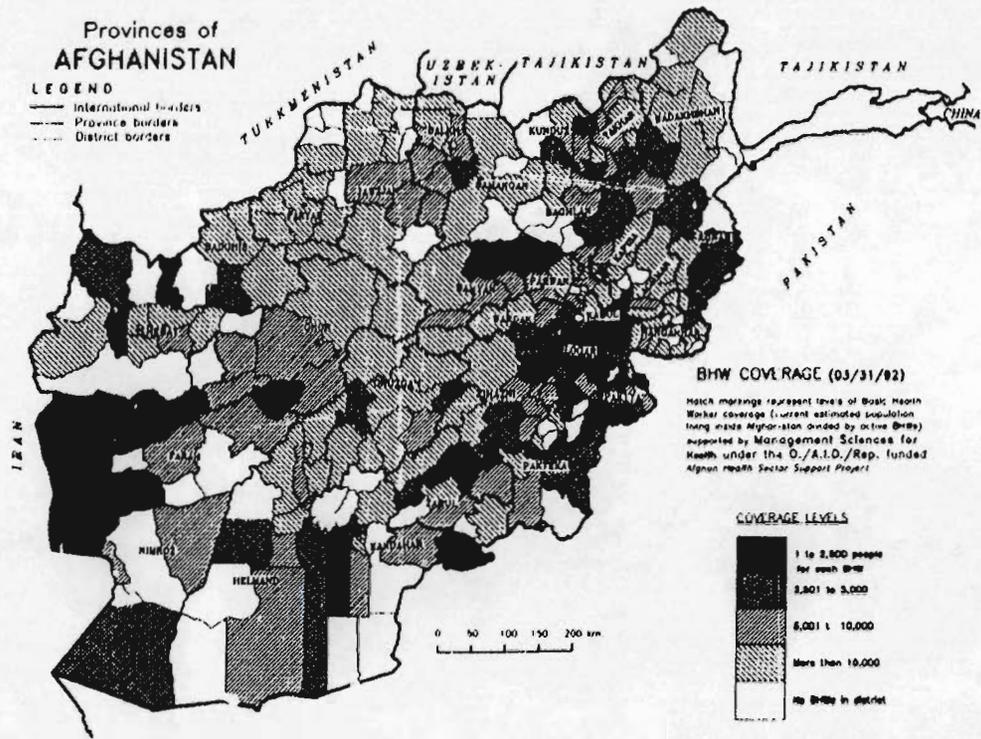
The AHC was a highly politicized entity, and the training center's ability to implement unpopular decisions, such as rejecting BHW applicants who did not meet the selection criteria or failing BHWs who were politically connected within the *tanzeem*, had been limited. Gradually the IPH was able to institute and enforce guidelines for assessing and certifying the competence of BHW trainees, monitoring training staff performance, and strengthening training standards and administration.

The criteria for selecting BHW trainees were changed when it became clear that disproportionate numbers of trainees were being selected from provinces/districts where *tanzeem* health committee chairmen or Peshawar-based party officials had strong affiliations. Some districts were being well served, while others had no BHWs at all. However, when updated provincial/district-level population data became available, MSH used them to calculate the ratio of BHWs to district population.¹ (See Map 3.1, Distribution of BHW Coverage.) Guidelines were set up to help achieve a ratio of 1 BHW per 5,000 population, and as BHWs were attrited from well-served districts, these slots were used to provide coverage in less served districts.

Staff appointments under the AHC had been made on a *tanzeem* share basis, which at times resulted in hiring unqualified or unwilling staff. Under the IPH, qualifications featured more prominently in selection, and political criteria were reduced (but not eliminated).

In addition to IPH training, MSH supported implementation of area development training centers to build on existing local organizations and to promote technically linked but decentralized training. In such an ethnically and geographically diverse country as Afghanistan, there are many advantages to training within an area or region. Local training programs can adapt to health problems specific to the area, select trainees in close consultation with the population to be served, and carry out post-training follow-up to ensure that the trainee is prepared effectively. In addition, if trainees are not exposed to life in urban centers, the probability that they will remain in their local area is enhanced.

To further this goal of decentralization of training, the IPH functioned as a technical resource center for the area development programs. The BHW curriculum teaching aids and educational materials were standardized and distributed by the IPH to all the area training centers. The area development trainers were trained by the IPH and encouraged to draw on the institute's resources as needed. Our hope was that when peace was restored in Afghanistan, the IPH would continue to function as a national technical resource center, while training would continue to be conducted within the region or area.



Map 3-1: Basic Health Worker Coverage

Training of Medical Laboratory Technicians

The IPH also planned a training program for medical laboratory technicians. WHO guidelines for laboratory technician training were adopted, and experienced laboratory technicians and 1 physician were prepared as master trainers for the five-month course. Two groups of 9 trainees successfully completed the course in October 1991.

Transferring Training into Afghanistan

Beginning with the Soviet withdrawal in 1989 and the formation of the IPH, the training strategy was changed. The overall outputs of trained BHWs in Peshawar-based training camps were lowered to concentrate on setting up training centers in mujaheddin-controlled areas in Afghanistan. The idea was to encourage decentralized training in future reconstruction plans, in contrast with past patterns where most training was carried out in Kabul. The selection of sites was based on geographic considerations (easy access from surrounding provinces) as well as political ones (organized mujaheddin control and administration).

By the end of 1990, a total of 1,945 BHWs had been trained, and the critical need for rapidly expanding health services in Afghanistan was subsiding. The change in strategy called for significant changes within the IPH. As training camps in Peshawar were closed, IPH staffing patterns were changed to reflect the need for more field assessments, BHW refresher training, management training, and mid-level training (of Maternal/Child Health Officers and Rural Health Officers). This change also provided an opportunity to retain the most skilled trainers and support staff. The number of positions authorized for the MOPH was limited to 163, and 50 excess positions within the IPH were transferred to the MCH Department, which was a high-priority area.

To support area development, the training center provided training materials, publications, and training of trainers. Area representatives agreed to follow the standard BHW training curriculum and to send their trainers to the center for orientation and training.

The first centers were launched with the Supervisory Council of the North, under the leadership of Commander Massoud and his medical representatives, in Takhar Province in July 1988, and in Balkh Province in December 1990. Similar programs were established in cooperation with Commander Haqani (an influential and well-organized commander active in Paktya and Paktyka Provinces) in Miram Shah, a small Pakistani town on the Afghan border, in November 1988; in the South and Southwest Emirates with Commander Ismael Khan; in Zindajan Herat Province in March 1990; and in central Afghanistan in cooperation with

Commander Mossini, who represented the Shi'ite population, in Behsud Wardak Province in November 1990.

Establishing a training center was sometimes eventful, as the following vignette illustrates.

Vignette: Moving to Afghanistan

With the departure of the Russians on February 15, 1989, everyone seemed optimistic that it would only be a matter of months, if not weeks, before a new Islamic government would be formed in Kabul. The Wardak training center was set up with only minor problems; however, it was a completely different matter in the southeast. First, Spinboldak, an Afghan border town, seemed to be the best site, but reconnaissance teams found it to be essentially an administrative center for mujaheddin affairs, where few families resided. After many consultations, Zabul Province was selected, as there is easy road access to it from surrounding provinces. Three separate reconnaissance missions picked an area in close cooperation with the local leaders, a building was leased, and renovations started. Finally, in July 1991, trainers and materials were dispatched from Peshawar via Quetta, when news was received that an expatriate hostage had been taken on July 4 by a local commander in Sajoy District. Word was immediately sent out to stop the movement of trainers and materials to Sajoy and to keep them in Quetta until further notice.

Before this situation could be resolved, another commander in Ghazni Province took hostage two Americans who were employed by PVOs. As a result, A.I.D. suspended all cross-border assistance in July 1991.

Six months later, when the ban on cross-border assistance was lifted, a new reconnaissance team formed to go to Oruzgan Province, rather than back to Zabul, where the local leaders could not be trusted. The team to Oruzgan included the Deputy Director of the IPH, an experienced BHW trainer, and a doctor who had been assigned to the training facility.

The team left Peshawar on January 21, 1992, and after a few days in Quetta working out travel and security details, began a journey made tedious by floods and poor road conditions. The team finally reached Trin Kot, where they were received by area commanders, one of whom was a relative of the local doctor on the team.

The next day, while the team investigated a training facility site proposed by the local doctor, the driver took their vehicle into the bazaar for minor repair. When the vehicle returned, someone else was driving, and the regular driver was in the back with several armed and unknown mujaheddin. The group in command of the vehicle, who were obviously hostile, approached the team and forced all except the local doctor into the vehicle. The robbers then drove far into the desert until late at night, stopped the vehicle, took the team's valuables, and told

them if they walked on for some time they would find a roadside hotel. The robbers also told them that they were lucky not to be killed this time, but if they returned to Trin Kot they would be. The robbers then drove off with their vehicle. The reconnaissance team did find a roadside hotel and made their way back to Quetta.

Development of Training Materials

BHW training was a major thrust, but many other related training activities were undertaken. A significant effort centered on producing a training and reference manual for the BHWs. As training center staff gained experience with teaching and evaluating BHWs, as well as understanding the role of a primary health care worker, the BHW training manual underwent several revisions to incorporate simple terminology that a BHW with limited education could understand.

Most BHW trainees were fluent in either Dari or Pashtu, which necessitated teaching and producing training manuals in both languages. The latest revisions of the theoretical and practical BHW manuals were published in Dari in 1991, and a practical training manual was published in Pashtu.

In the beginning, trainers attempted to adapt for the BHWs what they had learned in medical school. Gradually, however, most trainers realized the unique role a BHW plays and the level of competence a BHW should possess. With experience, training center staff were able to refine BHW core skills, which was beneficial both for the evaluation of a BHW's competence and for the trainee's appreciation of the exact skills he must demonstrate to be recertified as eligible for resupply.

Meanwhile, the Ministry of Public Health prepared a five-year master plan based on the primary health care approach for developing health services in Afghanistan. Since most MOPH staff, whether at the ministry level or in the field, had little knowledge of primary health care strategy and significance, a seven-day seminar on primary health care was inaugurated in December 1991. It was to be repeated at frequent intervals, depending on the needs and availability of health staff.

Continuing Education

During the fourteen years after the invasion of Afghanistan, the numerous training programs set up made important contributions, when villagers and mujaheddin alike were essentially without access to modern medicine. As time passed, however, a large diverse cadre of paramedical practitioners, with widely variable skills and knowledge levels, many of whom were acting as independent medical practitioners, began working in Afghanistan. Organizations supporting

health personnel in Afghanistan could not determine the skill level of a health worker candidate on the basis of certificates or biodata forms. Further, no assurance of quality and standards of health care services could be predicted. Such variations in levels of competence and the lack of any meaningful job titles foreshadowed considerable difficulties for any future ministry of health in managing health personnel and delivering services.

Recognizing this problem, A.I.D. encouraged the major agencies training or fielding health staff to work together on a refresher training curriculum that would enable medical technicians to acquire standard, minimum skills and levels of knowledge. The participating agencies were WHO, the Swedish Committee, Management Sciences for Health, the Ministry of Public Health, the International Medical Corps (IMC), and Mercy Corps International (MCI).

The first meeting on this subject took place in January 1991. The Persian Gulf War delayed work on the curriculum; nevertheless, a draft was prepared and pilot courses were run by MCI in Quetta and by IMC in Peshawar. Based on this experience, the curriculum was reviewed, revised, and published in both Dari and Pashtu. An evaluation team found the course "excellent in design and in the time allocated to various topics as well as exceedingly strong in primary health care topics."

The second four-month course began on February 23, 1992, with the Institute of Public Health, MCI, and IMC as the training organizations.

BHW Refresher Training

By the end of the project's second year, 812 BHWs had been trained and the majority placed inside Afghanistan. Graduates of these courses were supplied for three months in border areas, six months in central areas, and twelve months for those assigned to distant districts or those isolated from Peshawar for a significant period of time due to weather conditions.

Interviews with BHWs returning for resupply demonstrated that refresher training should be implemented as soon as possible. In 1988 a workshop with the training staff developed the content of the refresher training course. As resupply schedules, travel time, and other factors determined when a BHW would be in Peshawar, a twelve-day refresher training cycle was designed so that each day was a complete and independent teaching unit, thus allowing a BHW to enter the course on any day and complete it twelve days later. This design minimized the stay of the BHWs in Peshawar and the management problem of coping with large numbers of BHWs waiting for a course to start.

Initially, the BHW refresher training was managed at the training center, with trainers from the camps rotating in on a fixed schedule. Since most trainers had not been inside Afghanistan for several years, interviewing and working with the returning BHWs helped them to better understand the problems faced by BHWs

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Figure 3-2: Screening prospective health workers.

and to modify their lessons accordingly. Due to the high number of BHWs trained earlier, the need for BHW refresher training continued to increase. so BHW refresher training was begun at training centers inside.

Doctor and Nurse Refresher Training

In 1987 the major education problem identified by the AHC High Council was the need to improve the surgical skills and knowledge level of doctors and nurses, particularly for the management of war-injured patients, who were still arriving in Peshawar in very poor condition.

In 1988, a two-week workshop produced the curriculum for a three-month course for upgrading medical skills and knowledge. The first course was launched with 9 doctors assigned for duty inside Afghanistan in August 1988. Since doctors from clinics in Afghanistan were in Peshawar only irregularly and because travel to Peshawar was affected by weather conditions, resupply schedule, and security factors, it was impossible to organize a second group of even 4 or 5 doctors for this course. Since a course for fewer than 5 to 10 doctors would not be cost-effective, refresher training was reorganized in 1989 into three-week tutorials on particular needs such as surgery or orthopedics. A similar schedule was planned and implemented for nurses and mid-level technicians.

Assessment and Certification

Testing

An important function of the training center, independent of the BHW training camp, was to test and certify the competence of each BHW. Prior to the completion of each BHW training session, the training center would prepare written and practical tests. Strict controls were followed to ensure that copies of the test were not removed in advance from the training center. An examination schedule was prepared, and trainers were assigned to monitor the testing of trainees in other camps. A panel tested the practical skills of each BHW and rated him accordingly. Following the written examination, the test papers were scored by the trainers, after being coded so the trainers marking the paper did not know to which BHW the paper belonged. With each training cycle, the skill of the training center staff to design clear, objective examination questions and to manage the whole testing and certification process grew impressively.

Medical Certification

Prior to accepting medical staff for technical positions funded by MSH, Field Operations requested that each candidate be certified for competence. due to the

variety of nonstandardized and unaccredited training programs set up by various organizations for Afghans in Pakistan and Iran. Numerous titles adopted for paramedical staff did not necessarily reflect skills and knowledge. "Nurse" could mean anything from a medical technician who had attended a six-month training program, to a diploma nurse from a recognized institute in Kabul, to a person who had gained some practical, on-the-job experience. In Afghanistan, any health care provider, formally trained or self-taught, is frequently called a "doctor." To complicate matters further, many candidates stated that they had lost their medical credentials or were unable to bring such documents with them when fleeing Afghanistan.

Certification was carried out by Area Health Committees and the Ministry of Public Health, with monitoring by MSH Field Operations. The certification board, in the case of Area Health Committees, consisted of a doctor representative from each committee, while the MOPH assigned a group of senior doctors to its board. Once a candidate was certified, the Field Operations Department was able to make an assignment and establish a salary.

In July 1991, the MSH Training Department was assigned to oversee this activity. A full-time, ad hoc committee was formed with representatives from each Area Health Committee to review the curricula of the mid-level health workers' training programs in Peshawar, draft job descriptions, develop written and practical examinations based on the CMC/WHO Skills Checklists, and develop a procedure for testing and certifying various categories of health workers. These tasks were mostly completed by December 1991, and the transition to the new procedures began in January 1992.

BHW Field Assessments

One of the major problems with BHW training was the constraint placed on follow-up visits; expatriate project staff were not allowed to cross into Afghanistan because of the war and other political factors. Further, Afghan training staff, due to lack of security and contacts with leaders outside their own area, were reluctant to travel in Afghanistan.

Teams of trainers from each of the BHW training camps carried out field assessments of BHWs in specified locations on a rotating basis so that all could gain a better understanding of the demands placed on BHWs. A form for assessing a BHW's technical knowledge and skills, including his ability to work independently, was designed and tested. Assessment team members were trained in how to use the form and record field observations, including simulated practice. Upon their return to Peshawar, team members were responsible for tabulating the observations and presenting findings to the training staff.

The first assessment team was placed in Logar Province, Afghanistan, in November 1989. Assessments were later conducted in Hazni, Nangahar, Kana

Logar, Wardak, and Paktya provinces. (See Chapter 4, the section entitled "Monitoring Systems," for more information about assessing field workers.)

Vignette: An Official Trip

When I visited Dehnow (a village in Mohammad Agha District of Logar Province), it had been destroyed by Scud missiles and bombardment. I found the BHW I was to assess in the health post, where he was examining a small child suffering from pneumonia. A number of patients sat around the BHW in the health post, and all of them were examined and treated well. The BHW's attitude towards the patients was also very good; the post was clean and in good order; health education posters had been put up on the walls; and all the drugs accorded to a BHW kit were carefully arranged in a cabinet.

When the BHW finished examining the patients, he accompanied me on my walk in and around the village. The village contained about 450 houses, with a population of nearly 5,000. The people of the village were busy farming and tending animals. The farming conditions, due to a lack of useful agricultural materials (like chemical fertilizers), were not good. The health status of the population was poor. There was not enough food for women and children, and many children were suffering from malnutrition. In this village, people had access to only one BHW, but four dais and one bone setter were using their traditional medical practices to treat villagers. Most people drank from the stream and the river, and family and environmental conditions were poor.

After touring the village, I talked with some people in a mosque. The villagers were satisfied with the performance of the BHW, and they reported that he met with them regularly and offered advice and health education on family hygiene, environmental hygiene, safe water supplies, and methods for digging sanitary wells and latrines.

Dr. Mohammad Masood

With the closing of the BHW training camps in Peshawar, training staff positions were reprogrammed to reflect new priorities, one of which was systematic technical assessment of all BHWs returning for resupply. A BHW assessment unit within the IPH interviewed each BHW as he reported for resupply and tested his knowledge of core skills. If he had attended a refresher training session within the past twelve months and passed the technical skills and knowledge test, he was referred to Health Services for resupply. If he had either not attended a refresher training session in the previous twelve months or failed the test, he received refresher training and had to pass a qualifying examination before referral for resupply.

Similar procedures were introduced in the area training centers under the jurisdiction of the Supervisory Council, Health Committee of Paktya and Paktyka, IPH Chak Wardak, and Health Committee of Central Afghanistan. Area training plans included specific times for BHW field assessments and refresher training.

Mid-Level Training

After the initial efforts to establish a basic health care system in mujaheddin-controlled areas throughout Afghanistan, certain key elements were lacking, particularly support and supervision of BHWs, and services for women and children. Recognition of these needs led to planning for two new mid-level health worker training programs, for Rural Health Officers (RHOs) to support and supervise BHWs, and for Maternal and Child Health Officers (MCHOs), to expand services for women and children.

At the inception of the RHO training program, over 1,500 BHWs had been deployed inside Afghanistan, most working independently in their own villages. Although efforts had been made to link these BHWs with MSH-supported clinics for technical support and supervision, RHOs could still strengthen supervision, promote participation by communities in developing their own health programs, and help health facility staff organize preventive health programs. Active BHWs who met certain criteria were selected for training. These BHWs were familiar with the needs and problems of the rural population and had demonstrated a commitment to serving in the rural areas. Recruiting from among active BHWs also provided the beginnings of a career ladder, and 20 candidates for the first class in July 1991 were selected from Ministry of Public Health and Area Health Committees.

Given the acute need for developing services for women and children inside Afghanistan and the near absence of female mid-level workers, MSH and the IPH developed a female mid-level health worker training program, with the first class launched in April 1991. Cultural factors made recruiting women from inside Afghanistan difficult; nevertheless, 11 trainees enrolled in the first class, 4 from locations in Afghanistan where it would be appropriate to set up MCH clinics. The families of the women recruited in Peshawar guaranteed that they would be allowed to go to their home areas in Afghanistan. The first part of the course certified successful candidates as BHWs. The second part (lasting nine months) prepared the trainees to establish an MCH clinic, conduct deliveries, organize outreach programs through dais and community health workers, and treat common clinical problems of women and children. (See Chapter 7 for more discussion of female health workers.)

Meeting the Need for Management Training

Before 1990, training of health workers was restricted mainly to medical training. To meet the need for management training of Afghan health workers, a management development unit was established at the Institute of Public Health in Peshawar. Two trainers preparing for the senior managers' workshop assisted with development of training modules, translation of training materials into Dari, and facilitation of small group exercises.

The first workshop for senior managers was conducted in August and September 1990 in Peshawar and Swat Valley and was attended by 22 senior officers from three Area Health Committees inside Afghanistan. The participants were introduced to annual work plans and produced their first areawide work plan for 1990-91. At the second workshop, in July 1991, senior managers from four committees participated, including the directors of health, key members of their administrative staffs, directors of zonal health offices, and directors of hospitals and clinics.

The first two days of the workshop were devoted to presenting the progress made with implementing the annual work plans previously developed. The participants openly discussed their problems, progress, and future needs, illustrating the willingness for improvement in management skills and use of scarce resources.

Following the presentation of annual work plans, ten days were devoted to the principles of management. Sessions were conducted on setting objectives, problem solving, decision making, revolving drug funds, program evaluation, and financial planning. These sessions were participatory, with 60 percent of the time devoted to small group exercises and case studies. Afghan colleagues helped adapt the exercises and case studies to reflect real-life situations inside Afghanistan. Cost containment and sustainability, important issues facing the providers, were integrated into the exercises and case studies.

A management training needs assessment followed the sessions on the principles of management. Participants from each committee, working in small groups, discussed their needs for management training and presented findings in a plenary session. The following topics were identified: financing revolving drug funds; manpower planning; health facility planning; financial planning and sustainability; provincial/district health management; planning, implementation, and evaluation; policy making; and supervision and leadership.

Kabul was the unanimous choice for the location of the 1992 workshop. Interestingly, when the trainer, John Eaton, explained that when setting objectives, the participants must stay within the overall goals of the organization, his analogy was, "If your goal is to occupy Kabul, there is no point in setting an objective to attack Moscow." The participants all replied, in unison, "Why not?"

Training Management Trainers

During the training needs assessment at the 1991 senior managers workshop, participants expressed the need for management training for subordinate staff and health workers at all levels, but especially for BHWs and clinic, small hospital, and supply system managers. Beginning in October 1991, MSH developed a plan to address these management training needs. The approach was to train management trainers, provide them with training modules and aids, and assign them to MSH-supported training centers in Afghanistan. The plan also included strengthening the management training unit at the IPH by training additional trainers, including 2 mobile trainers who would travel to Afghanistan and train health workers in unsupervised areas.

A job description for management trainers was developed, and the Area Health Committees and the IPH in Peshawar recruited candidates. The minimum qualifications were two years of formal education beyond high school, with prior medical training or teaching experience desirable. The candidates recommended by their respective organizations and accepted by MSH were: doctors (3), pharmacist (1), engineering faculty (2), teacher (1), staff of the Institute of Public Administration (2), science faculty (2), literature faculty (1), law faculty (1), one-year medical course graduate (1), and Class 2 graduate (1).

The Management Training Program

In 1992, the 15 candidates started a seven-week training program in Peshawar. Since over half the candidates had limited prior medical training, the first week was devoted to an introduction to primary health care by the staff of the Institute of Public Health. The next two weeks were devoted to the development of training skills. The candidates were introduced to management modules previously prepared by the MSH team, and they practiced training for four weeks under close supervision. (Since close supervision of trainers in Afghanistan was not possible because of the restrictions on cross-border travel by expatriate staff, the training modules were designed to be taught using a preplanned session guide and training aids.) Each candidate prepared his own sessions and taught at least three modules. The final week of training was devoted to review; to training needs assessments in Peshawar health facilities, departments of the Ministry of Public Health, and the four Area Health Committee liaison offices; and to preparation of training work plans.

Following the seven-week course, the trainers remained in Peshawar and worked in teams to prepare and conduct five refresher training workshops for BHWs, Rural Health Officers who supervised BHWs and were enrolled in the first training course for BHWs, senior staff from MOPH hospitals, staff from the MOPH departments of MCH, preventive medicine, and health services development, and the staff of the four Area Health Committee liaison offices.

These workshops were designed to meet the management training needs identified during the assessments conducted during the seventh week of training of management trainers.

In April 1992, the trainers traveled to their assigned AHSA training centers in Balkh and Takhar (SCNA), Wardak (MOPH), Behsood Wardak (HTM), and Herat (SSW).

One trainer was assigned to the training center at Miram Shah, on the Pakistan side of the border, to conduct management training workshops for health workers from two Afghanistan provinces that border on Pakistan. Two mobile trainers joined the IPH management training unit.

Through December 1992, the nine management trainers assigned to training centers in Afghanistan conducted 30 management workshops, training over 300 BHWs, clinic and hospital staff, and administrative staff of Area Health Committees and the MOPH. The other 6 management trainers conducted management workshops at the training center near the Afghanistan-Pakistan border, at the IPH in Peshawar, and on an outreach basis for MOPH health workers in 5 provincial health offices supported by MSH or in unsupervised health posts and clinics.

Future Activities in Management Training and Development

The need for guides to performing the administrative tasks essential to the operation of health posts, clinics, and small hospitals was first discussed by the participants of the 1991 senior managers' workshop. At that time, it seemed more important to train management trainers, and it seemed that the development of operations manuals would require on-site observations of operations in Afghanistan.

In November 1991, with encouragement from the MSH Training Department, MSH Health Services Development discussed the need for operations manuals with the liaison officers of the four Area Health Committees and MOPH. Representatives from the Area Health Committees and MOPH met to explore the idea, leading to a plan to develop manuals and, after field testing, use them as the basis for additional management modules.

Note

1. Thomas H. Eighmy, "Afghanistan's Population Inside and Out: Demographic Data for Reconstruction and Planning." Islamabad, Peshawar, Quetta: Office of the A.I.D. Representative for Afghan Affairs, May 1990.



Figure 4-1: Caravan takes a break. Propane tanks for running refrigerators were part of the supplies sent regularly into the field.

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Chapter 4

Organization of Health Services in Afghanistan

Laurence Laumonier-Ickx

International Aid

Vignette: Traveling with a Caravan in the Panshir Valley

Assadullah Alam guided the caravan during my first trip to Panshir Valley in northeastern Afghanistan: we travelled about ten days by foot, in wartime, with several passes to cross (some of them over 16,000 feet), and with 200 horses and 200 horsemen, 100 mujaheddin, and 2 French doctors (including 1 woman, me).

Hidden in a small room at the border, I watched Assad prepare for our departure. For three days, he had been talking with the horsemen, negotiating the price of each horse, listing the goods loaded on each one, explaining to each horseman that he was responsible for the goods transported on his horse, and distributing half of the money for the transport before the departure. These days of preparation were demanding for him. He bought several kilograms of dried fruit, which might be our only food for the first days of the trip. Live villages were rare along the border: most of them had been bombed and were empty of people.

To be the guide of a caravan was not an easy task. In addition to managing the people and goods, Assad had to endure arduous, even dangerous travel. The schedule was infernal: we sometimes walked during the day but most often at

night, sometimes for seven hours, sometimes twenty-two, without rest, depending on the danger and the presence of the Russians. Despite the help of the villagers, food for the horses and the men was scarce, since we were crossing very poor mountainous areas, where an egg comprised the most luxurious meal. Natural danger was always present: when we crossed the Kabul River it felt as unreal as a movie. The horses, loaded with over 90 kilograms, and the men had to enter a deep glacial stream at night. They shouted at the horses to encourage them to advance and prevent them from being carried away by the stream; both horses and men were afraid, but there was no other way.

A sudden panic arose as four horses began to disappear in the water and be swept away by the current. The situation seemed to be out of control. Several men who had already reached the other side of the river were running to try to save the horses and whatever supplies could be salvaged. When we finally reached the other side, we waited; men and horses were exhausted.

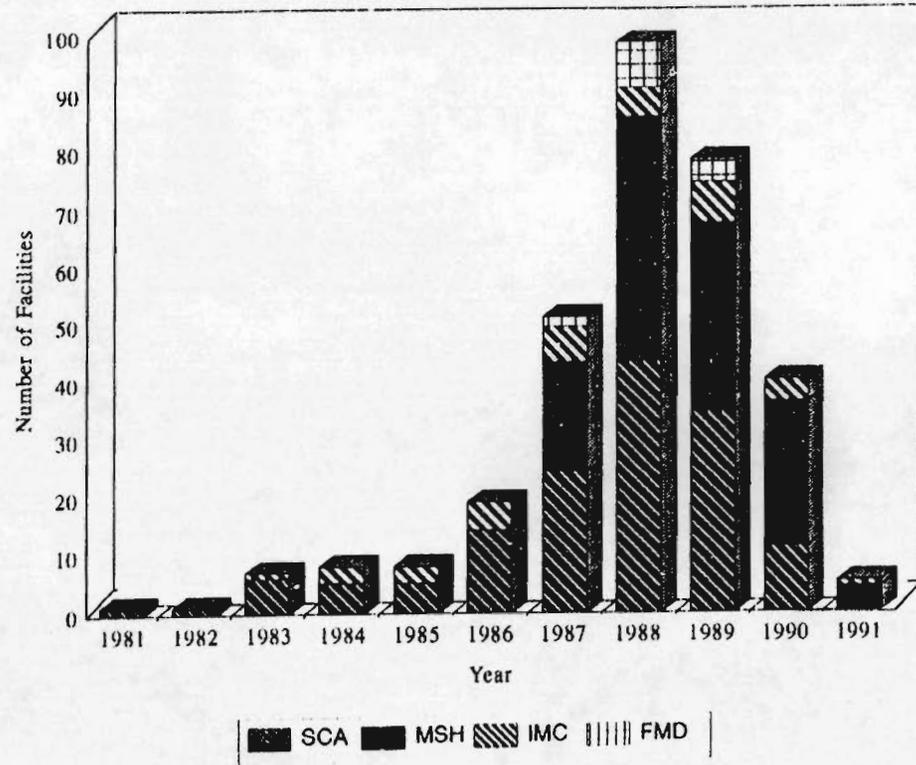
After six hours, the men who had gone to save the horses reappeared: of the four horses, three were alive, and the horsemen were able to retrieve the goods that had been loaded on the dead horse. They were soaked through and cold, but they were laughing and joking, so happy to have been able to get back all of the goods.

I am not trained to treat horses, but after a few days of walking on nearly impassable, narrow paths in the mountains, several horsemen asked me to treat the wounds sustained by their horses. I became accustomed to using dressings and antiseptic to treat bleeding feet and saddle sores.

The principal task of the Field Operations Department was to assist in the rapid expansion of health services inside Afghanistan through health institutions that would focus on rural areas. As shown in "New Facilities Established by Primary Source of Support" (Figure 4-2), some agencies supporting Afghan-staffed health facilities were in place when the project began in 1987. This graph does not reflect the health facilities staffed by expatriate doctors who were supported by the three French NGOs—MSF, MDM, and AMI—which were active from 1980 to 1990, but it does show the evolution of new facilities through external humanitarian assistance from 1981 to 1991. It took six long years of war for governments to decide to provide aid for health in rural Afghanistan.

Because the majority of Afghan refugees in Pakistan were from nearby provinces, the bulk of early donor assistance went to, and through the hands of, Afghans in the border provinces. The main challenge for the AHSSP was to balance distribution of resources throughout Afghanistan using a pyramidal health system approach.

Figure 4-2
New Facilities Established
by Primary Source of Support



Major Afghan Partners for Cross-border Services

Promoting widespread access to basic health services in such an environment mandated working with a variety of partners, who were such in-country counterpart organizations as:

- a civil administration able to provide services in several districts or provinces and backed by a unified military and political front that was recognized by the rest of the Afghan resistance; and
- a health committee of the civil administration that could officially request technical and financial support from the AHSSP.

To be chosen, these organizations had to have headquarters and jurisdictions that avoided overlapping and show a proven capacity to perform. The AHSSP ultimately worked with five main institutions:

- the Ministry of Public Health (MOPH) of the interim government of the Afghan resistance (AIG) based in Peshawar. Early on, the MOPH demonstrated its interest in strengthening health services in the eastern Pashtun provinces. For example, by the second session of the BHW training course, 56 percent of the BHWs had been selected from the 6 provinces situated along the Pakistani border (although only 19.5 percent of the population lived there);
- the Health Committee of the Supervisory Council of the North (SCNA) based in Taloqan (Takhar Province), which demonstrated its ability to strengthen and expand health services in the north and northeast provinces, largely in the Tadjik and Uzbek areas. The military and political structure officially created in 1984 was led by Commander Ahmad Shah Massoud. We started to cooperate with this committee, which had been established in 1985, at the beginning of the program in 1987;
- the Health Committee of the Southern and Southwestern Area (SSWA), based in Herat Province. The military and political structure was led by Commander Ismael Khan. We started to work with this committee (established in 1982) in 1988;
- the Health Committee of Central Afghanistan (HCCA), based in the Shi'ite parts of Ghazni and Wardak provinces, which was able to manage and expand health services in several districts of the central

Hazarajat. We started to work with this committee in 1989, at the time of the creation of the health committees of two Shi'ite parties; and

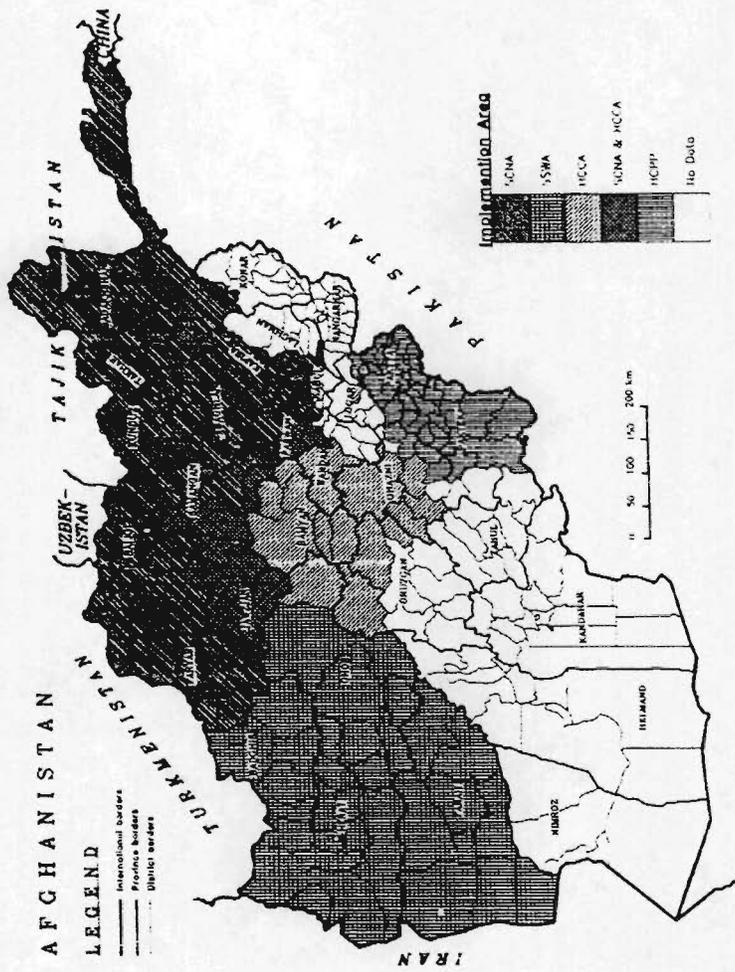
- the Health Committee of Paktya and Paktyka Provinces (ECPP) on the Pakistan/Afghanistan border, which was backed by the military and political front of Commander Haqani. We began working with this committee in 1991, the year it was created.

Map 4-1 illustrates the implementation area of each AHSA, for establishment of health facilities, selection, training, and support of BHWs, EPI, the MCH program, administrative centers and supply depots, and training centers. The blank places are basically the implementation area of the MOPH, as shown in Map 1-1. It illustrates the active health facilities (but not the BHW posts) supported by the AHSSP through the MOPH as of March 1992.

Working with different partners in the country from the beginning was a key ingredient of the AHSSP program. Having the AIG as an emerging potential central government, as well as the regional health committees that represented direct local government, permitted a realistic distribution of resources in a large country which was fragmented due to its geography, ethnic groups, and war.

This approach can be fairly criticized for utilizing and perhaps reinforcing some of these differences. In fact, we used them to let the different health administrations manage their own health systems with their own dynamics, rules, and potentials within a framework of common technical criteria for training, field operations, preventive medicine, MCH, and financial management. There has always been a consensus among the team and our Afghan partners that when a stable government is established in Kabul, the Ministry of Public Health would inherit an existing set of health systems, with common technical criteria, and it could then decide to work with or without the leadership of the regional health committees.

Work with the different partners, especially the Area Health Service Administrations (AHSAs), was always fascinating. The three AHSAs, and by 1991, four AHSAs promptly began meeting regularly with MSH to discuss technical issues such as management, training, and logistics. These meetings were very fruitful for both sides, since they raised problems and possible technical alternatives for the committees to consider in making their choices. The committee decision makers were principally young doctors, averaging 40 years old, who had been involved in health activities inside Afghanistan throughout the war. They understood the economic, political, religious, and ethnic realities of their areas. They also appreciated the need to learn about management to strengthen their health system and to do so with the full support of the population and the medical personnel. In turn, they carefully prepared implementation plans for review by the health committees before these were proposed to a donor. Their real challenge was to demonstrate to their own people the ability



Map 4-1: Implementation Areas of AHSAs

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to start and maintain a new facility despite the unstable situation. This kind of challenge would be called "democracy" in Western countries.

Most of the decision makers had no experience in dealing with a bureaucracy; they had both common sense and knowledge of the field, and they were very eager to learn about health services management and public health. Initially, we avoided formal training, but routinely worked instead through technical advisors. Indeed, the first step was to expand the basic health infrastructure to their capacity.

The second step was to meet weekly with the representatives of each health committee together and follow the agendas requested by them. In these meetings, doctors from very different and distant regions came together for the first time to discuss technical issues. In 1990, we started formal workshops in Peshawar for the senior managers of the health committees based inside. Directors and their deputies for MCH, training, preventive medicine, and administration were present. Their exchanges, based on experience, were extremely interesting and lively. Different strategies for implementing and sustaining health systems (particularly MCH programs) in other Islamic, poor, and mountainous countries were reviewed. After the great success of these workshops, they were repeated every year. Each concluded with the elaboration of an annual work plan by each health committee. Those work plans were then taken into account in the work plan MSH proposed to A.I.D. Other workshops held in Peshawar, on administration and supply management, are discussed in Chapters 3 and 8.

Monitoring Systems

Vignette: A Monitoring Trip to Zabul Province

The following excerpt from a letter (undated, with minor editing) from Assadullah Alam to MSH's Field Operations Department illustrates the stories that monitors brought back from their trips:

On 2/10/90 we started our trip from Noorzai Front to Shah Joy District. We had to get complete information about the Health Workers and their attitude toward the people. On the way we encountered a Molawi and asked him in this regard. He was sick and explained that he had bought a bottle of syrup from a private drugstore, but it hadn't had any effect on him. We checked the bottle; its date had expired. In this regard we complained to the seven Parties Council in the center of the District. They decided to summon the owners of drugstores and inspect their medicine. We could collect about 7 cartons (big size) of medicine with a past expired date and burnt them. The same issue also

exists in other districts but there were no Party Councils and we couldn't perform the same action.

Figure 4-3 shows MSH monitor Shah Mahmoud burning the expired medicine, accompanied by villagers.

The Need for Monitoring

In 1986, when the AHSSP program started, the donors based in Peshawar were called the "blind donors" indicating some irritation on the part of the Afghans staying inside. Corruption was widespread in Peshawar: a large quantity of the aid targeted to reduce the suffering of the population inside was staying in Peshawar for the benefit of individuals and small commanders who swore that they would go back to Afghanistan to provide the aid but never seemed to get there.

The majority of expatriates found it difficult to believe that some civil administrations existed inside and that one of their main aims was to avoid this corruption in Peshawar. Therefore, most of the aid committees preferred to work through individuals and without setting up a comprehensive monitoring system.

Several Afghans working inside suggested that a comprehensive monitoring system was an absolute precondition for the program's efficiency. In addition, we were unwilling to become blindly involved in and yet be responsible—technically, fiscally, and morally—for a major and completely unsupervised infusion of resources. Identifying the constraints on implementing the program inside was the first step in designing the monitoring system.

Constraints to the Implementation of the Monitoring System

Several major factors constrained and influenced the development of a monitoring system:

The Alliance Health Committee: The AHSSP program for inside Afghanistan would begin with the Alliance Health Committee (AHC), based in Peshawar. At that time, the AHC had almost no health facilities inside the country. Each party health committee was running several health facilities in Pakistan, including several surgical hospitals in Peshawar. Since the party health committees had a very hard time finding funds for those facilities, there were obvious risks that additional resources intended for Afghanistan would be diverted to Peshawar.

Corruption in Peshawar: Corruption in Peshawar was reinforced because most of the aid agencies issued supplies to individuals without following up to see if the goods were directed to target areas. Many donor and TA groups saw the border between Pakistan and Afghanistan as an impenetrable wall with a terrible



Figure 4-3: Burning expired medicines. Shah Mahmoud, a project monitor, supervises the destruction of expired medicines seized from a local pharmacy with the support of the local Council.

war going on beyond the wall where it was impossible to have any control. But there was something obviously wrong with this view: every day, thousands of Afghans and hundreds of trucks were crossing the border from both sides. Afghans never forgot to continue to do business with their neighbors, as war and trade had coexisted across the Khyber for centuries.

Dominance of nearby provinces: Most aid was provided to the provinces situated along the border; easy access to Pakistan permitted any health worker receiving a salary for work inside to come back discreetly to Peshawar to live with his refugee family. Medical supplies could easily be sold in Pakistan and there was already a big business in selling weapons on that side of the border. Indeed, a tribal area ten minutes from the center of Peshawar was home for a public smugglers' bazaar where virtually anything could be bought, from heroin and guns to silverware and modern appliances.

The huge scale of the program: Several thousand health workers were expected to be on the payroll, working all over Afghanistan. How could we know how many were actively working inside?

Remoteness of large target population segments: The largest rural populations were living far from the border, had no easy access to Peshawar for medical treatment, and could not escape from the war. A few private pharmacies still existed in the countryside, but health services were far from sufficient. These populations were very eager to see health aid reach their area. The reputation for corruption in Peshawar was well known inside, and the prospect of increasing it was not promoting unity between Afghans on both sides of the border.

Performance-based assistance: To make financial support for our Afghan partners to reflect their performance, we needed feedback from the field about the health facilities established inside. Yet for security and political reasons, expatriates supported by A.I.D. were not allowed inside Afghanistan. Thus we were reduced to becoming schizophrenic (sitting on one side of the border and implementing services on the other side) or to setting up a comprehensive monitoring system through Afghans who could give adequate feedback on the performance of these partners.

Transport: Getting supplies to their final destinations (health posts or health facilities) all over Afghanistan was difficult, as the opening vignette of this chapter illustrates. The monitoring system would meet the need for reporting to A.I.D., and for updating the TA team about the progress of implementation by counterparts, both to confirm effective elements of the strategy and to adapt it where necessary. The system therefore aimed to monitor supplies, field workers, and facilities.

Design for Monitoring Supplies

Supplies issued from the main warehouse in Peshawar were accompanied to the border by a monitor and one Afghan representative from the MOPH or AHSA. The 2,000 kilometers of border had 11 main points of entry, which were centers of informal commerce between Pakistan and Afghanistan (see Map 4-2). Horses, mules, trucks, and cars were used to transport the goods of the mujaheddin through a predominantly private system. At some points of entry, like Chitral in the north of Pakistan, transportation costs were partly controlled by the regional administration of the Supervisory Council of the North.

At the border, the supplies were unloaded into depots, belonging to political parties, which also stocked weapons to be issued inside Afghanistan. Each of 30 depots along the border had one monitor paid by the program, who was responsible for issuing medical supplies. Each monitor was a former employee of the military committee of the party and he was allowed to stay in the military depot. This setup may be surprising, but, at that time, the political parties themselves were making a real effort to fight corruption in the issue of weapons at the border. The military committees of the political parties appreciated our parallel efforts to control corruption in medical supplies and provided very valuable support.

The monitor in charge of the depot (controlled by a general monitor at the same point of entry, and overseen by one monitor based in Peshawar) was responsible for:

- stocking the supplies properly;
- surveying the private pharmacies at the border regularly to investigate whenever supplies similar to those issued by MSH were identified;
- issuing supplies against receipt to each BHW or health facility representative who was officially introduced by the MOPH or the AHSA;
- helping health workers find the first caravan to their destination;
- reporting the departure of each health worker, with the date of crossing and the actual cost for transportation to reach his destination; and
- providing regular reports on the cost for transportation to each district from the point of entry (see the section on transport later in this chapter).



Map 4-2: Points of Entry on the Pakistan-Afghanistan Border

During the first year and a half of the monitoring system, the monitor in charge of the depot also recruited one person on the caravan, unknown to the health worker, to monitor the transport of the supplies to the final destination and to report back. When experience showed that there was little risk of supplies being diverted during the trip, we stopped recruiting caravan informants; monitors who visited the facilities inside to verify the arrival of supplies were much more effective.

Design for Field Work and Facilities

The technique for monitoring BHWs and health facilities was simple but efficient: the monitors were given the location of the facility, the names of the personnel and their qualifications, and the names of the general and local commander supervising and providing the security of the facility. Monitors had several tasks in the field:

- To verify the commander's perceptions of the activity of each BHW and facility through a letter from the commander. If a commander was not present, they had to get letters from at least three other fronts in that location, including one of the same political party as the commander. To avoid political problems in the field and in Peshawar with our counterparts, monitors' reports not meeting these criteria were not accepted and those monitors were not paid.
- To take pictures of workers holding a sheet of paper with their code numbers, and to obtain their signatures certifying that they had been met by the monitors. Back in Peshawar, the field operations staff compared photos and signatures with originals on file from the time of their hiring.
- To complete a short questionnaire which detailed the information from the monitor's field visit about each person and assessed the community's perception of the activity of each BHW and facility.

With time, the monitors became skilled in observing the operations of other health facilities not supported by the AHSSP and the problems of maldistribution of health resources. Clinics supported by different agencies were sometimes located in the same vicinity; sometimes clinics had been established in the mountains far away from the villages, or in the center of mujaheddin activity where the women would not go. Taking public transport themselves, the monitors learned whether clinics were easily accessible or not, and their observations were vital in improving health services. Eventually, their training was expanded to add field advisory skills to their roles. Together we determined several indicators to

define the value of a health facility within the area health system. Later on, we used the monitors to initiate the survey of provincial health resources.

Selection of Monitors

Selecting monitors was a critical challenge. The example of Assadullah Alam, who had managed caravans of goods from the Pakistani border to the north of Afghanistan for six years, proved to be a model for determining selection criteria. He was responsible for organizing the caravan with several tons of medical supplies. (See Chapter 4 Vignette: Traveling with a Caravan in the Panshir Valley.) He demonstrated a sense of discipline and human skills with the 200 horsemen in the caravan and a high sense of responsibility. Clearly his success was more a product of character and experience than of a particular set of technical skills acquired through formal education. With this experience in mind, monitors were selected who demonstrated a sense of responsibility, morality, and self-discipline. In addition, they had to be motivated to observe the aid going inside, to have experience with going inside themselves under war conditions, and to be in good physical condition.

In most cases, the men who fit these criteria best were educated mujaheddin with war experience; who came from within the well-known fronts where discipline was applied; who had experience with logistics in those fronts, and/or specific responsibilities for a group of mujaheddin or the civilian population; and whose family still resided inside (or had only recently arrived in Pakistan) so that these men had an incentive to see that the aid reached its destination inside the country.

We sought to obtain a balance of ethnic groups among the monitors in order to follow the policy of "health services for all Afghanistan" and to achieve equality. This approach was practical as well. With the monitoring surveys taking place all over Afghanistan, it was easier and less risky to have a team of two monitors in which one was from the same ethnic group where the survey was being done. (After one and a half years, each monitor had gone to six or seven different provinces, and with adequate planning, we could always send monitors back to the same place where they had conducted earlier surveys.) On the other hand, and despite the mentality of Peshawar, the political party affiliation of the monitors was not a concern as long as a balance was maintained.

The monitoring unit, supervised by the Field Operations Department of AHSSP, had about 120 monitors: 30 permanently stationed at the border depots; 20 based in Peshawar in the monitoring office (9 of whom accompanied supplies from Peshawar to the border, and controlled the work of the monitors based there, while the rest did administrative, financial, and operational backstopping, supervision, and interpreting, since almost none of the monitors spoke English); and 70 monitors going inside to visit the facilities, 30 of whom were full-time employees and the rest of whom were recruited as needed.

The monitors' field work revealed an unexpected incentive: they became fascinated with the opportunity to discover their own country through their trips, since most had never seen large parts of their country before the war. They became able to compare and judge the different health systems and the *nasm* (discipline) in the civil administration of the area. A clinic was not judged on the basis of neatness of appearance but on whether or not it was run with *nasm* (as measured by the regular presence of the personnel, the activity of the clinic, the set-up of the clinic, the supervision, the professionalism of the medical personnel, the support of the community, and the political strength of the commander or the health committee). More mundane means of supervising and motivating monitors included withholding payment for unsatisfactory reports (with signatures and/or pictures missing) and using cameras with secure dating mechanisms.

Operating Strategy

Each year's monitoring was based on the experience of the previous year, and each province was monitored at least twice a year. For the most distant provinces, travel and monitoring all BHWs and health facilities took three to four months; close to the borders, where it was easy for health workers to get to Peshawar, monitoring could be done four times in a year. In addition, if we needed more information about a border clinic, a special monitor could go and come back in only eight days. Monitoring an entire border province would take about one and a half months and could be done during the winter. Indeed, large numbers of the border population (including some BHWs) would farm during the summer and return as refugees to Pakistan during the winter.

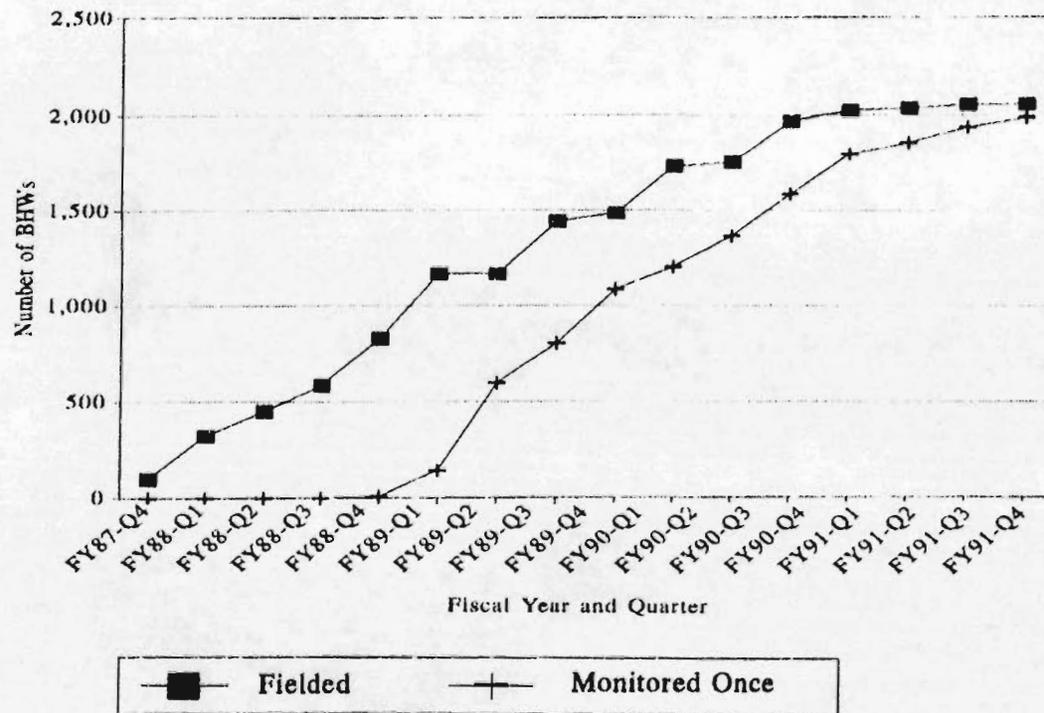
The process of fielding and monitoring BHWs is shown in Figure 4-4. The relative gap between the two activities during the first two years of the program is due to several factors: the data provided by the monitoring system were not computerized for the first year (1987-88); and until the third quarter of fiscal year 1989, about 240 BHWs were fielded every four months, all over Afghanistan. To get a monitoring report on all of them took almost a year to accomplish.

Early on we learned that when BHWs and health personnel were aware of the departure of the monitors for their province, some of the unmotivated would have enough warning to move from their refugee camp to their nearby province posts. Thereafter, the monitors were informed of their destination only on the morning of their departure.

Information Systems for Monitoring

A computer-based information system was developed after a year's operations, using one short questionnaire for the border monitors, and one for monitors going inside to visit health facilities. As monitors returned from the field, questionnaire data were added to the information already provided by the

Figure 4-4
Basic Health Workers
Fielded and Monitored



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monitors at the borders, and by the administrative department of Field Operations (which tracked date of issue of salary, date of interview in Peshawar at the time of resupply, etc.).

This database allowed division of the status of health workers into four main categories:

- *active*: those seen by the monitors in the field (who had photos, signatures, and letters of the commander as proof), plus those not seen in the field but present in Peshawar for their resupply at the time of the visit of the monitor, or those officially continuing education in Peshawar;
- *inactive*: those who had not been found in the field and who had no official reason for absence;
- *questionable*: those for whom we did not have enough information to make a just decision (designated by a question mark in the database); and
- *canceled*: those who had sold their medicines without crossing the border, or who had been designated as inactive for two monitoring surveys and were therefore excluded from further program support.

Outputs and Uses of the Monitoring System

The monitoring system influenced many operations: the logistics support system, the organization of health services inside, the administrative support system, and the financial control system. All monitoring results were entered into a very comprehensive MIS, which provided:

- information on procurement, with the needs for the next order of supplies, information on the warehouse, and information on the packaging needs;
- data on the distribution of health services, to aid in relocating BHWs and health facilities away from overserved areas, particularly the most accessible border provinces. The combination of PVO enthusiasm for the border area and a growing AIG predilection to see more BHWs and facilities as political patronage chips, led A.I.D. to institute a cap of 1,700 BHWs in the third year, which reinforced the value of current information from the monitoring system on coverage and duplication;

- information for issuance of salary and supplies according to the time spent by the health workers in their facility. For example, a BHW paid for six months, who was found to have worked only three months, would have his salary reduced by three months at the next resupply; in more extreme cases both facilities and staff were discharged for nonperformance; and
- feedback for the financial accounting system, with an independent report on the use of funds by health facilities.

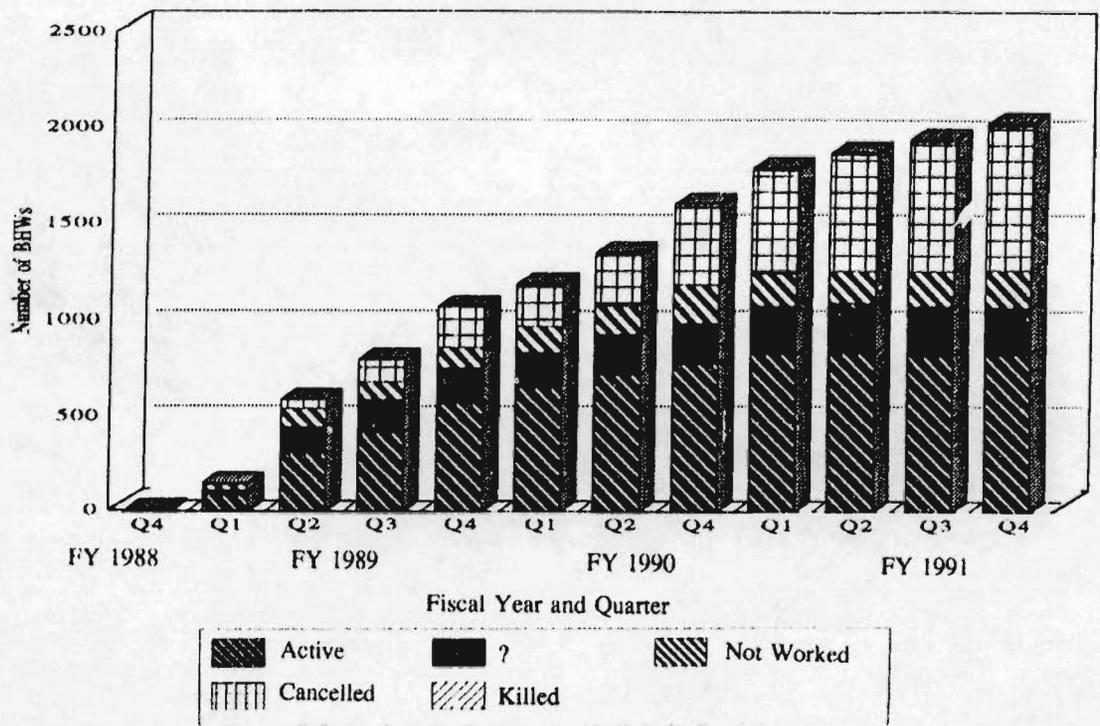
By December 1991, the results of the monitoring system for BHWs and health facilities were as follows:

- Of 288 health facilities established by the AHSSP inside Afghanistan (138 for the MOPH and 150 for the AHSA), 59 (20 percent) had been excluded from further program support; of these 52 (18 percent) had been established by the MOPH, and 7 (2 percent) by the AHSA.
- Of 2,170 BHWs trained and supplied by the project (1,767 for the MOPH and 403 for the AHSA), 844 (40 percent) had been excluded from further support. These represented 783 (37 percent) selected, trained, and supervised by the MOPH, and 61 (3 percent) by the AHSA.

These results show that the AHSA was more capable of supervising its facilities and keeping them active than the MOPH. The major reason is certainly the AHSA's ability to involve the community in decision making about new facilities and in the supervision system. The Health Services Department of the MOPH, based outside of the country and largely promoting political interests, did not have the links with and support of the community. Unfortunately, it did not counterbalance this disadvantage by promoting an efficient monitoring system. Details on the monitoring of BHWs are shown in Figure 4-5.

Besides the fact that a comprehensive monitoring system provides information for planning purposes and evaluation of performance of counterparts a monitoring system saves money from being wasted. Taking into account the date of cancellation of the inactive facilities, and assuming that without the monitoring system we would have resupplied them at least once more before discovering that they were inactive, the money and resources that would otherwise have been disbursed equalled more than \$1.5 million for fiscal year 1991, versus a cost of \$850,000 for the monitoring activities. In addition, we had the opportunity to replace inactive workers and facilities for the benefit of the population.

Figure 4-5
Basic Health Workers
Monitoring Status



Counterpart Use of Monitoring

The USAID Mission, MSH, and the Afghan counterparts agreed that the monitoring system would be an independent structure, run by the Field Operations section of the AHSSP, and it was the only place where the AHSSP independently reserved the right to withdraw support whenever there was proof that implementation was not effective. Understanding this, the monitoring system was designed to be useful to all interested Afghan health institutions for their own supervision.

At the beginning, USAID had some reservations about implementing a monitoring system: the program was just starting, and the Afghan counterparts might resent and be suspicious of a monitoring system. This was the viewpoint of Afghans living in Peshawar or Islamabad, but not the viewpoint of the Afghans living inside. One year after the beginning of the program, USAID approved the monitoring system, and it worked productively thereafter.

Afghan counterparts in Pakistan initially resisted the idea of an independent monitoring system because it was seen as the basis for continuing, withdrawing or adjusting support. The MOFH early on also hired eight monitors of its own but due to the factional politics of Peshawar, they rarely went inside Afghanistan. In contrast, the AHSA already had a supervision system through its own contact with the community and local authorities. Later on, seeing a monitoring system as a means for better supervision of the far provinces, the AHSA hired logistic officers to accompany supplies to distant clinics and report on their status.

MSH monitoring results were always provided to the AHSA and MOPH to assist their own administrative support systems and development of health services. Sometimes when we needed to discuss the cancellation of a clinic under patronage pressure from the field commanders, we found that the Afghans considered facts decisive and acceptable evidence of nonperformance, particularly when they realized that we were flexible before canceling a clinic or a BHW. With time, the monitoring system was respected and almost well accepted.

Field Operations and Management

Salary Scales for Work Inside

During the design process and once the program started, salary was a major issue for the team and A.I.D. Should we give a salary to the health workers, an particularly to the BHWs who would be trained on a large scale? After a careful review, we decided to pay salaries for several reasons: it would be difficult for a BHW to maintain his medical activities inside without a way to support his family; cash for work reduced the number of new refugees in Pakistan or Iraq and all the other agencies were already providing salaries to health personnel,

fact well known among the Afghans. After reviewing the salary scales of the other agencies, particularly of the Swedish Committee, the main supporter of health workers at that time, and after conducting long negotiations with the directors of the Alliance Health Committee, we set up the salary scale according to the qualifications recognized by the Ministry of Public Health before the war.

A large number of personnel had received one to sixteen months of training during the war through PVOs in Pakistan, in the field, or in Iran. These "medical technicians" were important because they were more available to go inside than the more educated health personnel who had left the country. The medical technicians had not been officially recognized by any government, only by the PVO or the party. However, our Afghan counterparts took a pragmatic approach and fixed their salaries according to the length of their training. Therefore, we used the salary scale illustrated in Appendix B, with 39 medical qualifications, 18 administrative positions, and 5 nontechnical positions.

We approved a 7 percent salary increase for the first year of service, and additional salary based on experience and pioneership in jihad from December 1979 to December 1988 (the Russians officially left the country in February 1989). For example, an M.D. who had worked inside for nine years during the war could increase his basic salary by 17.6 percent, a nurse, by 24.1 percent. Except for some high-level positions in the Ministry of Public Health, the team tried to maintain the same scale on both sides of the border in order to make the work inside Afghanistan attractive.

After many discussions with the AHSSP's counterparts, and workshops on issues of sustainability, we decided to reduce the salaries of personnel working inside Afghanistan. A first cut of 25 percent occurred in April 1992 for all clinical personnel, except vaccinators. A second cut of 25 percent took effect for the same personnel in October 1992, and at the same time a first cut of 25 percent was applied to administrative staff's salaries.

Placement Criteria for New Facilities

In order to reduce the maldistribution of health resources, the main criterion for locating new facilities was the ratio of a district's population to the number of facilities already supported. The "current estimated population living inside Afghanistan" was very useful for planning.¹ A database of existing health facilities inside Afghanistan supported by foreign agencies became available only in late 1989. WHO and ACBAR took responsibility for updating these data.

The data were far from exact: many agencies had claimed to support health facilities without having any monitoring system inside, so the database included many "phantom" clinics. The location (even to the level of district) of some health facilities was unknown to the agency supporting them. Finally, several important players in the health sector did not choose to share their data, and the work of some Arab agencies in the health sector remained unclear.

The ACBAR, WHO, and MSH databases were reviewed to plan health service coverage. The targeted coverage was one small hospital (10 to 15 beds) per 60,000 to 80,000 inhabitants, one basic health center or comprehensive health center per 20,000 to 30,000, and one basic health post per 5,000 to 10,000.

The accessibility of the proposed facilities was studied using maps of the provinces, on which our cartographer located the (claimed) existing facilities and the location proposed for any new facilities. Natural obstacles like mountains or rivers were also identified. The fronts of the local and general commanders in charge of the security of a proposed facility were reviewed with the monitors, whose knowledge of the existing fronts through their regular visits inside was invaluable. They had information about a commander's previous supervisory performance, and if several BHWs or facilities supervised by this commander had already been canceled through the monitoring results, we were not very keen to provide a new facility under his supervision. The original home of the proposed personnel was also important. If they were from the same locality as the clinic, there was a better chance that the clinic would remain active.

Staffing Patterns

After discussions with counterparts, the staffing patterns were decided upon following the WHO standards for a PHC pyramidal health system (see Table 4-1).

- A **basic health post** was staffed by 1 BHW working in his house, at village level.
- An **MCH post** was staffed by 1 female medical technician with at least one year's training.
- A **basic health center (BHC)** was staffed by a maximum of 4 medical people and 3 nonmedical people (e.g., watchmen). The medical personnel had to have at least thirty months of medical training. The optimal staffing was 1 or 2 diploma nurses or 3 medical technicians most often trained by the PVOs in Peshawar or Quetta. In the underserved districts, where health facilities and medical personnel were difficult to find, it was agreed that a level of twenty-four months of training would be sufficient for medical personnel to start up the facility, with the understanding that an additional person would be trained to upgrade the level of the staff in the near future.
- An **MCH clinic** was staffed like a basic health center or comprehensive health center, but with primarily female personnel, and sometimes male health worker.

**Table 4-1
Health Workers and Facilities Supplied by Project Year**

	FY87			FY88			FY89			FY90			FY91		
	Init	Accr	Act	Init	Accr	Act	Init	Accr	Act	Init	Accr	Act	Init	Accr	Act
BIW	94	94	94	735	829	821	654	1483	1270	482	1965	1522	183	2148	1356
BHC	7	7	7	49	56	56	55	111	101	42	153	118	40	193	140
CHC				4	4	4	1	5	5	12	17	16	19	36	36
H-3				1	1	1	1	2	2	6	8	8	8	16	16
H-2							1	1	1	0	1	1	0	1	1
Adm.										11	11	11	6	17	15

Note: Init = Initially; Accr = Accrued total; Act = Found active

- A **comprehensive health center (CHC)** had the same number of staff as a basic health center but included 1 M.D. The facility had a three- to five-bed hospitalization capacity. No food was provided by the AHSSP to the hospitalized patients.
- A **small hospital (H-3)** was staffed with 2 physicians, 2 to 3 diploma nurses, 4 to 5 medical technicians, 4 to 5 nonmedical people, 1 administrator, and a storekeeper. The facility had 10 to 15 beds. The AHSSP provided a food allowance to hospitalized patients. Small hospitals were implemented in organized areas where the AHSSA had demonstrated good supervisory performance and the skills to organize a referral system.
- A **referral (or area) hospital (H-2)**, serving several provinces, was staffed by 5 M.D.'s (including 2 specialists), 14 nurses or nurse's aides, 5 medical technicians, 2 pharmacists, an x-ray technician, lab technicians, dental technicians, 3 administrators, and nonmedical personnel. The AHSSP supported only 1 area hospital, in Taloqan City, under the supervision of the SCNA Health Committee. Taloqan had been liberated in 1989 and was completely administered by the resistance. The medical personnel available in the hospital joined the resistance and worked with the Health Committee of the SCNA. The Health Committee found some additional personnel, including specialist doctors from Kabul and Peshawar, to complete the staff.

Additional specialized staff could be assigned to those facilities: dental technician in BHCs, CHCs, and small hospitals; a laboratory technician in CHCs and small hospitals and sometimes in well-staffed and isolated BHCs; and an x-ray technician in small hospitals and sometimes in a CHC if it was very active and far from a small hospital. Some MCH and preventive medicine activities were integrated into the facilities discussed above.

- By fiscal year 1992, 18 **administrative centers** were in place inside Afghanistan. Most of the personnel had been trained through MSI workshops. The average staffing for an administrative center was 12 to 15 persons, including senior and junior administrators, a fiscal management officer, logistics officer, supporting administrative staff and unskilled laborers. Twelve administrative centers were supervised by the AHSA, and five by the MOPH (which were later canceled for lack of performance).

- **Ten medical supplies depots** were in place inside Afghanistan after five years of the program, with technical staff trained through MSH workshops on supply management held in Peshawar. Each depot had 2 to 3 storekeepers, and guards. Depots were located at the administrative centers and were supervised by the AHSAs, because they had been able to set up a delivery system inside. Five years after the program began, the Health Services of the MOPH still had their delivery system operating from Peshawar.
- **Liaison Offices of the AHSA in Peshawar** served to coordinate with and channel resources from Peshawar into their respective health committees based inside Afghanistan. The AHSSP was unique in giving the AHSA representation in Peshawar. The Liaison Officer (a senior M.D.) had the opportunity to make contacts with other donors, to receive regular technical assistance through the advisors of the AHSSP, to transmit it to his headquarters inside, to get the requests of the AHSA from inside, and to seek financial support in Peshawar. The staff of the Liaison Offices was limited in order to control the growing bureaucracy in Peshawar. An average of 5 technical people and the inevitable 2 or 3 watchmen and peons were supported.

Personnel System Management

At the request of the MOPH or AHSA, the Field Operations Department of the AHSSP processed salaries for almost 5,000 health workers, processed the cost for transportation of supplies to a maximum of 2,120 BHWs and 288 health facilities, and sent the supplies to the borders. Because of the large scale of the program and the risk of losing computerized data in such an environment, the administrative support system was both manual and computerized. The two systems were linked by a code number for each health worker and each facility. The computerized system reflected all information written on the cards but permitted analysis for evaluating the program, planning process, and so on.

The manual system was designed with a personnel card, where all basic information was recorded: name, father's name, location of work, district, province, code number of the facility where employed, name of the employing health institution, name of the local and general commanders responsible for the security of the clinic, photograph, and signature. This card showed all issues made by the Field Operations (FO) Department, including salary and period of issue, cost for transportation of supplies, supplies and period of issue, and cross-border point where supplies were sent. Space was left for the signature of the provider of any issue made by the Financial Management (FM) Department, so that this card was also a receipt. A space was reserved for monitoring results, duplication found with other committees, and other vital information.

This personnel card circulated between the FO and FM departments for processing the funds. The same type of personnel card was used by the Health Services Department of the MOPH, showing the same issues; thus the administration was doubled.

Candidates for cross-border health workers were introduced officially by the AHSA or MOPH. As discussed in Chapter 3, all medical applicants were evaluated by the medical subcommittees, which were permanent boards of at least 4 physicians and former professors of the University of Kabul or Jalalabad. Checklists and oral and written examinations were developed to evaluate medical personnel. Before putting a new applicant on the payroll, the MOPH and AHSA checked with key suppliers (mainly the Swedish Committee for Afghanistan and International Medical Corps) to ensure that the applicant was not already on their payroll. This procedure reduced the risk of duplication.

Salaries were processed by MSH Field Operations in two ways. MOPH salaries were processed for six months in advance, except for very nearby provinces, for which salaries of BHWs were processed for three months. At the end of the period, BHWs and representatives of health facilities came to the Health Services Department of the MOPH in Peshawar to provide receipts for the previous period and to be paid. During the time it took to resupply them, medical personnel were sent to the Institute of Public Health of the MOPH for refresher courses. In the meantime, the MOPH asked FO to process salaries and costs for transportation for the new period according to the monitoring results obtained during the previous period. The FO personnel became very experienced in using the MIS to figure out how many months the personnel had worked during the last six months, their last pay date, date of crossing the border, date of a monitor's visit to their facility, and date of return to Peshawar. If it was confirmed that the personnel had not worked for the full six months previously, salaries were reduced accordingly. After a while, this procedure pushed the health workers to report to the Health Services of MOPH about their movements which helped in their supervision. Cash salaries and costs for transportation were processed by MSH's Financial Management Department. Health Services/MOPH personnel issued funds to health workers once a week, in the presence of one person from MSH/FM and one from MSH/FO. Health workers also received an issue ticket authorizing them to pick up their supplies at the border depot.

The personnel of AHSA health facilities did not come to Peshawar to be resupplied. The AHSA developed the infrastructure to manage resupply operations themselves. Once a year, each AHSA facility sent to its headquarter its financial receipts (with the signature of each staff member) and request for resupply. These financial receipts and requests for resupply were then submitted to MSH, along with proposals for new personnel and new clinics. (Movement of personnel from one facility to another was common.) The FO Department processed these data with care, based on the monitoring results. Funds were processed by the FM Department and issued to the Liaison Officer of the AHSA.

He and his staff were responsible for transporting funds and supplies from the border to the headquarters inside.

Except for the increase in salary for years of experience during the war, the program did not support any benefits like health or life insurance or an education allowance for children, nor did health workers coming to Peshawar for resupply receive any travel allowance.

Transport

Cross-border support for health required the transport of supplies throughout a country larger than France, from one 2,000-kilometer border, under very unstable, wartime conditions. The risks and problems were numerous. Any caravan of supplies could be destroyed by one air attack of the Red Army or the Kabul regime or diverted by thieves, ethnic or tribal conflicts, or corruption in Pakistan before it left the NWFP. Supplies could be lost due to bad transport conditions, for example, by horses or mules in the high mountains of the Hindu Kush along bad roads in the flat areas or in rugged territory where bridges were unavailable. The process could be very expensive. In the first-year budget, we estimated the cost for transportation as 11 percent of the total cost of the program. In reality, the cost for transportation represented 5 to 6 percent of the total cost of the program.

We could minimize the destruction of supplies by bombardments by not sending big caravans of supplies in dangerous places. From the beginning, we did not use specific project trucks for transport in order to prevent easy targeting by thieves (which was a problem confronted by many foreign committees) and to avoid paying for vehicle maintenance. We could also control the losses by corruption or diversion with the help of the monitoring system discussed earlier.

The AHSSP system was modeled on the Afghan transport system still operating inside. It is always amazing to see how much of the private sector survives in a war situation; in Afghanistan, private transport was still effective and was, in fact, promoted by the regional political systems. For example, in the northeast, the Shura-e-Nazar (Supervisory Council of the North) established controls on the cost of transport and employed horsemen to transport military, medical, educational, and agricultural supplies from Pakistan. This control avoided high escalation in the prices of transport for the Shura-e-Nazar itself and consequently for the committees using the same transport system.

Supplies were sent to the depots at the different points of entry on the border and were issued directly to the providers, who were responsible for transporting them to their place of work inside Afghanistan. Only horses and mules were used in the northern points of entry; while trucks, pickups, or sometimes camels were used in the central and southern points. Supplies were dispatched all over Afghanistan through this low-profile transport system.

Vignette: The Border

To see a point of entry on the border is always a big attraction. It has the ambiance of the Wild West. In a desertlike place, a bazaar full of small shops sells the last things forgotten in Peshawar or Quetta: food for the animals, packing materials, dried fruit for the long trip inside. Music of all kinds—Indian, Afghan, Pakistani—drifts out of the shops. One can hear a series of explosions in the surrounding mountains, as the mujaheddin practice with the new weapons they have bought, which makes you feel you are at the front. Several thousand horses and mules wait for the next departure; thousands of mujaheddin from many different places are busy preparing for their departure, bargaining with the horsemen, packing supplies donated by the political parties in Peshawar or by the foreign aid committees. Everybody is excited by the near departure for a long, difficult, and risky trip. Terimangal, a border point, was once isolated from the rest of Pakistan by a tribal conflict that lasted two weeks. Hundreds of mujaheddin coming from Afghanistan were stopped in this small place, where there were not enough hotels to lodge them. They were everywhere, on the roofs of houses, and there was not enough food for all of them.

Packaging: We could pack medical supplies carefully to minimize potential damage from poor transport conditions, as French doctors going inside with supplies during the war had done since the early 1980s:

- We reduced the weight and volume of supplies by taking the tablets out of their industrial packing and putting them in plastic containers.
- We wrapped the cartons with strong plastic bags to keep them dry in case they fell into water.
- We wrapped the entire carton with a strong, brown jute or canvas bag. (The first time we ordered folding stretchers from the A.I.D.-contracted commodity firm in charge of purchasing for the AHSSP, the agent purchased them from the local market. When they found that the canvas of the stretchers was not strong enough, they decided to replace it with stronger, bright orange canvas. We pointed out that the stretchers were going to be used in war zones, so the firm acknowledged the mistake and changed the canvas again.)

Cost-effectiveness: Cost-effectiveness of transport was one of the preconditions for establishing health systems inside: providers had to transport their supplies. It was not an easy task, and many committees were criticized by the Afghans for not providing enough money for transport. Others were criticized for giving too

much money and thus increasing the prices at the borders. Therefore, the AHSSP decided to use all of the border monitors to set up a management system for transportation. From each point of entry serving specific provinces inside Afghanistan, the monitors informed us regularly about the cost for transportation from the border to each district inside. Being stationed at the border, they were the best informed. Every day, caravans left for various parts of Afghanistan, and the monitors followed the variations in the prices, which were dependent on the season, the weather, and the war. They knew if some routes were closed due to snowfall or specific conflicts, which helped us provide the appropriate amount of money to the providers. It was the responsibility of the providers to negotiate with the horsemen at the border about the transport of their own supplies; the monitors at the border knew what each provider paid in reality and reported it to us so we could control our operation and the requests made by Afghan counterparts.

As mentioned previously, the design of the distribution system purposely avoided using big caravans for medical supplies, except for the annual resupply of the main regional health committees, in particular the Supervisory Council of the North (SCNA), where the routes were quite safe. During the summer, there was intense competition among all the committees (the military committee of the Supervisory Council of the North itself, the education committee, the agricultural committee, several foreign committees, and the U.N. agencies) in trying to send their supplies during the few months of the year when the routes across the Hindu Kush were open. The required number of horses and mules was not always available, and everybody tried to hire them first; the foreigners increased the prices by proposing more money to the horsemen. The logistics committee of the SCNA maintained control over the prices by dispatching the horsemen to points of the border where only the SCNA had the authorization of the Pakistani authorities to be present; then, the various committees of the SCNA were able to load first the goods for the northern provinces. By working with the SCNA health committee, we could always send medical supplies with support from the logistics committee of the SCNA. Every summer, hundreds of horses transported supplies to the main medical depots of the health committee of the SCNA.

Each horseman was responsible for the goods on his own horse, and each carton of supplies was marked with the name of the horseman responsible. He received half of the money at his departure and the other half on his arrival, after a check to see that everything had arrived; if something was missing, he had to pay for it or to go to jail, unless the chief of the caravan could give an acceptable explanation that was verified by other persons (bombardments on the way, fall of the horse in the mountains, etc.).

Note

1. T. Eighmy, Office of the A.I.D. Representative for Afghan Affairs, 1988.

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Figure 5-1: Service mapping. Project staff discuss the distribution of clinics and resources.

Chapter 5

Planning for Sustainability and Health Impact

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Vignette: The Area Commander's Dilemma

In Peshawar, a serious, enthusiastic Afghan approaches a PVO with a letter from his area commander requesting support for a new clinic inside Afghanistan. The PVO is interested in helping but has been burned before: How can he know what services are already available? Have other commanders or parties established facilities in the same area? Are other agencies already supporting the new clinic or a nearby clinic? How many staff with what training will be available to work at the clinic? What population groups will be served? What resources are already going into the area? What referral options are there, if any? In short, how does the PVO know whether the requested clinic is a good use of its limited resources?

Inside Afghanistan, the area commander receives another new visitor, fresh from the dangerous trip across the mountains from Peshawar. Dressed in the ubiquitous loosely hanging Afghan shalwar kameez, his eyes sparkling with enthusiasm, the foreign doctor talks fast and with authority about a complete emergency hospital setup. In fact, he's got a videotape from Vietnam showing what one looks like, complete with x-ray machine, portable generator, and operating equipment. He promises to give the hospital to the commander, if only the commander will promise to transport it, pay for upkeep, and commit his best health workers to training in how to run it. Trying to sound like an expert, this foreigner prods the commander, "What could be more important than being ready to handle the war casualties that may come again, or the injured from road accidents?"

As both the military and civil leader, the area commander has a war to fight as well as roads, canals, schools, and health services to worry about; thanks be to God that trade and commerce take care of themselves. "There is little time and few staff to sort out all our local needs; health affects everyone and is not a simple matter," he thinks. "Just last week the Health Committee was talking

about trying to immunize the children before the snows. The committee wants to send three more men to be trained as basic health workers in Peshawar, and they also want us to prepare a written plan for health. And the politicians in Peshawar have absolutely no idea what life is like in jihad or what problems we face planning health care. God give me strength and, for those fools in Peshawar, perhaps something to occupy their time."

The Planning Challenge

During the latter half of the war, planning followed the shopping-list approach: area commanders sent lists of training, staffing, supply, and other support needs for their people in Peshawar to carry around to the health and social assistance agencies, which said yes or no to each item on the wish list, depending on their own resources and constraints.

Rational planning for delivery of health services under the constraints of war, a traditional social system, difficult terrain, limited resources, and the worst health conditions in the world would be difficult. Problems had to be clarified and compressed into manageable forms for a wide range of participants, most of whom were preoccupied with many other matters. Few ears would be attuned to fine points. In a sense, everyone concerned with health faced the same urgent situation: people in dire straits and political pressures beginning to deliver the resources to do something; spotty, limited, and conflicting data; many agencies embracing a goal of the common good, but viewing it through different lenses with different interests, priorities, skills, and resources to offer. With no central focus to control what would be done at the national level, anarchy was often as close at hand in health management as on the field of war only a few miles away.

The Public Health and Health Service Situation

By 1985, as noted in Chapter 2, historically poor health statistics for Afghanistan had become the worst in the world. By the late 1980s the health situation had improved only modestly. Even with the considerable progress that had been made, the situation had so deteriorated during the war that immunization coverage remained the lowest in the world. Disrupted water supply, lack of health education, poor hygiene, and poor sanitation meant continued high rates of diarrheal disease. The national malaria control program, which had an exemplary international reputation during the prewar period, had collapsed. Nutritional status, particularly for the young, continued to be threatened by disrupted food supply. As a result of these and other war-related factors, infant mortality, under-five mortality, maternal mortality, and crude death rate continued to be the highest or among the highest in the world.¹ In addition, ten

of thousands of injured and maimed Afghans needed prostheses and rehabilitation services.

During the late 1980s, to address these problems, considerable resources were invested by PVOs such as the IMC and MCI, by international agencies such as UNICEF, and by bilateral programs such as the A.I.D.-funded AHSSP to train Afghan health workers and to establish health facilities and services inside Afghanistan. (See, for instance, Table 2-3.) Comparing 1985 data presented in Chapter 2 with 1990 data from the WHO/Peshawar health resources database, it would appear that these inputs had resulted in substantial increases in health services inside Afghanistan. Though established hospitals and health centers had been destroyed, temporary structures were found or built. The number of hospitals increased from none in 1985 to over two dozen in 1990; the number of health centers increased from about 50 in 1985 to over 500 in 1990. The increases in health personnel were even more striking: the number of doctors working in Free Afghanistan increased from 84 to nearly 250; the number of first aiders increased from perhaps 1,300 to several thousand; by 1990 at least 1,300 BHWs trained through the AHSSP were active inside Afghanistan; and over 1,600 staff in the diverse cadre of "mid-level" workers (trained primarily by the IMC, MCI, and numerous other PVOs) were reported to be working in the country. In total, over 5,500 doctors, nurses, mid-level health workers, basic health workers, first aiders, vaccinators, and other health staff were believed to be working in Free Afghanistan as of 1990.²

By most accounts Free (primarily rural) Afghanistan in 1990 was better staffed and better supplied than it had ever been in prewar times. But the growth of health facilities, health staff, and availability of medical supplies left unsolved several critical health service development issues.

First, the establishment of new facilities was strongly influenced by personal and party politics, resulting in large disparities in the availability of health service. Some areas were overserved, while less influential areas had no health services. Second, most facilities were operating in temporary locations. A defensible, affordable plan for health facility reconstruction was needed. Third, the large pool of health staff established during the latter 1980s was created without coordinated planning. Early training programs were largely war-oriented, though subsequent experience demonstrated the need for more primary health care training. Most training capacity existed in Pakistan and plans for developing appropriate regional training programs inside Afghanistan were just emerging. In addition, there were no effective local supervision structures in most areas, no career ladder, and no commonly recognized certification.

Finally—and perhaps most challengingly—it was estimated that 75 to 90 percent of health services in Free Afghanistan were directly or indirectly financed by donors, with limited near-term prospects for the public revenue base.³ And using history as a guide, it was unlikely that, after the war, donors would remain interested.

The Expanding Role of International Groups

In the latter half of the 1980s the presence of international groups (bilateral donors, United Nations organizations, and PVOs) expanded considerably, as noted in Chapter 1. Their greater role complicated life in Peshawar, as the prospect of significant resources was accompanied by the players who attended such events: potential beneficiaries; bureaucrats to administer and justify the resource inputs; politicians to claim credit for obtaining the assistance and for its impact; and technicians to manage the resources in “rational” ways for the pursuit of the goals specified by the donor.

Though advocates for refugee work continued to point to readily observable evidence of need, others recognized that the vast majority of the Afghan population remained inside, with many displaced and many more hanging on in their villages. Except in urban areas, most were without access to health services when large-scale international assistance began in the mid-1980s. In 1987 humanitarian assistance for health inside Afghanistan was over U.S. \$8 million (more than U.S. \$1.00 per capita for those living in Free Afghanistan) and by 1990 it had grown to over U.S. \$30 million (nearly U.S. \$4.00 per capita).⁴

The Stakeholders

Many groups in Peshawar had a stake in Afghan health, a point of view, and certainly a voice: the AIG; the AHSAs; the U.N. organizations; the PVOs; the bilateral agencies such as the Swedish Committee, German Committee, and A.I.D.; and coordinating committees such as CMC and ACBAR. Some collected few data on health activities, and many had their own definitions of what was important, as well as different reporting requirements and sponsor interests. Until the arrival of large blocks of donor resources, there were few incentives to collaborate. Many Afghan groups found advantage in keeping various aid sources separate. In turn, assistance groups tended toward suspicion, territoriality, and pride of place.

Led mostly by doctors, the Afghan health professionals were themselves a diverse and often fractious group owing to differing party and commander loyalties. There were two generations of doctors, each with very different experience: The first were younger, with primarily clinical training—often shortened by the press of war—and practical experience only in the wartime health situation. The other group comprised older physicians, from the Afghan health system of the 1970s—a system which in 1977 spent 42 percent of its budget on hospitals, 22 percent on an internationally recognized but resource-intensive malaria control program, and only 19 percent on basic health services! The “health for all” concept was launched across the Soviet border in Alma Ata the same year that Russian troops first moved into Afghanistan. Though some of the concepts presented at Alma Ata had been spawned in Afghanistan during

the 1970s, most Afghan physicians had limited training and experience in public health and primary health care.

With time, at least three groups saw important advantages in coordinated operations that outweighed the price of disclosure: the major donors whose money and international reputations were on the line, the area commanders who were increasingly being called upon by their people to build civilian social services, and the AIG, which dealt regularly with many of the outsiders. Initially both the area commanders and the AIG saw some early advantages in compartmentalizing the information and keeping the donors separate. But with time, the energy required to resist coordination exceeded whatever gains in flexibility might have been obtained through isolation. The AIG could exert little effective central planning or control when assistance groups went their own way, and the area commanders had decreasing patience for the multiple and conflicting entreaties of assistance groups.

From the perspective inside Afghanistan, effective political and operational leadership was focused in local mujaheddin commanders whose courage, leadership, and managerial effectiveness became increasingly evident. Local action inside required their prior knowledge and approval. What became increasingly clear was the need to coordinate decisions about health—as well as most everything else—with the area commander who controlled a region. While assistance groups might contend over many issues, virtually all saw the necessity of dealing with the reality of regional control by the military commanders who led the jihad on the ground.

Developing a Planning Framework

By the late 1980s, the overall planning challenge and the need for area-based health planning were clear. What was not clear was the process for developing health plans. No planning framework existed and the information needed for it was fragmented, incomplete, or nonexistent. The AHSA representatives, the AIG, the PVO community, the donors, and the AHSSP team—each in their own ways—began to consider the implications of the impending Soviet withdrawal for development of health services.

The Opportunity of Soviet Withdrawal

The prospect of Soviet troop withdrawal made the health planning issues more imminent. The prospect of building a new health system for the nation brought to many committee discussions concerns about organization, coverage, and sustainability. But the complexity of the issues, as well as the competing interests and perspectives of the participants, made progress difficult.

The relief orientation of most Pakistan-based and Iran-based PVOs and the lack of long-term health planning experience among most Afghan counterpart groups provided little focus for the required planning decisions. Figures of tens of millions of U.S. dollars were bandied about as potential resources for reconstruction of the health sector. For PVOs anxious to make visible contributions, for donor organizations interested in moving funds quickly, and for Afghan medical workers tired of operating out of caves and makeshift facilities, the prospects of building large, well-equipped hospitals and expanded training facilities were enticing. As a result, there was the very real prospect of building a health system that would prove unaffordable, inefficient, and, therefore, unsustainable. There were many reasons for Afghan health officials and donors to say "yes" to proposals, and no long-term plan on the basis of which they could say "no" or modify proposals for greater long-term benefit.

Starting the Planning Process

In February 1989, in an attempt to create a basis for planning sustainable health services, the AHSSP formed a working group to consider the challenge. The group included people with skills and experience in public health, health planning, health personnel planning, health financing, systems analysis, training and organizational development.⁵ Possible long-term goals, alternative health strategies, conceptual frameworks, and information requirements were discussed in detail. A process was outlined which would involve Afghan area health officials, Afghan interim government health leaders, donors, and key PVOs.

Between March and May 1989, available historical, current, and comparative data were gathered and organized into an evolving computer-assisted planning model which began to be referred to as "SUSPLAN" for "sustainability planning". Data included available estimates of disease-specific morbidity and mortality rates, numbers and types of health facilities and health personnel working in rural Afghanistan, recurrent operating costs by type of expenditure and estimates of the impact of various health interventions on morbidity and mortality. A Lotus spreadsheet was developed to accommodate the SUSPLAN input data and to generate the resulting outputs.

In June 1989, the AHSSP held separate strategic planning discussions in Peshawar with representatives of the AHSAs and with senior health officials from the AIG. With each counterpart group, the discussions consisted of a three part series of half-day meetings.

In the first meeting, Afghan officials noted the overall planning issues and decisions facing them. Estimates of rates for major causes of morbidity and mortality were reviewed; possible health care interventions for prevention and treatment of the leading health problems were identified; and alternative delivery mechanisms (community, clinic, hospital, etc.) were considered. In the second meeting, short- and medium-term funding prospects were reviewed, health systems

goals and principles for planning were agreed upon, and strategic alternatives were identified. Finally, in the third meeting, the results of the first two sessions were incorporated into the SUSPLAN model and presented to the group for discussion and reflection.

In addition to discussions with Afghan counterparts, discussions were held with leading donor and non-governmental organizations in Peshawar. These organizations provided useful observations on the planning environment, constraints, and opportunities for health service development in Afghanistan.

The planning process attempted to balance the long-term need for sustainable health services with the felt need of Afghan officials to respond to immediate requests for health staff, equipment, drugs, and other forms of support for specific commanders in specific locations.

Planning Principles, Health Priorities, and Health Service Interventions

Despite the different positions of the AHSAs and the AIG, the contents and outcomes of the separate health planning discussions were similar. Eight principles emerged to guide the future development of Afghan health services (see Figure 5-2, page 114).

From the series of meetings with the AHSAs and AIG, a problem-oriented framework for planning health service interventions emerged. This framework, summarized in Table 5-1, was quite consistent with the approaches which had already been taken by the more progressive Afghan health groups, by at least some of the humanitarian assistance groups, and by the AHSSP since its inception.

Major health needs were categorized into maternal and child health services, disability services, general health services, and special services (Table 5-1, first column). Morbidity and mortality estimates assembled by the AHSSP working group were adjusted based on the first-hand experience of the Afghan health staff (second and third columns). These estimates were used to help put war-related conditions into perspective and to help in setting priorities. Potential health service interventions, both preventive and curative, were listed against each major health problem (fourth column).

Finally, potential health care delivery mechanisms were considered for each category of health problems. Delivery mechanisms were categorized as vertical programs, community programs, outpatient clinical programs, hospital-based programs, and/or public health education programs. The relative appropriateness of each mechanism was then rated during the planning discussions.

Table 5-1
Health Problem Priorities and
Health Service Interventions

Health Problems	Cases per 1000 Population per Year*	Percent of Deaths**	Health Service Interventions (Prevention & Treatment)
Maternal & Child Health Services			
Maternal care (pre- & postnatal)	45 pregnancies	9	(1) Risk assessment & high risk referral (2) Folate, iron (3) Tetanus toxoid (4) HE: diet, danger signs
Deliveries (intrapartum)	45 deliveries	6	(1) Risk assessment & high risk referral (2) Good delivery practice
Child spacing	200 fertile couples		(1) HE: benefits of child spacing (2) Spacing methods: modern, traditional
Immunization/well child	45 infants & children	17	(1) Immunization* (2) Growth monitoring
Malnutrition	20 cases	2	(1) HE: diet (2) Supplemental foods (3) Vitamins & minerals-specific deficiencies
Disability Services			
Prostheses, reconstruction	20 cases		(1) Assessment of need (2) Reconstructive surgery (3) Prosthesis design & construction
Rehabilitation	40 cases		(1) Physical therapy (2) Occupational & vocational therapy
General Health Services			
Diarrhea/dysentery	600 episodes	17	(1) HE: water, food practices, sanitation, breast feeding, available home fluids (2) ORS (3) Selective antimicrobials
Malaria (see prevention, below)	100 episodes	10	(1) Presumptive chemotherapy (2) Surveillance
Acute respiratory infections	1100 episodes	22	(1) HE: signs of severe infection (2) Diagnosis, treatment referral as needed (3) Antibiotics for moderate & severe
Trachoma	75 episodes		(1) Diagnosis (2) Early, complete antibiotic treatment
Tuberculosis (BCG included in immunization)	50 new cases	2	(1) Microscopic diagnosis (2) Early isolation & chemotherapy (3) TB register (4) Chemotherapy

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Health Problems	Cases per 1000 Population per Year ^a	Percent of Deaths ^{a,b}	Health Service Interventions (Prevention & Treatment)
Acute infectious disease ^b	250 episodes		(1) Diagnosis & drug treatment (2) HE: prevention where possible
Chronic-prevalent disease ^c	75 episodes	1	(1) Diagnosis & drug treatment
Other acute ailments ^d	150 episodes		(1) Diagnosis & treatment
High blood pressure, heart disease, COPD	20 episodes	4	(1) Diagnosis & treatment (2) Supportive care
Gynecological ailments	100 episodes	1	(1) Female clinics for proper evaluation (2) Medical therapy (3) Surgical therapy
Minor wounds	20 cases	2	(1) First aid (2) Assessment & referral (3) Definitive medical & surgical care
Accidents/trauma ^e	200 cases	4	(1) First aid (2) Assessment & Referral (3) Definitive medical & surgical care
Chronic cases	20 cases	2	(1) Surgical assessment & surgery
Dental problems	300 cases		(1) Assessment & referral (2) Drug treatment as appropriate (3) Extraction (4) Dental procedures
Malaria prevention (or passive detection treatment, see above)			(1) HE: bed nets for children (2) Active case detection & treatment (3) Vector control: spraying
Water & sanitation			(1) HE: hygiene, water, defecation, refuse (2) Provision of wells (3) Latrines (esp. urban populations)

Health Education

^a estimated from MSH and PVO Greenbook data; comparative data from the Asia region
^b MSH estimates

Immunizations used: DPT, OPV, measles, BCG
 Conjunctivitis, skin disease, urinary tract infection, typhoid, worms
 Schistosomiasis, leprosy, goiter, Brucellosis, trachoma
 Malaria, headache, psychological problems, aches, pains, arthritis
 Rabies, snake bites, farm work, horses

Figure 5-2
Principles for Development of Afghan Health Services

1. The ongoing costs of the future health system should be at a level that Afghanistan can sustain, given the funds that are likely to be available.
2. Existing facilities and resources should be utilized and/or renovated where possible, not replaced with new facilities.
3. Health problems which cause the greatest morbidity, disability, and mortality should be emphasized.
4. In general, priority should be given to preventive health care.
5. Plans need to be specific to each province, based on the prevailing disease patterns and population distribution.
6. Resources should be allocated on the basis of population and the cost of health interventions needed in each province.
7. Health service delivery mechanisms should be based on local conditions and values.
8. Health care approaches must reflect the educational level of the specific area. This applies to recruitment and training of health workers as well as to planning for public health education activities.

The Design of SUSPLAN

Agreeing on planning principles and health priorities was one thing. Putting them into practice through concrete decision making was quite another. Area commanders, AIG officials, AHSA representatives in Peshawar, donors, the PVOs, and the AHSSP were constantly being asked to support new training programs, new disease control programs, new clinics, and new hospitals. Without locally appropriate planning guidelines, it was difficult—often impossible—to assess the need for these additional resources.

The basic planning principles, health problem priorities, and potential health service interventions became the basis for a conceptual model and its translation into a spreadsheet-based computer model. The computer model, "SUSPLAN," was designed to help Afghan health planners (1) systematically organize the various data required for long-term health planning, (2) relate health needs

health service resources, costs, and impact, and (3) compare and choose strategies.

The information requirements and output reports for SUSPLAN are summarized in Figure 5-3. Actual data were used wherever available. Where data were unavailable, informed estimates were based on historical data, comparative international data, and local experience. The basic information required by SUSPLAN includes:

- community morbidity pattern (frequency of common illnesses and conditions such as pregnancy and disability);
- likely sources of care (no care, traditional, private, public services);
- location of public care (community, health center, hospital, etc.);
- population distribution by location;
- health worker types, productivity, salaries, other costs;
- health facility types, staffing patterns, operating costs; and
- target for per capita public health expenditures.

From this information, five outputs are produced: (1) total health personnel needs by area and type of health workers, (2) total health facility needs by area and type of facility, (3) total recurrent costs, (4) coverage rates, and (5) projected impact.

SUSPLAN allows for recurrent costs to be covered by combinations of financing sources, recognizing that preventive services such as MCH are more likely to attract donor funding, while drug costs for curative health services may be able to be covered through user fees.

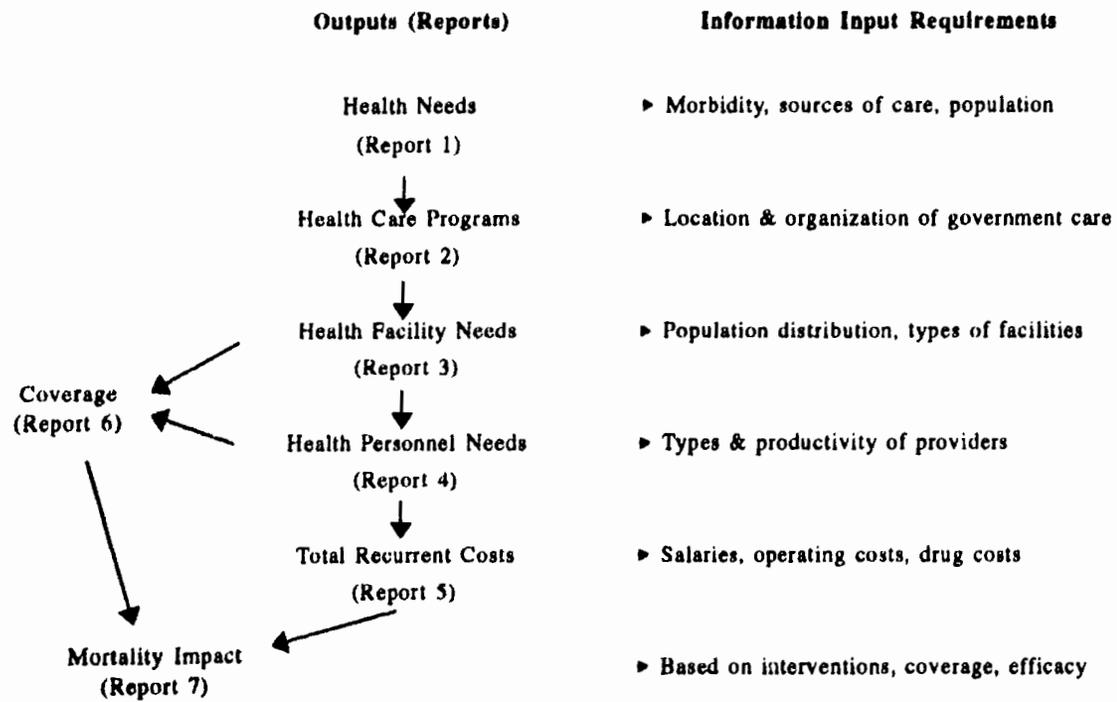
The relationships among utilization patterns, availability of health personnel, and access to health facilities determine coverage. In turn, the relationships among coverage, efficacy of specific health interventions, and current morbidity and mortality rates determine the projected impact on morbidity and mortality.

SUSPLAN is structured to include a set of seven key summary reports and seven background tables. The seven summary reports are: (1) Total Cases per Year and Source of Care, (2) Location of Government-provided Care, (3) Facility Plan by Population Center, (4) Health Worker and Health Facilities Requirements, (5) Expenses and Revenue by Health Problem, (6) Health Service Coverage, and (7) Projected Impact.

The background tables contain information on, and allow adjustments of, such factors as types of health workers used to provide various types of health services, health worker productivity and cost, facility staffing patterns, drugs and medical supply costs, and population centers.

Additional descriptive information about SUSPLAN, extensive unit cost information, a detailed review of the literature supporting the intervention-coverage-efficacy-impact relationships, and additional supporting data are described in the project documentation on the SUSPLAN methodology.⁵

Figure 5-3
Area Planning for Sustainable Health Services (SUSPLAN)



Limitations of the SUSPLAN approach as applied should be noted, including limitations in the input data, assumptions, conceptual design issues, and computer model development. Limitations in the completeness and accuracy of input data include assumptions about morbidity patterns, sources of care, population distribution, health worker productivity, staffing patterns, operating costs, and other parameters. Second, since SUSPLAN is intended to guide the planning of health sector inputs, it considers only health interventions. The often substantial impact of nonhealth interventions such as economic development (or decline) are not factored in. Third, the model is static and assumes that the contribution and impact of nongovernmental care remains constant. Last, the model assumes that impact is directly proportional to coverage, which it clearly is not. In addition to these conceptual design issues, the reality is that other project priorities kept the computerization of SUSPLAN from progressing to a menu-driven, user-friendly model. Despite these limitations, it proved to be a valuable tool for combining a large volume of information into a logical framework in which major, long-term health resource planning issues could be addressed.

Using SUSPLAN to Define Alternatives for the Future

The first step in using SUSPLAN for an area health plan is to produce reports for a full-service approach, that is, to generate SUSPLAN outputs on health staff requirements, health facility requirements, coverage, and impact for major health problems in the absence of financial constraints. The staffing, facility, and operating costs of this approach can then be compared with existing staffing and facilities and available provincial or national funds.

The full-service approach is invariably unaffordable. To reduce costs to the likely levels of available funds, the full-service approach can be scaled down and assumptions can be changed. For example, facilities can be reduced or downgraded; staffing patterns can be altered to rely more on lower levels of staff; salaries can be adjusted; and assumptions about productivity can be changed. The impact of these changes on coverage and projected mortality reductions can then be estimated.

For the SCNA, the full-service approach resulted in an annual total cost of \$3.10 per capita. To test the impact of alternative lower-cost strategies, two alternatives were generated to achieve a target annual cost of \$2.00 per capita. In one approach, the primary health care (PHC) option, community-based care (community health workers and smaller clinics) were emphasized, while hospitals were reduced to meet the budget constraints. For the hospital care option, preference was given to hospital services and clinic-based care, while community services were reduced to meet the budget constraint.

The SUSPLAN outputs for these three alternatives are compared in the following four figures. Figure 5-4 summarizes health care provider requirements.

The full-service option contains the largest numbers of health staff. The PHC option has more than twice as many community-based workers as the hospital care option, but the hospital care option has only slightly more doctors.

Total numbers of facilities (Figure 5-5) are also greater in the full-service model. Compared to the hospital care option, the PHC option has 7 fewer hospitals and 10 fewer clinics, but 73 additional health posts.

The results of these differences are reflected in the coverage (Figure 5-6) and impact (Figure 5-7) figures. Not surprisingly, the hospital care option provides substantially less immunization coverage (30 percent versus 75 percent for the PHC option) and maternal care (10 percent versus 30 percent for the PHC option). Though the PHC option is based on less than two-thirds of the full-service budget, focusing resources at the community level would mean that immunization and maternal care coverage is not reduced by as great a proportion. Coverage for acute illness care is also reduced in the hospital care option, but not to the same extent as immunization and maternal care.

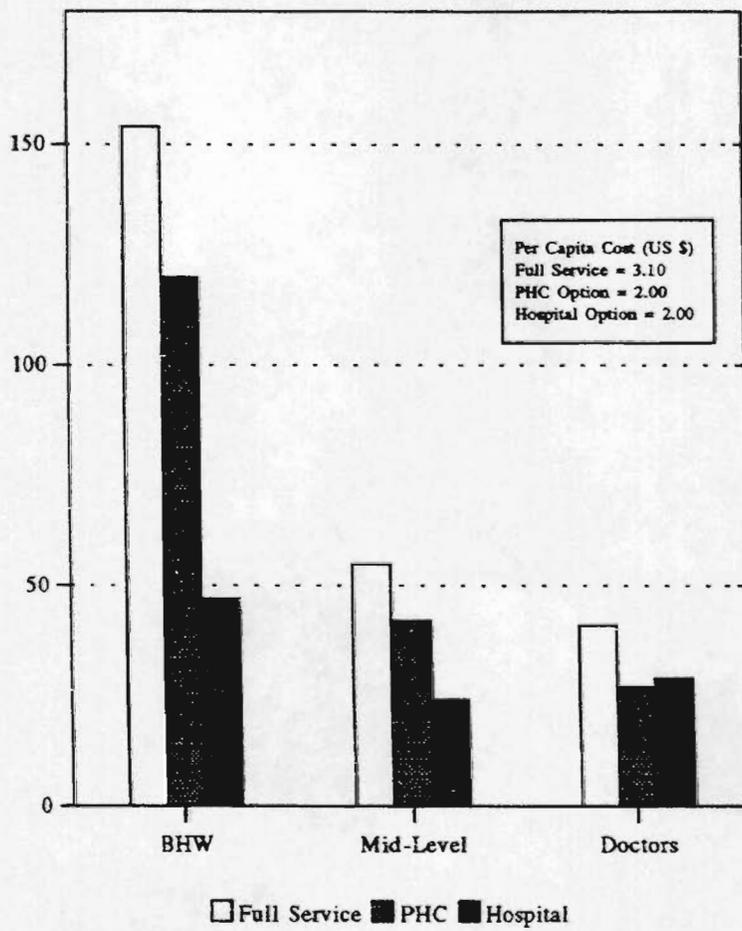
Finally, the projected impact on mortality is shown in Figure 5-7. Following the structure of the SUSPLAN model, the percent improvement over current rates for infant mortality, child mortality, maternal mortality, and crude death rate is closely related to the coverage. Again, for the same per capita allocation, the PHC option achieves a far greater impact than the hospital care option.

Implementing the Planning Process

Sensible as the SUSPLAN results appeared to be, they raised as many questions as answers: What is the current pattern of illness and disability in the community? Do illness patterns vary around the country? What are the existing health personnel resources inside Afghanistan? What kind of training do the various cadres of health workers have? What health facilities exist? What capabilities do these facilities have? How can existing health personnel and health facilities be categorized? What are current health care utilization patterns inside Afghanistan? These and other questions highlighted the need for additional, more specific information for planning, and for planning definitions.

During the height of the war, health planning occurred primarily in the form of short-term plans developed by individual donor-assisted projects and individual PVOs for their own resources. Information exchange was limited and coordinated decision making was virtually nonexistent. As the prospect of rebuilding the Afghan health system became more plausible, the AHSSP staff worked closely with Afghan counterpart organizations (the AHSAs and AIG), the humanitarian assistance community (ACBAR, CMC, and individual PVOs), and donor organizations to assess morbidity and health care utilization patterns, to define health worker and health facilities categories, to develop planning databases, and to conduct health resources surveys.

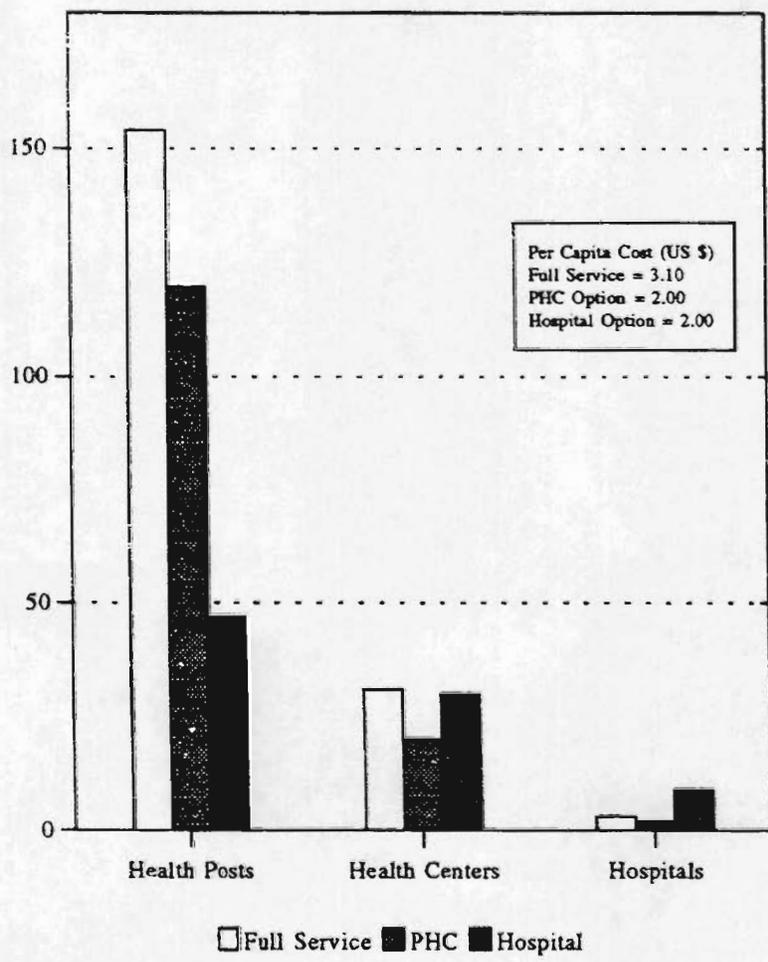
Figure 5-4
Number of Health Care Providers Needed
3 Alternatives, Takhar Province



BHW = Basic Health Worker

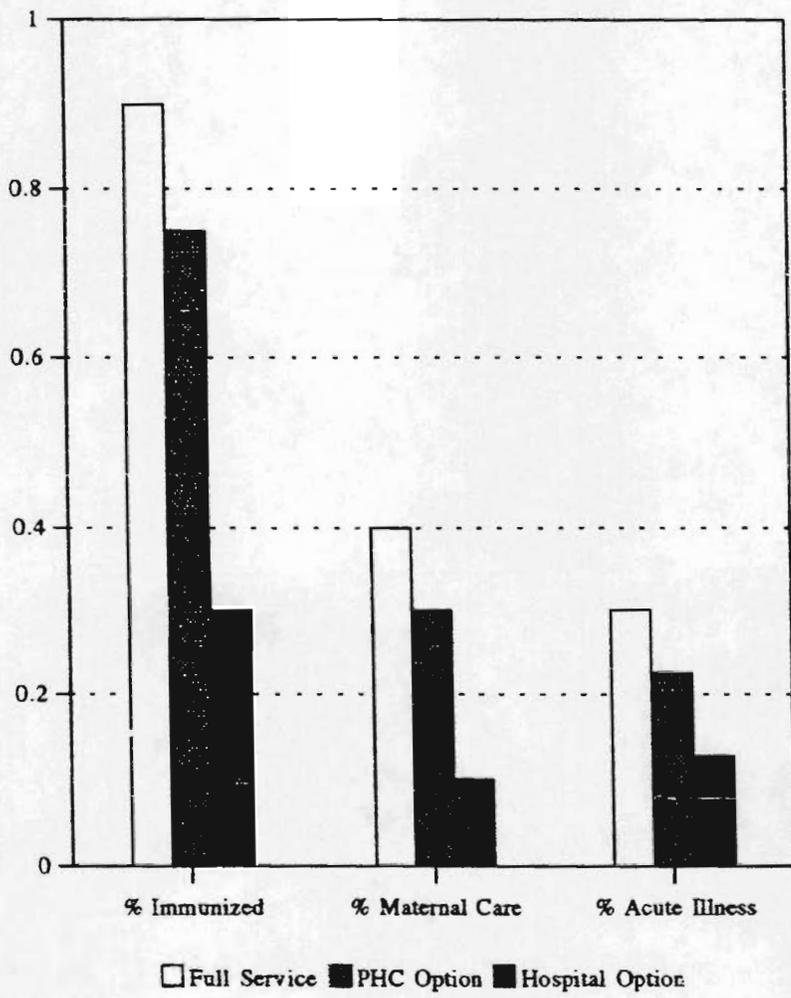
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Figure 5-5
Number of Health Care Facilities Needed
3 Alternatives, Takhar Province



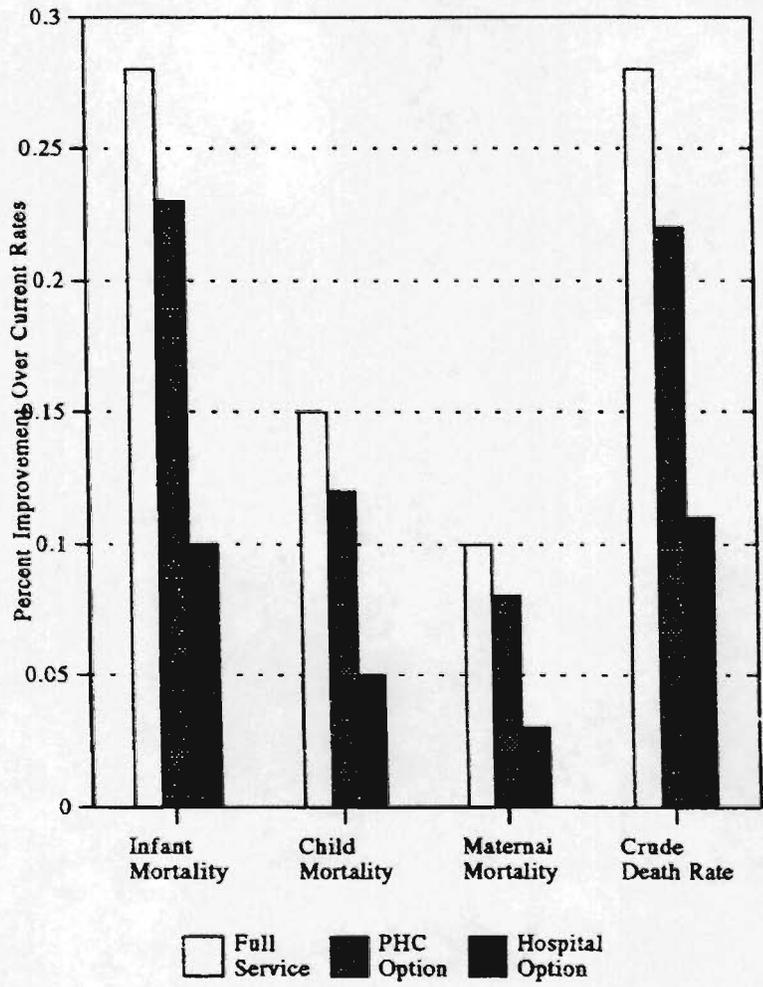
BHW = Basic Health Worker

Figure 5-6
Projected Coverage
3 Alternatives, Takhar Province



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Figure 5-7
Projected Impact on Mortality
3 Alternatives, Takhar Province



Population, Morbidity Patterns, and Health Care Utilization

Data on population distribution, morbidity patterns, and local health care utilization practices are fundamental to any health planning effort. Afghanistan has never had a complete population census. Combined with war-related external migration (principally to Pakistan and Iran) and internal migration, the existence of a substantial nomad population, and a long-standing pattern of exaggerating populations to garner greater development assistance, the absence of actual census data meant that population estimates varied substantially and were always in dispute. Despite these limitations, Eighmy was able to use prewar population estimates, UNHCR data on refugees, and adjustments for war deaths and internal displacement to produce a district-by-district estimate of the Afghan population which became accepted as the best operational estimate for planning purposes.⁷

Community-based morbidity data were similarly lacking. But by the mid-1980s a standardized patient visit register, the "Greenbook" initiated by the Swedish Committee, had been adopted by virtually all of the major Peshawar-based health assistance organizations. CMC, with assistance from the AHSSP, coordinated the analysis of data gathered by health workers trained by and/or supported by SCA, MCI, IMC, and MTA. The AHSSP routinely entered and periodically analyzed data from BHWs.⁸ Together, these data confirmed the growing realization among the health assistance community that even in active areas of fighting, war-related injuries actually represented a relatively small portion of the demand on the health services (generally less than 10 percent). The vast majority of patient contacts reported through the patient registers were for acute respiratory infections; diarrheal diseases; other infectious diseases; other gastrointestinal complaints; nonspecific symptoms such as headache, weakness, and body pain; and other common primary health care problems. Greenbook data also supported the impression that ecologically vulnerable parts of the country were experiencing a resurgence of malaria.

Chapter 10 on health information systems discusses in detail the availability, sources, and limitations of both population and patient register data. Though patient register data did not provide community-based morbidity profiles, they provided the most comprehensive morbidity data for the first SUSPLAN estimates of health needs. At the same time the need for community-based surveys of morbidity patterns as well as health care utilization patterns was clearly recognized.

A review of past community surveys indicated that only two household surveys had been done in the 1970s and (not surprisingly) none in the 1980s. A 1972 survey of 229 households in four provinces used interviews, physical examination, laboratory tests, and other specialized testing to characterize health status.⁹ In 1976 a joint Afghan Ministry of Public Health and MSH survey of 486 households used interviews to study the health and the health care utilization patterns of households.¹⁰

Building on the survey experiences of the 1970s, the AHSSP in 1990 initiated a program of cross-border surveys which aimed to interview 900 households in 27 villages of 3 culturally diverse provinces. Surveys completed in Wardak¹¹ and Takhar¹² provinces demonstrated the feasibility of cross-border household interviews using well-trained Afghan health professionals as field supervisors and local BHWs as interviewers.

These surveys confirmed the primacy of acute respiratory infections, diarrheal disease, other acute infections, and suspected malaria—as opposed to war-related injuries—as causes of acute morbidity. They revealed that in emerging-from-war rural Afghanistan, by far the leading sources of health care outside the home were public hospitals, health centers, and community health workers supported by local health committees, PVOs, other donor programs such as the AHSSP, the AHSAs, or the AIG. The surveys also highlighted the need for expanded MCH care: well over half of pregnant women received no prenatal care and over half the reported deaths were among children under age five.

The Struggle for Common Definitions

From early in the war and at an accelerated pace during the late 1980s, Afghan groups and humanitarian assistance organizations devoted much of their attention to training health workers and establishing health facilities. Organizations publicized numbers of mid-level health workers trained or health centers supported, but different definitions made it difficult to know what resources actually existed.

By 1989, several organizations—WHO, SWABAC, the German Afghanistan Committee (GAC), the AIG, and the AHSSP—had their own terminologies. When they were compared, however, their substantive differences were found to be minor. Working informally, MSH was able to achieve agreement on the basic categories of health facilities shown in Table 5-2 (pages 126-127).

Once the basic facility categories were established, facility names were changed three or four times before a common terminology emerged. Primary care hospitals, for example, were variously called “field hospitals,” “small hospitals,” and “district hospitals.” The term “district hospital” was particularly troublesome to some donors, who felt it would raise the expectation that all 325 districts in Afghanistan should have their own hospital.

Standardizing definitions for health workers proved much more difficult, due to the diverse ad hoc training programs that had arisen during the war. A 1990 review of rural health services found 21 different training programs for non-physician providers: 3 for one-month training (“first aiders”), 7 providing months of training (BHWs and other “community health workers”), 8 programs for six- to twelve-month mid-level training, and 3 programs providing thirteen- to twenty-four-month mid-level training.¹³ Programs differed greatly in their

curricula and emphases on preventive versus curative care, on war trauma versus primary health care, and on classroom training versus clinical experience.

Because of this diversity in training programs, WHO/Peshawar—with the concurrence and participation of CMC/ACBAR members and occasional participation of AIG representatives—initiated a sensible, but time-consuming process to develop competency-based testing and certification. At the same time, the AHSAs and AIG, with strong encouragement from the AHSSP, took the pragmatic approach of establishing small medical certification committees to review each applicant's documentation of education and experience, conduct a brief interview, and then classify workers on a training equivalency basis (e.g., "mid-level worker, twelve months").

Though not very satisfactory from the perspective of standards of practice and competency, initial classification of health workers, particularly the mid-level workers, by length of training provided a practical basis for beginning to quantify health personnel resources inside Afghanistan.

Health Resources Databases

Planning for future health service requirements must begin with a knowledge of what exists today. During most of the 1980s data on health facilities and workers active inside Afghanistan were scattered and unreliable. With no central authority outside the cities and over three dozen Afghan parties, PVOs, and other organizations supporting health services, information flow was inherently problematic. Because of the exigencies of war and the administrative chaos within some of the humanitarian assistance groups, individual organizations often did not know themselves with any degree of certainty the types and actual locations of the health facilities and workers they were supporting. Those that did have good information often were reluctant to share it for fear that the intelligence community would misuse it for military purposes.

Despite these limitations, CMC and ACBAR began organizing systematic information on health facilities. In 1985 microcomputers were quite new to the Peshawar community and early databases were fairly restrictive and inflexible. By 1989 the WHO office in Peshawar had combined the CMC and ACBAR databases in a flexible R-base system. WHO extended them to include information on services provided, results from monitoring missions, detailed information on the location and training of individual staff members, and other useful data.

The WHO database was expanded and updated with cross-border monitoring reports, and ACBAR continued to maintain a multisectoral database, including information on agriculture, education, and construction. However, the ACBAR database was validated almost exclusively by members' reports of their activities, which were often not based on actual monitoring.

Table 5-2
Classification of Health Facilities*

DESCRIPTION OF FACILITY	Regional Hospital	Provincial Hospital	Primary Care Hospital	Comprehensive Health Center	Basic Health Center/ MCH Health Center	Basic Health Post/ MCH Health Post
TYPE ("CODE")	H-1	H-2	H-3	C-1	C-2 / M-1	C-3 / M-2
EXPECTED COVERAGE	3-8 Provinces	1-2 Provinces	1 to 4 Districts	30-80,000 Population	10-40,000 Population	1,000-5,000 Population
HEALTH PERSONNEL						
** -M.D. Doctors	4-6	3+	1-3	1	--	--
** -Surgeons	2-4	1+	Maybe	--	--	--
** -Advanced Mid-Level HW	Yes	Yes	Yes	Yes	1+	--
** -Mid Level Health Workers	Yes	Yes	Yes	Yes	1+	1
-Nursing Staff	Yes	Yes	Yes	Yes	Maybe	1
** -Basic Health Workers	--	--	Maybe	Maybe	Maybe	1
PROVIDER STAFF (Doctors; MLHW; BHW)	16-24	12-16	8-12	4-8	2-4	1-2

SUPPORT SERVICE (Lab, Xray, Pharm.)	4-6	3-4	2-3	1-2		--
HEALTH SERVICES						
** -Operating Theater	Specialized	Major	Minor	--	--	--
** -Laboratory	Referral	Supervisory	Field	Field	--	--
** -X-Ray	Referral	Yes	Yes	--	--	--
** -In Patient Beds	50-100	20-50	10-20	3-5	--	--
-Immunization Capacity	Freeze point	Freeze point	Cold boxes	Cold boxes	Vaccinators	Vaccinators
-Specialized Programs*	Supervisory	Yes	Maybe ^b	Maybe ^b	--	--
-Medical Records	Yes	Yes	Patient Card	Pt. Rec's ^a	Pt. Rec's ^a	--
-Transport (for referrals)	Yes	Maybe	Maybe	--	--	--
OTHER PROGRAMS (partial listing)	Surgical specialties	ML, BHW training	Dai training	Dai training	Dai training	
	Medical specialties	Dai trainers ML, BHW refresher				

* Composite OF WHO, SWABAC, GAC, MOPH/GA, MSH, and historical government of Afghanistan definitions.

** Key factors in classifying individual health facilities.

^a MCH, TB, malaria, etc.

^b Will develop over time.

^c Patient cards, patient registers, and reporting forms depending on staff capacity.

Much as the WHO and ACBAR databases improved the health information situation over what it had been in earlier years, the usefulness of the WHO and ACBAR databases was still limited by differing terminology, inconsistent location information, and questions of validity. Were the facilities actually in existence and operating where they were listed as being? Provincial and district information had initially been entered "free-field" without a standardized coding and validity check. Use of local synonyms for district names was common and districts were occasionally identified with the wrong province, either through ignorance or because of changing provincial borders. Location information improved considerably when a standard computer district coding system incorporated automatic location code checks into the data entry and editing process.

The problem of validity proved to be the most difficult. In the first report juxtaposing district-specific information on health facilities from the two databases,¹⁴ WHO listed 626 facilities (excluding health posts), while ACBAR listed 648 facilities—fairly close agreement given the different information-gathering processes of the two databases. But when total numbers of facilities per district were compared, there was precise agreement on the total number of facilities in only 140 out of 325 districts. In fully one-quarter of districts, the disagreement between the two databases was over 50 percent, with WHO listing more facilities in some districts and ACBAR listing more facilities in other districts. These types of differences led in late 1989 to the decision to undertake comprehensive health resources surveys.

Health Resources Surveys

By the late 1980s the need for current, consistent, credible information on the numbers of health facilities and workers inside Afghanistan had been accepted by donors and, increasingly, by Afghan health counterparts and PVOs. In early 1990, as a collaborative effort to consolidate health resources information, WHO and the AHSSP developed plans and data collection instruments for comprehensive provincial health resources surveys. In a series of separate but coordinated activities several U.N. agencies, the AHSAs, the AIG, CMC members, and ACBAR health committee members were variously involved in designing and field testing the survey instruments. The result was a rather lengthy, but generally well-understood and well-accepted health resources survey.

The survey focused on health facility and health worker information. The objectives were to locate health facilities accurately and classify them according to the definitions in Table 5-2; to determine the numbers, types, and source of training for health workers; and to gather additional information necessary to prepare reconstruction plans. Secondary objectives included analysis of the availability of special services such as rehabilitation, definition of catchment areas, and identification of referral patterns.

Information collected on health facilities included location, administrative affiliation, source(s) of support, very basic utilization information, numbers and types of staff members, physical facilities information (type of building, water supply, beds, and operating rooms—if any), services offered (immunization, prenatal care, rehabilitation, prosthesis work, tuberculosis control, etc.), equipment present, common health problems seen, patient referral patterns, and estimated population coverage.

Information on health workers included identifying information, home village, occupational category, source and type of health training, year of graduation, source of salary, and years of work experience. Finally, a special “Not Found—Not Working” form, which required confirmatory certification from respected local leaders, was developed to document unequivocally information concerning health facilities or workers that were listed in the Peshawar databases but found to be nonexistent or nonfunctional.

To enhance the credibility of survey results whenever possible, surveys were conducted jointly with AHSAs, AIG provincial health officers, or organizations such as CMC. The AHSSP Monitoring Unit provided experienced monitors who had a proven record of reliability to lead the teams. Typically the AHSSP monitors and colleagues from collaborating organizations were paired to assure that each interview was conducted by two surveyors (usually of different Afghan political parties). Letters of introduction were obtained from sponsoring organizations. Training of surveyors included a lecture-style review of the content of each questionnaire, some practice interviews, and a written examination.

The health resources surveys conducted in 22 provinces and their results are described further in Chapter 10. Suffice it to say that the surveys proved invaluable in establishing with greater accuracy the actual numbers and types of health facilities and health workers active in Free Afghanistan.

Health Personnel and Health Facility Decisions

Two factors which have a major impact on the effectiveness, cost, and sustainability of any health system are (1) the numbers, types, and locations of health personnel and (2) the numbers, types, and locations of health facilities. For this reason, the health management workshops held separately with the AHSAs and AIG in 1990 emphasized personnel and facilities planning. The AHSAs and AIG were constantly being pressed, on the one hand, by their Afghan constituents to support new facilities and train more staff, and, on the other hand, by donor organizations (particularly A.I.D. and WHO) to substantiate the need for doing so.

SUSPLAN provided the AHSA and AIG decision makers with one definition of health personnel and health facility “needs.” Comparative data were needed

to test the reality of these figures. Therefore, local data from 5 Afghan provinces and international data from 3 countries were compiled and compared with the SUSPLAN PHC option ratios for health personnel (Table 5-3) and health facilities (Table 5-4).

The Afghan provinces of Herat, Wardak, Bamyan, Ghazni, and Takhar were selected for comparison because of their cultural and geographic diversity and the availability and perceived reliability of their data. For Wardak and Takhar provinces data were drawn from the recently completed provincial health resources surveys. For the remaining three provinces, the WHO database was used. Iran,¹⁵ Nepal,¹⁶ and Indonesia¹⁷ were selected for the international comparisons. Aside from availability of relatively recent data, the 3 comparison countries were chosen for specific reasons: Iran because it represented a conservative Muslim country with some of Afghanistan's geographic and ethnic challenges; Nepal because it has a similar population size and difficult, mountainous terrain; and Indonesia because it is a large Muslim country with a relatively well-developed primary health care system.

For health personnel planning, comparisons of the population per staff member (bottom section of Table 5-3) revealed marked variations among the five Afghan provinces. There was a fivefold difference in doctors per 1,000 population between the best-served province (Wardak) and the least-served province (Bamyan). For mid-level health workers and community health workers (primarily BHWs)—which had been the focus of most health assistance training programs—the variations were smaller. Comparison with the SUSPLAN targets showed Wardak to be generously staffed at all three levels and Ghazni to be adequately staffed. The remaining three provinces had adequate numbers of mid-level workers, but varying degrees of deficiency in their numbers of doctors and BHWs. These comparisons were generally consistent with the views of Afghans familiar with health care services inside Afghanistan, a fact which added credibility to the SUSPLAN results.

Among the 3 comparison countries, there were also considerable variations in ratios of population to health staff. In general, however, the SUSPLAN staffing requirements for the PHC option were more conservative (i.e., fewer staff) for the three major categories of staff (doctors, mid-level workers, and community health workers).

The variations between numbers of existing facilities in each province and the SUSPLAN targets were much smaller than the variations for health personnel. With one exception, the number of hospitals in each province was quite close to the SUSPLAN requirement. The exception was Ghazni Province, in which Kabul-controlled hospitals were not included though populations who probably received services from these hospital were included (resulting in a high population-to-hospital ratio). For health centers, 4 of the 5 provinces surpassed the SUSPLAN target of 1 health center for every 30,000 people and the fifth province (Bamyan) was close to the target (1 per 37,690). Again, Wardak and

Table 5-3
Health Personnel Planning: Comparison of SUSPLAN and
Selected Afghan Provincial and International Ratios

	SUSPLAN ^a	Herat ^b	Wardak ^a	Bamyan ^b	Ghazni ^b	Takhar ^a	Iran ^d	Nepal ^e	Indonesia ^f
Number of Health Personnel									
Doctors (medical & surgical)	27	12	30	4	36	10	15,000	879	17,647
Mid-level health workers	42	47	145	36	103	44	N/A	1,773	35,679
Nurses, nurse aides	*	14	45	10	43	19	23,000	601	44,113
Midwives, assistant midwives	*						1,700	2,062	N/A
Community health workers (CHW, BIHW)	120	35	127	33	102	62	33,000*	6,808	N/A
Village volunteers (first aiders)	N/A	8	124	12	43	15	N/A	4,570	N/A
Pharmacists/pharmacy technicians	N/A	0	4	0	4	3	4,700		N/A
Lab technicians (incl. malaria)	N/A	2	5	2	6	5	N/A	289	N/A
Population (000's)	580	383	372	302	701	539	41,000	18,000	165,000
Population (000's) per Staff Member									
Doctors (medical & surgical)	21.50	31.89	12.41	75.38	19.47	53.93	2.73	20.48	9.35
Mid-level health workers	13.82	8.14	2.57	8.38	6.80	12.26	N/A	10.15	4.62
Nurses, nurse aides	*	27.33	8.27	30.15	16.30	28.38	1.78	29.95	3.74
Midwives, assistant midwives	*						24.12	8.73	N/A
Community health workers (CHW, BIHW)	4.84	10.93	2.93	9.14	6.87	8.70	1.24*	2.64	N/A
Village volunteers (first aiders)	N/A	47.84	3.00	25.13	16.30	35.95	N/A	3.94	N/A
Pharmacists/pharmacy technicians	N/A	-	93.05	-	175.20	179.77	8.72	N/A	N/A
Lab technicians (incl. malaria)	N/A	191.34	74.44	150.77	116.80	107.86	N/A	62.28	N/A

* Included with mid-level health workers

^a From PHC Strategy outputs for SUSPLAN model. ^b WHO and MSH health personnel databases, July 1990. ^c Joint SCNA-MSH Health Resources Survey, 1990.

^d 1982 data from Reviewing Health Manpower Development, 1987. WHO Public Health Papers, No. 83, Geneva. ^e 1988 data from Country Health Profile, Nepal, June 1988. Policy Planning, Monitoring & Supervision Division, Kathmandu. ^f 1983-1984 data from *Statistical Yearbook of Indonesia*. Jakarta: Biro Pusta Statistik, 1986.

Table 5-4
Health Facility Planning: Comparison of SUSPLAN and
Selected Afghan Provincial and International Ratios

	SUSPLAN ^a	Herat ^b	Wardak ^c	Bamyan ^b	Ghazni ^b	Takhar ^c	Iran ^d	Nepal ^e	Indonesia ^f
Number of Health Facilities									
Hospitals-all	2							96	1,367
Area (provincial) hospitals	0	0	0	0	0	0	24		
PHC (district) hospitals	2	1	2	1	1	3			
Health Centers-all	20	16	34	8	40	19	3,710	185,453	
Comprehensive (district) health centers	6	3	7	0	9	9	160		
Basic (rural) health centers	14	13	27	8	31	10	2,000		
Urban health centers							1,550		
Family planning clinics								258	7,509
Health posts	120	45	75	42	123	57	5,600	816	15,134
Hospital beds	20	NA	NA	NA	NA	NA	NA	4,153	110,426
Population (000's)	580	383	372	302	701	539	47,000	18,000	165,000
Population (000's) per Facility									
Hospitals-all	290.23	NA	NA	NA	NA	NA	NA	187.50	120.70
Area (provincial) hospitals	---	NA	NA	NA	NA	NA	1958.33		
PHC (district) hospitals	290.23	382.69	186.10	301.53	700.79	179.77	NA		
Health centers-all	29.02	23.92	10.95	37.69	17.52	28.38	12.67	1000.00	30.26
Comprehensive (district) health centers	96.74	127.56	53.17	NA	77.87	59.92	293.75		
Basic (rural) health centers	41.46	29.44	13.79	37.69	22.61	53.93	23.50		
Urban health centers	NA	NA	NA	NA	NA	NA	30.32		
Family planning clinics	NA	NA	NA	NA	NA	NA	NA	69.77	21.97
Health posts	4.84	8.50	4.96	7.18	5.70	9.56	8.39	22.06	10.90
Hospital beds per 1000 population	0.03	NA	NA	NA	NA	NA	NA	0.23	0.67

^a PHC Strategy outputs for SUSPLAN model. ^b WHO and MSH health personnel databases, July 1990. ^c Joint SCNA-MSH Health Resources Survey, 1990.

^d Reviewing Health Manpower Development, 1987. WHO Public Health Papers, No. 83, Geneva. ^e 1988 data from Country Health Profile, Nepal, June 1988.

^f Policy Planning, Monitoring & Supervision Division, Kathmandu. ^g 1983-1984 data from *Statistical Yearbook of Indonesia*, Jakarta: Biro Pusta Statistik, 1986.

Ghazni were found to be the best-served provinces. For basic health posts, where the SUSPLAN target was roughly one for every 5,000 people, Wardak and Ghazni had met the target, while the remaining 3 provinces needed additional posts.

As with the health personnel figures, the provincial comparisons with SUSPLAN targets showed relative oversupply and undersupply of services consistent with the subjective impressions of those familiar with the individual provinces involved. With respect to international comparisons, the SUSPLAN PHC targets appeared conservative (fewer facilities) for hospitals, roughly comparable for health centers, and more liberal (more facilities) for health posts.

For both health personnel and health facilities, the international comparisons are crude, given differences in terminology, completeness of the comparative data, geography, and population distribution. Nevertheless, they introduced an element of objectivity into the planning process. During health management workshops and in individual discussions with the AHSA and AIG health leaders, the international comparisons were useful in tempering optimistically (i.e., unaffordably) high projections of staffing and facility requirements.

Together the comparisons of SUSPLAN, provincial, and international data on personnel and facilities suggested to Afghan, humanitarian assistance, and donor staff concerned with health planning that:

- The BHW and health post ratio of 1:5,000 population, derived from early project experience and supported by the SUSPLAN PHC option, was an affordable, defensible minimum target for all districts; given the high population-to-BHW ratios in many districts, it implied continued training of BHWs in underserved areas and efforts to relocate or reassign BHWs in well-served areas.¹⁸
- The total number of mid-level workers was close to the estimated need, but considerable effort would be needed to assure their deployment to areas of need and to develop refresher training programs to foster more consistent skill levels among mid-level workers with widely varying educational backgrounds and work experience.
- The number of doctors was inadequate in many areas, but the longer, more costly training period made training of doctors a lower priority for the AHSSP as well as for most PVOs and donors.
- The health center ratio of 1:30,000 population—similarly derived from early project experience and confirmed by the SUSPLAN PHC option—was also an affordable, defensible minimum target for all districts; as with mid-level staff, the total number of health centers was close to the SUSPLAN target, but their distribution and level of service

varied widely; some districts were generously served, while other districts were being grossly underserved.

- The number of hospitals was also close to an affordable target number of hospitals in most areas, but—as with health centers—considerable attention needed to be paid to the location, operational conditions, staffing, and supply of these hospitals.

Reintegrating the Afghan Health Pyramid

By 1990, reintegrating the health pyramid was a major challenge facing Afghan health officials. Provincial surveys and comparisons with estimated needs were confirming the impression that the numbers of health facilities and health workers in many areas were close to adequate for affordable basic health care. But the available resources were not being distributed efficiently nor were they being used in an integrated, coordinated way. The myriad of humanitarian health assistance groups based in Pakistan and Iran provided different types of resources to different types of health facilities with different constraints and emphasis. “Coordination” among these groups consisted at best of communication of information such as locations of health facilities and content of training programs, and at worst of active competition for Afghan counterpart loyalty and for program sites in Afghanistan.

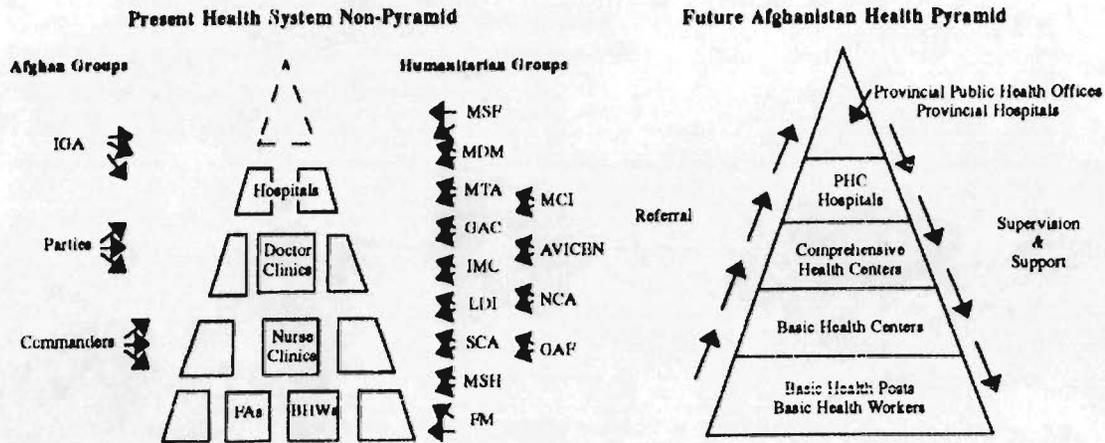
On the Afghan side, the existence of the struggling Peshawar-based Afghan Interim Government, multiple competing parties, and overlapping areas of control by individual commanders led to still less coordination, even within a single district.

The result of these two sets of dynamics was a health “nonpyramid”: two hospitals with similar capacities built down the road from each other, while other needy areas in the same province were without easy access to hospitals; referral patterns which meant transferring patients to Pakistan or Iran rather than to a nearby hospital or health center (of another party or supported by another organization); and community health workers left unsupervised because the staff or sponsoring organization of the nearest health center did not “believe in community health workers.

Achieving consensus on the definition of health facilities (Table 5-2) contributed to developing a shared understanding of Afghanistan’s future health pyramid. Yet, as illustrated in Figure 5-8, the difference between the existing nonpyramid and the future health pyramid was considerable. Furthermore, the process for reintegrating the health pyramid was far from clear.

During late 1989 and 1990, in response to the need to reintegrate Afghan health services, the concept of local health service development began to emerge. Drawing on the positive experiences of the AHSAs, particularly those of the

Figure 5-8
Reintegrating the Afghan Health Pyramid



SCNA, the basic intent was to identify a logical series of steps through which local health leaders could move from a needs assessment to the full reconstruction of the local health system. Through discussions with the AIG Ministry of Public Health and later with the AHSAs, four phases for local health services development were identified: Planning, Early Implementation, Expansion, and Complete Reconstruction (Figure 5-9). Key activities and approximate time requirements were established for each phase.

Phase I involved identifying responsible local health leaders, participating in health resources surveys, preparing a local health development plan, and achieving financial and local administrative support agreements. Phase II, Early Implementation, was to involve establishment of an administrative office, usually in proximity to the main local hospital. Health program emphasis was to be on (1) initiating a manageably small number of locally high-priority public health programs (e.g., MCH, immunization, and tuberculosis control), (2) beginning to establish appropriate local training and/or refresher training programs, (3) establishing a local supervision, support, and referral system, particularly for basic health workers, and (4) initiating health facility renovation and/or construction.

Phase III emphasized expansion through broadened public health programs, expanded training capacity, and continued renovation and construction of permanent health facilities. A key element in phases II and III was to be progressively greater responsibility for storage and distribution of drugs and other medical supplies. Phase IV represented complete reconstruction: a full program of public health activities, the full range of appropriate training and refresher courses, completion of health facility reconstruction, and administrative control over salaries, supplies, and other resources.

In part to foster the concept of local health service development, several health management workshops were held with the AHSAs and AIG provincial health officers in the latter half of 1990. The organization and content of these workshops is described in Chapter 3.

In areas in which the AIG was active, attempts to implement local health service development were organized through the appointment of Provincial Public Health Officers (PPHOs) and the establishment of Provincial Public Health Offices. Several PPHOs were appointed, provincial health resources surveys completed, and provincial health development plans written. Provincial Public Health Offices were opened under the AIG in at least 2 provinces. Despite these successes, the AIG experienced continuing difficulty in generating the necessary local support and in enlisting competent, reliable provincial public health staff. As a result, local health development did not progress past Phase II in the provinces of AIG activity.

Figure 5-9
Phases for Local Health Services Development

Phase I: Planning (three to six months; occasionally nine months)

- Identification of Local Health Leadership
- Health Resources Survey (health workers & health facilities)
- Local Health Development Plan
- Financial and Local Administrative Support Agreements

Phase II: Early Implementation (Phase I plus six to twelve months; occasionally eighteen months)

- Local Public Health Office & Core Staff
- Primary Care Hospital
- Priority Public Health & Training Programs
- Supervision, Support, & Referral System (district & community)
- Planning and Initiation of Health Facility Reconstruction

Phase III: Expansion (Phase II plus twelve to eighteen months; occasionally up to twenty-four months)

- Permanent Local Public Health Office
- Expansion of Public Health Programs
- Expansion of Training/Refresher Training Programs

Phase IV: Complete Reconstruction (After Phase III)

- Full Public Health Programs
- Full Provincial Training/Refresher Programs
- Health Facility Reconstruction Completed

In the areas administered by the AHSAs, local health service development fared much better, though in a less structured way than suggested by Figure 5-9. Even before the concept of local health service development was formalized, the SCNA had appointed responsible regional health officers, initiated priority public health programs such as tuberculosis control, and established regional training centers. The SSWA and HCCA began to develop similar organizational arrangements as a result of the health management workshops, weekly AHSA coordination meetings held in Peshawar at the initiation of the AHSSP, and greater informal exchange among the AHSA representatives in Peshawar.

Since the AHSA activities tended to span multiple provinces, organization of local health service development along strictly provincial lines—as the AIG attempted to do—did not seem appropriate. But health resources surveys conducted jointly with the AHSAs and organization of certain public health and training activities were done on a provincial basis.

Although local health service development in the AHSA areas has not systematically followed the phases outlined in Figure 5-9, the basic principles and steps have been used: provincial health resources surveys were conducted; survey results were used in health service and facility reconstruction plans; each AHSA began with a few priority public health programs; each AHSA attempted to build locally appropriate training resources; steps were taken to establish supervision, support, and referral systems; and AHSAs progressively assumed greater responsibility for the administration of supplies and other resources.

Looking Beyond the Year 2000

The health planning challenge which faced Afghanistan in 1990 was considerable: historically poor health statistics had become the worst in the world; physical and administrative infrastructures had been largely destroyed in many parts of the country and seriously damaged in much of the remainder; a large pool of health staff had been created, primarily through international assistance, but without coordinated planning; some 75 to 90 percent of the cost of rural health services was being financed directly or indirectly through external assistance; and medium-term prospects for a public revenue base were quite limited. Afghan and international humanitarian assistance and donor organizations were gradually making the transition from a relief-oriented, wartime perspective to a long-term orientation toward health systems development. Finally, the potential for a large infusion of further donor assistance during the reconstruction period raised the very real possibility of rebuilding a health system which would be unaffordable for Afghanistan in the long term.

Revenue sources were a major concern. With the largest share of funding for health services in Free Afghanistan coming directly or indirectly from external donors, with the absence of central control outside the major cities, and with the public revenue base seriously eroded by a decade of war, donors such as A.I.D. began to press for the introduction of user fees and other forms of local revenue generation. Despite the ravages of war, anecdotal data from the more stable parts of the country and more detailed data from the household survey suggested that patients could contribute something toward their health care and were, in fact, paying considerable sums for health services (mostly for drugs and the transport costs to obtain them).¹⁹

By 1990 some counterpart organizations—notably the SCNA—were beginning to discuss organized revenue generation activities such as pharmaceuti-

cal sales programs. But the immediate prospects for cost recovery programs were limited by resistance on the part of most Afghan counterpart organizations. Throughout the war externally supported health services were meant to be free to patients. The ability of a local or area leader to arrange “free” health care contributed to his local support. In the context of continued jockeying for control and influence by commanders, parties, and the AIG, it was difficult to generate support for the idea of starting to charge patients even nominal amounts. Though planning for pilot projects was initiated, large-scale implementation of such initiatives was unlikely in the absence of stable local and area leadership and control.

The other half of the sustainability equation is cost control. Given the Afghan situation, the AHSSP team placed its first emphasis on organizing planning information and guiding planning decisions in ways which would result in limited health resources being used to achieve the greatest health impact at the lowest cost. Though SUSPLAN was not used as the fingertip tool for local health planning as originally envisioned, it did help to consolidate the planning process by clarifying information requirements and by producing defensible targets for numbers and types of health workers and health facilities.

Implementing these planning guidelines involved arriving at common definitions, assembling available population and morbidity data, assisting Afghan counterpart organizations to conduct comprehensive health resources surveys, and working with the AHSAs and AIG to institute a systematic process of local health services development. Focused efforts to support the development of MCH services, immunization programs, and local training capacity (described in separate chapters) were aimed at building cost-effective primary health services. Other cost control measures taken by the AHSSP from 1989 onwards included efforts to standardize and moderate salary levels of health workers supported by AHSSP and other donor-supported projects; efforts to scale back the quantities and/or range of drugs and medical supplies provided to BHWs and health facilities; and efforts to control staffing levels at health centers and hospitals. Together these activities were intended to increase the likelihood that the Afghan health system operating in the year 2000 would be affordable—that it would have as great an impact as possible given the funds likely to be available.

Notes

1. UNICEF, “State of the World’s Children,” 1991.
2. For sources of 1985 data, see Chapter 2. Data for 1990 are from the WHO Health Resources Database, the ACBAR health sector data, and the MSH Field Operations database.

3. S. M. Amin Fatimie and Jonathan D. Quick, "Planning for Sustainability and Health Impact: Observations from Rural Afghanistan," presented at the National Council for International Health Annual Meeting, Washington, DC, June 1990.
4. Estimates of humanitarian assistance in health were compiled from the ACBAR *Directory of Members* (Peshawar, 1990), from the AHSSP budgets, and from estimates of contributions from United Nations, Arab, and other groups. For the largest programs and for most of the remaining programs, estimated contributions include only funds expended for services inside Afghanistan and do not include administrative and other support costs in Peshawar.
5. Members of the working group included the authors of this chapter; in Pakistan, the members of the AHSSP team listed elsewhere in this volume; and, in Boston, Steven Solter, Suzanne Stinson, John W. LeSar, Peter Shipp, Dick Blakney, Catherine Crone Ceburn, and Timothy Naimy.
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16. HMG Ministry of Health (Policy, Planning, Monitoring and Supervision Division) and WHO, "1988 Data from Country Health Profile," Kathmandu, Nepal, June 1988.
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Chapter 6

Immunization and the Emergence of Preventive Medicine

Paul Ickx

Introduction: The Early 1980s

Although the excitement in Peshawar and in the public mind was directed at other initiatives, the AHSSP team considered immunization worthwhile, if carried out according to the Expanded Programme on Immunization (EPI) schedule, for two reasons: first, because of the possibility of decreasing morbidity and mortality caused by the six target diseases, and second, and maybe more important at the time, because vaccination could be a gateway to other health activities for women and children. Indeed, many children died because of direct or indirect consequences of the war. Deterioration of general living conditions due to war inevitably led to a decline in general health and greater likelihood of severe complications from measles and other preventable childhood diseases.

Table 6-1 of estimated causes of death from different sources shows that, even in 1985, the year with the highest death toll due to the war, more children died from measles than from war injuries in the entire conflict.

Table 6-1
Comparison of Causes of Death, 1985

War deaths:^a	1,500,000 deaths during the period 1979-89 195,000 (13%) of these occurred in 1985 7,800 (4%) of the 1985 deaths were children under 10 4,680 (2.4%) of the 1985 deaths were children under 5
Measles deaths:^b	741,290 children were born in 1985 137,139 (18.5%) of these died before the age of 1 15,412 (11%) of the under-1 deaths were caused by measles

^a Marek Sliwinski, "Evaluation des conséquences humaines, sociales, et écologiques de la guerre en Afghanistan," Preliminary report, Paris, December 1987, Table 11.

^b World Summit for Children, UNICEF, 1990.

All these estimates have been challenged for different reasons. Other authorities on the subject consider Sliwinski's estimates of war deaths to be on the high side. Cita estimates that 23 percent of all children under five who developed measles died in Nuristan in 1987.¹

Finding a solution to the war deaths was clearly beyond the scope of the AHSSP. Focusing the attention of decision makers on the health policy and feasible interventions to reduce childhood mortality, on the other hand, was one of the program's responsibilities. Given the available information on child mortality, developing an integrated EPI component as part of a program oriented towards preventive health care seemed a good first step.

NGO Involvement in Cross-border Immunization

Cross-border health groups made several attempts at immunization from 1979 to 1986:

- AMI vaccinated 200 children in Kapisa with BCG and measles, but was interrupted by the Panjsher V offensive.
- MDM covered a population of about 80 villages in Wardak (Jaghata) and vaccinated 10,000 children. Immunizations were carried out in the villages, using an existing hospital as a base. Several attempts were made in Konar, but the lack of an existing base proved disastrous and the effort had to be abandoned.
- MSF vaccinated 20,000 children under five in Ghazni (Jaghori), an unknown number in Paktyka (Sharan), and 6,000 in Badakhshan (Teshkan, Yaftal) with BCG and/or measles, under questionable cold-chain conditions. A functioning health center, run by the same organization, served as a base for outreach and mobile campaigns.
- NCA vaccinated some 10,000 children in Ghazni (Andar) with a complete EPI schedule.

Seldom was the complete EPI schedule attempted; most activities were limited to BCG and measles. Although many children were probably protected against measles, the impact on the overall health of the population was minimal, because the immunizations were given irregularly and in widely separated areas.

Lessons Learned

Nevertheless, valuable lessons were learned:

- Though difficult, a cold chain could be maintained;
- Women were difficult to access, and for a program of larger scope, special attention would have to be given to gaining access to women for tetanus toxoid injections;
- Memories of the smallpox eradication campaign made most populations quite open to the single-shot vaccines;
- Injections were very popular, and injectable vaccines were well received;
- Multiple-shot vaccines were not easy to implement if the program depended on implementation by expatriates whose presence was intermittent;
- Even for children under five, significantly more boys than girls were presented for immunization; and
- Implementation of the immunization program was easier and more successful when linked with existing health facilities and the active, sustained support of local authorities.

By the end of 1986, several expatriate health workers were convinced by their experiences that immunization was possible, even in the war-torn country of Afghanistan. Cita's experiences in Nuristan in early 1987 proved that the cold chain could be maintained, even under extremely difficult circumstances.² Philippe Truze, a former MDM physician, created the Afghanistan Vaccination and Immunization Center (AVICEN), a PVO primarily interested in immunization, and began active work in border areas. UNICEF/Pakistan, which had contributed vaccines and supplies for refugee immunization programs supervised by UNHCR, contacted agencies with prior immunization experience to discuss the possibility of a larger cross-border effort.

Planning for the AHSSP

The basic immunization strategy was developed in 1987-88 with the active participation of four of the AHSAs. They envisioned a two-phased program: pilot immunization programs inside Afghanistan in 1988, followed by an expanded effort in 1989 that would build upon lessons learned during the first phase. The major elements of the plan were to:

- Establish an immunization unit (IU) within the AHC. This unit would have four members, one from each of the four parties. Each party would nominate one person to the unit. Two positions would be held by doctors and the other two by paramedics. Previous experience with immunization was not essential; the main criterion would be a commitment to immunization.
- Select regions inside Afghanistan for initial immunization efforts. Each of the four parties would select one region inside Afghanistan and would then choose one province in their region in which to begin an immunization program.
- Train vaccinators. Each party would select six persons to be trained as full-time vaccinators. Training would last two months: approximately six weeks of didactic training in Peshawar, followed by two weeks for the actual implementation of an immunization program in the refugee camp area or an accessible area inside Afghanistan.
- Seek technical assistance. AVICEN was selected to train and transfer training and management responsibilities to the AHC immunization unit and the AHC training center staff.
- Prepare a field operations manual for immunization. The manual, incorporating the content of the vaccinator training, would be prepared to provide a clear, comprehensive, standardized guide for implementing the AHC immunization program inside Afghanistan.
- Estimate the target population inside Afghanistan. A realistic estimate of the target population requiring immunization services and the quantities of vaccine required, as well as an estimated budget, would be required.
- Order vaccines and equipment. Before Phase I of the immunization program, sufficient quantities of vaccine would need to be ordered for timely arrival. Cold-chain equipment, both for storage and for mobile use, and immunization supplies (syringes, needles, and sterilization supplies) would also be ordered.
- Conduct surveillance of immunizable diseases inside Afghanistan and monitor the immunization program. Disease surveillance and monitoring of the program's effectiveness, difficult but important components of the immunization program, would need to be worked out.

- Distribute iron and folic acid and establish a link to MCH. Vaccination should draw the attention of the local community and health workers to the broader issues of women's and children's health care.
- Involve UNICEF. To avoid duplication of efforts, it would be in the interest of the program to maintain regular contact with UNICEF. Since UNICEF supplied vaccines to other organizations conducting vaccination inside Afghanistan, UNICEF could also provide the vaccines for the cross-border program.

The Program with the Ministry of Public Health

From the beginning, the AHSSP was preoccupied with developing the technical capacity of counterparts to run EPI programs inside Afghanistan. The first step would be the establishment of the IU within the AHC to train vaccinators, select feasible target areas, and implement and supervise immunization activities in the field.

Putting together a group of technically qualified people took months. The AHC High Council was first preoccupied with "mass vaccination of all children in Afghanistan." For that purpose their very first requirement was "at least twenty pickups." Once convinced that at least in the Phase I no pickups would be needed, the council turned its attention to the composition of the proposed IU. The suggested IU quickly became a Preventive Medicine Department (PMD), which would also deal with tuberculosis and malaria control. Therefore, the council decided on seven positions: a director, deputy director, training manager and assistant manager, logistics manager and assistant manager, and field operations manager.

For the first year, the PMD was lodged in the same building as the Training Center, which enabled its members to profit from their colleagues' experience with BHW training.

Selection of Vaccinators

The first task of the newly (and only partly) formed immunization unit was the selection of 24 vaccinators, 6 from each party. The High Council had assigned to each party regions from which candidates could be selected. The regions, especially the actual districts selected for implementation, reflected the parties' influence well. In total, 80 candidates were presented. An entrance test was administered to assess the basic knowledge of the candidates. A personal interview was then scheduled for each candidate in order to assess the likelihood that he would go into Afghanistan to work. As a rule, only candidates whose family was living in the selected province were considered eligible, a require-

ment which reduced the pool of candidates by 63 percent. From this pool, 24 candidates were selected, based on the results of the written entrance test.

This rather lengthy procedure served a dual purpose. First, it narrowed possible candidates down to people with a personal interest in seeing immunization services delivered to the target province. Some officials of the training center criticized the process as unfair treatment of Peshawar-based candidates with good education and high entrance test scores. However, the IU contained a few people who had attempted cross-border work before with other organizations, and they defended the preliminary selection as valid. IU personnel evaluated the selection process and concluded that it represented an acceptable way of eliminating those unqualified candidates imposed on the IU by patronage.

Second, selection involved detailed discussions on the situation in the target areas with candidates who had recently come from these areas. These discussions allowed the IU staff to obtain a more realistic and less pessimistic appraisal of the possibility of implementing immunization services inside Afghanistan.

At the beginning, IU staff presented numerous reasons why it would be impossible to immunize inside Afghanistan: all roads were blocked by government forces; travel had to take place by night; the countryside was in the hands of bandits; all educated people had left the country, so those left behind surely lacked the intelligence to understand vaccination; and once back in the country, nobody would be able to control the vaccinators, who were suspected to be likely to rob or kill any supervisor who would accompany them.

At the end of the selection process, the IU staff was convinced they should at least try to train the vaccinators. Their contact with the candidates also offered an opportunity to reassess their view of the situation inside Afghanistan.

Training of Vaccinators and Managerial Staff

The curriculum for vaccinators was based on available WHO guides and adapted to the Afghan situation by AVICEN. AVICEN staff and IU staff worked together for the first class of 24 trainees. Using AVICEN's training capacity seemed the most feasible way to train and field a first class of vaccinators rapidly, upgrade the IU staff's knowledge of different aspects of EPI rapidly, maintain a standardized curriculum on EPI training, and establish a working relationship between the IU and another major player in cross-border EPI.

The curriculum contained almost all the topics recommended by WHO for training of vaccinators. Given AVICEN's choice of a completely mobile strategy, cold-chain maintenance and logistics were emphasized, to the detriment of health education. After the first session, P.M.D. decided to add an introductory week to refresh future candidates on the Latin alphabet (which is necessary to read labels on the vaccine vials) and mathematics. Less emphasis was put on theoretical and clinical knowledge of immunity and target diseases.

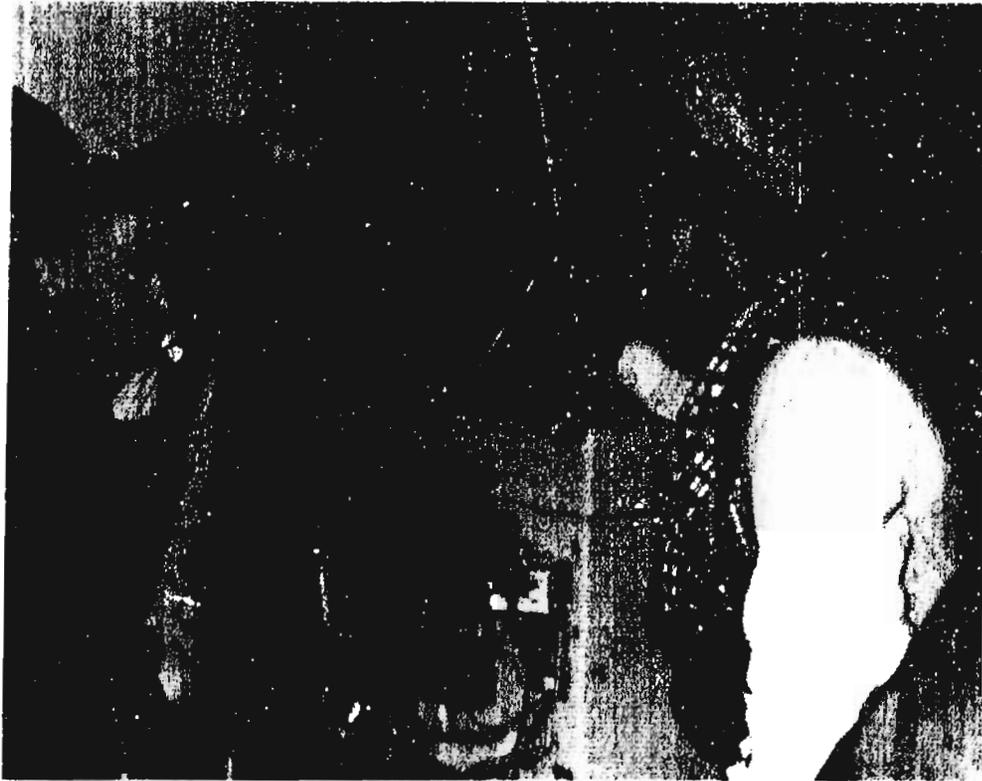


Figure 6-1: Refrigerator maintenance. BHWs train to keep vaccine storage units operating.

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In 1989, the PMD temporarily hired female vaccinators. It had been difficult to vaccinate women and small children in the camps during the trial sessions, and the presence of female vaccinators facilitated access to these groups. These women also taught the practical sessions on different injection sites, especially the technique for BCG injection. It always provoked wonder for the inadvertent class visitor to see veiled women actually teach a classroom of very attentive bearded mujaheddin how to give an intradermal injection. This setup was never advertised publicly, in order to avoid retaliation against the women concerned, as well as against the PMD.

By December 1991, four classes, with a total of 122 vaccinators, had completed the training course. Of these, 115 were fielded as vaccinators inside Afghanistan.

Immunization Strategies inside Afghanistan

Different strategies can be used to bring vaccines to target groups. All are valid in certain circumstances, and all have advantages and disadvantages. All have been or are in use inside Afghanistan.

The Mobile Strategy

The mobile strategy seemed well adapted to the situation in Afghanistan, and some claimed it was the only possible way to immunize in Afghanistan. A vaccinator will depart with his stock from a central vaccine store (in Peshawar) to a selected target area and vaccinate all children and women belonging to the target population. The reasons invoked to defend this approach include:

- Moving around prevents the vaccination team from becoming an easy target for military action;
- Remote villages are included in the immunization effort;
- All villages covered once can be scheduled methodically for follow-up visits;
- Rough population estimates can be made by the vaccinators;
- Mobility prevents the vaccination team from becoming the property of one political entity;
- The vaccinator goes to the people instead of asking people to come to the vaccinator; and

- Quality control is guaranteed, since planning and evaluation takes place in the central office and supervision is centralized (in Peshawar in this case).

This strategy mistakenly assumes that no organized health structures, used and trusted by the population, exist in Afghanistan. A disadvantage of this strategy is that it tends to deny the possible interaction between different components of a health system, by isolating EPI. Another assumption is that efficient power structures and solidarity networks exist only on a very local basis in Afghanistan, and that the only pattern of interaction between different local solidarity groups (political entities) is competition.

Another disadvantage of this strategy is that the mobility of services increases the number of "missed opportunities," since immunization is only offered when the vaccinators are in the village. The safety of moving around is also relative: heaviest casualties throughout the war were encountered by people on the move. Mines are usually found on passes and roads used by the resistance. Known to the local population, they would be most dangerous for the people passing through who would be unaware of their location. Helicopter patrols in the mid-1980s would assume that any travelling party of more than two people was "the enemy," and any bulk transport (e.g., cold boxes), a possible weapon, and thus would try to destroy them.

Remote villages should be included as much as possible. But in the fishbone valley structure, found in large parts of the liberated areas, population tends to concentrate in the main valleys. It makes sense epidemiologically to obtain good coverage in the densely populated valleys first, thus providing partial protection to the mountain villages by cutting the natural route of transmission.

Quality control is assured as long as a central office exists, but centralizing all program decisions tends to diminish the sense of responsibility of the local workers and population for the quality and the continuation of the program.

Regarding cost-effectiveness, mobile vaccinators spend much of their time in travel, during which no or very little immunization takes place. Special transport is required, and the cold chain becomes more difficult to maintain.

The Fixed-Point Strategy

In a strategy combining a fixed point and outreach sessions, immunization is offered in a local health center, either daily or on fixed days in the week, and the local vaccine stock is replenished from a central store. This approach has several advantages.

- The cold chain is easier to manage;
- EPI is integrated with other services;

- Existing clinical and administrative staff can be used part-time for EPI activities; and
- Supervision can be exercised within the existing supervisory system for the facility.

The limiting factor is that access to EPI is linked to the accessibility and popularity of the facility. The advantages mentioned above correspond to the degree to which the facility is integrated into a health system.

Outreach activities can be organized at regular intervals to vaccinate people living in the catchment area of the facility who do not use the facility regularly. Although additional staff is not necessarily needed, outreach is time-consuming if it is carried out by the clinical staff and complicates cold-chain maintenance and supervision. In localities where MCH clinics train dais and in Basic Health Centers where the pilot Volunteer Health Sister program operates, outreach can be done more cost-effectively by village women.

Knowing the existing Afghan health facilities and personnel, the AHSSP opted for linking all EPI activities to these existing facilities as much as possible. By using the fixed-point and outreach strategy where feasible, we hoped to:

- make immunization services available year-round;
- change the focus from cold-chain maintenance (overemphasized because it is very difficult in a mobile strategy) to PHC components like community involvement;
- employ more female vaccinators, since they would not have to travel much;
- improve access to the younger age groups; and
- involve already existing health personnel in EPI, in order to cut costs.

Implementation of this strategy proved too difficult for the AHC and MOPH, however. The main inhibiting factor was the absolute lack of technical coordination between the PMD and the MOPH's Health Services Development unit, although, on the training side, reasonable cooperation existed with both IPH and MCH. At the time, with few exceptions, most EPI activities of the MOPH were implemented through the mobile and outreach strategy. The AHSAs would prove more successful in integrating EPI with other services.

A Protocol for Immunization

UNICEF had cautiously started cross-border activities from Peshawar in 1987. With the then-limited number of counterparts (AVICEN, MDM, MSF, NCA), UNICEF coordinated discussion on a protocol for immunization.

UNICEF opted for IPV in combination with three other antigens. There were several reasons:

- IPV requires only two shots for acceptable seroconversion of polio, thus limiting the number of visits necessary;
- OPV was, at that time, considered very instable;
- IPV was less bulky to transport, and transportation costs across the border were a major cost; and
- DPTP could be used as a solvent for freeze-dried measles vaccine, thus further reducing the bulk for transport.

The available combination of DPTP is very expensive, which is not much of an issue for small pilot programs but can become prohibitive in larger programs. By focusing on the eradication of polio by 2000, the need for a third dose for efficient protection against whooping cough was not considered a priority in the start-up phase.

To convince policy makers that cross-border programs were possible, UNICEF needed to demonstrate that a proper cold chain could be established from across the border; that it was possible to vaccinate a large number of children quickly; and that a team of Afghan vaccinators able to immunize cross-border was available.

The target age group for children was set at all under five year olds, not for epidemiological reasons, but to ensure large numbers of available children and to focus on child health, which was a priority of the local population. After a short pilot phase, this age group was to be changed to under two year olds.

Epidemiologically, it does not make sense to vaccinate older children. Some of them will seroconvert due to vaccination, but after one year of age the percentage still susceptible declines rapidly. In sparsely populated areas, as is the case in large parts of Afghanistan, it makes sense to vaccinate up to two years, because first contact with childhood diseases may occur later than in densely populated areas.

Early in 1989, the AHSSP suggested that UNICEF re-evaluate age groups and the expensive DPTP vaccine. Other implementers objected, and AVICEN claimed to have the necessary epidemiological data to maintain a general policy

to vaccinate all children up to age five. These data were presented to the forum only in late 1991. The reasoning was based on a study of a measles epidemic in a remote and scarcely populated part of Afghanistan. Since 50 percent of the children in the study had contracted measles at the age of five or older, it was concluded that all children up to five years old should be vaccinated.

The arguments of the AHSSP, and later of UNICEF and WHO consultants, that younger children are most threatened by severe complications of childhood diseases and that global EPI policies were developed based on experiences in countries as difficult to operate in as Afghanistan, were criticized as "politically suspect." The findings of Cita in Nuristan, a comparable remote area in Afghanistan, were conveniently considered irrelevant. She shows that 86 percent of the measles cases occurred in children two years of age or older, but that case fatality dropped from 36 percent for the under-twos to 19 percent for the children between two and five, and to 6 percent for the children older than five.³

Another argument for vaccinating older children was the pressure exerted by the local population on the vaccinator to do so. The argument that it was up to the vaccinators to convince local populations of the importance to focus on lower age groups was judged as "lack of knowledge of Afghanistan" and "lack of respect for the position of the Afghan vaccinator."

A lesson to be learned here is that, although deviation from health policies recommended worldwide may be made on an exceptional basis, several precautions should be taken:

- Detailed documentation should be given as to why the deviation was deemed necessary;
- Key indicators should be identified to urge reassessment of the factors that necessitated the exception; and
- An explicit timetable should be set up to reassess the factors that influenced the exception.

Standardized Equipment

Contrary to the confusing picture offered by the different strategies for immunization, the equipment used in the cross-border effort had already been standardized. The early implementers relied on UNICEF for cold-chain and injection equipment and used each others' positive or negative experiences with the equipment to develop a standardized equipment list, adapted to the conditions of weather and transport in Afghanistan. The AHSSP's counterparts had no difficulty in accepting the standardized equipment, since it had proven reliable.

AHSA Development of Immunization

In 1988, the AHSA requested support for immunization activities in the regions under their control. Implementation was difficult because of the distance of the proposed target regions from Peshawar: MOPH target areas were, on average, 400 kilometers from Peshawar, and were accessible by a few days' trip by car. However, most of the proposed AHSA target areas were more than 600 kilometers from Peshawar and necessitated travel by foot and on horseback, over rugged mountain ranges of 2,000 meters, for ten to twenty days.

These difficulties were discussed with the AHSA representatives, and a new strategy was developed. Vaccines would be transported and stored in bulk in vaccine storage facilities (VSFs) in the target region. Cold-chain managers, able to transport and store the vaccines under good conditions and to maintain and repair the refrigerators, would be trained for each VSF. At least one cold-chain supervisor in each VSF would be in charge of stock management. One person would coordinate EPI activities carried out by health centers run by the same organization, as well as all outreach and mobile campaigns. The AHSA would firmly commit itself to using, to the extent possible, BHWs, BHCs, and CHCs to offer EPI services.

The AHSA differed in one important aspect from the AHC of 1988: they had the beginning of a pyramidal health system (BHWs, BHCs, CHCs, and rural hospitals) that had logistic and supervisory structures. It would thus be possible to build on what already existed, and to integrate EPI with other health services from the start. With the transformation of the AHC into the MOPH of the AIG, this difference was unfortunately accentuated.

The more complex training in management of the cold chain that was necessary for the specialized personnel of the VSF was supervised by Mr. Laboucheix, an expatriate consultant with extensive field experience. At the same time, MSH staff's experience with the cold chain was upgraded so future training could be offered to counterparts without external help.

Planned VSFs were linked where possible with existing or planned administrative centers and medical warehouses of hospitals that had administrative staff. The storage capacity of the VSF was calculated using the best population data available at that time (see Chapter 10 on MIS). By the end of 1989, two VSFs were implemented, one in Taloqan, Takhar (the administrative center of the SCNA) and one in Behsud, Wardak (with the Health Committee for Central Afghanistan). The logistics were difficult, involving bulk transport of tens of thousands of vaccine doses, plus the necessary refrigerators and cold boxes to maintain the cold chain, and also supplies for the immunization sessions and record keeping and reporting.

It became clear that this strategy had been underestimated, at least in the areas where the EPI activities could build on strong logistical and administrative

support: many more people could be covered by the combined strategy approach than originally anticipated. This realization put the AHSSP in an awkward position regarding vaccine supply. A.I.D. had prohibited the purchase of vaccines with program funds, reasoning that the American government had already contributed to UNICEF to cover all the vaccines that the AHSSP needed. But the UNICEF Afghan Program Office was run on earmarked money, channelled through UNOCA, and was unsure of how much it would have at the beginning of each program year. Donors were disappointed with UNICEF's inability to provide encouraging progress reports, and by the time the AHSA was ready to expand rapidly, UNICEF claimed not to have the money available to cover all of the AHSSP's vaccine needs. For two years the natural expansion of the program with the AHSA's suffered from a lack of sufficient vaccine to cover the proposed target populations. In fiscal year 1992, A.I.D. granted permission to procure the additional vaccines needed beyond what UNICEF could provide.

The difficulty of producing timely progress reports on immunization to satisfy donors requires explanation. First, A.I.D.'s fiscal year runs from October 1 to September 30, and yearly work plans are prepared and agreed upon for these time periods, whereas UNICEF/APO's project year is the same as a calendar year. Consequently, activities proposed and accepted by A.I.D. need to be proposed to UNICEF for vaccine supply three months later. The problem was greatly compounded by UNICEF/APO's uncertainty of funds. For example, in 1990 it became clear only in April that UNICEF would not be able to provide the vaccines which were necessary for the work plan submitted to A.I.D. in September 1989 and which UNICEF/APO had indicated it would supply.

A closer look at the stages involved in a planning-implementation-evaluation-reporting cycle also explains the lag time in reporting on EPI:

FY1	July-June	Plan for next year's activities with counterparts.
	September-October	Obtain A.I.D. agreement for proposed work plan.
	November	Draw up order requests for cold-chain equipment and other supplies.
	December	Submit proposed EPI work plan to UNICEF to obtain vaccines.
FY2	April	First vaccines arrive.
	August-October	Mountain passes open for supply of VSF.
	September	Planned EPI activities can start.
FY3	March-April	First reports on the activities planned in July of FY1 arrive.

This schedule makes it extremely difficult to report readily on the numbers of fully immunized children (FIC), a common measure of impact and cost analysis. In order to estimate possible impact and probable costs, the AHSSP used numbers of doses shipped inside as a counting unit. The number of doses, minus normal waste, divided by the total number of doses a FIC should get, gives a theoretical value for the number of FIC. A.I.D. was flexible enough to accept this reporting method for EPI activities during the start-up and expansion phases.

Vignette: A Year in the Life of Cross-border Vaccination

The activities planned in 1989 took place in the winter of 1990-91. Plans had been made to vaccinate in a total of 34 districts spread over 13 provinces. During the planning process, UNICEF had assured the project that it could cover all its vaccine needs.

When the final version of the agreement was signed in April 1991, only 70 percent of the vaccines requested were to be contributed by UNICEF due to a lack of funds. WHO proposed to fund the remainder through a donation to UNICEF. Bureaucratic misunderstandings and unresponsiveness at different levels left the AHSSP with only two-thirds of the planned vaccines by September 1990. Their counterparts, however, had started vaccinating with the expectation of receiving the additional one-third of the vaccines. This situation left most VSFs with one supply less than planned.

In addition, one NGO, suspecting a batch of tetanus toxoid vaccine to have been frozen, distributed leaflets to all EPI implementers that implied that the suspected vaccine was potentially lethal. The uproar in Peshawar was rapidly quieted, but some of the leaflets found their way to commanders in Takhar Province, where the population refused further TT vaccine.

The VSF in Zendajan was bombed and destroyed by the Kabul government on May 5, 1990. Though little vaccine was still unused, all cold-chain equipment, registers, and reports were burned. The costs to the children who could have been vaccinated were not taken into account.

Assessment of Coverage

Although UNICEF's target age group was all children under five, the AHSSP encouraged its counterparts to focus on children under two. For all antigens, more than 60 percent of the fully vaccinated were under two. In order to evaluate achievement, the figures for vaccinated children are listed next to the number of children to be vaccinated for each antigen in Table 6-2.

Table 6-2
Numbers of Vaccinations for Different Antigens

Antigen	Age	Target	Coverage
BCG	< 2	51,200	46,184 (90%)
Measles	< 5	119,147	92,055 (77%)
DPTP1	< 5	83,390	101,146 (121%)
DPTP2	< 5	83,390	27,838 (33%)

The uncertainty about the population estimates, claimed to be underestimated by those in charge of EPI in the area, and the nonarrival of planned vaccine quantities account to a great extent for high dropout rates for DPTP. Preliminary results for 1991 in the same area point to a probable dropout rate of 25 percent or less, again with interference from the nonarrival of one vaccine supply, this time due to a travel ban. It is difficult to assess the quality of the management of the program when factors beyond the control of the actors are so disruptive.

A household survey in Kalafgan (Takhar) and villages of Zardalu and Darae Sufla gave results that confirmed these impressions. The percentage of all under-fives who were vaccinated with at least one antigen was reported to be 93. Ninety percent of the children under five had filled-out immunization cards. The cards showed that 90 percent were vaccinated with DPTP1, 41 percent with DPTP2, and 67 percent with measles. The difference in coverage between measles and DPTP1 is attributed to underestimation of the target population. More accurate tools will be required to assess overall coverage.

Coordination and Lack of Coordination

Strange as it may seem for such a circumscribed activity, the cross-border immunization effort suffered from lack of coordination among different donors and among implementers in Peshawar. Several factors explain but do not excuse the climate of suspicion and distrust within the EPI community in Peshawar. The absence of WHO until 1990 as a valid and readily available source of standardized policies regarding EPI and the failure of UNICEF to find experienced senior staff for its cross-border office left a leadership vacuum. Some donors funded cross-border EPI with irregular ("emergency" or "earmarked") funds that needed to be spent quickly and by identified implementers which, combined with a limited implementation capacity in the early years, put several donors in a competitive position. The uncertain funding position of some major foreign EPI implementers, combined with the employment of short-term expatriate staff, who

sometimes had no experience in EPI, also created a setting where coordination was seen by most as "more work" that might lead to loss of credit for results. Most implementers were expatriate committees, with no activities in any other country but Afghanistan and with other established humanitarian activities in certain areas of Afghanistan; some implementers saw both EPI and their given area (geographical, political, ethnic) inside Afghanistan as "private territory". Moreover, a territory they neither completely occupied nor successfully controlled regarding EPI led to aggressive attitudes to any perceived interference.

As a result, any questioning of the process on epidemiological or cost-effectiveness grounds, was considered to be based on ulterior (political) motives. The Afghan counterparts of the AHSSP were neglected as either nonexistent or labeled as puppet organizations set up for political gain by foreign agencies, without any authority inside. U.N. agencies felt understandable reluctance to take anybody but the U.N. chair as a counterpart. Less understandable was the animosity of several expatriate NGOs towards indigenous organizations that could have facilitated their work in the field.

Until 1991, coordination was the main topic of the bulk of the meetings in Peshawar, but the only practical coordination took place locally in areas of Afghanistan that had reasonably functioning health administrations, and where the actions of Peshawar-based "free agents" were constrained either in geographic coverage or in operational scope to fall within the region's health policy.

Despite the difficulties in assuring steady vaccine supply and obtaining coordination in Peshawar, by 1991 the AHSSP supported seven VSFs in seven of the provinces that were difficult to access from Peshawar, and for that matter, from Kabul as well. The facilities were run by a competent staff able to calculate vaccine needs on the basis of population, to transport and keep vaccines under reliable cold-chain conditions, and to function within a local or regional primary health care system. Even if coverage is difficult to evaluate, the setup came close to the original plans of the program's EPI component and certainly had the potential to remain an integral part of a primary health program in those regions.

Control of Diarrheal Disease and Acute Respiratory Diseases

From the start of the program, BHW training paid significant attention to adequate treatment of diarrhea in children. BHW assessment teams focused on prescription behavior, and based on their impressions, ORT was included in the BHW refresher course. Table 6-3 compares patient visits by children under 5 years old: a 5 percent sample of over 320,000 visits in fiscal year 1989, recorded by BHWs; a 10 percent sample of 150,000 visits in calendar year 1990, recorded by mid-level and senior health care providers from CMC member groups; and a 5 percent sample of 34,000 visits in fiscal year 1991, recorded by mid-level and senior health care providers of the MOPH and the SCNA.

Table 6-3
Treatment of Diarrhea in Children

	Facility		
	BHW	CMC	AHSSP
Total children under five	1,083	2,246	482
Diarrhea and dysentery	33%	32%	35%
treated with ORS	81%	54%	29%
treated with antibiotics	27%	79%	70%
treated with antidiarrhetics	0%	0%	0%
Simple diarrhea	10%	24%	15%
treated with ORS	56%	17%	27%
treated with antibiotics	17%	84%	46%
treated with antidiarrhetics	0%	0%	0%

Diarrhea is recorded as a problem in one-third of all patient visits. BHWs tend to be more inclined to treat diarrhea with ORS, and less inclined to use antibiotics than the other groups of health care providers. In all three samples, "simple diarrhea" is a minority of the diarrhea cases. The available material did not allow us to assess whether this is due to an overdiagnosis of different types of dysentery, or to an attitude that children with "just a little diarrhea" were not sick enough to call upon a health worker. Nor is it possible to assess the quality of the ORT given: one can only conclude that the link between diarrhea and ORT is probably made more frequently by BHWs than by other health workers because of the very limited pharmaceutical arsenal of the BHW.

In December 1990, WHO and UNICEF organized a joint workshop with all agencies active in CDD, ARI, EPI, and MCH. The resolutions of the workshop led to a plan of action for CDD: promote the use of ORS by all cross-border health workers, promote the availability of ORS nationwide inside Afghanistan, and promote the establishment of ORT corners in existing health facilities.

In order to achieve these goals, WHO, UNICEF, and MSH planned CDD workshops for senior Afghan health workers. The logic behind the selection of this target group was that obviously BHWs and a lot of the Peshawar-trained mid-level health workers were using ORT reasonably well. It was therefore important to convince more senior health personnel, in charge of the first referral level and training or refresher training of the health workers, of the therapeutic and preventive value of adequate ORT.

Dr. Abdul Latif and others actively stimulated the organization of three joint workshops in 1991, two in Peshawar in March and August, and one in Quetta in April. Many of the participants had never rehydrated a child themselves. All participants from the AHSA requested that the workshops be repeated in their training centers inside Afghanistan, to reach a wider audience, but the ban on travel prevented the organization of any workshops inside Afghanistan in fiscal year 1991.

To establish ORT corners in health facilities inside Afghanistan, a program with UNICEF was planned for 1992, but by February it became clear that UNICEF would not have the budget to implement its part of the program and supply standardized one-liter jugs for all families in the catchment area of the facilities.

As for ARI, much attention was given in the BHW training and the respective refresher course to match standardized diagnosis and treatment of ARI with the WHO guidelines. In the senior health management workshops, the fact that BHWs were able to diagnose pneumonia without stethoscopes was stressed. In all refresher courses, attempts were made to have case definition, diagnosis, and treatment concordant with the latest WHO guidelines. Nevertheless, further analysis of the same Greenbook samples analyzed for diarrhea in Table 6-3 shows clearly that different definitions were used for the different ARI diseases by different agencies, which makes comparison impossible.

Tuberculosis

The estimated prevalence of 10 percent in 1971 and an estimated 3.53 percent incidence of new TB infections in 1982 among children of school entry age confirm the popular claim that tuberculosis is one of the major health problems in Afghanistan.⁴ The requests for control programs inside Afghanistan were multiple. After consulting with Italian Cooperation for Development, in charge of the Tuberculosis Control Program for the Afghan refugees in Pakistan, the team did not think feasible anything other than selected sites for correct diagnosis and treatment of primarily patients who tested positive.

Still, adequately screening suspected TB cases with sputum smear-microscopy is worthwhile. While only about 10 to 20 percent of the infected persons actually develop the disease, of all persons developing the disease, 70 percent will not heal spontaneously. Of all detected cases, 50 percent are positive in sputum-smear microscopy (BK+). Since the BK+ are the ones that infect others in the community, the sooner they become BK-, the less they will spread the disease. A good field laboratory with a competent lab technician will detect close to 100 percent of all BK+ after three examinations per case. Radiography and expert radiologists are necessary to diagnose a BK- case as a tuberculosis

patient, and five false positives will still end up being treated for every real tuberculosis patient.

Concern about supervision and continuity of care led to four conditions for establishing a diagnosis and treatment center: (1) the facility has to have been active for at least two years; (2) one, and ideally two, microscopists with the necessary equipment and supplies have to be permanently available; (3) one M.D. must be in charge of the program to ensure proper clinical assessment of the disease and the side-effects of the treatment; and (4) samples of the slides must be sent regularly to Peshawar for cross-reading by the referral laboratory of the WHO.

Six months of treatment with isoniazid (H), pyrazinamide (Z), and rifampicin (R) in a two-month intensive phase and H+R in a four-month follow-up was chosen. This treatment is rather expensive, but on a small scale and under the given conditions, the shorter the complete treatment, the less likely a patient is to dropout. Replacing the rifampicin with thiacetazone in the follow-up phase would allow drastic reduction of costs if the program were expanded.

As in many small-scale pilot programs, results were encouraging: good quality of lab readings; low dropout rate of the patients who started treatment; and rapid conversion to BK—once the treatment was started. The difficulty was ensuring patient compliance for the full treatment. This was achieved by close follow-up of a relatively small number of patients. The challenge in the near future, if funds for expansion are available, will be to set up a consolidated referral and supervision system, allowing BHWs to refer all suspected cases for diagnosis and follow up on all patients under treatment in their community.

Benefits of the Preventive Medicine Program

As we have seen, immunization in the Afghan cross-border setting was controversial. Where EPI was implemented as a single intervention, not simultaneously with other child survival activities and not integrated into an existing indigenous primary health care network, one could question whether any important impact on the child mortality could be expected.⁵ Within a primary health care program that contains other child survival activities and is supported by local and regional authorities, an EPI component can be a valuable intervention because of its positive interaction with other child survival activities, its possible function as a "sensitizer" of the community to children's and women's health, and its function as a motivator for rational planning in general.⁶

The individual benefits for those vaccinated and treated were clear. Less easy to perceive, let alone to quantify, was the benefit to the managerial capacities of the health personnel involved in the process of planning, implementing, and evaluating the programs described above. Most of the personnel had no or limited experience as managers, and certainly not in a decision-making

capacity. Most of them had a sound knowledge of the medical background of the problems tackled, often in contrast with the Peshawar expatriate crowd. But suddenly they had to make decisions on the optimal use of limited financial and human resources, that could possibly benefit several million people.

Determining which interventions were feasible, and to what degree, in the absence of a recognized central government, but under the immediate pressure of a needy population and local or regional politicians proved to be a major challenge. But it provided an opportunity to introduce the use of rudimentary health information systems (see Chapter 10) at lower levels than the national level. It also showed the importance of considering the interdependence of different health interventions, the interaction of available general resources and logistics with targeted health interventions, and the need for baseline data in order to make decisions that were not only rational on paper, but also had a reasonable chance of being implemented. One of the fascinating aspects of working in the cross-border setting was to be able to exchange knowledge and experience with health managers who were close enough to the implementation of plans to be directly accessible to the intended beneficiaries.

Notes

1. Kathleen R. Cita, "Report of a Vaccination Program in Nuristan," 1987.
2. Cita, "Vaccination in Nuristan," pp. 8-10.
3. Cita, "Vaccination in Nuristan," p. 32.
4. U.S. Office of International Health, *Syncretism: The Dynamics of Health, XXIV: Afghanistan* (Washington, DC, 1978), Table 5, p. 26; and World Health Organization, *EPI-Update: Childhood Tuberculosis and BCG Vaccine* (Geneva: August 1989).
5. Susan B. Bifkin and Gill Walt, "Why Health Improves: The Issues concerning Comprehensive Primary Health Care and Selective Primary Health Care," *Social Sciences and Medicine*, Vol. 23, No. 6, 1986, p. 563; and Henry Fitzroy, André Briend, and Vincent Faveau, "Child Survival: Should the Strategy Be Redesigned? Experience from Bangladesh," *Health Policy and Planning*, Vol. 5, No. 3, 1990, p. 232.
6. Gerald T. Keusch, Carla Wilson, and Richard A. Cash, "Is There Synergy among the Interventions in the GOBI-FFF Programme?" in *Child Health and Survival: The UNICEF GOBI-FFF Program*, Eds. Richard A. Cash, Gerald T. Keusch, and Joel Lamstein (London: Croom Helm, 1984), p. 113.

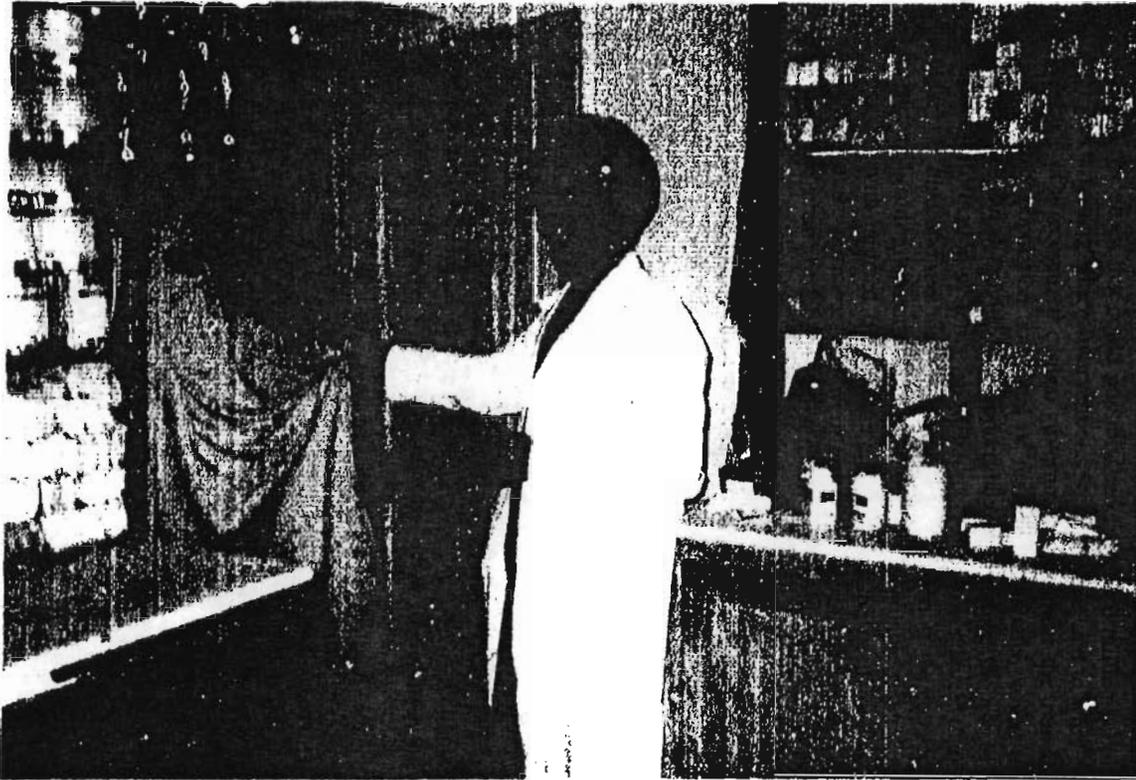


Figure 7-1: Dispensary. The client end of the basic pharmaceuticals supply system.

Chapter 7

The Development of a Health Program for Women and Children

Linda Tawfik

Vignette: The Mullah's Message

The following text, from a flier—"Fetwa of United Ulema of Afghanistan" (Consensus and Declaration of Religious Scholars)—distributed throughout Peshawar during the summer of 1989, describes women's roles and rules governing their behavior in Afghan society:

Verses of Quran and Hadith say that lack of education can mislead as well as lead to imitation of foreign ideologies. Religious scholars believe that education is obligatory for man and woman. But the method of learning in the case of woman is different, in that she must protect her honor and decency, as well as keep herself covered while studying. A woman should learn from people who are not strangers to her, such as family members, in the environment of her home. If such a possibility does not exist, she can learn from strangers provided she is in the presence of her family and the stranger does not see her. Purdah and decency is a must for a woman. If a man allows his wife to go out unnecessarily, both he and she will be sinned [sic]. A strange man is not allowed to see a strange woman, and vice versa. A woman must stay in her home and/or tent and preserve her inner/outer appearance. If she needs to leave her home for some reason, she should follow the directions listed below:

No perfume; no beautiful, eye-catching attire; no soft/clinging clothes; no tight clothes; the entire body should be covered; no men-like attire; no infidel-stile [sic] clothing; anklets should not jingle; no provocative walking; no walking in the middle of street; no going out without permission from her man; no

talking with strange men; when talking according to religious sharia, no laughing; no looking at strangers with passion; and no association with men.

Belief is that a woman cannot go to the mosque alone to offer namas prayer. In general, it is not permissible for a woman to go out to school. It has been proven that schools have not taught women religious rituals; nor have they corrected their wrong actions. All outside work has been given to the man, and man provides for the woman. Learning subjects such as history, geography and English is imitation from foreigners. A woman's participation in social life is not right, since 90% of men are unemployed, therefore, there is no need to give women jobs. Reading and writing for women is not desired because if they learn how to read and write, they will communicate with those that they wish to be friends with.

We declare that women, without necessity, do not have the right to go out in the public and the schools. We ask the leaders to forbid Moslem women, according to the sharia texts, to go to the schools. If this action is not taken, the success of Jihad will turn to failure and we will face harsh problems. . . . If corrective action is not taken and women still go out and show themselves, we will be forced to take action ourselves.

The Environment for Women's and Children's Programs

Establishing health services cross-border is extremely challenging, but the constraints to providing health care for women (and therefore their children) inside rural Afghanistan are even more formidable. Mujaheddin could travel back and forth between Afghanistan and Pakistan to collect medical supplies and participate in medical training programs, but rural Afghan women, bound by the rules of purdah (literally, "veiled"), were generally restricted to their compound walls. It was highly unlikely that any Pakistan-based Afghan refugee women would be willing to travel back to war-torn Afghanistan to teach other women about childhood diarrhea and its treatment, proper weaning practices, or sterile deliveries. Given traditions that prohibit a woman from learning "from strangers" or seeing "a strange man," it was not clear if BHWs or other male medical personnel would be able to transfer training for traditional birth attendants (TBAs or *dais*) from Peshawar to villages and towns in Afghanistan, especially in communities where the prevailing attitude is that women should not be educated.

With the preoccupation of the war, it would be difficult to change the focus of Afghan medical personnel from emergency care and first aid to general health services for the civilian population, especially for those carrying the largest burden of illness—women and children. The war brought new complications for planning and implementing maternal and child health (MCH) services in a country that already suffered a high prevalence of infant and maternal mortality, childhood illness, and infectious diseases in rural areas.

Political and Sociocultural Constraints

Peshawar was the major funnel for resources into Afghanistan. Consequently, any Peshawar-based programs for women became subject to the same local resistance and cultural norms as the rest of Pashtunistan, the most conservative ethnic belt of southeast Afghanistan and northwest Pakistan. Moreover, Peshawar was the main city of the Northwest Frontier Province, "the Islamicizing province" of Pakistan and the area most affected by Zia Al Haq's influence in the 1960s and early 1970s. Since 85 percent of the refugees were also from Pashtun areas of Afghanistan, they brought the same traditions into the refugee settlements.

Along with purdah, which restricts women's movement, the security situation imposed by the war had made it more dangerous for women to travel to health facilities.¹ Military dangers and unknown persons on the roads had exacerbated women's immobility. Close living arrangements in the refugee camps had made purdah more dominant. Whereas rural Afghan women had mobility within their own village, for example, using the women's paths to draw water from the well or river, the refugees in Pakistan were initially settled into artificial environments of closely spaced tents among strangers. Purdah restrictions are more relaxed inside Afghanistan; however, the degree of conservatism varies with region, ethnic group, age of the female, and family status.

The war and regrowth of Muslim fundamentalism during the 1980s altered the sociocultural situation, with repercussions for the role and status of women. Rural Afghan communities inside Afghanistan and Pakistan became highly suspicious of foreign-supported health or education programs for females because the Soviet invasion was well known to have brought more liberal programs for women. Afghan traditional society associated training programs for women with communism. Thus, a heightened resistance to foreign pressures for promoting active participation of women generated an adverse setting for creating health or education programs for them.

Political parties like Hezbi-Islami and Sayaf played upon these tendencies for their own political goals. Hezbi-Islami opened and rationalized their own schools for girls but reacted negatively if others opened similar programs. For some well-known families of the political parties, it was important to show allegiance to Arab donors through outward appearances. Women who wore the Islamic black facial veil (*hejab*), which had never had a place in Afghanistan, demonstrated to the Wahabbis their conformity to Islamic fundamentalism.

Socioeconomic and Epidemiological Factors

From a public health perspective, the challenge would be formidable even without these political, religious, and sociocultural constraints:

- The infant mortality rate was estimated to be 215/1,000 and child mortality, 382/1,000 (the second highest in the world, after Mozambique), while the maternal mortality rate was estimated to be 640 per 100,000 live births.²
- Fertility rates, as measured in the Afghan refugee camps in Pakistan, reached world-record highs. One International Rescue Committee study revealed a total marital fertility rate of 13.6 percent,³ as compared with a prewar measure of 9.4 percent in three rural Afghan provinces.⁴ As with other countries at war, there has been a pressure to repopulate, despite the fact that family planning would be the single most important intervention to save women's lives.
- The adult female literacy rate in Afghanistan is less than 10 percent.
- The average life expectancy of females at birth is 41 years. More than 90 percent of deliveries in rural Afghanistan take place at home with untrained dais as the main source of help.⁵
- Malnutrition is a health problem in young children in rural Afghanistan; 71 percent of children surveyed in Takhar Province do not have any food, except milk, introduced into their diet by the age of six months, and in Wardak 60 percent of children are not introduced to supplementary foods by this age.⁶

The Evolution of Services for Women and Children

Vignette: Definition of Tragedy

Six Afghan dais with braids and trinkets, all in traditional Afghan dresses, clustered around the Pakistani trainer, Saeeda, as she completed her health education lesson for the day. One young Afghan teenager sat in the shadow by the doorway of the mud refugee dwelling, clutching her chador over her face. She could peek out with one eye. The young bride was from a Pashtu tribe where custom dictates that a daughter-in-law cannot show her face to her mother-in-law until she delivers her first child.

The trainer, Saeeda, asked the women how many children they had themselves borne. The answers came—6, 12, 8, 7, 8. Since they had just finished a lesson about tetanus, Saeeda asked if any of their own children had died of tetanus, clenching her fists to display the symptoms of neonatal tetanus. Each dai calmly answered, very nonchalantly, as if counting the times in her life she had traveled beyond her village. Then, one woman added that she had had 7

children, but that 2 of her sons had been martyred in the war. Tears welled up in her eyes, and she broke into a wail. Within seconds, the other women were crying, telling their stories of the sons they had lost due to war, how they had been informed of their offspring's death, and the horrific details of the road to martyrdom. All were weeping. Neonatal tetanus happened; death due to the jang (war/fighting) was tragedy.

Morbidity and Mortality

When the Afghanistan Health Sector Support Project began, there were no preventive medicine or MCH programs. The scattered PVO missions that initially ventured inside the country with female expatriates brought the first opportunity for care to women in remote areas, but they were very few in number and only temporary. The project's first priority had been to build a foundation of trained basic health workers (BHWs) and clinics to handle war trauma: amputations and mine and bullet injuries. Simultaneously, health workers were to provide services to meet the general needs of the population such as treatment of gastroenteritis, worms, respiratory infections, and accidents. While the perception among the Afghans and relief agencies inside Afghanistan was that it was essential to have medical care to support the war, most of the BHWs' and clinics' patients came for treatment of common problems.

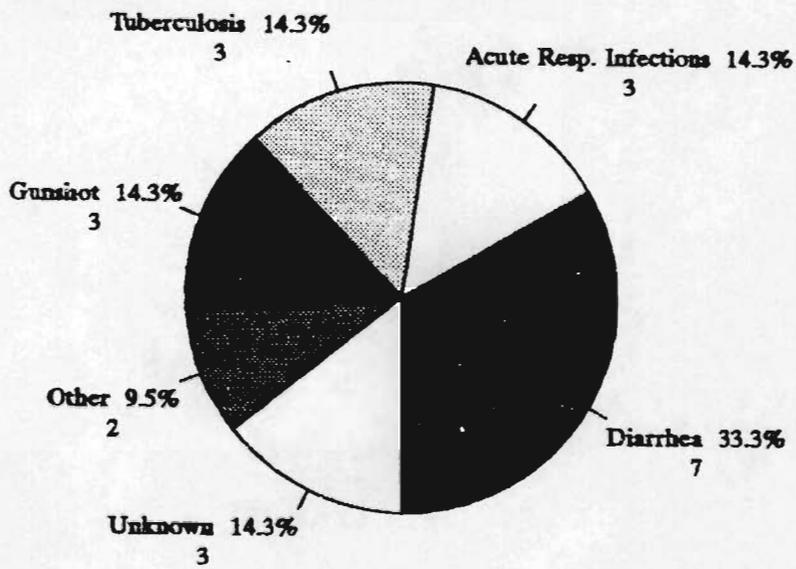
In fact, the number of Afghans dying of illnesses not directly related to the war far outweighed the number dying as a result of bombs, mines, and gunfire, as documented in Figure 7-2, which shows causes of death for Wardak Province as determined by a 1990 health survey. Understandably, the trauma of the invasion and the destruction of the country drew the Afghans as well as most assistance agencies toward a crisis-oriented, relief approach for the visible and dramatic injuries that television tended to portray.

Early Elements of Women's and Children's Health Care Services

Neither the project, the AHC, or the Area Health Service Administrations initially formed specific programs for women and children, but they had begun to adopt a primary health care approach to the development of health systems.

As mentioned earlier, training of BHWs included sessions on prevention and treatment of diarrhea and dehydration, malnutrition, infectious diseases, and acute respiratory infections, the key child survival problems. Although, as males, BHWs would not be involved to a great extent in pre- or postnatal care, and definitely not in deliveries, their curriculum covered general concepts and techniques relevant to pregnancy and delivery. Supplies included iron and folic acid for distribution to pregnant and anemic women. All members of the population were permitted access to health facilities. The problem was that new strategies and key interventions would be required to prevent maternal, neonatal,

Figure 7-2
Causes of Death
Wardak Province, 1990



and childhood deaths by infectious diseases. However, it was this primary health care development approach that allowed the cross-border health program to be molded to meet the health care objectives of both the war environment and civilian needs.

Strategy for Development of a Women's and Children's Program

In 1987, the A.I.D. evaluation of the project recommended that it be expanded to focus more on women's health and that the technical advisory team include an advisor to initiate a women's and children's program. The immunization program had already taken root by this time.

In 1988, an MCH strategy was developed with the premise that the project should begin to lay the foundation for a sustainable rural health care system that would address women's health and children's needs. While the project had included child survival approaches, no activities had been started for reducing maternal or neonatal deaths. As in other developing countries, efforts to reduce infant mortality were directed at combatting diarrheal disease with ORT and at providing immunizations, since these interventions have had a major impact on infant mortality. However, even with these programs infant mortality can remain high. With the Safe Motherhood Initiative gaining ground internationally, many health agencies began to recognize that approximately half of all infant deaths (42 to 63 percent) are actually neonatal deaths, with most of these occurring in the first week.⁷ Therefore, to make a significant impact on infant mortality, the MCH strategy for rural Afghanistan would incorporate health initiatives that dealt with the perinatal determinants of maternal and neonatal health, in addition to child survival interventions. Recognizing the underlying need to enhance the status of women, another strategy would involve women in all levels of the health system, from the household and community levels to the service delivery and managerial levels.

The women's and children's health program would also incorporate "MCH building blocks" into the health system pyramid. Women would need specialized facilities and specialized female practitioners and outreach workers to care for them, given the sociocultural norms. The project would need to develop a cadre of female MCH workers capable of functioning at all levels in the system, starting most importantly at the household and village level, but extending to the referral centers, where more complicated health problems can be treated. Since an estimated 15 to 20 percent of births result in complications that cannot be predicted or prevented, to decrease maternal mortality it would be essential to set up MCH facilities to improve women's access to medical treatment.⁸ It would also be important to develop a network of supervisors, systems, and monitoring mechanisms for the MCH network.

The strategies adopted for rural Afghanistan are the same strategies required in many developing countries. But some aspects of their implementation were

unique because of the cross-border, traditional Islamic setting. The strategies adopted were to:

- Establish MCH departments within the AIG's Ministry of Public Health and AHSAs.
- Establish an MCH referral system: Only 4 out of approximately 300 medical workers staffing the basic health centers in Afghanistan were women. How could a referral system using qualified female medical staff be built in rural areas?
 - Train and supply traditional birth attendants: Sixty-six percent of deliveries in rural Afghanistan are attended by traditional birth attendants (dais). The dai training program set up in the 1970s had depended upon the support of the central government and, initially, direct supervision and training by the expatriate technical assistance team. How could dais be trained cross-border?
 - Train and supply MCH volunteers: As the center of the private domain and family life, the Afghan woman is in charge of the feeding and early development of the child. Restricted to the safety and honor behind the walls of her own compound, could she be reached through a network of other illiterate women who would voluntarily share health information and simple services?
 - Train and supply female mid-level health technicians: Even the best community programs need to be backed by referral facilities with qualified staff. The project would recruit female technicians, nurse-midwives, and doctors to establish MCH facilities, but it was obvious that the scarcity of female personnel required both recruitment of existing personnel and training of female mid-level health workers. The question about whether women could be trained across the border also needed to be answered.
- Integrate MCH into the existing infrastructure: A first step would be to build upon existing project components in training, preventive medicine, basic health services, and health services development. How could the 1,500 BHWs trained to date do more for women and children?
- Expand immunization, with a special focus on tetanus toxoid (TT): Immunization activities in Afghanistan were initially campaign-based. It was often difficult for male vaccinators to immunize women with TT. One organization actually developed a plan to cut a small circle in a

sheet so that a woman could stand behind the sheet, remain unidentified, and slide her hand through the sheet's hole for the vaccinator's injection. How could this target population be increasingly reached?

- Provide nutrition education and rehabilitation: In the Hazarajat area, localized areas of Badakshan, and other regions, food was scarce. Nutrition surveyors from Badakshan reported that people were eating grass. How could the public health system confront malnutrition?
- Initiate family planning services: Based on international studies, at least half of all maternal deaths could be averted through a combined strategy of family planning, legal abortion, and primary health care.⁹ A reduction of 25 to 35 percent in fertility rates resulting from more widely available family planning would also lower maternal mortality by 25 percent. Would it be possible to introduce child spacing in a country at war, with a soaring fertility rate due to the perceived need to repopulate?
- Promote continuing education in public health and MCH for decision makers: In order to promote awareness of health problems, it was essential to develop a core group of decision makers with an understanding of, and a commitment to improving, the desperate situation of the neglected segments of the population.

Structure of the MCH Program: The changeover from the AHC to the interim government Ministry of Public Health coincided with the establishment of the MCH program. The MOPH assigned a Director for MCH and designated several positions for the MCH Department. Each of the Area Health Service Administrations also assigned a medical director to oversee MCH initiatives. The MCH Department of the technical assistance team would run parallel programs with the MOPH and the AHSAs, thereby reinforcing a decentralized approach to health care development.

In terms of geography, there was a concerted effort to establish an MCH program within each of the key geographical areas of Afghanistan—in the Pashtun border provinces and in north/northeast, central, and south/southwest Afghanistan. This progression was natural because the counterpart health committees represented each of these areas. Within these regions, efforts would be made to upgrade and expand MCH services in all districts, but given the reality of the clustering of the very few qualified female medical workers, certain districts would have a more traditional MCH referral structure.

An eclectic approach: The MCH program could not readily follow in the footsteps of the other programs, which could relatively easily recruit vaccinators.

basic health workers, and medical staff for clinics from inside Afghanistan and bring them to Peshawar for training and supplies. The only way to start was to test the feasibility of different approaches and try any approach that showed a reasonable probability of success. The first step was to determine the extent to which male staff could provide more information and services for women's and children's health. The objective would be to expand the role of the approximately 1,500 BHWs trained by the project to focus them further on practical MCH interventions. The second step would be to find out how to recruit, train, and staff clinics with female practitioners, who could in turn train illiterate women in the village, especially dais. The scarcity of professional female health workers meant it would also be necessary to explore how the project could expand the pool of illiterate and educated women trained in health. Although the PVOs in Pakistan were graduating classes of mid-level "lady health visitors," it was not clear if this pool of refugees could be motivated to return to their country, which they had fled due to war and destruction. There were four alternatives:

- (1) Train and send female Afghan medical personnel from Peshawar to Afghanistan to set up training for traditional birth attendants and staff MCH facilities. This approach needed to be tested because the prevailing assumption was that Afghan women would not readily cross the border. Even if a few would be willing, the numbers would be so small that their impact would be limited.
- (2) Recruit female Afghan medical personnel living in Afghanistan and bring them to Peshawar for in-service training. Then they could return to their towns or villages with supplies and knowledge of training traditional birth attendants. This approach would have the same constraints as the first.
- (3) Orient and send expatriate medical personnel from Peshawar to Afghanistan to serve as master trainers. An expatriate woman could more readily cross the border. Once inside she could serve as a master trainer for any female medical personnel previously identified. The French and Norwegian committees were already using this approach, and it worked well where they could locate an Afghan nurse-midwife who could carry on the work after their departure. In some cases, the expatriate directly trained birth attendants, but after she left Afghanistan there was no follow-up or referral center to support the dais who had been trained.
- (4) Recruit male Afghan medical personnel working inside Afghanistan and have them come to Peshawar to become master trainers. Male doctors and nurses could easily cross back and forth between the borders; they could often work with professional women; and they would permanently reside at health facilities in Afghanistan.

It was so difficult to find any Afghan women who could cross the border, and to rely on expatriate staff would be such a short-term, limited approach, that the fourth alternative proved to be the most viable, replicable option. Ironically, although it was initially assumed that interventions for women would have to be implemented by women due to the separation of the sexes, the conclusion we reached was that the program could only function if male medical staff were the conduits for training.

Implementation: In many of the first meetings with the MOPH and AHSAs, it was as if there were an invisible wall around the discussion of subjects related to women's health. For example, in discussions about designing mid-level training courses, two to three hours would be spent on job descriptions, topics, recruitment policies, and selection criteria which could apply only to male staff. When the MCH Advisor would finally inquire how these policies could be implemented for mid-level training of women, the room would fall silent, and then the advisors and counterparts would smile, recognizing that women's health had not been consciously considered until the MCH program started. Fortunately, the counterparts were enthusiastic, and slowly their priorities shifted so that MCH became a repeated term and focal point. A key tactic was to pursue the issue from a purely technical perspective, which would maintain the integrity of the traditional society's culture.

Dai Training: Content versus Coverage

Dai Training Using MCH Facilities

Since a dai training curriculum had already been developed in the refugee areas, and the village women would form the foundation of the MCH health care pyramid, and since the Afghan Ministry of Public Health had successfully trained dais in the past, the preliminary target was to train a group of traditional birth attendants, learn from the experience, and expand the training to other regions.

A traditional approach to training dais could be implemented in areas where there were female staff. Of the three or four towns in rural Afghanistan where Peshawar-based organizations knew there were active nurse-midwives, Taloqan City in Takhar Province was the most prominent. The Taloqan Hospital, which was under the supervision of the SCNA, had four female nurses. Moreover, a young, female Afghan physician had walked into MSH and promised that she would travel to Takhar with her husband, a famous commander, to start the program. After two months of orientation, MSH reminded her of her promise to go to northern Afghanistan, because the passes would soon be closed by snow, and the dai training program would otherwise be delayed by eight months. Unfortunately, she had changed her mind about going inside. One of the doctors

working at Taloqan Hospital was, luckily, in Peshawar. MSH rapidly organized some tailor-made training for him on how to train dais, and he returned to Taloqan with a curriculum, trainers' kits from the Save the Children/U.K. refugee program, and some dai kits to pass out to the first class of graduates. He in turn trained the four female nurses, and the nurses recruited and trained the dais.

The first class ran for eight weeks, covering topics ranging from normal pregnancy to danger signs in children. The experience demonstrated that certain sites could become dai training centers. Moreover, by being trained at an MCH facility, the dais automatically became the link between the formal medical system and the community, and they could refer patients to the MCH clinic.

The project benefitted greatly from the more well-established women's programs in the refugee camps: agencies like Save the Children/U.K. and the International Rescue Committee ran two of the largest, most reputable programs. At the start of the cross-border women's program, close to 2,000 TBAs had already been trained in Pakistan, while only a handful had been trained in Afghanistan. The lessons learned from the refugee settings and the materials developed for the refugees saved valuable time.

Initially, all the dai training programs run by the different NGOs used their own curricula, but from 1988 to 1991 UNHCR took the lead in preparing the standardized *Trainers' Manual for Afghan Female Health Workers (Dais)*. The AHSSP used the manual and translated the English version to Dari because it contained research on Afghan dais and traditional health practices, relevant Islamic quotations, and solid technical information for illiterate health workers. The curriculum presented in the manual is shown in Figure 7-3. Results showed that the course actually required about 10 weeks of sessions for two hours per day, although each organization was flexible in scheduling.

The AHSSP began to issue the trainers' manual, training supplies, and dai kits to all MCH facilities beginning in 1990. The Ministry's MCH Department initiated an in-service course on setting up dai training to orient the doctors and nurses who would be most likely to staff MCH facilities. The Taloqan model for training of trainers in Peshawar proved viable.

Dai Training Using BHWs: Emphasis on Coverage

In 1989, when the first AHSSP dai training course started in Taloqan, Takhar, the AHSSP's MCH Department also selected the BHWs as another channel to reach the greatest possible number of village women. During a BHW refresher class, MSH asked mujaheddin health workers how they could reach village women. Most of them viewed favorably the use of cloth posters to talk with community members, although one from Faryab Province claimed that it was impossible to use such posters of women, for it was un-Islamic to use images of human beings, let alone females. When asked if they could interact with the dais, the vast majority of BHWs agreed. Within days the AHSSP MCH

Department began planning a workshop for training trainers of BHWs in order to capitalize on the coverage that could be achieved through the network of BHWs. If the BHWs could simply pass on the lessons about hand washing, cutting the umbilical cord during delivery with a sterile instrument, and oral rehydration therapy, they could reach far more dais than any TBA program built around the requirement of a female trainer. Due to the relatively basic knowledge of the BHW, a BHW could not be expected to discuss risk factors in pregnancy, danger signs during delivery, or postpartum hemorrhage, which a comprehensive course using nurse-midwives could handle, but the BHW could at least impart information to prevent neonatal tetanus and diarrheal deaths. A workshop was held, and a dai training "mini-course" became a core component of every BHW's training and refresher training. From then on, every BHW also received eight dai kits in his medical supplies. The simple kits contained the WHO-recommended items—soap, razor blades, string, cotton or gauze, and a nail cutter—along with packets of ORS.

MCH Referral and Supervision System

It was clear from verbal reports and analyses of Greenbook registers that only 15 to 25 percent of patients being seen at clinics inside Afghanistan were women, and rarely would those cases be for prenatal and ob/gyn exams. The facilities emerging between 1985 and 1989 had failed to meet the needs of women.

One of the project's fundamental strategies for improving maternal and child health in Afghanistan was, therefore, to establish an MCH referral system especially for women. It would have the levels and MCH staffing patterns shown in Table 7-1.

From 1989 to 1991 an MCH referral system reached its first stage of development in selected areas of central Afghanistan, the north/northeast, and the eastern provinces. Dai training centers, MCH posts, MCH clinics, and a few comprehensive health centers with MCH services were established. MCH clinics were added to provincial hospitals, although they utilized experienced nurse-midwives and M.D.'s rather than specialists. Plans for the Volunteer Health Sister program did not evolve until 1991, with implementation set for 1992.

The MOPH and AHSAs were far more enthusiastic about setting up MCH clinics than about training dais. It seemed that salary support for several medical staff and for medical supplies represented a higher inflow of resources than simple dai kits. As a result, it was then decided to link the dai training with MCH clinics, rather than consider setting up special training sites only for this purpose as had been done in the 1970s. Moreover, coverage would be greater if dai training were a key responsibility of every MCH clinic.

Figure 7-3

Contents of the Trainers' Manual for Afghan Female Health Workers (Dais)

PART I: HOW TO ORGANISE A FHW PROGRAMME

THE FEMALE HEALTH WORKER TRAINING PROGRAMME

- Introduction
- The Role of the FHW
- The Role of the FHS
- Motivation of Community
- Selection
- Number of FHWs
- Site and Method of Training
- Training Content
- Assessment
- FHW Kit
- Role of Incentives
- Supervision
- Refresher Courses
- Preparing FHWs for Repatriation

TRAINING THE TRAINERS

- Introduction
- How to Use the Manual
 - Lesson Plans
 - Reference Pages
- Teaching
 - Understanding the Students
 - Learning Principles
 - Teaching Methods
- Assessments
 - Definition
 - Why to Assess
 - Effective Assessments
 - Different Types of Assessments
 - Practical Hints on Organising Assessments
 - End of Training
 - A Selection of Questions
 - Checklists

PART II: ESSENTIAL TOPICS

- Introductory Session
- FHW Kit, Report Forms and Resupply
- Home Visit Part I
- Microbes and Handwashing
- Household Cleanliness
- Tetanus
- Normal Pregnancy
- Home Visits during Pregnancy
- Danger Signs in Pregnancy
- Normal Labour
- Danger Signs in Labour
- Danger Signs at Delivery
- Vaccinations
- Home Visits during the First Few Days after Delivery
- Danger Signs in the First Few Days after Delivery
- Home Visits to Children in their First 2 Years
- Danger Signs in Children
- Diarrhoea
- Home Visit Part II
- Decision Making

PART III: ADDITIONAL TOPICS

- Safe Motherhood
- Malaria
- Tuberculosis
- First Aid
- Helping Disabled People
- Dental Care
- Mine Awareness

ANNEX I: Traditional Afghan Knowledge, Attitudes, and Practices

ANNEX II: An Example of a KAP Survey Questionnaire

ANNEX III: Quotes from Islamic Texts

ANNEX IV: Home Visit Schedule

ANNEX V: Checklist for an Assessment

ANNEX VI: Prime Messages

Table 7-1
MCH Staffing Patterns

<u>Level of Service</u>	<u>Type of Staff</u>
Household level	Volunteer Health Sister (MCH community health worker)
Village level	Trained dai
Subdistrict level	MCH post (female mid-level worker)
District level	MCH clinic (two to three medical staff with at least one female mid-level worker—MCH officer, nurse-midwife—or female doctor)
	Comprehensive health center with MCH services
Provincial level	Provincial hospital with ob/gyn and pediatric services (ob/gyn and pediatric specialists and hospital staff)

MCH facilities were differentiated from other facilities by offering pre- and postnatal and delivery care, nutrition education and rehabilitation, TT vaccine, dai training, health education, and eventually ORT corners. As mentioned previously, these facilities would require female staff for women's care, given the strict traditional ways in the rural areas. Besides being culturally appropriate, this criterion created an incentive for introducing women into the service delivery side of the health system, which they had not previously participated in.

In the conservative area of Pashtunistan, several nurse-midwives were identified, but they were not permitted to work with male medical personnel who were not relatives. Rather than lose the opportunity to "activate" this resource, the AHSSPs decided that a mid-level woman could be supported as an MCH post and work independently. Eventually MCH posts could be expanded into clinics, or become subdistrict referral points. Where an administrative system was functioning, these posts would be administratively attached to and supervised by the nearest BHC or MCH clinic.

Identifying staff for MCH clinics was slow in the beginning. The AHSAs snapped up the few nurse-midwives they had known about. In the first year of setting up MCH facilities, only 11 were proposed and supplied, as compared with 40 BHCs in the first year of the project. After the first MCH posts and clinics were established, recruitment of qualified women was slow, so while efforts were aimed at activating the female resources in the rural areas, plans began for training mid-level MCH officers from Afghanistan to expand the human resources.

Formal Training of Women to Staff the System

In the mid- and late 1980s, a few refugee organizations had begun training dais and mid-level female workers such as "lady health visitors" in the refugee camps. The impact of these efforts had not been thoroughly evaluated, but by 1989 approximately 800 traditional birth attendants had been trained in the refugee camps and several classes of mid-level workers had graduated. Meanwhile, inside Afghanistan no formal training programs for women had been established, and only a handful of dais had been trained by foreign organizations. A pool of mid-level female professionals was needed for inside Afghanistan.

Critics of the training programs in Pakistan said that the unfortunate aspect of this investment was that many of the mid-level workers were not absorbed into the medical system in Afghanistan, and in fact not even in Pakistan, although there are no data to substantiate this criticism. It was said that many women had taken the courses without a serious intention to perform services later, although this was not statistically documented either. Indeed, the average dropout rate at the Afghan Muslim Women's Organization University in Hyatabad, where 300 Afghan women attended courses in medicine, Islamic studies, literature, and medicine, was claimed to be about 20 percent. Most of the dropouts occurred when the women got married. However, the trained workers in Pakistan do have the potential to be important resources to provinces when they return to Afghanistan if the interval during which they are not practicing is relatively short. When they do return, most of those who can sell their medical services will fill the void in the eastern border provinces, since 85 percent of the refugees came from these areas.

The project therefore decided that mid-level workers would be recruited directly from Afghanistan, and, if insufficient recruits could be found, maximum emphasis would be placed on recruitment of students who would guarantee to return to Afghanistan after graduation. The long-term goal was to develop the capacity of the Institute of Public Health to manage and train a mid-level program for women with a primary health care orientation. Even if some members of the first class did not return to Afghanistan, the training program would be Afghan-developed and Afghan-run. Curricula would have been developed for use in training centers inside Afghanistan.

In April 1991, the course officially started with 11 students. The Institute of Public Health took the key role in the technical development of the course, and the MOPH's MCH Department managed its practical aspects, including managing the teaching clinic and community site. After the first class of MCH Officers graduated in April 1992, the MOPH's MCH Department supplied and salaried them and sent most of them to Afghanistan. The Institute of Public Health began revisions of the MCH curriculum for a second course which was planned to be started inside Afghanistan (in Jalalabad).

Family Planning

Family planning, when incorporated into an MCH program, and when significantly used in a population, can be associated with a reduced number of infant and maternal deaths. This association is due to the potential creation of lowered fertility. In a country like Afghanistan, which does not have the medical or intersectoral infrastructure to deal with infant mortality, a lowered fertility would be associated with a decrease in the actual number of deaths simply because there would be fewer births. Similarly, a reduction in maternal mortality from complications of pregnancy and childbirth (e.g., infection, hemorrhage, obstructed labor, pregnancy-induced hypertension) results when a woman can control her fertility.

The second association between family planning and maternal/child health is related to improved spacing of births. When there is an interval of more than two years between births, infant and neonatal mortality can be reduced by half.¹⁰

Given these associations, to have ignored family planning as a project intervention would have been to have ignored half the problem of women's health in Afghanistan. Despite the cultural constraints, and the political pressures, it was very important from a technical perspective to integrate family planning into the women's health program.

Therefore, in the first major planning workshop with the Area Health Service Administrations in 1990, the key message to impart to the policy makers was this association between maternal deaths and family planning. Surprisingly, with no resistance, the AHSAs immediately began requesting contraceptives. It was decided that the 28-day oral tablet would be one of the best methods, since qualified medical nurses and doctors were most familiar with it. A 28-day pill (21 days' hormone with 7 days' placebo) was identified to assure patient compliance among an illiterate population, which may have been confused about stopping and starting courses with 21 pills and counting 7 days before starting a new course. Condoms were requested as well, and, in 1991, the first shipments of both contraceptives were sent cross-border. The primary distribution point would be MCH clinics. Where there were none, one committee decided to

distribute contraceptives through its basic health center. The rapid acceptance of contraceptives among the medical professionals was encouraging; and family planning services became a demand from the Afghan side rather than a push from the technical assistance team. However, in Peshawar, the Ministry of Public Health moved much more gradually. They accepted including child spacing as a topic in certain training programs, but due to the political risks of Peshawar, the MOPH chose not supply contraceptives to any of its facilities across the border. By 1992, however, they were reconsidering this policy.

The Volunteer Health Sister Program: A New Foundation for Community Outreach and Social Communication

As of December 1991, the only household-level intervention inside rural Afghanistan had been the household visits by BHWs, but they were limited in reaching women with preventive health messages and services. The dais have traditionally assumed the role of working for women's health; however, as the 1991 household survey indicates, the dai is primarily used only at the time of delivery. Due to purdah it is difficult for women to meet outside the home, so the need to have the health care system reach into the household is even greater than in other societies. It was therefore essential to introduce the concept of a volunteer female community health worker who could be the link between the medical care system and the female members of an extended family or between women in the community at large.

The MCH strategy aimed to establish outreach programs using volunteer health sisters (VHSs), as they came to be called, in selected areas of Afghanistan. Key objectives were to train and supply a core group of village women who could spread health information at a faster, more cost-effective rate than the facilities.

The volunteer health sister is responsible for visiting the households within her community or extended family to promote preventive health and treat simple illnesses like mild dehydration. She is not salaried; however, she receives a simple set of supplies from the referral clinic. She can sell the supplies as the health system moves away from donor support for the sale of drugs. As a community worker, she can promote the use of other health workers such as BHWs and trained dais.

By 1992, a pilot program of volunteer health sisters was being implemented in 12 sites in Afghanistan as well as in a demonstration site at a Peshawar refugee camp. If successful, this face-to-face form of social communication will be expanded to other districts and provinces.

Monitoring and Evaluation

One of the frustrating aspects of cross-border work was the difficulty in conducting scientific evaluations. Evaluation did not assume the level of emphasis required by most development programs, given the emergency nature of refugee and cross-border work. Evaluating women's programs was more difficult due to the need to use female evaluators or surveyors for in-depth interviews.

However, three levels of monitoring and evaluation were possible. First, the system developed by Field Operations was applied to all MCH facilities. When monitoring teams traveled to rural districts, they checked to see that the MCH facilities were in operation and staff was present. An additional questionnaire was attached for MCH facilities to inquire about specific programs, such as how many dais had been trained and whether tetanus toxoid was actually available at the clinic. Second, special assessment teams of physicians were sent from Peshawar specifically to examine the MCH programs from a technical perspective, to judge whether the programs were well managed, and to provide guidance to the staff on improving the programs. Third, the household surveys were able to provide epidemiological information on morbidity and mortality among women and children and on behaviors related to weaning and delivery.

Vignette: An Afghan Female Health Worker Goes to the United States

Fahima left Kabul when she was 15, traveling to Peshawar with her mother and younger siblings to escape the war. Her father had been able to support the family as a driver, but he had died a few years earlier. Fahima enrolled in the International Rescue Committee English course and a lady health visitor course at Afghan Medical Aid soon after arriving in Pakistan. Upon graduating from the health program, she joined the Afghan Health and Social Assistance Organization, where she worked in a refugee camp clinic to support her family. After a year of working in the camp, she took up the opportunity to work as an interpreter. With her ambition, language abilities in Dari, Pashtu, Urdu, and English, her quickly acquired computer skills, and her background in health, she rapidly assumed technical and administrative responsibilities at age 19.

Fahima stood out. For a discussion group of Afghan women, she was invited to present her views on Afghan women in jihad. She had no hesitation about attending mixed meetings with men. Polite, but occasionally a show-off, Fahima had no qualms about walking into any Afghan office to accomplish a task, despite the fact that many looked unfavorably upon such frank mobility and forwardness in an Afghan woman. Even in the MSH office, where Pakistani

women were quite well accepted among over 150 male employees, there was only one other Afghan woman working. Fahima's ways offended sensibilities.

When a call came from USAID to nominate an Afghan woman to participate in an observation tour in Egypt and a conference in Washington, DC, under the Democratic Pluralism program, the obvious candidate was Fahima. There had been only one or two other women at the Ministry of Public Health who had so comprehensive an overview of the health program that they could represent it in an international conference, but they did not have sufficient English-language skills to make the trip worthwhile.

The nomination of Fahima was kept fairly quiet, but within days the news had spread. A man on a bicycle dropped off a typed letter at the home of an MSH advisor. The letter threatened: "Fahima . . . has since coming to this office been violating the Islamic rules. This obvious 'prostitute' has been disregarding the dignity, honour and reverence of the Afghans inside and outside the office and yet she is deciding to go to USA. Please tell her that before flying for the USA she will have an unprecedented gentle fly to hell. Oct. 10th is the last day for her to be fired from this office, otherwise the matter will take an Islamic and logical course and hope the shadow of death will not cover you honourable madam who is assisting her. . . ." The author signed himself "Organization of Afghan Muslim Youth."

Fahima initially reacted with anger, but as the morning unfolded, the anger turned to fear and pessimism. She was still determined to make the trip, the date for which was quickly approaching. Emphasizing the proposition that she was the best representative of her country, she spoke proudly about how she would maintain her Afghan values and traditions when she met people from other parts of the world. She would even wear her chador in America.

A representative from the U.S. Consulate appeared at the next MSH staff meeting, where the threat was laid out among the senior local staff. These highly reputable deputies were obviously surprised but agreed to spread the message inside and outside the office that MSH would not tolerate such behavior. The presence of the consular official signaled that the U.S. government was aware of the incident and would act if the threat were carried out.

On November 9, 1991, Fahima was on board the airplane with six other Afghan women flying to Egypt and America. The exchanges were particularly constructive in Egypt, because the Afghan women could see their Muslim sisters running cooperatives, health programs, and schools and discuss how Egypt had changed from being a highly conservative society. In the U.S., Fahima successfully presented her country's needs for resources and trained personnel.

On the last night of the conference, before the Afghan women were to travel to West Virginia for a tour, Fahima disappeared. Claiming she was not feeling well, she stayed in the hotel while the others went to dinner. Her roommate found the note she had left, which said she would not return to Pakistan, and that her family and others would understand.

Kabul-based Program for Women and Children

Kabul had always been relatively progressive compared to the rural countryside, but the communist regime installed coeducation and supported women's organizations. On the health side, the United Nations was a key player in promoting child survival and family planning.

In 1988, according to the Kabul government and prior to the establishment of MCH programs on the mujaheddin side, Afghanistan had a total of 45 MCH clinics. They were unevenly distributed, with 66 percent located in Kabul City.¹¹ According to verbal reports, these clinics were generally poorly equipped and there was a lack of government support for health education materials.

A national EPI program had been launched in Afghanistan in 1977, but due to the Soviet takeover and the ensuing war, immunization activities became confined to the Kabul area. Between 1984 and 1986, an intensive EPI campaign started again in Kabul with UNICEF assistance. Coverage of children under one reached 35 percent, and 54 percent of women in the 15-to-44 age group reportedly received tetanus toxoid. An agreement was then reached between UNICEF, the governments of Afghanistan and Pakistan, the Seven Party Alliance, and UNHCR to extend the program to areas outside Kabul. In 1987-88, the Kabul-based EPI program expanded to include 7 additional provinces: Parwan, Kunduz, Herat, Balkh, Samangan, Laghman, and Baghlan. Coverage in these provinces was subject to the local security situation, but the program reached populations which were both inside and outside government control.¹² This "cross-line" activity was quite common for vaccines and for clinic supplies. There are stories of medical doctors working for the regime who would share their supplies with medical colleagues working on the mujaheddin side. The borders were as porous for medical supplies as they are for trade.

A national program for control of diarrheal disease (CDD) started in Afghanistan in 1983, although the local production of oral rehydration salts had begun in 1980. The government's CDD program was limited to the Kabul area due to the disturbed political environment, and according to evaluations, the Kabul-based CDD program was not considered an effective ongoing program.¹³

The semi-autonomous Afghan Family Guidance Association has been active in places such as Kabul, Mazar-e-Sherif, and Herat City. UNFPA and IPPF have both been involved in family planning. In the 1980s, the family planning program used mobile family planning outreach teams. MCH clinics distribute contraceptives and many have a family planning staff person. However, family planning clinics commonly suffer supply problems, as is the case with most clinics in a nonfunctional system. Due to economic pressures, demand for family planning in Kabul appears to have increased since a decade ago.

An information-education-communication program supports the Kabul-based health efforts, particularly for EPI. Television, radio, newspapers, public

announcements, and billboards have been used to increase public awareness. Television has been the most widespread medium in Kabul for this purpose, and public announcements are aired about vaccines, ORS, drug abuse, and alcohol abuse. Most homes in Kabul, except for the very poor, have television and radio, whereas television is rare in rural Afghanistan.

An ironic twist to the issue of women in development is that the Kabul regime did train large numbers of urban female health workers (up to 90 percent of medical students at Kabul University were reportedly women. Young men were pulled from class and put into the army.). How a future coalition government will deal with the issue of women's health is a question nobody can answer with any confidence. It will depend partly on whether Afghanistan is controlled in the future by a fundamentalist regime or a moderate government.

Lessons Learned from the Women's and Children's Program

In the end, how can we answer to Allah if we have neglected this segment of the population?

Afghan counterpart, 1990

In the first two and a half years, the AHSSP established over 30 MCH facilities in rural Afghanistan, trained over 200 dais in a comprehensive course and probably over 4,000 in simple technologies, initiated family planning services inside Afghanistan, started a mid-level training program for Afghan women in Peshawar, increased the number of professional women in the AIG Ministry of Public Health from 0 to 13 percent, and sowed the seeds for public health interventions at the household level with a social communication strategy. The dai training lacked any supervisory or refresher training system; some MCH facilities were underfunctioning with limited hours of operation; contraceptives were limited to a few facilities. However, it is important to keep in mind how to measure the improvement in health services for women and children in Afghanistan. The situation was bleak before the war. The presence of tanks and bombs and the destruction of infrastructure during the 1980s deepened the void. But the general trend for increased demand for MCH services was encouraging, despite tremendous security concerns for women's programs. It is only because the Afghan institutions/administrations and medical workers have recognized this need that the transition from war services to MCH services could come about.

What lessons have been learned?

- *For program planning, compare the magnitude of war deaths to deaths resulting from disease. When you compare the magnitude of deaths due to war with the magnitude of deaths and illness caused by disease, it is*

obvious that for rational health system development the primary health care approach with emphasis on MCH should still form the basis of the health system, even though that system may initially have a military or first aid emphasis.

- *In a strongly traditional, Islamic society it is easier to gain the confidence of the community by focusing interventions first on children to decrease child mortality, and then on women.* Everywhere in the world there is a belief in saving children's lives. In a society that obeys the system of purdah, protecting and covering its women from outsiders, a focus on women is threatening. To develop trust and credibility for health programs, it is easier to begin with a strategy aimed at children. Gradually, as people accept the technologies for saving their children's lives, credibility is established to move one step further to the health of the newborns and women. At the professional level as well as the village level, the link can then be made between children's health and women's health.
- *Distinguish the technical issues from the sociocultural/political issues.* When introducing changes that can be interpreted as Western ways, it is exceptionally important to clarify technical issues and goals. While the expatriate advisor aims to reach the goal of lowered maternal mortality through family planning, training of women, and improving their status by involving them in the work force, all of these objectives may be perceived as Western ideals, particularly by fundamentalists, conservative tribes, or villagers.

If the technical objectives are laid out for policy makers—for example, 25 to 50 percent of maternal lives could be saved by family planning, or dai training is essential if 66 percent of rural women are delivered by untrained dais, or it is necessary to involve female outreach workers to go house to house to reach women and newborns who are confined to their homes in the system of purdah—the public health decision makers will struggle with the constraints and implementation issues to come to a solution. Development work for women in an Islamic society entails finding the balance between maintaining the integrity of the culture and introducing technical changes that may be perceived as counter to the religion, traditions, or political powers. It is important to recognize the political, religious, and sociocultural milieu, but not to lose sight of the goal. Put more simply, "Carry on, but within the local context."

Build critical mass. The critical step in initiating the women's health program was to build awareness of the problem among the counterpart

policy makers and decision makers. Since they were predominantly medical doctors, they accepted the women's health strategies. Given their authority, they in turn could influence health workers all the way down the system. Field staff recognized the health needs of the people on a daily basis, so they were generally prepared to accept the interventions. Most counterparts were genuinely interested in ameliorating the health burden of women and children, but initially they were not able to discuss it openly or implement changes due to the political and cultural environment. Afghan decision makers had to resolve some conflicts, because individually they could be open to ideas at a technical level (especially family planning), but due to pressures from mullahs and fundamentalist parties they could not speak out. Outside of Peshawar, the demand for MCH services was high, so once an MCH clinic was started, other women's programs could be implemented. In Peshawar, for example, as mentioned above, the ministry chose not to provide contraceptives, whereas the Area Health Service Administrations quickly chose to distribute pills and condoms.

When constraints are numerous, flexibility is essential to accomplish anything. This unique project could not have been carried out without an agreement between A.I.D. and MSH to be flexible. Likewise, from the technical standpoint, the way to accomplish things was not to become rigid. One example is the instance of a PVO which tried to start a full-scale MCH program in an extremely conservative area where there were no local female medical workers. Rather than adapting the program to the resources and environment, the PVO took four years to develop its MCH program in one village. This decision to stick with a traditional MCH program even though the model did not apply was not cost-effective. It would have been better to adapt the MCH interventions to the resources by utilizing male workers or to select a location where there was a nurse-midwife around whom to build the program.

Similarly, the constraints inspired new substrategies, for example, using male basic health workers to impart information and supplies to dais, and looking at the feasibility of using illiterate community women as injectors to assist mobile vaccination teams. Try anything with a reasonable chance of success, but always consider impact.

A philosophical commitment, among the donors and counterparts, to equity and to the rights of women in the jihad made it possible to start bringing services to the underserved. The difficulty is moving implementation of a women's program from "impossible" to "maybe possible" to "definitely achievable" can be reduced by a philosophical

commitment to equity. The women's and children's program was more difficult to implement than other programs. It required separate buildings for female staff, special transport for women carrying them to and from the office, and an occasional armed guard stationed at "mixed" male and female workshops. There is a parallel here with regard to starting health services for any underserved group or area. An area in which it is difficult to implement health programs will often remain underserved, because it is easier to work elsewhere, and so the cycle continues.

Notes

1. However, 44 percent of women reported that they could visit a basic health center unescorted by a male under normal circumstances ("A Health Survey of Three Provinces of Afghanistan" [Boston: Management Sciences for Health, 1977]).
2. James P. Grant, *The State of the World's Children*, UNICEF (London: Oxford University Press, 1992).
3. Ellen Krijgh, "Health Status of Afghan Women and Children: An Assessment of Trends in 10 Refugee Camps between Hangu and Thal, North West Frontier Province, Pakistan," International Rescue Committee, 1987.
4. Ronald W. O'Connor, ed., *Managing Health Systems in Developing Areas: Experiences from Afghanistan*, Lexington Books (New York: D. C. Heath, 1980).
5. Youssef Tawfik, Omar Bahaand, and Bedshah Saleh, "Demographic and Health Household Survey in Afghanistan: Wardak Province" and "Demographic and Health Household Survey in Afghanistan: Takhar Province" (Boston: Management Sciences for Health, AHSSP, March 1992).
6. Tawfik et al., "Demographic and Health Household Survey: Wardak Province" and "Takhar Province."
7. A. W. Brann, Jr., WHO Collaborating Center in Perinatal Care and Health Services Research.
8. Deborah Maine et al., "Prevention of Maternal Deaths in Developing Countries: Program Options and Practical Considerations," background paper prepared for the International Safe Motherhood Conference, Nairobi, February 10-13, 1987.
9. Jodi L. Jacobson, "The Status of Family Planning in Developing Countries," in *Health Care of Women and Children in Developing Countries*, eds. Helen Wallace and Kanti Giri (Oakland, CA: Third Party Publishing, 1990).
10. A. W. Brann, Jr., WHO Collaborating Center in Perinatal Care and Health Services Research in Maternal Child Health.
11. "Programme Assistance to Afghan Women and Children for Submission to the Office of the Coordinator" (Geneva and New York: UNICEF, October 1988).
12. UNICEF, "Programme Assistance to Afghan Women and Children."
13. "Emergency Relief and Rehabilitation for Afghanistan," WHO Operational Document within the Secretary General's Appeal (Geneva: WHO, September 1, 1988).

Chapter 8

Logistics Management

Vimal Dias

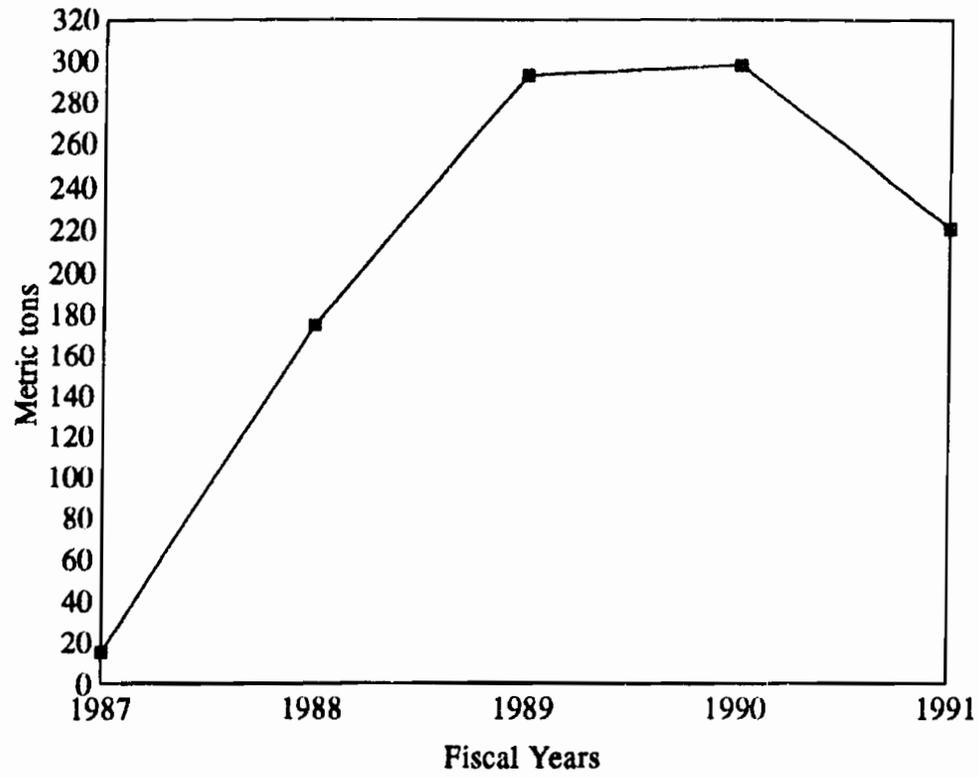
The Early 1980s

In the early 1980s, the Swedish Committee for Afghanistan and the French PVOs (AMI, MSF, and MDM) had acquired experience in repackaging drugs and medical supplies for the extreme conditions of transport in rural Afghanistan. Their experience provided the baseline data for the kit contents needed for different facilities and health workers, as well as for quantities needed for different supply intervals. SCA already had four different kits for four levels of health workers. The French committees used kits for facilities which ranged from clinics to 30-bed hospitals with laboratories, x-rays, and operating rooms. The WHO and UNHCR recommendations for essential supplies needed for different levels of emergency facilities were also taken into account, as were the surgical, x-ray, laboratory, and dental kit lists of Médecins sans frontières.

Initial Concerns

At the start, drugs were purchased from local suppliers, and spreadsheets were used to follow orders, stocks in Peshawar, and shipments across the border. By the end of 1987, it became clear that the program would expand rapidly in the next two years, as noted in Figure 8-1, "Kit Issues". All drugs were listed under their generic names and each was given a code number based on the WHO essential drug classification by therapeutic class. All other items were also given code numbers, which made handling by nonmedical and functionally illiterate warehouse staff much easier. The master list, kit lists, and orders were transferred into dBase and the KITPLUS system was developed to allow calculation of future procurement needs of each item, based on projected resupply dates of already fielded BHWs and clinics, and the initial supply dates

**Figure 8-1
Kit Issues**



of planned new BHWs and clinics. One anomaly in the system was that a certain percentage (in the beginning about 50 percent) of the BHWs would be supplied every three months. The D1 carton would take the place of a D carton every other supply, so those BHWs were tracked separately.

Medical supplies reached a level of 300 tons annually by 1989, virtually all transported in small quantities to disparate locations across a 2,000-kilometer border. Map 8-1 shows the supply regions used for this distribution. Six hundred items, many of them time- and distance-sensitive, had to be organized and distributed through informal channels that varied continuously because of weather and war, as well as fluctuating destination points and recipients. Moreover, the objective of redeveloping Afghanistan added to this burden the challenge of working with local Afghan and Pakistani colleagues, who had almost no experience in logistics, to create and operate the process essentially overnight.

Logistics support constituted a series of related activities critical for building a health delivery system in Afghanistan: procurement, warehousing, kit assembly, and distribution. These activities accounted for over 45 percent of the cross-border health budget.

Many managers responsible for health services in developing countries do not fully appreciate the need for efficient logistics systems. This leads to large-scale waste of valuable resources that these countries cannot afford to lose, patient dissatisfaction, and loss of confidence in health services. The unusual nature of this cross-border program made efficient logistical systems necessary from the start.

A cross-border logistics system based in Peshawar for Afghanistan also required dealing with additional constraints: harsh climatic conditions, a war-torn country, and poor transport facilities increased the need for good logistical planning. A wealth of experience was acquired in the late 1980s in developing and maintaining the logistics system.

All Battles Need Good Logistical Support

No battle can be won without good logistical support, as was evident in the recently concluded Persian Gulf War. However, very few appreciate the gigantic effort and meticulous planning that was involved in moving so many men and heavy machinery to the Middle East, and bringing them to quick combat readiness, under very difficult conditions.

Close parallels can be drawn between military logistics and medical logistics. In fact, medical logistics builds on methods that were discovered by the military many years ago. Even though MSH is not involved in military operations in any way, developing and maintaining logistical support systems has been quite a battle, in many respects. Maintaining efficient medical logistics systems, even in peace time, poses many problems to those working in

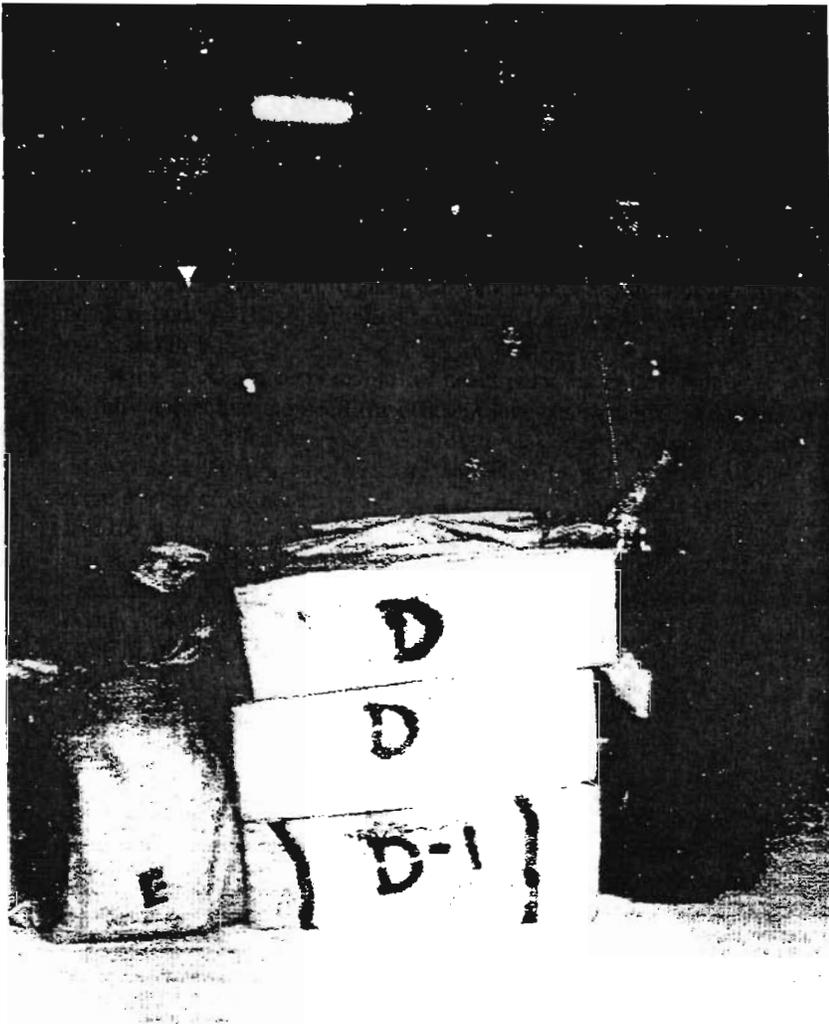
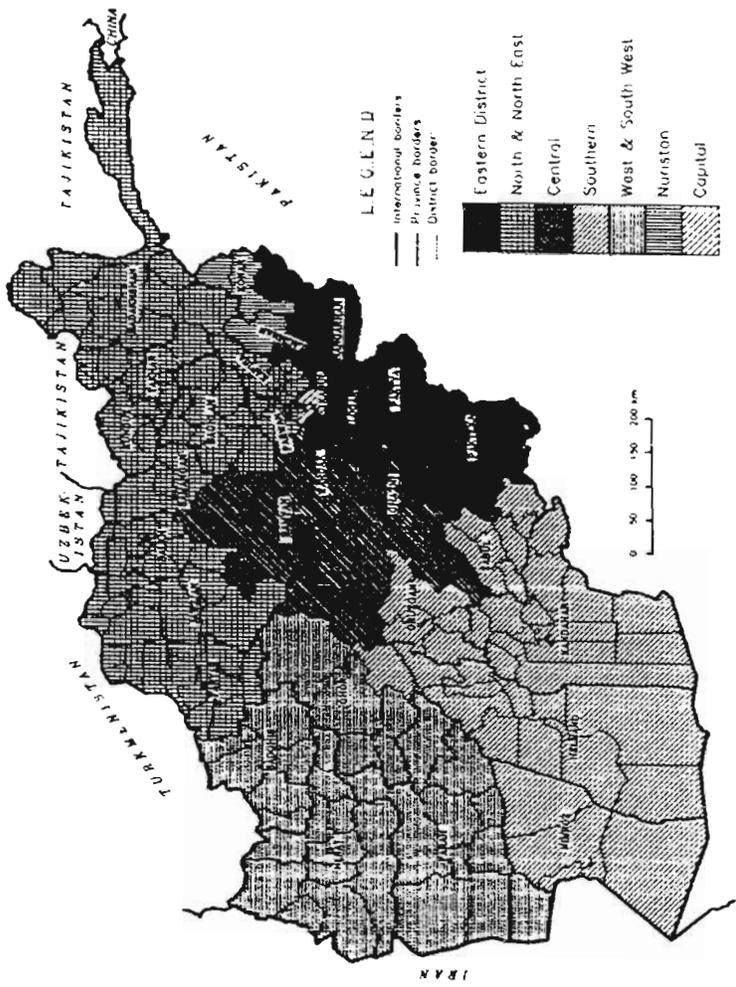


Figure 8-2: Ready to go. Supply kits were assembled in units that could be carried by people or animals.



Map 8-1: Supply Regions in Afghanistan

developing countries. Given the situation in Afghanistan, providing cross-border logistical support certainly warranted other special considerations. In order to meet this challenge, the AHSSP borrowed many military logistics systems and procedures, such as the use of kit systems. In addition to these old and established techniques, the project also used many modern techniques. Some of these techniques, both old and new, are described below.

Organization of Procurement and Warehousing

From small beginnings in 1986, the MSH Procurement Department and the warehouse purchased, warehoused, and shipped thousands of metric tons of medical and other supplies, worth many millions of dollars, to Afghanistan.

Since everything is achieved through people, attention was focused on human resources, and on creating an effective organization. The Procurement Department grew to consist of five persons, including the Procurement and Supply Management Advisor. While an external procurement agent (Ronco Islamabad) was used, the key functions of controlling inventory, forecasting kit requirements, undertaking local purchases, preparing product specifications, preparing budgets, prequalifying suppliers, and tracking orders were still undertaken by the MSH Procurement Department. (Beginning in 1991, the Department was also responsible for procuring drugs on behalf of two other NGOs, MCI and IMC, under the combined procurement system proposed by A.I.D.)

Maintaining a procurement system for over 600 different items with a small staff required a high level of productivity, which was promoted by several practices: good communications, recruitment of qualified procurement staff, use of appropriate computerized management information systems, efficient warehouse management, and sound procurement practices.

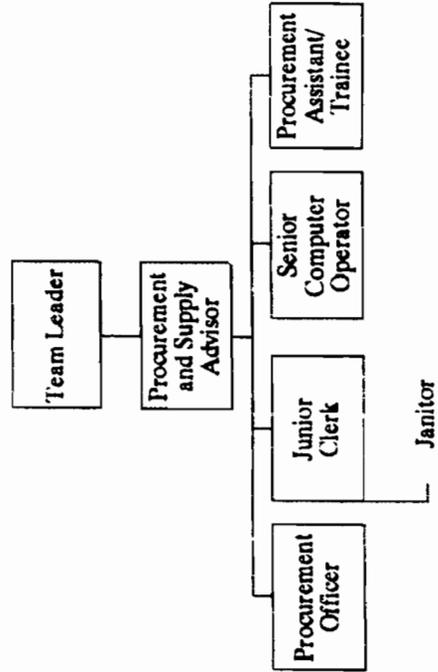
Good Communications

Free and effective communication minimized confusion, frustration, and the need for redoing work. A small staff also minimized organizational levels and required information sharing and recognition of mutual dependence, which required attitudes not always valued in Muslim cultures.

Organization for Procurement

While the organization of procurement was simple (as illustrated in Figure 8-3, "Organization Chart of Procurement Department"), much time was devoted to recruiting suitable personnel. MSH had enormous difficulty in finding qualified professionals in Peshawar. Afghan professionals of the level needed

**Figure 8-3
Organization Chart of Procurement Department**



were not available. Pakistani pharmaceutical professionals had much more attractive opportunities (good salary and benefits) in the private sector, as did the computer people. Moreover, the Gulf states recruit extensively in the Pakistani medical and paramedical market. The first two pharmacists hired were from Lahore, but they only stayed a short time; Peshawar is considered to be on the frontier of the Wild West by other Pakistanis. Only on the third attempt was a pharmacist, a qualified candidate from the NWFP, successfully recruited. It also took nine months and 45 candidates to recruit the Afghan procurement assistant. Eventually, providing necessary training and motivation led to capable staff and a high level of productivity.

The preparation of comprehensive job descriptions helped minimize confusion and duplication of work. Clearly defined general and specific responsibilities contributed significantly to building a small but strong procurement team.

Computerized Information Systems

Information is the key to logistics decision making, and the need for suitable information systems was recognized early. Key procurement operations were studied to assess the type of information needed and the best way to process and disseminate it.

The complexity of data-handling operations for rapidly expanding procurement and warehousing activities combined with limited staff availability prompted the widespread use of computers to meet many information needs. Several important activities required development of special-purpose computer packages and training. The Drug Inventory Control Package (DICP) and KITPLUS for kit management are two examples. (DICP and KITPLUS are described in detail later in this chapter.)

Using computers paid rich dividends in many ways, including: high productivity with an extremely limited staff; ability to handle large volumes of data efficiently and confidentially and to respond very quickly to emergency situations; and promotion of computer literacy among staff. All these benefits allowed the generation of key information for decision making and production of reports for financial accounting and control.

Warehouse

Starting in May 1987 with a few small rooms in a rented house in Peshawar, the MSH warehouse grew to a capacity of over 2,300 square meters of storage. Beginning in 1987, over 1,100 metric tons of medical supplies were warehoused, made into kits, and issued to Afghanistan. For these operations, the warehouse employed about 60 workers, led by an ex-Air Force Logistics officer.

Operations of the warehouse were divided into four main areas: the receiving section, the bulk store, the clean room and assembly area (where repackaging and kit assembly take place), and the kit store for completed kits. Figure 8-4 illustrates the organization of the MSH warehouse.

The warehouse employed a large number of persons, mostly Afghans, for labor-intensive work. Since most had no experience in materials management, their training, use of correct methods, good supervision, and discipline were critical to efficient operation. These were achieved mainly through the efforts of the warehouse manager and his team of dedicated staff. The manager's Air Force background, training, and dedication certainly helped in making it a model warehouse.

Procurement Practices

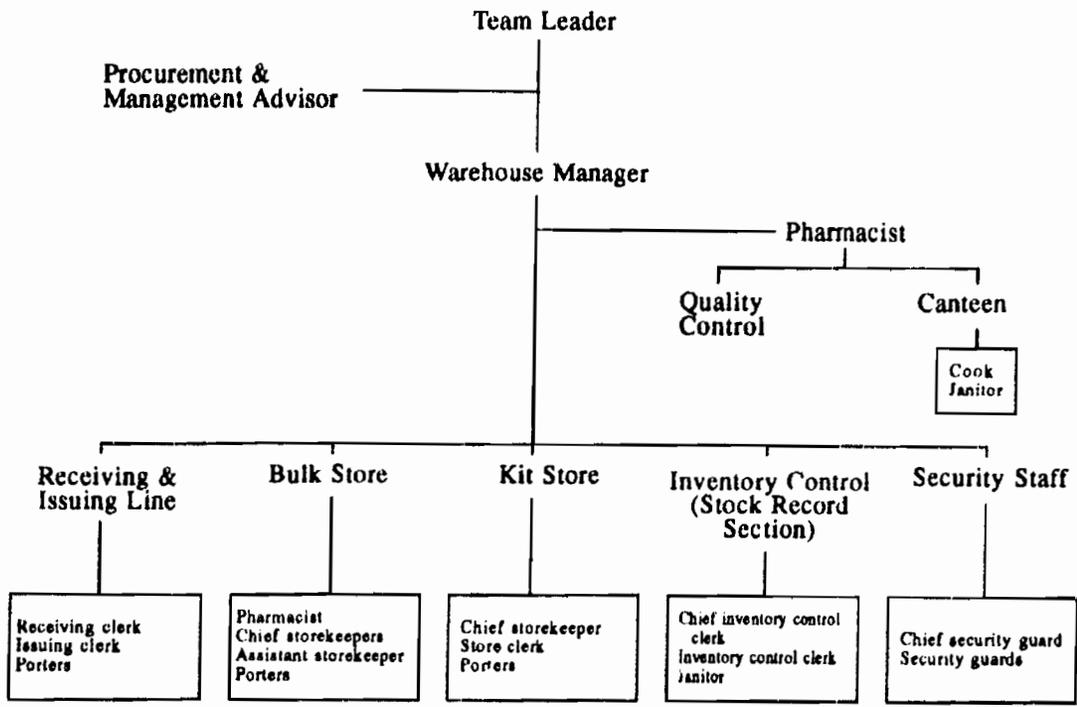
Over three million dollars' worth of drugs, medical supplies, and equipment were procured by the project in 1990, constituting the largest cost incurred by the project. From the outset, the tension between speed and accountability highlighted the project's challenges nowhere more vividly than in procurement logistics. The political pressure and refugee environment created calls for immediate action and results; on the other side were two equally compelling forces: our commitment to foster Afghan development and the knowledge that we were responsible for prudent, authorized use of government funds. Hence, it was crucial to employ good policies, systems, and procedures for procurement and related activities, while abiding by A.I.D. procurement regulations. This section describes the practices employed in some important areas of procurement.

What Was Procured

At the inception of the project, attention was focused on procuring about 50 drugs and a small range of medical supplies for a few basic health workers (BHWs) and clinics providing primary health care services and treating injured mujaheddin. The rapid expansion of health services and training programs for BHWs, dais, and doctors over a one-year period (1988-89) meant that the volume and range of medical supplies provided in the form of kits expanded to about 25 different types of initial and resupply kits. Over 600 individual stock items were used to assemble these kits.

In addition to medical supplies, the Procurement Department procured all other supplies required for health services, including office equipment, computers, vehicles, and generators. During 1990, the total worth of the equipment ordered was \$577,332.

**Figure 8-4
Organization of the MSH Warehouse**



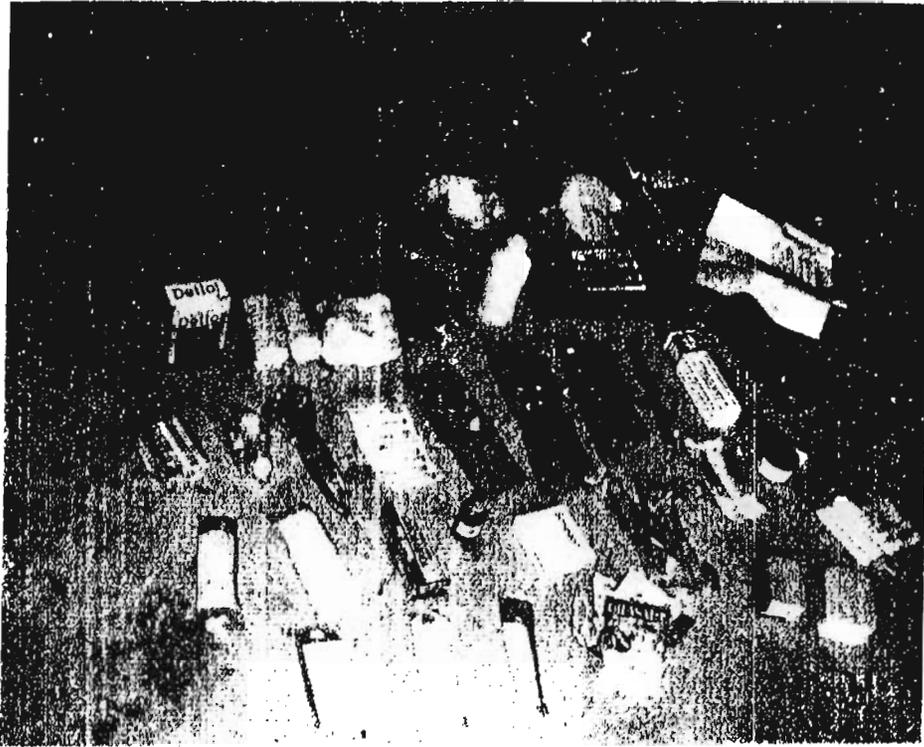


Figure 8-5: Field kit. The health workers were trained and supplied with basic tools and materials for providing basic health care and for treating war injuries.

Use of a Procurement Agent

Overall A.I.D. policy for activities in Afghanistan mandated the use of a central procurement agent. Therefore, the MSH Procurement Department determined what, when, and how much to purchase and which suppliers to use. Other procurement functions, such as identifying suppliers, inviting bids, receiving quotations, and making payments to suppliers were carried out by another agency based in Islamabad. While a central procurement agent may have been logical for bulk assistance items, the detailed requirements of medical procurement were beyond the experience of this agent and would have been more efficiently handled directly.

Sources of Supply

There are many potential sources, both national and international, of drugs and other supplies. Suitable sources are important, since they have a big impact on price, quality, and delivery. Hence, the project's policy was to procure drugs and other supplies from sources in Pakistan and to import only those that could not be readily purchased in Pakistan. This policy worked well and helped to reduce the cost of goods purchased and to maintain supply lead times of around three months.

Since the project spent over \$3 million annually on purchases, most of it on drugs, it was particularly important to obtain good value for money. This is especially true for drugs, where quality and prices vary widely. Three major markets had to be considered: the Pakistani market close at hand; the international drug market, with its multiple sources and prices, complicated by delivery and quality issues; and the U.S. market, with its widely recognized standards of quality, combined with the fact that the donor was literally the American taxpayer, through A.I.D.

The pharmaceutical industry in Pakistan, ranging from small-scale manufacturers to local affiliates of big multinationals, had developed quite rapidly over the last decade. Manufacturing, quality control, and prices varied considerably: the difference in cost could be as much as twelvefold, as in the case of a multivitamin compound. Hence, identifying manufacturers producing good-quality drugs at reasonable prices would be one of the biggest challenges facing the Procurement Department if local sources were used.

The competitive international market would have offered the most choice and the best prices; however, lead times for delivery by surface would be long, air shipment would be expensive, and price was not as critical in getting started as reliable suppliers close at hand. With a short supply season, when the mountain passes were open, the most essential issue was having drugs available.

If necessary drugs were still in international transit when the mountain routes to Afghanistan closed, the entire cross-border health effort would stop.

Some of these concerns could apply to purchases from the U.S., if mandated under a "Buy American" policy, and, for a combination of reasons, A.I.D. acted to permit procurement of drugs from Pakistani manufacturers provided they met quality standards. Hence, as part of a quality assurance program, MSH employed a system for prequalifying drug suppliers. Potential suppliers were subjected to Good Manufacturing Practice (GMP) and Good Laboratory Practice (GLP) audits by an experienced, recognized industrial pharmacist. Each manufacturer was prequalified to supply different types of pharmaceuticals, such as injectables, capsules and tablets, antibiotics, and creams. The audits resulted in a supplier pool of about 45 prequalified manufacturers, equally divided between multinationals and local companies, which were re-audited every two years.

Quality Control

A system for prequalification is only one safeguard against poor quality. Another desirable safeguard is postpurchase testing of drugs (particularly high-value items and those that could pose a danger to health if they were of poor quality). Unfortunately, the lack of accessible laboratory facilities within Pakistan (the one good laboratory in Pakistan is in Islamabad) and the problems of high cost and delays in testing drugs abroad impeded this important step in quality assurance. Feedback on drug efficacy from prescribers can be another safeguard, but the combination of circumstances surrounding the war prevented this feedback from becoming a useful indicator.

Expiry Date Planning

Two years of expiry shelf life were required on receipt of drugs, since transit time to their final destinations inside Afghanistan could be as much as three months or more. Time for storage at the MSH bulk store, kit assembly, storage at the kit store, transit to the Afghan border, storage at border depots, and storage prior to usage also had to be factored into the shelf life of drugs contained in kits.

Combined Procurement

Based on the success of MSH procurement activities, at the end of 1990, A.I.D. was keen to introduce a combined procurement system for drugs, to meet drug needs of two NGOs financed by A.I.D. A study conducted in 1991 showed that Quetta-based Mercy Corps International (MCI) and Peshawar-based International Medical Corps (IMC) could benefit by using MSH's procurement services. A comparison of prices for common class-A drugs revealed that average

MSH drug prices were less than those of the two NGOs. Furthermore, it was realized that these two organizations could benefit from the MSH practice of restricting purchases to prequalified drug manufacturers.

Combined procurement, initiated in June 1991, has not only saved money but has also made it possible to benefit from MSH's quality assurance practices, and also to modify drug lists to be compatible with those of MSH. The latter practice, in particular, has made it possible to achieve economies of scale in procurement and to standardize the use of drugs by different donors in Afghanistan. The success of standardizing drug requirements will certainly go a long way towards introducing a central supply system some day in Free Afghanistan.

Use of Kits for Providing Medical Supplies

Rationale for Using Kits

The prospect of beginning and sustaining the movement of drugs and medical supplies to over 1,500 basic health workers and 125 health facilities spread all over Afghanistan was challenging. From the very beginning, supplies were organized into kits, and this practice continued. A kit system is basically *supply driven* (a push system), rather than *demand driven* (a pull system). Kits offered several advantages under the conditions prevailing in Afghanistan: ease of transport and handling; less breakage in transit; less likelihood of pilferage; and ease of accountability.

The prevailing conditions included:

- limited access to Afghanistan due to severe weather conditions during winter;
- lack of trained and experienced personnel inside Afghanistan for ordering medical supplies and managing drug depots;
- lack of proper storage facilities within Afghanistan; and
- inability to supervise prescribing habits and logistics operations within Afghanistan.

In short, kits offered the quickest way to manage the movement of large quantities of medical supplies under difficult conditions. Another important prerequisite for a demand-driven system, reliable communication systems between Peshawar and inside and between different regions inside Afghanistan.

was absent. It was simply physically impossible to ensure uninterrupted stocks to health workers, if they had to communicate their needs and be supplied on demand. Even with the kit system, BHWs and facilities often varied their supply period. An attempt to establish patterns per individual failed: some of the people expected back after 6 months would be back after 7 months one time, after 10 months another time. Facilities showed a pattern for better compliance with each resupply. While the six clinics supplied monthly were on the average 4.39 months late for the first resupply, they would be less than 1 month late by the fourth resupply.

About 25 standard kits were developed. An initial kit was provided to BHWs and health facilities. Thereafter, resupply kits were provided once every six or twelve months. The initial and resupply kits were similar, except that the initial kits also contained durable, nonexpendable items. Table 8-1 outlines the kits; the packing plan is detailed a later section entitled "Kit Assembly."

While the kit system has served well under the circumstances, it has weaknesses: variations in disease patterns and prescribing habits meant that certain drugs could be used up quickly, while others piled up. Local decision makers gain little experience in the logistical and financial management of drug supply, and a proportion of the supply and its therapeutic value are wasted. These drawbacks have to be weighed against the important prerequisites for a demand-driven alternative system: training in logistics for those involved, setting up of drug depots within Afghanistan, and reliable communication systems between Peshawar and different regions inside Afghanistan.

Software for Kit Managers: KITPLUS

Maintaining an efficient kit system for medical supplies is not merely a case of putting products in cardboard boxes and shipping them out. While systems and procedures for the physical handling of kits are essential, they depend on a good information system for managing kits. Since no suitable computer-based package for managing kits could be found, a special package called KITPLUS was developed in dBase. Its capabilities for kit management include:

- creating new kits rapidly; deleting and adding items to kits; modifying kit contents (e.g., products, codes, specifications) and quantities;
- forecasting kit requirements based on information provided by Field Operations, and generating orders;
- valuating kits using multiple currencies and printing kit lists; and
- monitoring outstanding orders, up to the time of receiving the ordered supplies at the warehouse.

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**Table 8-1
Kit Summary**

User	Initial	Resupply
Basic Health Worker	Field Kit Equipment Kit 1 D1 Carton 5 D Cartons	1 D1 Carton 5 D Cartons
Clinic	✓	✓
Small Hospital	✓	✓
Large Hospital	✓	✓
Abdominal	✓	✓
Amputation	✓	✓
Dental	✓	✓
Emergency	✓	
Laboratory	✓	✓
X-ray	✓	✓
Dai	✓	
Midwife	✓	

Forecasting and Inventory Control

Forecasting kit requirements and controlling kit inventory affect both the availability of medical supplies and the cost of operating the logistics system. Forecasting requirements of medical supplies for Afghanistan posed special problems. A kit system was adopted because conventional approaches based on morbidity or past usage patterns were confounded by the war, and there were seasonal constraints and large variations in resupply quantities among BHWs and facilities.

During any planning period, the need for kits depended on the resupply interval for a particular facility or basic health worker, and the last date of resupply.

Usually, resupply times depended on location: BHWs near the border with Pakistan were given 3 months' resupplies, those in the central regions, 6 months', and those close to Iran, 12 months'. Clinics and hospitals were resupplied at 6 or 12 months, based on location.

Factors like cancellations based on monitoring reports, dropouts, impact of war, and unfavorable weather conditions often created a considerable difference between expected resupply dates and what was actually achieved. These complications in forecasting kit needs had a major impact on procurement practices, storage space requirements, and the need for buffer stocks. Because the goal was the rapid return of resupplied and retrained health workers to Afghanistan, a large pipeline was needed.

Many attempts were made to improve the accuracy of forecasts, through use of better estimation procedures. The failure to recognize the lags in expected resupply led to some degree of overprocurement. To overcome this problem, an average lateness factor, based on a sample study, was used to adjust the projected intervals for resupplying kits. This global lateness factor was later replaced by others to reflect regional differences and planned bulk deliveries to certain areas, such as the northern area controlled by the Shura-e-Nazar. These changes went a long way toward making forecasts more reliable.

Manual methods for estimating kit requirements would have been onerous, due to the wide range of kits in use, multiple resupply intervals, and different types of facilities, for 1,700 users. Hence, a menu-driven computer package called Forecast was specially developed in dBase III+ to perform this important task quarterly.

Forecasts of kit requirements, in turn, served as inputs for inventory control, to help determine what, when, and how much to order. Since orders were placed for individual items and not for kits, it is necessary to convert kit requirements into individual product requirements before orders were initiated. And because a particular product could be included in multiple kits, estimating aggregate

requirements for over 600 standard items that were required for assembling approximately 25 standard kits was complex.

Estimating kits requirements and quantities of each item to be ordered quarterly was accomplished through a set of related computer programs. Some of the important steps in initiating orders are set out below. The flow chart in Figure 8-6 indicates these steps and their major functions.

- (1) Employ Forecast program quarterly to estimate monthly kit requirements over a planning period of six months;
- (2) Convert kit requirements into individual item requirements using KITCON program; and
- (3) Identify items to be reordered and order quantities using MULTI, which takes into account inventory pending receipt.

On one hand, inventory decisions were influenced by the need to maintain a high level of service for individual items, in order to ensure an uninterrupted kit assembly schedule and to minimize local purchases resulting from frequent stock-outs. On the other hand, overordering could result in drug expiry, spoilage from inadequate storage capacity, and tie-up of capital.

Despite three-month lead times for purchases and the problems of forecasting kit requirements, it was possible to exercise good control over inventories. The program did not face a major stock-out, stock-outs were rare, and kit assembly went smoothly, while last-minute, local purchases were minimized. Overstocks and short shelf life were the other side of the coin. In fiscal years 1990 and 1991, about \$70,000 worth of drugs with short shelf life were donated to local hospitals run by the Ministry of Public Health, a small amount in relation to annual purchases of around \$2 million worth of drugs.

Warehousing

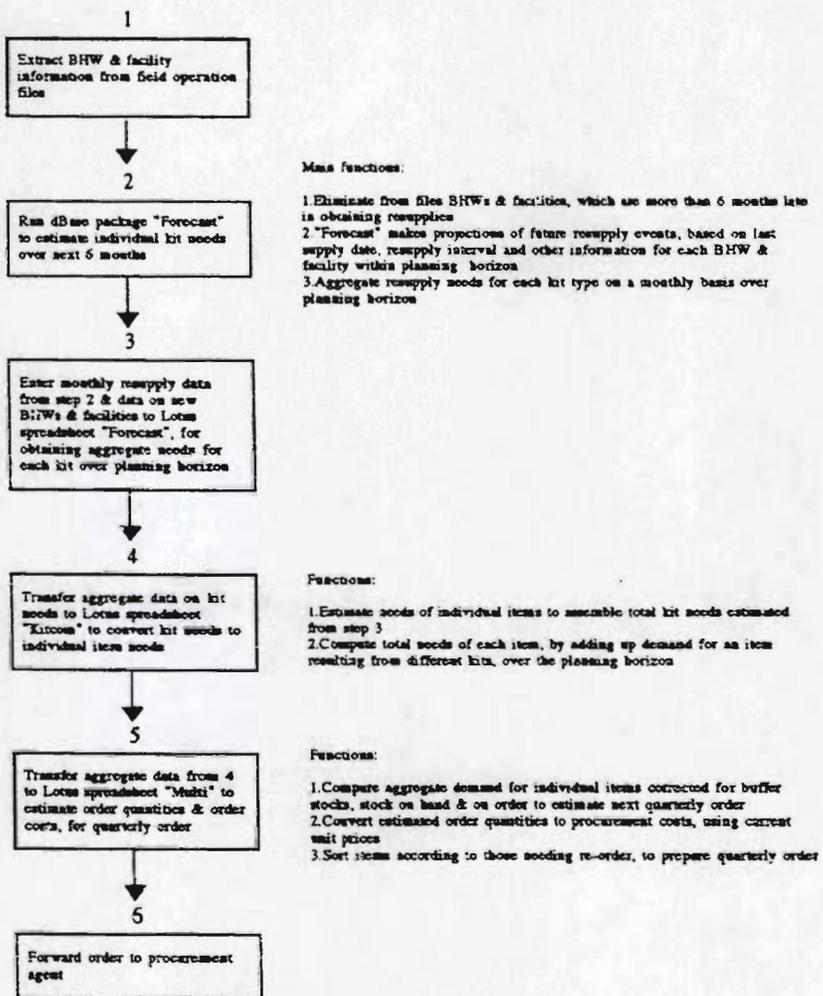
The key operations involved in warehousing are: receipt of items procured, storage, preparation of kits, transference of assembled kits to the kit store, and issuance of completed kits.

Receiving and Storage

Receiving products from suppliers is a very important and occasionally delicate activity. Attempts to be overly strict about accepting products can drive away suppliers and cause delays in obtaining fresh supplies from alternate sources. On the other hand, lax acceptance procedures leave room for corruption.

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Figure 8-6
Flowchart for Kit Orders



or acceptance of low-quality and unsatisfactory products. Maintaining a good balance is important but not always easy to achieve.

At the point of receipt at the warehouse, all items were checked for conformity with the supply contracts established by the MSH procurement agent based in Islamabad. Drugs were checked mainly to ensure that:

- the source was currently prequalified;
- quantities received corresponded to contracted amounts, including quantities within a sample of individual packs;
- proper packaging was used;
- physical appearance was good; and
- shelf life was at least two years or 80 percent of available life.

Re-assembly was not undertaken where it could be avoided. At least until 1989, only a few items for the BHW kit were repackaged. Repackaging proved to be a major undertaking, and the lack of readily available professional personnel to supervise such a large scale operation made us avoid it where possible.

For many nondrug products, acceptance can be complicated, because of inadequate specifications, absence of prequalified sources, and problems of assessing product quality. Decisions about whether to accept products were made by the Afghan pharmacist in charge of the receiving section. His job was not always easy, since he was called upon to make difficult decisions, as the following vignettes reveal.

These experiences demonstrate that you can sometimes lose by being overly cautious. However, maintaining strict policies for product acceptance generally paid off by greatly reducing the receipt of poor-quality products. We rejected, on average, 20 products per year in 1990-92. The average cost of the rejects was \$42,000 per year.

Vignette: The Case of the Bandages

A large quantity of gauze bandages ordered from a local supplier had to be rejected, because the products delivered differed from the samples submitted. The MSH inspector rejected them for poor weaving, a significant color difference, and a general look of poor quality. Even after many attempts by the supplier (and the A.I.D. procurement agent) to persuade MSH to accept the consignment, the MSH inspector was determined to reject the entire lot. Finally, the matter

was brought to the Procurement Department, which held a meeting with the supplier, the procurement agent, and MSH staff to resolve this problem. At the meeting, it was clear that the MSH inspector's reasons for rejection were quite valid. While the factors mentioned contributed to poor quality, the product did pass the test for absorbency, one of the main prerequisites for a bandage.

Since the quantity of bandages in dispute was very large (950,904 rolls), finding an alternate source of supply would take another three months and result in a major stock-out, because bandages were common to many kits. Since they were found to be usable despite their poor quality, it was decided to accept the consignment, provided the supplier was willing to reduce the contracted price. After much haggling, the supplier agreed to a small reduction of 3.5 percent. The compromise reached was acceptable to all, including the inspector.

Vignette: The Case of Dextran

On many occasions, MSH had awarded the contract to supply intravenous fluids to OTSUKA, a multinational company. While the contract specified products from OTSUKA Japan, the distributors were delivering products from OTSUKA Egypt, Malaysia, and Pakistan, which were rejected. On certain occasions, the distributor did replace these with products from Japan, but not always.

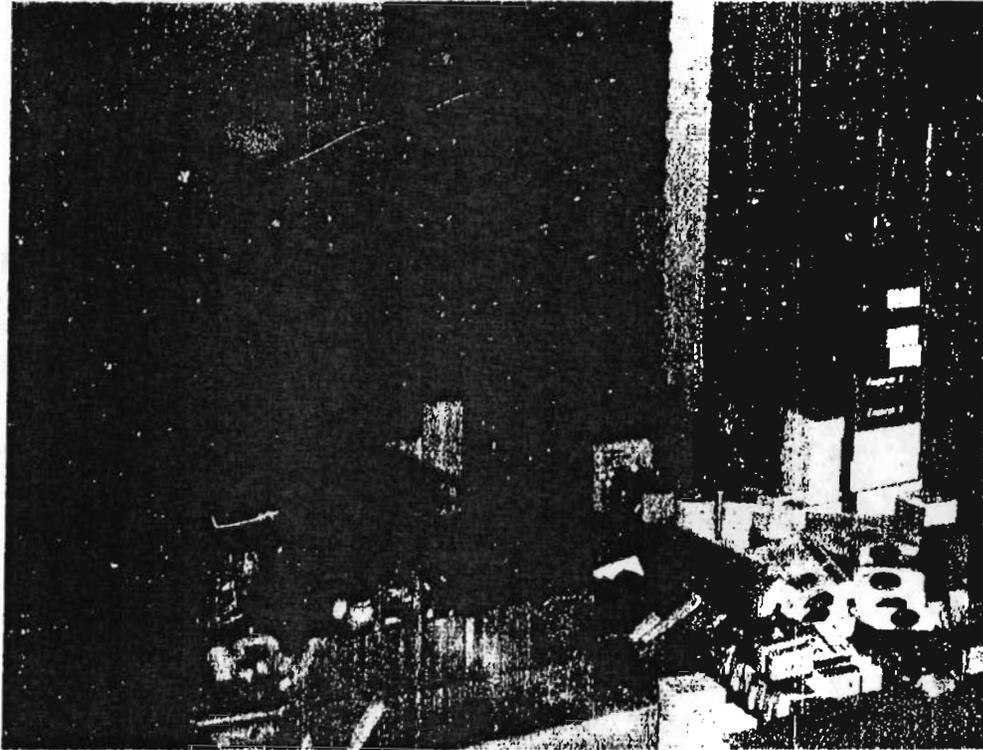
To address the problem, it was decided to subject OTSUKA Pakistan to a GMP audit. The consultant industrial pharmacist was very impressed with this company and prequalified it for the supply of all IV fluids.

Kit Assembly

Repackaging of drugs is an important step where many of the advantages derived from good procurement practices can be lost through poor repackaging and unhygienic handling. Therefore, substantial repackaging was avoided as long as possible because of the lack of available supervisory staff.

The assembly shop where individual items were assembled into cartons to form kits became a hub of activity. This labor-intensive operation involved repackaging drugs from the large packs provided by suppliers into small plastic bags containing a few hundred tablets or capsules (see Figure 8-7). Drugs such as tablets, capsules, and injections were counted manually, placed in polyethylene bags, and heat-sealed to protect contents. The poly bags were sealed carefully to insure that they would withstand the extreme climatic conditions in Afghanistan. The bags were also frequently examined visually for good seals.

Over the years, the warehouse packers developed the operation of packing cartons into quite an art. This process adapted many assembly-line techniques to increase productivity. Further, special packing techniques were used to minimize



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Figure 8-7: Repackaging supplies. All drugs and supplies were repackaged by hand at the warehouse to make up secure, waterproof field units.

breakage and spoilage of kit contents while in transit to far-off destinations in Afghanistan. Breakable and crushable items were put in the middle of cartons where possible and cushioned by soft items like bandages and gauze pads. All cartons were enclosed by polyethylene covers to make them waterproof. All kits were marked on the outside with a kit code for easy identification and with the date of assembly, so that users could minimize drug expiry.

Inventory Records and Computerized Inventory Control

No warehouse operation is complete without adequate records for management information and accountability. From the beginning, inventory transactions like issues, receipts, and stock balances were recorded using a manual system of stock cards. This practice was later supplemented with a computerized inventory control system for bulk and kit store operations. A special, menu-driven Drug Inventory Control Package (DICP) was developed in dBase.

DICP proved to be valuable for exercising tight control over inventories and responding to emergency situations in Afghanistan. DICP generated data that were not available through the manual system, including information on different batches of a given drug and expiry dates, batch quantities and suppliers, year-to-date and month-to-date information on receipts and issues, and on-order quantities and back orders. In one and a half years, the computer operator acquired the necessary training and experience in using this user-friendly package.

Future Directions

Even if peace returns relatively quickly, it is highly unlikely that Afghanistan will be able to build a strong economy in the near future. If so, Afghanistan will have to continue to rely heavily on donor assistance, as it has for over a decade. However, what is not very clear at present is whether the U.S. and other major donors that have poured millions of dollars into developing health and related services in Afghanistan will continue to do. As discussed in Chapter 5 on planning, many major changes would need to be made quickly to compensate for a significant reduction in donor support. Considering the world economic and political situation, and possible donor fatigue, chances are that there will be fewer resources available for Afghanistan in the future. Hence, it would be best to consider various development options under a scenario of reduced outside spending.

What are the implications of such a scenario for logistics operations? Over the last six years, funds and technical assistance have been available for procuring medical supplies and equipment, developing computer usage, and

conducting management training. Concerns about sustainability and recurrent costs only began to surface slowly. But now we must look critically at logistics operations and identify key changes that could make logistics systems more sustainable. If not, it is probable that what has been built up over the last six years will quickly weaken and disintegrate after the withdrawal of assistance.

Specific proposals for achieving a sustainable logistics system with limited donor support are presented below.

Personnel: All Systems Are as Good as Those Who Operate Them

A great deal of time, money, and effort have been spent through the late 1980s in developing complex manual and computer-based systems. If existing systems and procedures are to last, it is very important for all concerned with their operation to be comfortable in operating and maintaining them. Management development and training in the use of existing systems are necessary to insure this proficiency. All systems are only as good as those who operate them. Hence, the need for providing adequate training for those who are involved in logistics operations in Afghanistan cannot be overemphasized. (See Chapter 3 for a related discussion of management training.)

Management Development

At present, many key decisions regarding logistics are being made by expatriate staff. Sooner or later, Afghans will be called upon to assume leadership roles and make key decisions, with or without the help of expatriates. Since results can only be achieved through people, developing people is one investment that can bring lasting benefits. Therefore, training opportunities for Afghans in general management and specifically in supplies management, as well as hands-on experience in different aspects of logistics, should be high on the list of development priorities.

The AHSSP recognized this point and provided many hours of classroom and on-the-job training in Peshawar in both general and supplies management to Afghans attached to drug depots and health facilities. Persons from Shura-e-Nazar under the area development program particularly benefitted from this training. Such programs exposed participants to theoretical aspects of logistics and opportunities for identifying weaknesses of their current systems, developing specific plans for improving performance, and learning how the project could provide them with financial assistance for upgrading storage facilities in Afghanistan.

Vignette: Zaki, the Jack of Many Trades

Zaki is a young man from a middle-class Afghan family, who fled like millions of other Afghans to escape from the communist regime. He arrived in Peshawar in 1989 with his brother and entered a refugee camp with the few belongings he brought with him. From there onwards, life was tough, since jobs were hard to find for young Afghans with a high-school education and no real skills. However, Zaki was alert and fortunate; he got a job as a janitor at the MSH Procurement Department, through the personal recommendation of another Afghan employee.

The job did not make Zaki rich, but at least he and his brother could move to a one-room apartment in Peshawar. Zaki was ambitious and hard working and made plans to better himself. He quickly realized that learning English would permit him to learn other new things, play a bigger role at the workplace, or at least improve his chances of joining his family now living abroad. So he started studying English diligently after work, and during work whenever he could find free time. When he was a little confident with his English, he made a point of talking in English to his boss, which gave him the confidence to practice more. He is far from being fluent, but he has come a long way from where he was three years ago. Today his English is good enough to be understood by others.

Zaki's English also opened doors into the world of computers. He started taking computer lessons, which enabled him to work on simple Lotus spreadsheets and undertake word processing.

He turned out to be a versatile young man, doing more jobs than the typical janitor. His daily routine included operating the photocopier, answering the telephone, making tea, preparing lunch for procurement staff, cleaning the office, running errands, typing envelopes, and filing.

The job of janitor was not very interesting or challenging, but Zaki considers it a good investment for the future. He is willing to try his hand at anything new and is a motivated worker: a jack of many trades, but a master of none. It is doubtful what his future holds. However, he is rather confident that his experience will give him an advantage when he joins his family living abroad or returns to Free Afghanistan some day.

Identification and Development of Potential Managers

The story of Zaki is not unique, as quite a few others like him acquired new skills and improved their living standards in exile. On the other hand, for each Zaki, there were many who could not capitalize on the opportunities available to them.

While providing management training, identifying suitable persons who could assume leadership roles for key positions is vital. Examples abound in which poor leadership has had disastrous impacts on programs and created much frustration among managers and workers. Experienced managers are rare in Afghanistan and Pakistan, and qualified and experienced Afghans currently abroad are unlikely to return home. Hence, leaders will most probably have to emerge from those currently in Afghanistan or in Peshawar, whether they are attached to other development projects or to the Ministry of Public Health.

In the area of logistical support, the three key positions—warehouse manager, chief pharmacist, and computer operator—responsible for generating orders and inventory control were occupied by Pakistanis. They are unlikely to work in Afghanistan. The Ministry of Public Health of the AIG has shown very little interest in acquiring logistics management skills. Logistical issues are still misunderstood and undervalued. If Afghanistan is to build on the base it has, it is crucial to identify potential candidates to occupy these key positions and train them to assume such responsibilities.

Rationalization of Kit Contents

Cost containment is perhaps the first step towards sustainability. Since over 45 percent of the budget is spent for supplies, and most of it for drugs, any cost reduction efforts should focus on drugs.

This activity should commence with a close look at the contents of kits to ensure that value for money is achieved for each drug. If not, options for substitution with cheaper drugs, deletion from the kit, or a reduction in the quantity per kit should be considered. In performing this activity, the systematic cost reduction techniques of ABC Value Analysis and VEN Classification Systems would be very valuable, to balance drug costs and therapeutic benefits.

There have been many attempts to reduce kit costs over the last few years, but the biggest attempt at cost reduction was achieved during fiscal year 1991; in line with A.I.D.'s recommendation to cut the cost of supplies to clinics and hospitals by 20 percent, all kits were critically examined. Changes were made with respect to the 10 drugs listed in Table 8-2. They involved deleting certain drugs, reducing kit quantities, and, in one instance, increasing the kit quantity.

These changes resulted in an overall cost reduction of more than 20 percent in clinic kits. This is very significant because clinic kits account for more than 25 percent of the total cost of all kit issues to Afghanistan.

Cost reduction efforts have also been extended to BHW kits, which comprise nearly 60 percent of the total cost of all kit issues. The most expensive item, multivitamin compound, used about 8 percent of the annual drug budget. Its therapeutic benefits were questionable, as it was mostly used as a placebo and not for treating vitamin deficiency. After much debate, eliminating multivitamins from all kits resulted in an annual savings of nearly \$180,000.

Table 8-2
Cost-reduction Changes in Kit Contents

Product No.	Generic Name	Extent of Change
2.141	Pentazocine 30mg/ml solution	(-) 50%
2.142	Pentazocine 25mg tablets	(+) 100%
5.001	Diazepam 5mg/ml solution	(-) 50%
6.312	Ampicillin 500mg powder	(-) 33%
6.701	Chloroquine 150 mg base	(-) 33%
11.101	Dextran 70, 6% w/v in saline	(-) 33%
17.101	Aluminum Hydroxide Comp.	(-) 25%
17.102	Chlordiazepoxide 5mg+climidium bromide	(-) 100%
21.101	Oxytetracycline 1% eye	(-) 50%
25.201	Triprolidine+pseudoephedrine	(-) 33%

Kit Systems and Beyond

Millions of dollars' worth of medical supplies have been delivered in the form of kits for maintaining health services in Afghanistan. The practice of using kits has considerably reduced the need for traditional supply management techniques and the need for those working in Afghanistan to make management decisions about supplies, since these have been mostly made in Peshawar on their behalf, largely by expatriates.

This arrangement would perhaps suffice as long as donors could continue to fund a supply system based on kits, which is highly improbable and probably inappropriate. To make the system more affordable and sustainable, MSH has concentrated on two broad areas: application of value analysis techniques for reducing costs and thereby achieving value for money, and exploration of means for introducing revenue-generating schemes like fees for service and revolving drug funds. In 1991, the cost of clinic and hospital kits was reduced by over 20 percent through rationalization of kit contents, as a means of reducing the overall costs of maintaining the logistics system.

When the level of donor support is substantially reduced, Afghans will have to undertake their own procurement activities and employ a demand-driven system, requiring more sophisticated management techniques than those currently used. A kit system was selected during the conflict as the most appropriate way of shipping large quantities of medical supplies quickly and safely to Afghani-

stan, under difficult operating conditions. After almost five years of use, there are many who doubt whether the kit system is still serving its purpose. Like most systems, it has disadvantages, notably the inability to deal with regional differences in demand. While these are real problems, the change to a demand-driven system requires recognition of several factors:

- insufficient availability of drug depots to support such a system within Afghanistan;
- the need for providing further training in logistics; and
- the problems of providing technical assistance through expatriates in a time of transition in Afghanistan.

Given the political uncertainties of today and unpredictable future donor support, human resource development remains one of the best investments for the future: MSH has already trained many storekeepers from AHSAs and interested persons from the MOPH in many areas of supply management. However, the impact of training takes time to be visible, and it remains unclear whether training efforts provide Afghans with sufficient interest, knowledge, and confidence to introduce appropriate logistics systems in Afghanistan.

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Chapter 9

Financial Operations and Management

Peter Huff-Rousselle and Mary Gasper

Introduction

This chapter deals with financial issues internal to the project. While most of the required management functions were familiar, the sheer size and complexity of the project made financial management quite different from previous projects, and raised a variety of practical issues we had never had to confront before.

Financial Operations

When we design a major health program in a developing country context, or when we gear up for its implementation, our emphasis is almost always on the “technical” aspects of service delivery. If we focus much attention on the essential but less glamorous support functions, the spotlight usually falls on Management Information Systems, Human Resource Management, or perhaps the logistics sub-systems for pharmaceuticals and medical supplies.

What we too often neglect are the logistics of moving money—in a very big program, a great deal of money. For those who have never found themselves in such a situation, it is easy to assume that there is no real challenge here: a check is a check, regardless of the number of zeroes. If we think of financial operations at all, they are easily imagined as the relatively straightforward activities familiar in any small business, largely a flow of computer-originated checks, documents, and reports.

In fact, getting the right amount of money to the right places at the right time can present almost overwhelming challenges, and where the system fails, so does the delivery of the health services. This is not a job for amateurs (or for the faint of heart!). Nevertheless, it is a rare project that foresees the problems, and plans for the needed expertise from the outset. The AHSSP financial environment described here may help to provide a concrete picture of “the real world” of project financial flows in such a context.

The AHSSP had more than its share of complexity. Money had to be transferred through multiple layers, with lower levels not necessarily under central control, given the wartime environment. In addition, there were several major channels, including the evolving Ministry of Public Health, with its bureaucracy based for the most part in Peshawar, and parallel flows to commanders in the field, either directly or through the local Area Health Service Administrations, with Peshawar offices in addition to their bases inside Afghanistan.

The donor environment added several additional layers to the maze: a fax from the field for funds would trigger a request from the Boston Office to the U.S. Treasury Department. Dollars would then flow from the Treasury to Boston, and to MSH/Peshawar, to be deposited and converted into local currency. Each step had its own idiosyncratic systems and frustrations, but these were relatively manageable, since they at least were well known through years of experience in similar projects.

Financial Management

For money to move, the process must be managed. Overall financial planning sets the parameters within which detailed budgets are prepared. As funds flow, the loop is closed with careful accounting for all transactions, and reporting systems that feed back to managers the information they need to keep the entire process under control.

This is not to pretend that the "real world" allowed us the luxury of financial management systems that function like clockwork. Practical realities sometimes mean that the budgeting process is trying hard to keep up with the practical demands for cash, and broad financial plans often are somewhat out of date well before they can be formally updated. Nevertheless, the framework is useful for a review of the system overall.

A realistic description of the system must recognize that there are "wheels within wheels." Long range financial planning sets the parameters for annual budgets; these in turn provide the framework for more detailed, short-run plans. The project went through several long-range planning exercises at key turning points, which often coincided with contract amendments, based on strategic decisions by the donor agency. Within these plans, annual budgets, were based on the program's operational targets and our assessment of the absorptive capacity of the counterpart organizations. As work proceeded, we prepared and monitored quarterly projections of disbursements, to ensure adequate cash flow. The accounting system functioned on a basic monthly cycle, with aggregate quarterly reports, and annual audit reporting cycles to donors. On the whole, this process flowed relatively smoothly, and will be described in more detail below.

The Financial Environment

In the Field

Project services were delivered inside Afghanistan, but the Afghan banking system was unavailable, being controlled from Kabul, so cross-border financial operations had to be conducted almost exclusively on a cash basis. In any event, in neither Afghanistan nor Pakistan did more than 10 percent of the people use the banking system: payrolls and purchases were typically in cash. Much of the commercial trade across the border used the "Hundai" system of commercial paper IOUs, to minimize the physical transfer of cash and to expedite foreign exchange: money would be paid in Pakistani rupees to a local firm, which would issue an "IOU", redeemable from a branch inside Afghanistan in local currencies.

In Pakistan as well, although to a lesser extent, the bank checking system was not well organized, particularly for operations involving large numbers of small transactions. Computerized checks were unavailable, and banks typically issued checks only in unnumbered blocks of twenty-five. On the other hand, banking relations were cordial, and the local branch of Grindlay's was accommodating on most issues, including expediting clearance of periodic large transfers of foreign exchange into the local account.

The Donors

The donor environment was one of the many unusual elements of the system. Conceived as part of U.S. aid for Afghan freedom fighters, political support for the health program derived from those favoring purely humanitarian efforts to provide short-term war relief, and those who approached the problem from a development perspective, committed to the reconstruction of "Free Afghanistan" and its capacity to meet its own needs in the long run. Many supported both goals, but there was much debate, and the decision from the highest levels was clear—this activity was to be fundamentally relief, not development. This policy decision had a very substantial impact on the nature of the work, as the short-range relief perspective continually raised difficulties for preparation of rational long-range plans, financial or otherwise. In reality, there was no way to achieve the relief goals without engaging in a large amount of "development": nevertheless, development activities regularly had to be justified as an acceptable use of project resources.

The Dilemma

From the outset, the project faced two incompatible goals: programming the relatively enormous amounts of financial resources available in the short run, to

best meet the health needs of the Afghans, trying to do so in a responsible manner that afforded the maximum prospect of sustainability once the obviously numbered days of essentially unlimited resources were past. We were under substantial pressure to program and expend funds at the very high levels that they were obligated, but this pressure had to be balanced with the obvious inability of the Afghan community itself to take on responsibility for managing a program of this magnitude. It was also clear that to use large amounts of resources was in the essentially bottomless pit of curative services. In the long run, a low cost, preventive system, while much harder and slower to develop, was clearly the only responsible way to go.

Human Resources

Afghan Institutions

From the outset, we were anxious to support the maximum possible Afghan participation in the administration of the health services in general, and financial administration in particular. Thousands of health workers, and hundreds of Ministry bureaucrats, were to receive salary and other support, and we wanted, if at all possible, to avoid the roles and labels of "paymaster" and de facto "employee."

In addition to the thousands of health workers inside Afghanistan, at its peak the project provided salary support for over 160 Afghan central Ministry of Public Health employees in Peshawar. Of these, 6 employees at the Ministry's Finance office gathered invoices to submit to the MSH Financial Management Office, coordinated payroll, maintained petty cash, and performed administrative duties.

Many attempts were made to build the capacity of the Ministry's Finance Department, but the real world constraints left MSH with ultimate responsibility for project finances and day-to-day operational responsibility. Ministry personnel changed constantly: after training someone in bookkeeping skills, he would invariably be replaced with an unskilled successor. In one eighteen month period, the Ministry's Finance Department operated under 5 different Afghan directors.

Project Staffing

The MSH team in Peshawar included a Finance department staffed by 5 Pakistani men and 1 woman, and 2 Afghan men, working under the direction of an expatriate Controller. Three of the Pakistani men had worked in local audit firms and the Pakistani woman had a Computer Science degree from a local university. The Afghan employees learned by working side-by-side with Pakistani employees performing clerical accounting functions. Although our hope was that

they would use this training back in Afghanistan, with more attractive opportunities in private business in Pakistan, it is unlikely that they will return.

Although our project was directed at developing Afghanistan, we found it necessary to hire Pakistanis for finance functions. Because project finances were subject to accountability and audit standards of the U.S. government, highly capable accounting personnel were an absolute necessity. Pakistanis were available with accounting degrees and training in audit firms connected to the U.S. "Big Five." After searching for a year and a half in the Afghanistan/Pakistan area, one Afghan was found who had worked as a cashier at a hotel in the Emirates. It seems clear that modern financial management skills are not a priority interest area for the Afghan refugee community, and most of those who have come to the West for finance education in the past apparently have remained there.

Financial Operations

A visitor to Peshawar, observing modern warehouses, medical equipment and supplies, fax machines, and dozens of up-to-date microcomputers using the latest software, might be lulled into a sense that the health system was running very much like one in the West. However, if the visitor were curious enough to explore the vital flows of money through the system, the facade would soon give way to an operation that is more traditional than modern and more dependent on human transactions than on computers, moving a *physical volume* of cash rarely seen in most legitimate western businesses. (The recent Savings and Loan crisis in the U.S. might suggest that much of the western financial world, behind its own high-tech facade, is also still fundamentally all too "human.")

Getting Money to the Field

Of the two main operational "loops," the first most straightforward one involves the flow of funds from the U.S. Treasury to the field. To accomplish this:

1. The field office in Peshawar would fax periodic cash requests to meet operational needs—for example, a request for \$500,000 to meet the coming month's field requirements.
2. Boston headquarters would acknowledge the request, and initiate a "draw" from its Federal Reserve Letter of Credit ("LOC")—a very simple process, usually done once a week in combination with the draws for other LOC-funded projects.

3. A few days later, the requested funds would appear in the company's main checking account in Boston.

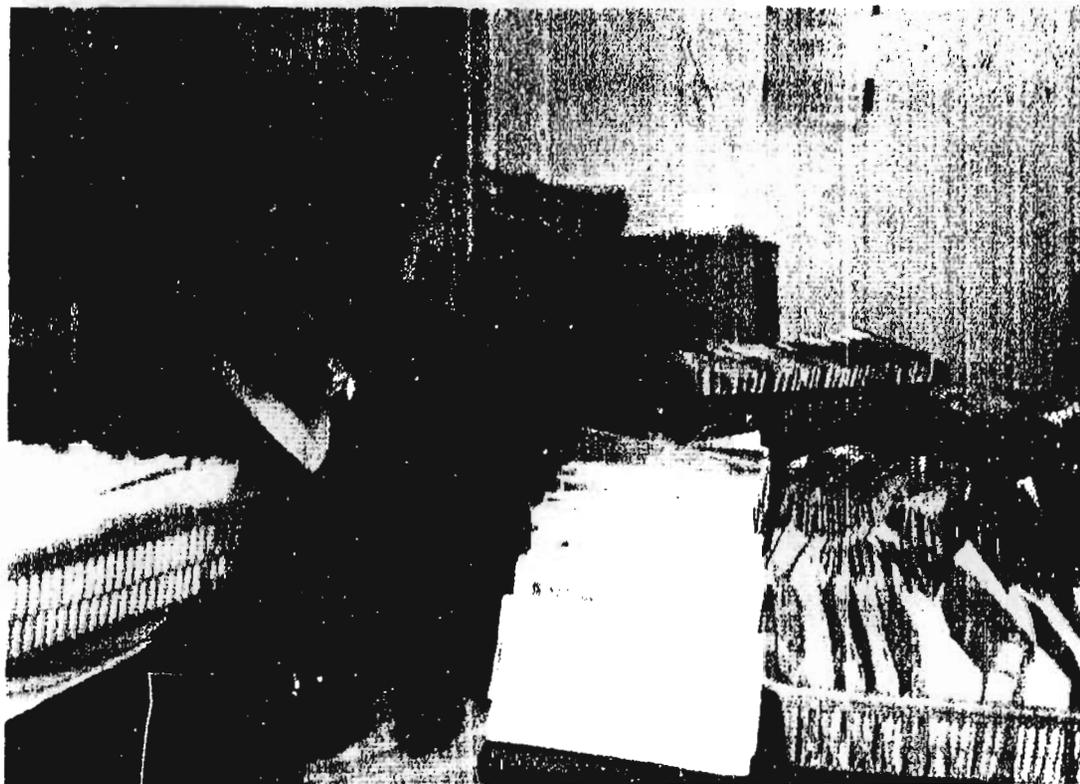
4. A telephone instruction to the Bank of Boston would transfer the Afghan project's funds to the project's checking account in the same bank, and Boston would advise Peshawar by fax that their money was now available. (These "project accounts" are typically set up at the start of each field project. The field project director has signatory power, and keeps the checkbook for the account in the field.)

5. The project's financial office in Peshawar would then write a Boston account check, have it signed by the project director, and deposit it into their local account with a Pakistani bank (a much more reliable mechanism than wire transfers to the field, since inevitably the occasional wire transfer seems to go astray, with much finger-pointing by the banks at each end, and often a need to send a duplicate payment to meet urgent requirements while the lost money is being traced.) Given the volume of money involved, and the attendant currency conversion commissions, it is usually possible to establish these field accounts with a reliable local bank that will agree to make deposited funds available quickly, often on the day of deposit. Nevertheless, the process does involve a considerable amount of "float," with the several layers of bank accounts involved. One recurring nightmare is the specter of a bank failure with a million dollars or more of project funds lost—the recent BCCI disaster could have been a close call!

Paying the Bills

The second "local loop" involved getting money from the Pakistani bank in Peshawar through the Afghan service delivery structure to the "end users," the most important being the approximately 2,500 Afghan and Pakistani workers in the system, whose salaries, benefits, and expenses all required cash, generally paid to them in individually stuffed paper envelopes. Transportation was also a major expense, with a wide variety of shippers for medical equipment and supplies from Peshawar to the border depots and into Afghanistan, on their donkeys, camels, or trucks, all requiring payment in advance.

These "end users" were part of a strictly cash economy, with little use for bank checks, since they did not have accounts of their own. Therefore, project checks drawn on the Peshawar account had to be converted into cash and distributed to each individual worker and truck driver. In a three-month period during a typical busy summer, the project could buy well over \$1,000,000 of local currency. A regular scene in the Finance Office would be the arrival of a rickshaw, hired by a money vendor, bringing in enough cash to cover two



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Figure 9-1: Payday. Health workers had to be paid in cash, which was distributed in thick envelopes.

desktops. Four person-days were required simply to count it reliably, and strong internal controls and a reliable cashier were essential.

Most of the money was disbursed in Pakistan Rupees, obtained directly from the bank at a rate of around 25 to the dollar. However, a significant portion was needed in Afghanis (the official currency inside Afghanistan). At perhaps 35 Afs to the Rupee, this usually meant many more cubic feet of Afs than Rupees. Afghanis were purchased on the "informal" market in Peshawar's central bazaar. As a rule, six bids were obtained for each biweekly purchase, which might be for as much as 50 or 60 million Afs. With the highest generally-available note being 500 Afs, the sheer challenge of transporting, safeguarding, counting and distributing the cash was a whole new experience for the project staff.

Some disbursements were made directly by MSH project employees, but most were made indirectly, through the Afghanistan Ministry of Health, one of the AHSAs (Area Health Service Agencies), or some other appropriate intermediary. MSH's own Pakistani and Afghan office staff, as well as the Ministry of Health staff based in Peshawar, were paid personally by an MSH Finance Office staff member, with signatures obtained and kept in the project files along with the corresponding timesheets. For personnel inside Afghanistan, there were three basic mechanisms:

1. Some categories of health workers returned periodically (typically once every six months) for resupply, and perhaps for refresher training as well, at which time they were advanced their next period's salary.
2. For most of the other workers, cash was advanced in Peshawar to an agent who traveled inside Afghanistan, and either paid people directly or turned the money over to a local commander's representative. Signatures were obtained and returned to Peshawar, where they were verified by comparing them to signature cards on file. The outstanding advance was then reconciled.
3. Transfers to the SCNA (Supervisory Council of the Northern Areas) involved the "Hundai" system: rupees were paid to a commercial company in Peshawar, which issued an "IOU", and money was collected inside Afghanistan in Afghanis; this procedure proved to be highly reliable.

Apart from payroll and transportation operations, the project involved a major procurement component, largely through the PSA (Procurement Service Agent) contracted by USAID to support the many Afghan program contractors. Our responsibility was focused on planning, ordering, receiving, storing, and distributing the commodities. Local purchasing remained, from office furniture and paper to medical supplies and vehicle parts. Sound financial practice required soliciting at least three bids for each purchase over \$300 (over \$50 for purchases

by the MOPH). As always in Peshawar, this proved to be less straight-forward: a single vendor might have three or more letterhead pads, with various company names, and submit a bid on each. Most cases were detected and rejected by the Finance Department, whose Pakistani employees from Peshawar usually had a good idea which bids were valid.

For MSH, as a grantee assisting with U.S. government support to the Afghans, there were several somewhat frightening aspects to the whole financial process:

1. Since the Government of Afghanistan had no working capital, money for operations always had to be "advanced," and it proved to be a continuous struggle to get proper documentation to liquidate these advances. It was unclear what would happen at the end of the project, when there was no longer any incentive to get the last batch of receipts in, or what view the auditors would take about any outstanding advances at that time.
2. There was always a major risk of theft, with all the cash floating around in the system. (At least one serious theft apparently occurred, when money was in transit from Peshawar to Afghanistan.) In the case of theft, whose money was it that was stolen?
3. Physical violence was a very real threat facing our Team Leader, the Financial Management staff, and others who found themselves on the "front line" when budgets were being reduced and jobs eliminated, or salary payments were being withheld while disputes over documentation or policies were being resolved, in an environment where many disputes are resolved with a Kalashnikov.

On several occasions, team members received written death threats, and leaders of other Peshawar projects at this time were attacked by gunmen and had grenades thrown into their compounds. In summary, the MSH Controller and staff had to adapt to a very unusual environment; flexibility, ingenuity, good judgment, and a good sense of humor proved more important in the long run than specific prior experience.

Financial Management

Financial management systems were quite standard in many respects, being determined by U.S. government requirements and MSH financial policies and procedures. Some of the unique elements resulted from the unusual nature of the project itself.

Planning and Budgeting

Background: The broad political environment had a strong effect on financial planning. In the early phases was that project resources were not based on analysis of health service needs, or the most effective strategy for meeting these needs, and the estimated cost of implementing such a strategy. Rather, resources for health were allocated primarily through political considerations. In the early eighties, there had been a major flow of covert support to the mujaheddin for those wounded by the war, presumably to maintain the mujaheddin's ability and will to fight. The transfer of responsibility for most health services from the CIA to the State Department and USAID added a new motivation: humanitarian concern for the health needs of the population as a whole, at least in those areas not controlled by the Russian-supported government in Kabul. However, there was still much official debate as to whether the underlying goal was temporary relief for basic health care needs while the war lasted or a more systematic rehabilitation and foundation for continued services once the war ended and the country struggled to return to "normal". USAID's position remained ambivalent throughout the project, despite a clear policy decision (reportedly made early on at the highest levels) that relief, not rehabilitation, was the objective. This ambivalence was due in part to the inescapable fact that you cannot provide much relief without a functioning infrastructure, and once that is accepted, dividing lines between relief and health services development become blurred.

In this tentative environment, the project started with a sizeable grant (although modest by later standards) providing some operational funds for health services, but primarily supporting the technical assistance to organize the Afghan political parties in Pakistan into an effective mechanism for health leadership. Financial planning and budgeting was not a major concern, since the original grant agreement was based on a detailed budget that closely constrained the allocation of project resources.

A major qualitative change occurred in 1986, when the U.S. government decided, again for political reasons, to expand dramatically inputs into the Afghan health sector. The grant agreement was increased from \$15 million to \$60 million over a five-year period, which meant infusing an average of \$1,000,000 per month into a system that really didn't yet exist, in a country which in peacetime had never had a national health budget ever a fraction of this size. (This was the size of the project only on paper. The grant was "incrementally obligated," meaning that each year USAID added as much as was made available to them, within the \$60,000,000 total, and there was no guarantee that the full amount would ever in fact materialize.)

The grant had two major components. Roughly one-fifth was programmed, in great detail, for the technical assistance effort, including a very substantial local support staff to help administer the program. Because of the careful prior

planning that went into this component, little subsequent budgeting work was required, although expenditures were carefully monitored as work progressed.

The other component was the "Program Budget," some \$46,000,000 to be used for the delivery of services inside Afghanistan. For this, there was little specific guidance, except that annual operational plans and budgets had to be developed and submitted to USAID for approval in advance. This component became the focus of most of the TA team's financial planning activity.

Long-Range Planning: Chapter 5, "Planning for Sustainability and Health Impact," provides much of the context related to longer-term financial planning, although it deals with the broader issues of support for the health system by all donors in aggregate. From the narrower perspective of the AHSSP, all planning discussions were based on the obvious assumption that nothing like the current level of external support could possibly continue for very long, since the political situation motivating the funding was certain to change, one way or the other. As the service delivery structure grew, slowly at first, then more quickly as the training infrastructure matured, several clear conceptual options were presented:

1. The system could grow steadily, absorbing greater recurring costs each year, until the project, and our funds, were ended.
2. The initial rate of expansion could be accelerated until the system reached a level sustainable for the remainder of the project with the resources available.
3. The system could be expanded even more rapidly, peaking at some point well before the project's end, then phasing down support during the final years to end at a level that might be sustainable with local resources and the resources that donors continued to provide.

The only responsible course of action was the last, coupled with strong efforts to see that future long-term financing for health services was maximized through new internal mechanisms as well as through donor mobilization. In fact, program expenditures did follow this last pattern, although short-term resource constraints together with the end of the war and the internal political chaos which followed meant that even at its peak the program was absorbing resources at the rate of "only" about \$700,000 per month.

Budgetary Planning and Control: MSH/Peshawar developed a relatively sophisticated system for short-term planning and budgeting, and for maintaining management accountability. For each program component (eg. training), a set of unique cost centers was developed in which the department supervisor controlled the costs incurred. With each center a statistic or output was designated to serve

as a unit of the annual work plan, and was used to develop the budget. Each cost center compared its budget to actual expenses and unit standards.

Subclassifications, thirty-three in all, were established for expenditures, standard to each cost center. Through this mechanism, ministry costs were also delineated as well as budgeted.

Formal budgetary control was established with 5 MSH managers for Training, Field Operations, Warehouse, MCH, and Preventive Medicine. Annually, these departments used the completed work plan to formalize the projected costs by consulting with the Ministry for their appropriate sections. The overall budget contained statistic budgets, salary budgets, operations budgets, and equipment budgets. Management control over all "Program" finances was the responsibility of the Peshawar field office, while Boston headquarters oversaw the Technical Assistance budget, since most TA costs were either incurred or initially recorded in Boston.

For most of the life of the project, budgets were used primarily for projecting the financial implications of technical plans, since available resources exceeded the absorptive capacity of the system. Only in the final phase of the project, when it was clear that full funding would not be made available, did these budgets become an essential tool for controlling costs, and for determining the least destructive way to reduce overall support while attempting to preserve the most essential activities.

Accounting and Reporting

Vignette: The Minister's Checkbook

In the interest of financial control, the Minister of Public Health himself was the sole custodian and signatory on the MOPH checkbook, which was kept locked in his desk. As a busy man, there were numerous occasions where things did not always go smoothly while such tight financial control was in place. In July 1989, some unplanned disbursements of payroll funds resulted in regular MOPH employees not getting paid; they, in turn, cut off the Minister's electricity and held him hostage in his office for a day in 120 degree heat until another funding source was found.

An extended and painful repeat occurred when the Minister paid a large number of unauthorized "new employees" from the AHSSP funds which were then unavailable for regular staff; MSH refused to make further salary payments until proper receipts were provided. This brought forth a feverish effort to produce the required documentation over a four-month period while "other" sources of funds were found for the "new" staff (whose roles remained unspecified).

The Minister's viselike grip on project funds flow was fully broken when he left for Saudi Arabia on the Haj with the checkbook in hand. A meeting of the parties then approved a new account, only for MSH/AHSSP funds, with two signatures, neither of which was the Minister's.

Within the Afghan Interim Government (AIG), the Ministry of Public Health's financial system involved a commingled process of recording cash received from multiple donors including MSH, other U.S. organizations, international agencies, Saudi Arabia, and Japan. With the exception of significant covert support for the government which continued at least until the end of 1991, the Ministry was expected to account properly for these funds, and report periodically to individual donors. However, despite many attempts to systemize Ministry finances using a western approach to accounting, the AIG was adamant about maintaining the current Afghanistan government system, which was basically a simple cash system with little in the way of effective controls. In the absence of adequate systems and controls within the Ministry itself, MSH was forced to retain primary operational responsibility for accounting and reporting for all health expenditures originating from the USAID grant.

The MSH/Peshawar Financial Management Department developed an accounting system that allowed line item budget measurement, as well as reporting of historical unit cost statistics. This proved to be very useful to line managers in understanding and controlling costs, as well as in planning future activities within budget constraints. Monthly financial and individual advance reports were published so that managers could monitor how actual results compared to targets, and ensure that resources were being used according to plan.

MSH/Peshawar reported field expenditures by program component to USAID/Afghanistan. The MSH/Boston home office received transactions from the field and reprocessed them for Cooperative Agreement line item reports to A.I.D./Washington.

Accounting and Internal Control of the Project: Internal control involves protecting assets from unintentional errors as well as from fraud or theft. Therefore, authorizing, executing, and recording transactions were carefully performed, following established policies and procedures. To protect assets, the Finance Office had to ensure that:

1. Transactions were carried out within current policy and procedures;
2. The recording of transactions followed generally accepted accounting practices;
3. Individuals were held accountable in the process of asset transactions;

4. Only authorized individuals were involved with assets transactions; and
5. Frequent, unscheduled, compliance checks were conducted.

The most critical area in terms of financial control was cash. Corporations in the United States generally maintain strict internal controls on cash through carefully registered cash receipts, controlled check writing, complete files and reviews of source documents, and designating individuals to handle cash. When the Afghan project began, internal controls were minimal, due to war and to lack of structure and organization in both Afghanistan and Pakistan. Source documents were sent back to Pakistan to support payments inside Afghanistan. Area management personnel submitted letters certifying that a lump sum of money had been received. This source document was submitted to MSH under the signature of the responsible commander who received the funds for salaries for health posts, clinics, and hospitals, and for transportation of medical supplies. Ministry personnel submitted signatures that could be matched against personnel records, maintained in the Field Operations Department.

The supervisory system within Pakistan took some time to develop, and controls were gradually introduced. In 1988 a Monitoring Department was established, and one of its responsibilities was verification of employee work attendance inside Afghanistan. The monitoring reports could then be used as supervisory control for time and attendance for salaries received.

The Field Operations Department independently created and was responsible for the internal and external financial controls in field operations, using a pay card with each employee's number, picture, signature, and location on the form. Approvals came from the Supervisory Councils and the Ministry. Finance was not directly involved in the design of the system, except to make advance payments and monitor the documentation provided.

In 1990, the Financial Management Department in Peshawar reviewed the internal control procedures from an audit perspective, based on what are known to the accounting profession as "Generally Accepted Accounting Principles." They determined that separation of duties, transaction control, and record keeping needed refinement in Field Operations, which expended the highest percent of budget. In the summer of 1989, the Area Liaison Offices were requested by the Finance Department to provide individual signatures for all salaries inside Afghanistan. Since it takes one year for the North to return documentation from inside Afghanistan, in the summer of 1990 the Finance Office received documentation for 1989, which was approximately 60 percent complete. The subsequent year a 90 percent documentation rate was achieved.

Each year improvements were made on transactions. However, in the case of advances for construction and purchase of commodities inside Afghanistan, proper receipts were difficult to obtain. The Area Liaison Offices argued that Afghanistan didn't function with trader identification on paperwork because of

the war. Therefore, the Finance Department has had to rely on plain hand-written paper (with no trader identification), or photographs of renovated buildings.

Prospects for Financial Management Development

Future trends in financial management development will almost certainly reflect and parallel, rather than precede, the tide of general Afghan management style: traditional centralized patronage and ethnic loyalty concerns have long been documented and remain at the core of Afghan expectations. While much of the promising progress in reconstruction has resulted from effective local area political leadership, it has not depended on democratic or openly egalitarian information sharing and participation: political-military commanders, with popular support to overcome external threats, have taken charge in time-honored tradition. If the Afghans elect to move towards an objective, output-oriented decision process, then financial management processes may follow; if they retain leader-centered, autocratic traditional approaches, then financial systems will be similarly constituted.

Donor control was evident (if not always effective or dispositive) in the cross-border era, but it is unlikely to be so in the future: the hundreds of millions of dollars from external sources were political investments in a geopolitical arena that is now history. The money was not primarily for development, and the modest sums likely to be forthcoming from the donor community will neither dominate Afghan decision making nor require adoption of otherwise unpalatable financial management methods.

Several factors will favor local adoption of more output-oriented financial management methods, including the advent of microcomputers and good experiences with the power of information for management decision support, for example with "SUSPLAN" as discussed earlier, and with the use of microcomputers to analyze the massive amount of field data in the health workers' "Greenbooks."

Local area leaders under the pressure of wartime scarcity adopted microcomputers for resource management tasks almost as avidly as military hardware. Logistics and financial management were obvious applications which local commanders employed, and will continue to employ. The ability to manage information represents power in peace as well as in war. Local area leaders have also experienced the potential that microcomputers offer for information reduction and organization for health planning (as discussed in Chapter 5).

What remains unclear is the extent to which Afghans will see career opportunities in public service-oriented financial management. Business men and traders have always been, in their own self-interest, financial managers; there is little tradition of public service financial management, and, without status or incentives, it will be hard to develop.

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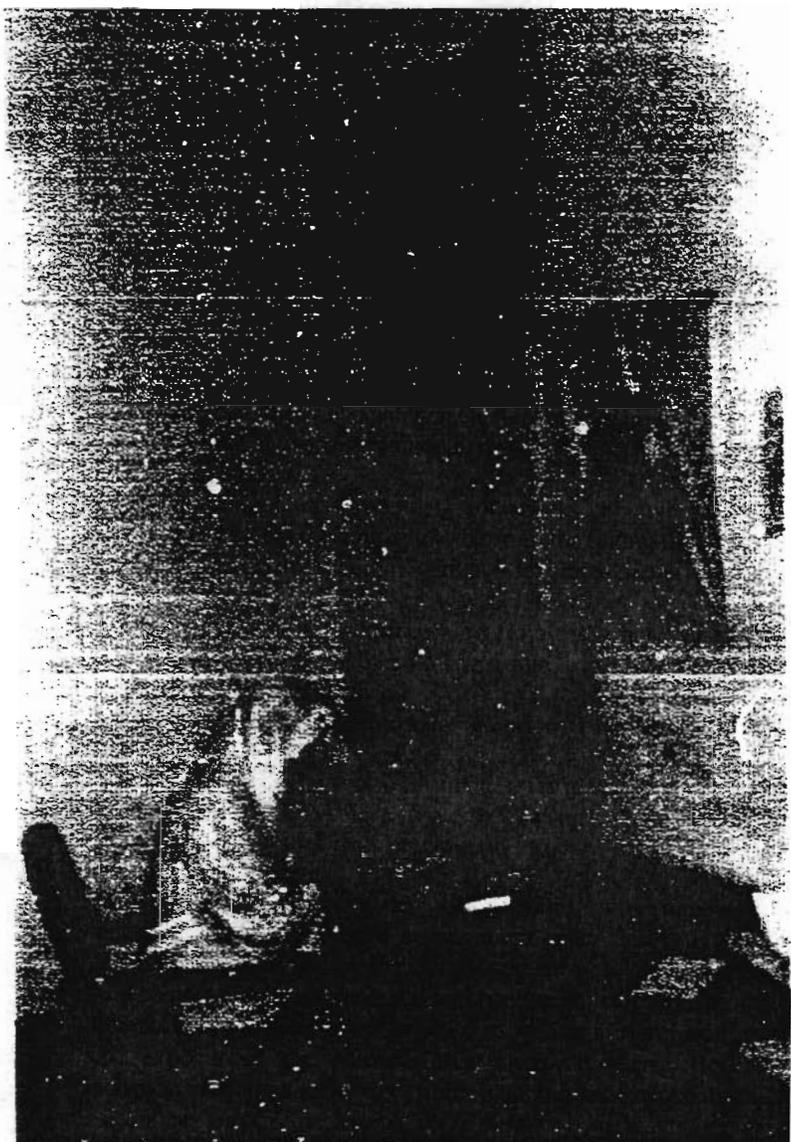


Figure 10-1: Operations management. Thousands of health workers, hundreds of facilities, millions of dollars' worth of supplies, and multiple cooperating agencies made microcomputers essential.

Chapter 10

Managing Health Information

Paul Ickx

Introduction

One can appreciate the complexity of setting up and managing health information systems in a cross-border setting from the vignettes and discussions in the preceding chapters. From the beginning of the project, the team tried to find satisfying answers to five basic questions.

- What was the population to be served by the planned health systems?
- Which health problems did that population face?
- What health services were being offered?
- Did the offered services cover the needs?
- What was the chance of sustaining the present needed interventions?

A major concern was to establish baseline data, to estimate actual needs and assess efforts to meet them. From these efforts additional interventions would be identified. MIS were also needed to monitor project activities and expenditures, in order to determine accountability, observe the project's impact, assess the cost of that impact, and evaluate the sustainability of the different interventions.

Expertise in using microcomputers quickly became one of the major assets of the project in a setting where, at least in 1986, hardly any personnel with computer skills were available. When Afghans picked up advanced computer skills on the job, they were often hired away by other agencies.

The task of gathering data from multiple sources, and combining and processing those data to obtain concise information on the multiple aspects affected by the project, was substantial. But certainly in a situation where rumors and myths were fostered for various reasons by different individuals, it was extremely important to be able to have access to the best data available on short notice and be able to extract the needed information in a form presentable to a multicultural audience.

Population Data

Before 1978

Most countries have a census of some sort or close estimates of the total population. Afghanistan has never had a complete census, and estimates of its population have varied substantially. In the early 1970s, the Afghan Demographic Studies (ADS) project suggested a low figure for the settled population of slightly more than 10 million, which came as a surprise in Afghanistan, where informal estimates ranged between 16 and 19 million.¹ Indeed, in the 1960s and 1970s, when budgets for development were calculated on the number of possible beneficiaries, the population of the target regions for development programs was routinely exaggerated.²

In 1978-79, the PDPA regime and the U.N. undertook a complete census, which was disrupted just after the precensus stage, since the spreading resistance made most of the country inaccessible. However, the estimates published as the Central Statistics Office (CSO) data were 6.5 percent higher than the projected ADS data for 1979.³

Figures for different ethnic groups are subject to the same variation, not least because of the changing definitions of groups used by different authors. Table 10-1 gives low and high estimates for some of the groups.⁴

The existence of a nomad population of an unknown size increases the confusion. According to Janata, the U.N. counted fewer than 500,000 nomads in 1978.⁵ However, in the same publication, R. Palwal says, "Most Western nomadists who have studied nomadic pastoralists in Afghanistan have estimated their number to be over 2 million."⁶

After 1978

The consequences of the war (external refugees, internal refugees, and war casualties) changed the total number of the in-country population, as well as its ethnic composition and its settlement pattern. It took almost ten years before different efforts to sort out the changes led to a consolidated picture.

Table 10-1
Population by Ethnic Group

Ethnic Group	Low Estimate	High Estimate
Pashtu	4,800,000 (Janata)	7,000,000 (Snoy)
Tadjik	2,200,000 (Jentsch)	4,500,000 (Dupaigne) ^a
Hazara	600,000 (Dupree)	1,500,000 (Dupaigne) ^b
Uzbek	750,000 (Kuhn)	1,360,000 (Weekes)
Aymaq	500,000 (Jentsch)	830,000 (Janata)
Turkmen	125,000 (Dupree)	400,000 (Janata)
Nuristani	66,000 (Weekes)	100,000 (Dupree)
Baluch	20,000 (Gregorian)	207,000 (Weekes)
Pashai	10,000 (Klimburg)	100,000 (Wut.)

^a Bernard Dupaigne, "Les peuples d'Afghanistan," in *Afghanistan: La colonisation impossible* (Paris: Editions du Cerf, 1984), p. 38.

^b Dupaigne, p. 44. Mohammad Issa Gharjestani, a contemporary Hazara historian, does mention different sources that cite three to four million Hazaras in Afghanistan. These numbers seem too much out of line with all other estimates to be considered.

In 1988, the numbers available in Peshawar were estimates provided by the UNHCR. They were based on the CSO data, UNHCR suboffice refugee registration data, M. Sliwinski's estimates, and interviews conducted by different agencies.⁷ (The data proposed by F. Hobbs were never widely distributed and considered too high for the in-country population.)⁸ Though very approximate, they represented the first nationwide effort to re-establish a baseline for vital statistics. These data were used in the first "Consolidated Report of the Office of the United Nations Co-ordinator for Humanitarian and Economic Assistance Programmes Relating to Afghanistan" (UNOCA, Operation Salaam). This consolidation permitted the team to negotiate with the AHC the BHW and clinic redistribution by province according to population.

In 1989, T. Eighmy adapted the 1973 estimates for refugees, war deaths, and internal displacement. They permitted us to evaluate equity in distribution of health resources of the AHSSP on the district level. After publication in 1990, they were accepted as the most reliable baseline data on the district level for planning in Afghanistan and were used for further program planning.

Eighmy divided the 1990 population of Afghanistan up as shown in Table 10-2, between areas under mujaheddin control (mostly rural), under PDPA control (mostly urban), in Pakistan, and in Iran.⁹ At that date, the AHSSP was supporting activities of its counterparts in 283 districts, a number that comes close enough to the 279 Eighmy claimed to be under resistance control.

The provinces neighboring Pakistan provided the greatest number of refugees, who were assisted by numerous refugee aid programs (see Map 10-1). Although many districts in these provinces were largely depopulated, cross-border aid tended to be concentrated in these same provinces (see Map 10-2). Given that 85 percent of all the Pakistan-based refugees belonged to one ethnic group, ethnic tension and strife could be exacerbated by unbalanced distribution of cross-border assistance among groups. Inequity in distribution of cross-border resources, caused by lack of exact information, difficult logistics, and lack of adequate monitoring systems, could be interpreted by those left out as intentional discrimination. Sliwinski's estimates of the distribution between refugees and nonrefugees of the major ethnic groups show a dramatic change in the importance of groups such as the Pashtu inside Afghanistan (Table 10-3).¹⁰

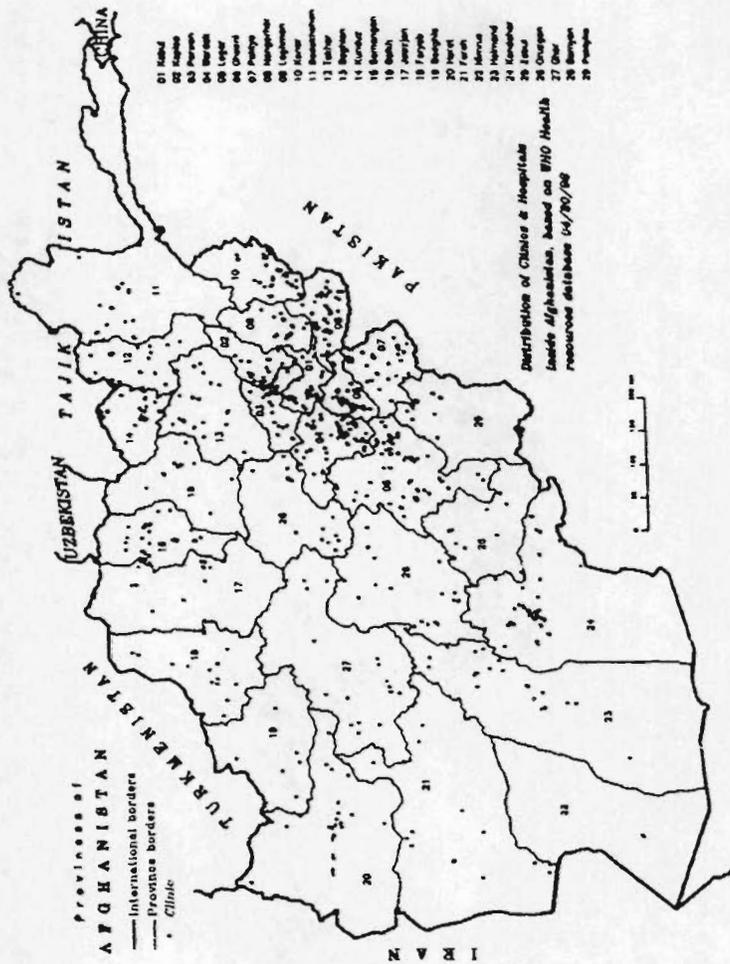
Table 10-2
Distribution of Afghan Population in 1990

Dwelling place	Estimated Population	Number of Districts
Rural mujaheddin-controlled areas	8,004,235	279 districts
Urban PDPA-controlled areas	4,358,990	46 districts
Refugees in Pakistan	3,271,580	
Refugees in Iran	1,277,700	

Table 10-3
Prewar and 1987 Ethnic Distribution

Ethnic Group	Afghanistan 1979	Refugees 1987	Afghanistan 1987
Pashtu	39%	84.6%	13.1%
Tadjik	26%	6.0%	37.3%
Hazara	10%	0.1%	15.6%
Uzbek	10%	0.5%	15.4%
Turkmen	3%	0.1%	4.1%
Other	12%	8.7%	14.5%

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Map 10-2: Distribution of Clinics and Hospitals in Afghanistan

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Quantifying Health Needs

Early Assessments

Clinical impressions of the most important health problems led to an overestimation of the importance of war-related injuries.¹¹ Most agencies working in Afghanistan tried to quantify health intervention needs based on disease patterns extracted from patient visits. French doctors used disease patterns from previous teams to assess pharmaceutical needs for new teams. The SCA based the contents of its kits on an analysis of health problems recorded in Greenbooks by Afghan health workers. In Greenbooks, data on each patient visit is recorded: patient identification with sex and age, date of visit, diagnoses, and treatments. They also contain a monthly summary form for diagnoses and drug consumption. The representativeness of this data was questionable, but at least genuine concern existed about matching needs with resources.

In 1986 the Coordination of Medical Committees (CMC) became a platform of standardization for various cross-border health committees. An attempt was made to compare patient visit records from different organizations. It proved extremely difficult to try to match retrospectively diagnoses written down by a variety of personnel of different nationalities (Afghan, French, German, and American). The CMC tackled the problem by developing standard definitions for different health problems and adapting the Greenbook format.

Initial Greenbook Analysis

The enormous number of Greenbooks (thousands) raised interest in computerizing data analysis. Some challenged the validity of the data, and at the same time the usefulness of the analysis. Like all routine reporting, the Greenbook was not always filled out as required. Some health workers would keep it safely in Peshawar and fill it out on their return, from memory or scarce notes. Others did not work and invented the whole thing when their resupply time was due. Even for those who filled out the Greenbooks at their duty station, there was no certainty that all patients were recorded. The ability to screen Greenbooks for reliability depended largely on the supporting agency's capacity for systematic monitoring inside Afghanistan. As we know from Chapter 4, only the AHSSP and IMC had monitoring *systems* inside Afghanistan. Disagreement over the most adequate database software further delayed computerization of the Greenbook analysis.

In 1989, data from the first batch of Greenbooks from AHSSP-supported BHWs were entered using a menu-driven routine, formerly used elsewhere by MSH. A 30 percent random sample was taken from Greenbooks coming from 10 provinces, of 13,712 patient visits between mid-1987 and early 1988. Two

percent (with a low of 0 and a high of 5 percent) of the patients seen were under five; seven percent (with a low of 1 and a high of 20 percent) of patients seen were female. The diarrheal diseases cluster was recorded in an unclear way, while the ARI cluster suggested an appropriate difference in treatment of the "common cold" and bronchitis. Drug use/prescribing was low (1.6 per visit). Differences in prescription patterns between different parts of the country needed more investigation, though BHWs seemed to prescribe more in regions where more drugs were available.¹²

The same entry system was set up with CMC to enter Greenbooks of mid-level and senior health workers, supported by member committees, while the AHSSP entered several batches of Greenbooks of the BHWs.

Morbidity Patterns

The CMC analysis (a 10 percent sample of 300,000 patient visits for the period 1989-91) showed that respiratory system disorders (including all respiratory-tract infections and asthma) and infectious and parasitic disease (including acute diarrhea, dysentery, malaria, and tuberculosis) accounted for 48 percent of all clinic visits.¹³ In the Takhar household survey (HHS) the same group of diseases accounts for 66 percent.¹⁴ Acute bronchitis, malaria, intestinal parasites, acute upper-respiratory-tract infection, acute diarrhea, tonsillitis and pharyngitis, conjunctivitis, and pneumonia figure among the 10 most frequently reported diseases. These data at least indicated where the focus for major health interventions should be.

The HHS in Takhar also showed that children under five years of age and women of childbearing age together made up more than 50 percent of the sick in the two weeks prior to the interview (34 percent for the children and 23 percent for the women), while the children under five years accounted for more than 50 percent of the deaths twelve months prior to the interview. Although the results of the third survey are needed for the figures to be statistically valid, they give an indication of the major target groups.

Assessing the Distribution of Health Resources

When the project started, an almost general consensus prevailed in Peshawar that as far as health services and systems were concerned, nothing existed inside Afghanistan. Possible reasons why this opinion went largely unchallenged for many years are discussed in more detail in Chapter 4. One of the consequences was that, with few exceptions, agencies tended to disregard efforts made by others, and they implemented health services without considering what was already in place. Chapter 2 explains how the initial planning team identified "empty spots" for the AHSSP to fill in.

Standardization of Health Personnel and Facility Classification

Care was taken from the beginning to keep track of different levels and job descriptions of health personnel, as is described in Chapter 4. Again CMC was the first forum for discussions about health personnel classification, which started in 1986. Standardized diagnosis and treatment schemes were developed for the "mid-level health worker," a category that included health workers with six to eighteen months' training. This categorization was taken over and modified by the ACBAR health committee, and later by WHO. By 1990, standardized skill checklists, case definitions, and treatments had been drawn up for the basic health worker, the mid-level health worker, and the advanced mid-level health worker.

The development of classification of health facilities followed a similar pattern: from CMC through the ACBAR health committee to WHO, following closely the classification used by the AHSSP and its counterparts. The final classification used a set of conditions for each level, the most important of which were the number and qualifications of the personnel, and the array of services that could be offered at the facility. Combined with the health workers' skill checklists, an acceptably accurate impression could be obtained of the type of care provided at the different types of health centers.

Location of Services

Another challenge was to obtain a complete inventory of what services were available, and where the facilities were located. CMC made a first attempt to compile such an inventory in 1987 but was reluctant to communicate health center locations beyond the province level because of security reasons: if they were made public, it was feared that the enemy would have an easier task of seeking out the health centers and destroying them.¹⁵ By mid-1988 this reluctance had diminished and ACBAR compiled a database, listing facilities by district. In 1989, WHO took over the health database and corrected the claimed levels of facilities against the newly established standard levels. The WHO database soon became the most comprehensive database on health located in Peshawar: many agencies, for various reasons reluctant to share the location of their activities with other organizations, provided their data regularly to WHO.

The validity of the data in the WHO database was questionable, however. Besides the occasional intentional overreporting by some agencies, the lack of adequate filing and data-processing procedures made it impossible for many agencies to report regularly with up-to-date data. One of the major suppliers of cross-border health resources used to report funding more than 2,000 "projects." Only in 1992 did it suddenly report only about 1,400. For the first time since 1984, someone had apparently cleaned out their filing system and separated still-active projects from projects that had been obsolete for years.

Another concern was that the database listed only health facilities and personnel *that were at least partially dependent on external support*. In fact, no indigenously sustained activities figured in the ACBAR database, since a condition for inclusion in the database was an (external) input of at least 100,000 Pakistani rupees (about \$4,000 per year). WHO included all facilities and activities reported by agencies in Peshawar, Quetta, and Kabul. Private practitioners were excluded.

Provincial Health Resources Survey

At the end of 1989, MSH and WHO decided to undertake a major provincial health resources survey (PHRS). By combining the WHO data and the experience and resourcefulness of the MSH monitors, all provinces would be surveyed to match the data in the WHO database with facilities and health workers actually in the field.

Setting up and field testing the survey material took several months. One problem was the inability of most monitors to read and write English: all survey lists were designed in English, translated into Dari, reviewed and altered by the monitors, retranslated into English, reviewed by WHO and MSH, and retranslated into Dari for testing. Meanwhile, a menu-driven data entry and analysis routine was being developed. On their return, the surveyors were debriefed as usual and the surveys were then translated. Several minor unclear points were clarified after the first provinces were surveyed.

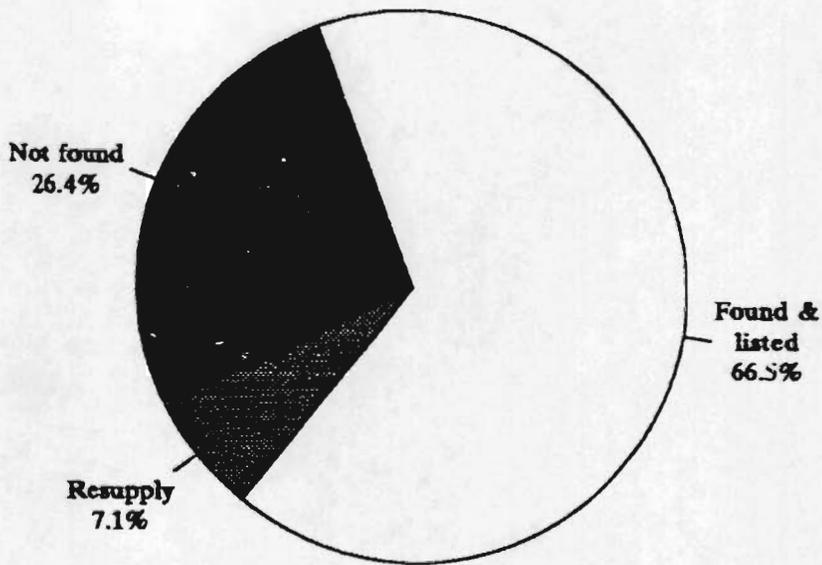
The mandatory evacuation interrupted for several months the further development of the analysis routine. After the MSH team returned to Peshawar, a ban on shipping program resources into Afghanistan interrupted finalization of data collection for the 7 remaining provinces. When the ban was lifted, snow had rendered many of the regions inaccessible.

The 22 provinces surveyed at this time contained almost 80 percent of the in-country Afghans. In these provinces, the original WHO listing was 382 clinics and hospitals. Of these, 254 were found to be working, 27 temporarily closed for resupply, and 101 not working definitively (Figure 10-2). An additional 161 that were not listed in the WHO database were found (Figure 10-3). Some of these had been established after the printed lists were prepared for the monitors, and others were operating independently of outside funding. For some provinces (Wardak, Kapisa, Faryab, and Badakhshan) the WHO database seemed to be up-to-date in that all listed facilities were actually providing care. In other provinces, Laghman for example, more than 60 percent of the listed facilities could not be located.

Information about specific services provided also became available. Only 16 percent of the facilities found claimed to have a laboratory. Of these, only 69 percent were in working condition for different reasons (Figure 10-4). The

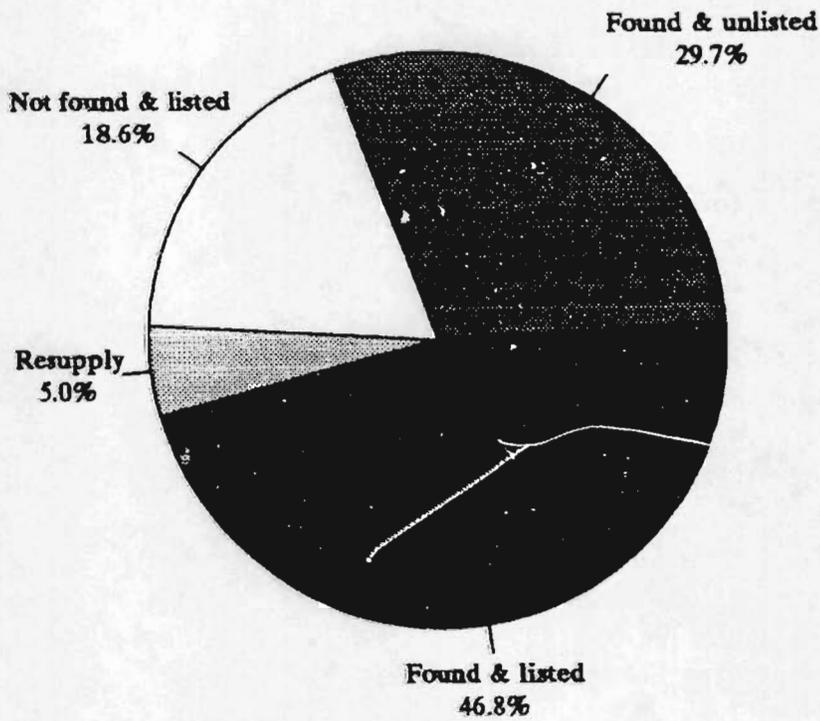
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Figure 10-2
Health Facilities in 22 Provinces
Status of 382 facilities listed by WHO



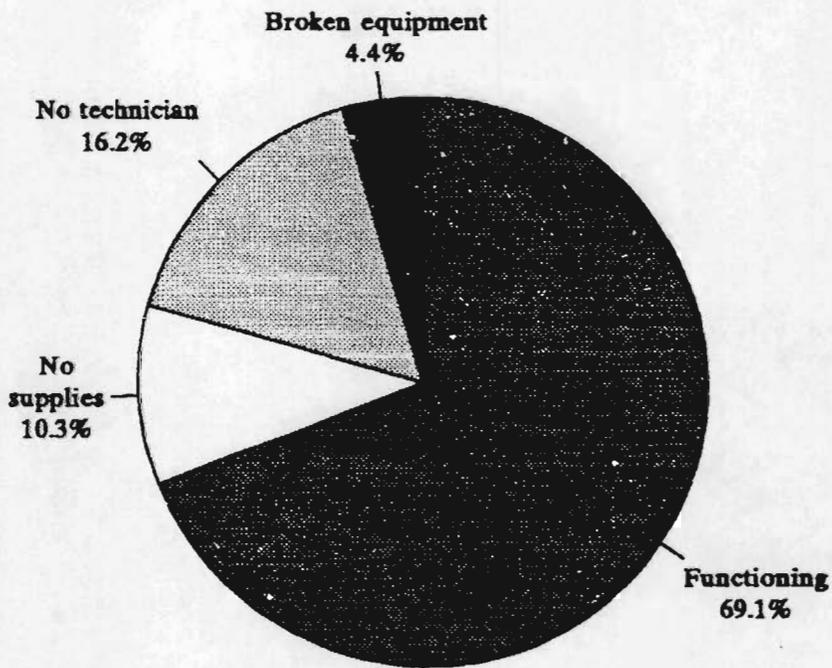
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Figure 10-3
Health Facilities in 22 Provinces
Preliminary report (534 facilities surveyed)



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Figure 10-4
Laboratories in 22 Provinces
68 facilities out of 415 (16.4%)



Greenbook turned out to be the most frequently used means of registering patient visits (Figure 10-5).

The results also showed that, taking into account the total number of 543 facilities listed and found, only 4 provinces demonstrated a need for more health facilities. If we count only the active facilities, six provinces would be considered underserved by the AHSSP criteria of one facility per 30,000 people. This calculation does not, of course, take into account the location of the facilities, which determines their accessibility. Refining the analysis routine to the district level would probably give a clearer view.

Assessing Needs Met

Accessibility of Resources

A first condition for equity in the distribution of the health resources is that the population should have easy access to the place where health services are offered. Until 1989, any assessment of the equity of distribution of program resources was difficult: no reliable population data were available by district, nor was there a comprehensive inventory of the health resources being delivered cross-border. The rough provincial population estimates and the patchy lists of health resources all pointed in the same direction: overemphasis on the eastern provinces in all cross-border aid. This imbalance is explained elsewhere in greater detail.

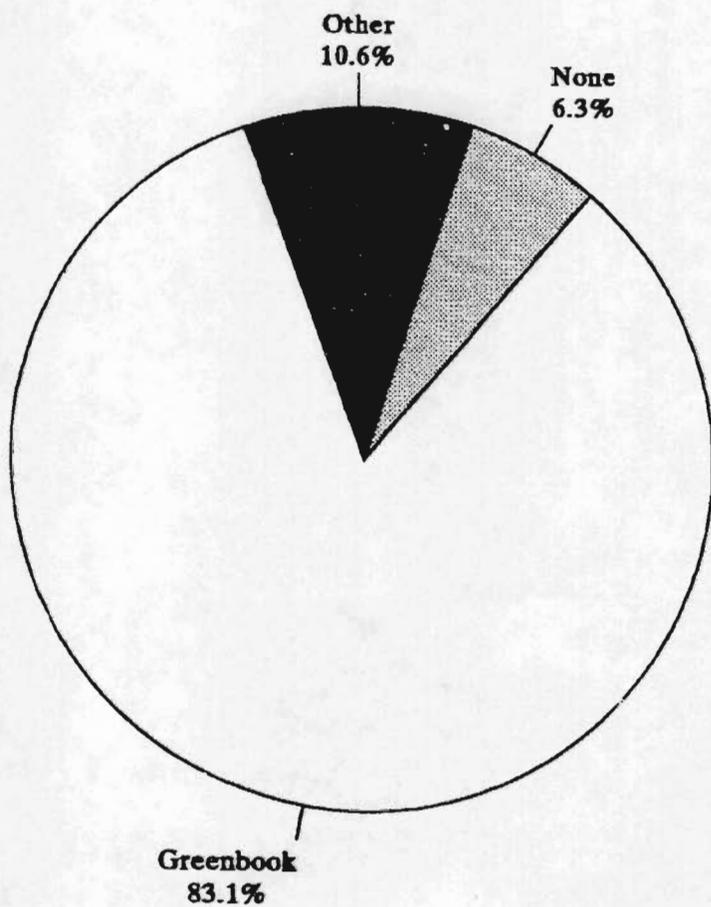
The team transmitted the available information to its counterpart, but to no avail. The only way to assure better equity in distribution was to identify local counterparts, since the Peshawar-based parties apparently lacked the influence to establish health systems efficiently.

Another impediment to assessing equity of distribution was the habit of reporting inputs, achievements, or relief efforts by province. As in many other countries, Afghanistan's provincial borders cut through existing social and economic entities, in an attempt of the central government to divide cohesive local solidarity groups (e.g., Hazarajat includes more than 20 districts and subdistricts of several provinces). The districts and subdistricts proved a more reliable entity to work with. Regrouping districts according to their accessibility from Peshawar and their dominant ethnic and political authority, the team came up with six regions: the east, Nuristan, north and northeast, central, south, and west and southwest (see Maps 8-1, "Supply Regions in Afghanistan," and 10-3, "Ethnic Groups in Afghanistan").

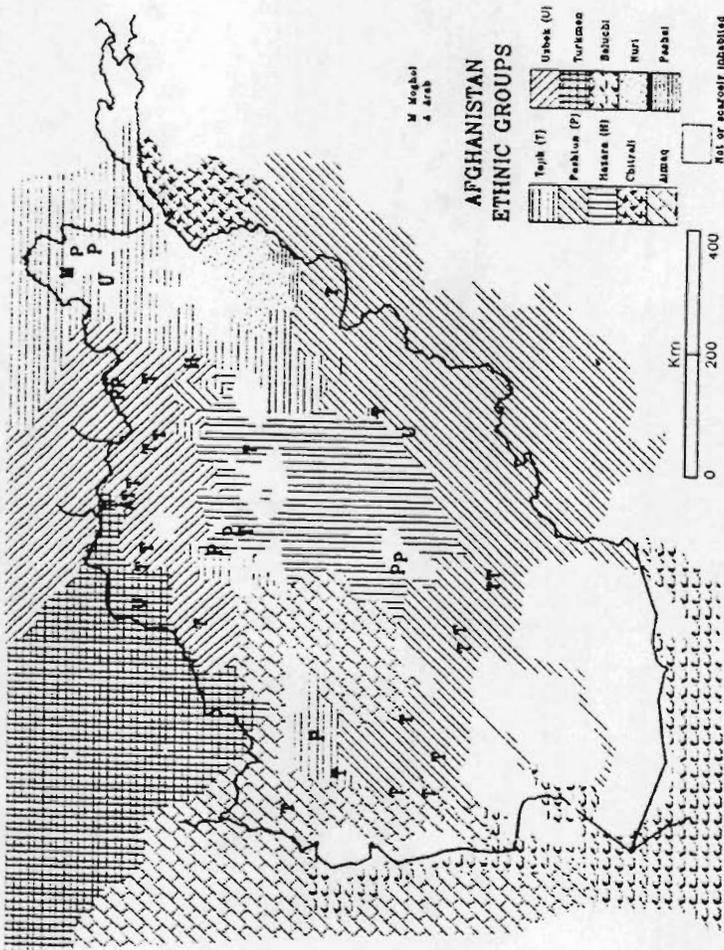
The detailed tracking of resources to their final beneficiaries by Field Operations allowed for analysis of the cross-border expenditures for BHWs, clinics, hospitals, MCH facilities, and administrative units by district. These cost centers account for 76 percent of the programs expenditures (see Chapter 9). For

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Figure 10-5
Health Facilities in 22 Provinces
Patient visit registration (415 facilities)



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Map 10-3: Ethnic Groups in Afghanistan

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the east, an average of \$2.61 had been spent per person still in place. For the rest of the country, that average was \$1.42. If the cost centers that had not been included were added, with the exception of the EPI component of the program, the difference would have only increased (Figure 10-6).

The effort of the AHSSP to go against the natural flow of resources is shown in Figure 10-7. The percentages of expenditures in the east and in the rest of the country are compared with the percentage of the population still in Afghanistan. The amount going to the east diminished by a proportion that would have resulted in a rough equity in distribution by fiscal year 1991, using the zones as defined. However, the mandatory evacuation of expatriate personnel and the subsequent ban reversed the trend for 1991. It is interesting to see how the ban, invoked because of incidents mainly in some eastern districts, inflicted greater losses on the uninvolved districts. Figure 10-8 shows in more detail the variation among the different regions.

The fact that program expenditures went to certain districts does not signify by any means that equity in distribution existed *within* the district. The available data did not allow us to match population settlement patterns of each district with health worker/facility implantation, nor to assess the percentage of the population of each district actually living within the catchment area of a health worker/facility. Following the distribution of resources to the district level, combined with tight monitoring (see Chapter 4), gave the team enough comfort to suppose that resources were made available on a level where local community control could prevent at least gross inequities.

Use of the Resources

The Greenbook analysis provided insights about the patient population seen by the BHWs and facilities supported by the project. An early analysis of a limited sample gave alarming indications of only 7 percent females and 2 percent children under five in the patient population of the BHWs. It pointed to little overmedication and probably reasonable use of the therapeutic arsenal.

Analysis of five percent samples of larger numbers of Greenbooks produced the results shown in Table 10-4 (page 253). Of the children under five years of age, only one-third were female in all the samples. It is clear that women of childbearing age, children under five, and females under five are not represented as much as they should be. It is encouraging that refresher training did seem to have some impact, as shown in the difference in the percentages for the BHWs in 1988 and 1989.

The number of treatments per patient visit seems acceptable, but questions can be raised whether prescriptions were noted every time drugs were actually dispensed. Hardly ever were the prescribed or dispensed quantities noted.

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Figure 10-6
Fielded Facilities and BHW Expenditures
Dollars spent per capita of population in place (eastern provinces)

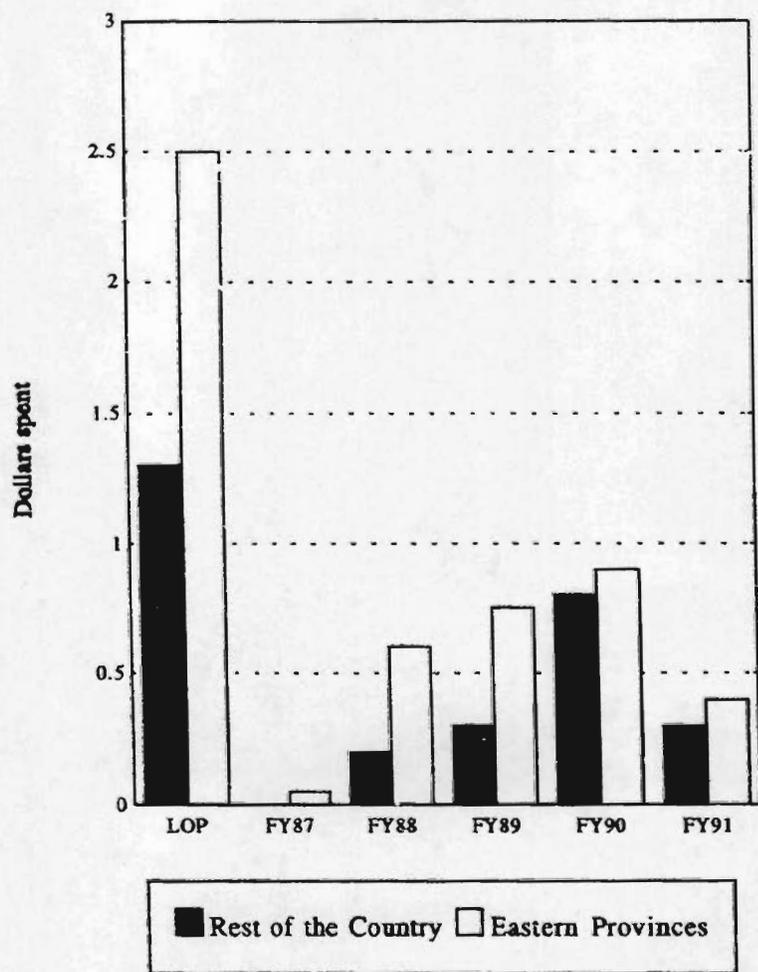
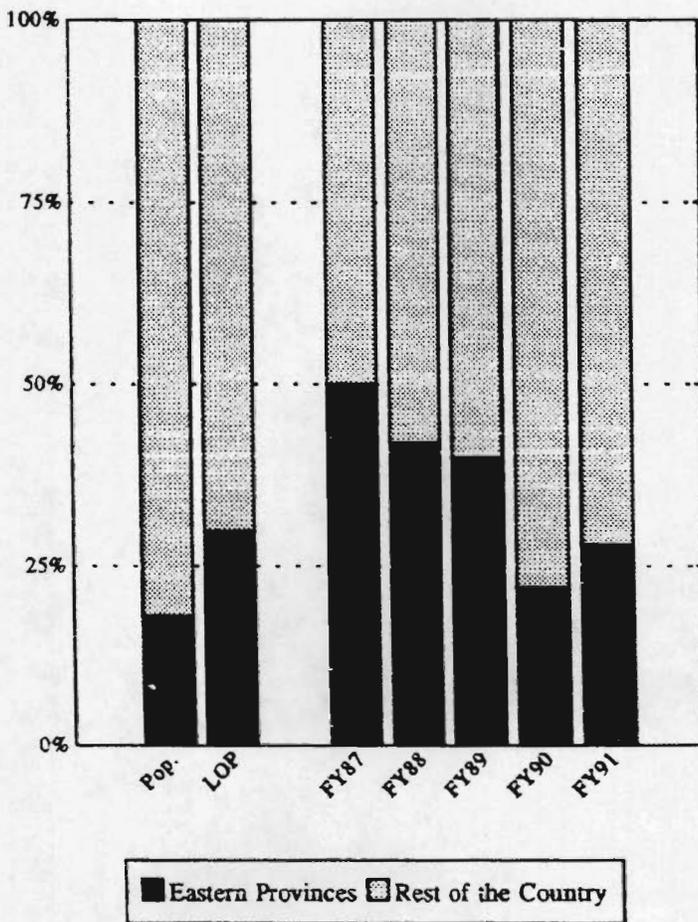


Figure 10-7
Fielded Facilities and BHW Expenditures
% expenditures against % population in place



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Figure 10-8
Fielded Facilities and BHW Expenditures
Dollars spent per capita of population in place (nationwide)

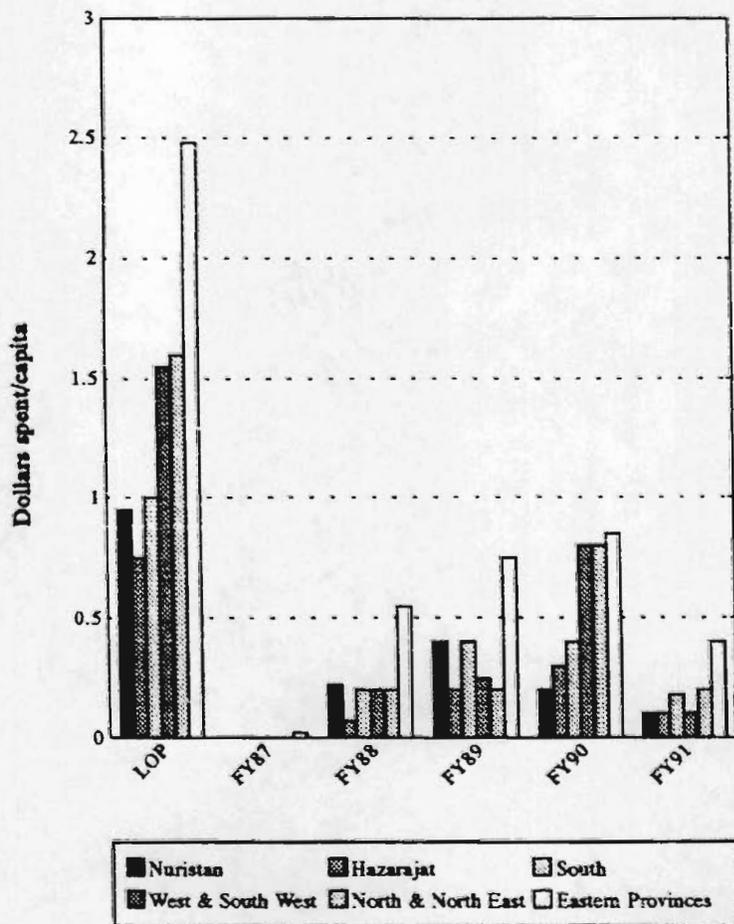


Table 10-4
Greenbook Analysis Results

	BHW 1988	BHW 1989	BHW 1990	CMC 1990	Clinics
Total Sample	4,116	16,107	2,431	15,000	6,803
% female	7%	15%	17%	30%	28%
% under fives	2%	7%	7%	15%	7%
% women 15-45 yrs		13%	14%	15%	15%
% girls under five		24%	29%	38%	35%
# of treatments/visit	1.6	1.5	1.5	1.8	1.9

An estimate of patient visits per month could also be made from the Greenbook data. BHWs saw on average 11 patients a day. With a five-day work week and a 44-week work year (when BHWs came for resupply, no one was working at their sites), a BHW would see 2,420 patients per year for a cost of roughly \$1,200 per year, which equals \$.50 per patient visit. The BHWs of the whole program would account for about 3,380,000 patient visits a year.

Facilities (C-2, C-3, H-1) saw an average of 24 patients a day. With a five-day work week and a 52-week work year (in theory, the clinic always has one health worker in place), a facility would see 6,240 patients per year at a cost of \$1.17 per patient visit. The facilities of the whole program would account for about 1,154,400 patient visits a year.

These figures are of course on the high side, since one can assume that due to the screening before entering the Greenbook data, only data from the "good" books are entered, which would reflect activities of the more active BHWs and facilities.

Program Support

The use of microcomputers enabled the project to have updated information at hand on many levels. At different moments, arguments were made to integrate the different software used in Procurement, Field Operations, and Financial Management into one local network. The physical environment and the limited availability of sophisticated computer users made the team decide otherwise. The disadvantages of tracking the same operations through different and physically separate systems are obvious: more data entry work, data exchange via floppy

disks, and maintenance of the same reference files in different systems. The advantages in the Peshawar environment included limiting computer viruses to one station at a time, limiting the consequences of destroyed hard disks, and enhancing comparability of data from the different systems, a useful cross-check.

For example, FM kept track of all cross-border expenditures through their system. FO did the same, but in a separate system. Both systems focused on different aspects of the same operations. The actual write-off of expenditures cross-border is done in different ways and at different moments in both systems. However, retrospective comparison for the fiscal year 1991 data obtained through the two systems and corrected for known discrepancies showed a difference of less than three percent, on a total of over three million dollars.

The interdependence and specific setup of the information systems of Field Operations, Procurement, and Financial Management are discussed in Chapters 4, 8, and 9, respectively.

Mapping

Even when data are processed and converted into information, a major challenge remains: to transmit the information in a manner accessible to the user. Coverage of target populations, geographic distribution of health services, additional needs by district, and overlapping catchment areas are all difficult to represent nationwide. One ends up with long and often cramped tables, with accompanying notes, which are necessarily printed in one language. After experiencing the difficulty of transmitting available information in a multilingual environment, the project was looking for better means.

In Peshawar, computerized mapping was introduced by consultant Roger Helms. The team was interested in computerized mapping if it could be done with local computer talent, and if the maps could be printed on the available laser printers. Maps are only useful as a management tool when they can be easily reproduced and distributed. Once adapted, the mapping capacity of the project became an important and extremely useful tool in reporting and planning.

The most difficult part of the whole mapping operation was to find coordinates for all the localities claimed to be inside Afghanistan. While a listing of villages, compiled by the Afghan government in 1975,¹⁶ existed, these listings were far from complete. In addition, many localities existing in 1975 had been deserted, destroyed, or renamed, and new ones had been created. Major localities would also have different names in the different languages used in the region. Finding about 60 percent of claimed localities on existing maps took a major effort. The remaining were extrapolated, based on distances from known places or provided by different informants (BHWs, vaccinators, and monitors).

Computer Issues

Given the complex and changing nature of the project most project support software was developed or adapted from existing noncommercial packages for the project, as needed. Only Financial Management started using a commercial package, which was never used to its full potential, since all necessary data were not available. In a setting like the AHSSP, it is important to assess the readily available local programming capacity, before building large program-specific routines. As mentioned before, while Pakistan has very good computer programmers, hardly any of them would like to work in Peshawar at the offered benefits. If this is the case, the programmed routines should not exceed the available programming skills. It also pays to invest in crash courses to update the team members' knowledge of the program's software.

Since the cooperative agreement under which the project was run has been amended many times, with increases in funding, and extension of the end-of-project date, hardware used has been purchased at different moments. Going for the best buy at each moment, the program ended up with a variety of computers, with increasing capacity. In an environment like Peshawar, with unstable net supply and frequent load shedding, lap-top computers with extensive battery power are preferable to desk-tops. The money spent on a reasonable supply of readily available spare parts is quickly recuperated, since ordering the parts at the time they break down will cause computers to go unused for weeks, if not months. For the same reason it pays to invest in in-house basic repair capacity for printers and computers.

When local computer skills are low, better results are obtained by assigning people responsible for the computerized data management to each department, rather than by isolating data management as a separate program activity/department. Then counterparts will understand much faster the link between computer data and what they represent in reality and will work to keep the data clean. A separate department should ideally function as a service department, which it can do only if it has significantly higher computer skills than the individual users.

Another difficulty is the need to distribute manuals, papers, and pamphlets in Arabic script. If a non-Latin script is normally used in the host country, this should be taken into account when selecting hardware and software.

Notes

1. T. H. Eighmy, "Afghanistan's Population Inside and Out" (Islamabad/Peshawar/Quetta: Office of the A.I.D. Representative for Afghanistan Affairs, May 1990), p. 2.
2. T. H. Eighmy, "Change and Continuity: Documentation for Action and History," presentation at conference in honor of Louis Dupree (Peshawar, March 1990).
3. Eighmy, "Afghanistan's Population Inside and Out," p. 2.

4. Unless specifically mentioned otherwise, all numbers have been compiled from estimates given by Erwin Orywal, "Erläuterungen zur Verbreitungskarte," in *Die ethnischen Gruppen Afghanistans: Fallstudien zu Gruppenidentität und Intergruppenbeziehungen*, ed. E. Orywal (Wiesbaden: Reichert Verlag, 1986), pp. 18-56.
5. A. Janata, "Afghanistan, the Ethnic Dimension," in *The Cultural Basis of Afghan Nationalism*, eds. E. W. Anderson and N. H. Dupree (London: Printers Publishers, 1990), p. 63.
6. R. Palwal, "The Nomad's Situation: An Historical Contrast," in *The Cultural Basis of Afghan Nationalism*, p. 89.
7. R. English, "Preliminary Report . . . Conditions Affecting the Repatriation of Afghan Refugees," report prepared for the Operational Unit for Repatriation to Afghanistan (Geneva: UNHCR, June 1988), p. 63.
8. F. B. Hobbs, "Afghanistan, a Demographic Profile," Staff Paper No. 34 (Washington: Center for International Research, January 1988).
9. Eighmy, "Afghanistan's Population Inside and Out," p. 11.
10. Marek Sliwinski, "Evaluation des conséquences humaines, sociales, et écologiques de la guerre en Afghanistan: Rapport préliminaire," Presentation at the Palais du Sénat (Paris, December 1987), Table VI.
11. My own experience in Balkh in 1985 is a good example. For months, members of the team had the impression that the majority of the problems presented were war-related. After going through outpatient and hospitalization records, we realized that all war-related cases made up less than 6 percent of the total. Infectious diseases (both gastrointestinal and respiratory) made up a much larger part of the serious cases. The reasons for overestimating the war-related injuries are obvious: they often pushed the team to the extent of its limited surgical skills, and although they made up only 6 percent of the total number of cases, much more of the team's total working time was devoted to the war-related cases.
12. This paragraph is taken from Jonathan D. Quick's report to the team of December 1988. Dr. Quick coded health problems and treatments, streamlined the data entry routine, and installed the routine in CMC while he was a member of the team in 1989-90.
13. J. Paulsen and A. Wali, "Disease in Rural Afghanistan: Greenbook Data Analysis" (Peshawar: CMC, 1991), p. 2.
14. Youssef Tawfik, Omar Bahaand, and Bedshah Saleh, "Demographic and Health Household Survey in Afghanistan: Takhar Province" (Boston: Management Sciences for Health, AHSSP, March 1992), Table 9.
15. This belief shows a gross underestimation of the sophisticated intelligence network to which the Kabul government had access. When a team of MSF in 1984 started out for Balkh from Peshawar, it was delayed for several weeks by fighting on the way and snow in the Hindu Kush. The Kabul government's army had meanwhile temporarily occupied the valley where the hospital was located. Unaware of the unexpected delays of the team, Kabul troops were harassing the local population for the whereabouts of the "French doctors," identifying each one of them with their Afghan pseudonym. Locating health facilities on the district level would hardly have required any more information than that already available to the Kabul government.
16. "A Provisional Gazetteer of Afghanistan," Afghan Demographic Studies (Kabul: Prime Ministry, Central Statistics Office, 1975).

Appendix A

Diversity and Complexity of Afghan Society

Language, religion, sect, dwelling place, tribe, descent, political party: each of these factors is the basis for the formation of social networks in Afghanistan. A network is "a relevant series of linkages existing between individuals which may form a basis for the mobilization of people for specific purposes, under specific conditions."¹ Solidarity between individuals will differ according to the purposes of the task undertaken.

Ethnicity, as the reciprocal process whereby individuals define themselves as belonging to a group, distinct from surrounding groups, and whereby they are defined and treated as a distinct entity by these surrounding groups, is complex. It is probably more complex in Afghanistan than elsewhere, since none of the major languages contains a term for ethnicity. Multiple dichotomous terms exist, defining "we/they" distinctions. These names and labels tend to be highly ambiguous and flexible, their use being adapted to the situation and the (supposed) identity of the persons confronted.

A single individual will speak a mother tongue (*zaban*), belong to a *mazhab* or religious sect (Sunni, Imami, Ismaili), have preferential ties with certain spiritual leaders (*tariqa*), come from a certain place (*watan*), belong to a tribal group or not (tribalism), have a descent group (*qawm*), and belong to a political party. Because of the varying relative importance of all these identifiers in place and time, multiple layers of meaning pervade most social relations.

"Official" ethnic identity, as written on identity cards or passes, reflects the notion of this identity held by the one who wrote the pass (*taskira*) rather than the self-definition of an Afghan.² Afghans, whether they adhere to Western ideologies or are "Islamist," also regard any reference to the diversity of the Afghan population as "shameful" or "dangerous." Many Afghans will be annoyed when one refers to it. However, recent events in Europe indicate the danger of denying the existing diversity in populations.

The term "Afghan" itself varies in significance according to its user and the person addressed. All citizens of the country will refer to themselves as Afghan in speaking with foreigners. However, used between citizens of Afghanistan, it will designate those whose mother tongue is Pashtu. And within the Pashtu

group, some will consider themselves more Afghan than others, depending on the strict observance of their tribal code. (For example, Ishaqzai Durrani Pashtu will call neighboring Ghilzai Pashtu *parsiwan*, meaning Persian speakers.)³

Language (zaban)

While Dari (a form of Persian) is the major language throughout the country, many others are spoken. Dari itself is spoken in many dialects, and one can easily distinguish Dari speakers from different parts of the country. Pashtu was the other official language before the war. Most male Afghans speak one or both of these besides their own mother tongue. Females, however, often speak only their own language, which might be Uzbek, Turkmen, Baluch, Pashai, or any of the 20 other languages used in the family circle by different groups.

Scholars have tried to trace the origins of the different groups, often based on language. Afghanistan has, however, always been a crossroads, between central Asia and the subcontinent, as well as between the Middle East and Far East. Probably no group can claim "purity" on other than mythical grounds.

Religion

Islam is the major binding force of all groups in Afghanistan. Certainly, during the conflict, it was the common motivator against the "un-Islamic" government and the Soviets. But different sects (*madhab*) exist. The majority of the Afghans are Sunnis of the Hanafi school. Of some 20 percent who are Shi'ites, the majority are Jaffari Shi'ites, and a minority Ismaili.

Village *mullahs* may be barely educated people, yet they play an important social role. The *ulema* (comprising *qazi*, *maulana*, *mawlawi*) tend to have had education in foreign religious centers (Al Azhar in Egypt for the Sunnis, Qom in Iran, or Najaf in Iraq for the Shi'ites). *Sayyeds*, claiming patrilineal descent from the Prophet, are found in both Sunni and Shi'ite communities and form a well-respected caste.

Pir (also called *ruhani*, *sheikh*, *eshan*) are spiritual leaders on a more local level. Identifying personal relations and alliances between clients of the same *pir* is one way to approach the vast, informal networks of the different sects. The Sufi *tariqas* (sects) are a more formalized version of these networks.

Different Sufi sects—Naqshbandiyya, Qaderiyya, Chestiyya—are widely distributed throughout Afghanistan. Challenged as un-Islamic by the former official state clerics and some fundamentalist *ulema*, they contain many *ulema* who are leaders of local groups in the north. Two of the seven leaders in Peshawar are revered as *pir* and son of the *pir*, of a branch of the Qaderiyya (Gaylani) and the Naqshbandiyya (Mojadidi), respectively.

Settlement

A big gap exists between cities and countryside, as is often the case in Third World countries. In rural Afghanistan, people live from agriculture and livestock. Sedentary farmers, seminomads, and nomads compete for the same or adjacent land and pastures.

Many of the nontribal, non-Pashtu refer to themselves with a place name (e.g., Shamali, Anderabi, Panjsheri). *Watan*, often translated as fatherland, also refers to the specific region in Afghanistan that one comes from.

Displacement is not a recent phenomenon. In the late nineteenth century, King Abdurrahman forcefully displaced dissident Pashtu clans to northern Afghanistan. So did Nader Shah in the 1930s. Zahir Shah displaced Pashtu to northern Afghanistan under development schemes, according them newly irrigated land, often to the detriment of resident non-Pashtu peasants. Uzbek and Turkomans distinguish among their own people the groups that lived in Afghanistan before the Russian conquests in the nineteenth century, the groups that fled the tsarist conquerors, and the groups that fled the Red Army in the 1920s and 30s. Since 1979, *muhajerin* are also the refugees who fled from the plains to the cities or the mountains, and the refugees who fled to Iran and Pakistan.

Tribalism and Descent

The whole of rural Afghan society is often called "tribal." But Shahrani remarks, "Tribal ideology as a segmentary system organizing various levels of social groupings predominates only among the Pashtu and some nomadic segments of non-Pashtu groups such as Turkmen, Baluch, and Kirghiz, and the sedentary Nuristani. . . . agnatic descent principles may play a significant role in organizing socioeconomic ties in many other groups, but they are not tribally organized."⁴

Most refugees in Peshawar belong to the major tribally organized group, the Pashtu. They are the common Afghan reference for the large majority of Westerners interested in Afghanistan for the last ten years.

Qawm refers most often to a descent group, which can be as large as a tribe or as small as a hamlet group. It also describes any group of people with solidarity ties that come close to those of a descent group.

Social and Ethnic Identity

The central government has done as much as possible to create a nation out of this diversity. Since Abdurrahman, all governments have tried to use Islam, the common denominator for all Afghans, as a national integrative structure.

Whenever they have failed to do so, they have been promptly ousted (like King Amanullah). Popular support requires at least an appearance of devotion to Islamic values.

A middle class, largely urban and directly or indirectly employed by the central government, has taken the Afghan nation as its reference point. For some of the middle class, Western rationalism replaced Islam as a frame of reference for the development of Afghanistan. Under pressure from them, the government legalized political parties in 1964, thus recognizing a new referent in social identity, *hezbi*. The fact that young adult members of this middle class thrived in both the Kabul communist bureaucracy and the Peshawar resistance bureaucracy at least partly explains the strong emphasis on one's political party in Kabul as well in Peshawar.

Politics and Development

The diversity of solidarity networks means that those involved in development efforts must tread cautiously. What is acceptable in one setting is not in another; what readily works in one group is not necessarily transposable to another. One is bound to make mistakes in using terms like Pashtu, Tadjik, and Uzbek as categorical and unchanging classifications. The idiom used to explain social cooperation and alignment in a certain situation is always one of many, believed to be the most suitable for the particular situation.

The question of political authority is even more difficult to approach. Pashtu have dominated the political scene in Afghanistan for the last 200 years. But even the *jirga*, an instrument for implementing egalitarian acephalous authority, is used by only a minority of the highly tribally organized Pashtu. Much more frequently, a sort of democratic village ruler with delegated power is in place. In other cases, a khan with hereditary power rules the villages.⁵

In order to assess the sustainability of (health) services, one must carefully analyze the social network in which particular services are placed. Delivering health services through one network, and expecting people to pay for them through another network, for example, does not make sense.

The (infamous term *shura* ("council")) has been largely abused by the expatriate community. Probably incited by the establishment and the relative success of the Shura-e-Nezar in the north and northeast, some of the earliest United Nations reports on possible repatriation of Afghan refugees recommended taking into account existing local or regional governments in Afghanistan when planning aid programs inside Afghanistan.⁶ Anxious for quick results, later agencies conveniently forgot the adjective "existing" and pushed local communities to form ad hoc shuras or started making payments for the work of shuras, which goes directly against shura tradition.⁷

More important, donors and implementers alike mistook shuras for implementing agents, while their traditional function is deliberation of general policy on a variety of topics by as large a public as possible in order to obtain consensus (not majority rule). When specific policies require implementation, it is delegated to specialists (e.g., defense to military committees or commanders, redistribution of water for irrigation to the mirab). Although shuras need to be consulted for general agreement when planning projects, they should not be looked to for actual management of projects. It is not surprising that many projects undertaken through local shuras provoked frustration about perceived Afghan incompetence, dishonesty, or lack of solidarity.

Notes

1. N. E. Whitten and A. W. Wolfe, "Network Analysis" in *Handbook of Social and Cultural Anthropology*, ed. John Joseph Honigmann (Chicago: Rand McNally Co., 1973), p. 720, italics in original.
2. Pierre Ceatlivres and Micheline Ceatlivres-Demont, "Pratiques quotidiennes et usages politiques des termes ethniques dans l'Afghanistan du Nord-Est" in *Le fait ethnique en Iran et en Afghanistan*, ed. Jean-Pierre Digard (Paris: Editions du Centre National de la Recherche Scientifique, 1988), p. 239.
3. Richard Tapper, "Ethnicity and Class: Dimensions of a Conflict," in *Revolutions and Rebellions in Afghanistan: Anthropological Perspectives*, eds. M. Nazif Shahrani and Robert L. Canfield (Berkeley: Institute of International Studies, University of California, 1984), p. 241.
4. M. Nazif Shahrani, "Marxist 'Revolution' and Islamic Resistance" in *Revolutions and Rebellions in Afghanistan: Anthropological Perspectives*, eds. M. Nazif Shahrani and Robert L. Canfield (Berkeley: Institute of International Studies, University of California, 1984), p. 4.
5. Alfred Janata, "Afghanistan: The Ethnic Dimension," in *The Cultural Basis of Afghan Nationalism*, eds. Ewan Anderson and Nancy Hatch Dupree (London: Printers Publishers Ltd., 1990), p. 67.
6. Richard English, "Preliminary Report on Conditions Affecting the Repatriation of Afghan Refugees," report prepared for the Operational Unit for Repatriation to Afghanistan, United Nations High Commission for Refugees, Geneva, June 1988, p. 18.
7. M. Couzdrey, M. A. Mao, R. McGrath, R. Mounier, and M.I. Shakir, "Paktika Province Afghanistan: Report of the Paktika Emergency Taskforce," prepared for the second U.N./NGO Emergency Meeting on Paktika (Peshawar, August 1990), p. 10.

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Appendix B

Salary Scale

Clinical Staff

Position	Base Salary	Experience Pay: Rupees/Mos/Yrs Experience
M.D. Doctor Specialist	6127	150
M.D. Doctor Generalist	5457	100
Dental Doctor (D.M.D., D.D.S., etc.)	5457	100
Doctor Ass't (4 yrs Kabul training)	4387	75
Dental Doctor Ass't (2-3 yrs Kabul training)	3317	75
Medical Student 5th class	4387	0
Medical Student 4th and 3rd class	2996	0
Medical Student 2nd and 1st class	1284	0
Pharmacist w/ degree and license (4 yrs training)	4387	75
Compounder/Pharmacy Technician (2 yrs training)	2996	75
Pharmacy Ass't (1 yr or less training)	1712	0
Diploma Nurse (3 yrs training)	2996	75
Nurse Helper (18-24 mos training)	2354	0
Medical/Nursing/Technician/Health Worker (13-17 mos training)	2140	0
Medical/Nursing/Technician/Health Worker (12 mos training)	1926	0
Medical/Nursing/Technician/Health Worker (7-11 mos training)	1712	0
Medical/Nursing/Technician/Health Worker (6 mos training)	1284	0

Position	Base Salary	Experience Pay: Rupees/Mos/Yrs Experience
Basic Health Worker (BHW)/MCH Ass't (3-5 mos training)	870	0
First Aider (1-2 mos training)	749	0
Dai (clinic workers only)	535	0
Dental Technician	2996	75
Dental Technician Ass't (1 yr or less training)	1926	0
X-ray Technician (2-3 yrs training)	2996	75
X-ray Technician (1 yr or less training)	1926	0
Lab Technician (2-3 yrs training)	2996	75
Lab Technician Ass't (1 yr or less training)	1926	0
Malaria Technician (2-3 yrs training)	2675	0
Malaria Technician Ass't (1 yr or less training)	1391	0
Blood Bank Ass't Technician (1 yr or less training)	1926	0
Anesthesia Technician (2-3 yrs training)	2996	75
Anesthesia Technician Ass't (1 yr or less training)	1926	0
Roghitiapal/Sanitarian (2-3 yrs training)	2568	75
Orthopedic Technician (2-3 yrs training)	2996	75
Orthopedic Technician Ass't Supv. (1 yr or less training)	2140	0
Orthopedic Technician Ass't (1 yr or less training)	1926	0
Immunization Trainer (2 yrs training)	3600	0
Vaccinator/Cold Chain Supervisor (non-M.D.) (1 yr training)	3200	0
Cold Chain Technician (1 yr or less training)	2800	0
Vaccinator (1 yr or less training)	1500	0

Nonclinical Regional Staff

Position	Base Salary
Regional Health Officer	7106
Supervisor (with training, for multiple sites)	3424
Inspection Officer/Monitor	2140
Administrator Director (with training, for multiple sites)	2996
Regional Fiscal Manager (with training, for multiple sites)	2354
Administrator Ass't (with training, for multiple sites)	1926
Account Officer (with training, for multiple sites)	2140
Regional Cashier (with training, for multiple sites)	2140
Logistics Officer (with training, for multiple sites)	2354
Procurement Officer (with training, for multiple sites)	2140
Storekeeper (with training, for multiple sites)	1926
Administrator Ass't (without training, for single site)	1350
Junior Accountant (without training, for single site)	1500
Clerk (untrained)	1248
Procurement Officer (without training, for single site)	1500
Storekeeper Junior (without training, for single site)	1100
Computer Operator	2354
Typist	1926
Driver	1200
Repairman	749
Cook	749
Peon	535
Watchman	535

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Glossary

- afghani:** currency
- comiteh:** "committee," used for the local defense committees of the mujaheddin, also for the foreign aid committees
- eshan:** religious dignitary
- farsiwan:** lit. "Persian speaker." depending on the context, used to indicate all non-Pashtu, all those whose mother tongue is Dari or Tadjik
- hampir:** disciples/clients of the same Sufi saint/leader; frequently used in Shi'ite circles
- hezb:** political party
- Imami:** also called "twelver Shi'ites," since they recognize the twelfth imam as the hidden imam
- Ismaili:** also called "seven Shi'ites," since they recognize the seventh imam as the hidden imam
- jang:** war
- jihad:** struggle against human weaknesses for the cause of Islam; in the narrow sense, the armed conflict with unbelievers to defend the dar-ul-Islam
- khan:** local notable; equivalent of "sir"
- mahalli:** locals, the mujaheddin recruited from villages into the local defense forces, often part-time or for limited periods
- maslaki:** professionals, full-time mujaheddin, often part of the "mobile groups" that organize major attacks on governmental strongholds
- maulana:** religious scholar
- mawlawi:** religious scholar
- mazhab:** could be translated as "sect"; used to differentiate between Shi'a and Sunni, as well as among the Hanafi, Hanbali, Maliki, and Shafi'i schools of law within Sunnism

mellat:	nation
mirab:	"watermaster," person in charge of distribution of water rights in irrigated areas
molki:	civil, civilian
mujahed:	he who engages in jihad (pl. mujaheddin)
pir:	leader of Sufi tariqa
pardah:	lit. "veil"; the seclusion of women from public life
qawm:	solidarity group; usually, but not always, linked to patrilinear extended families; sometimes used for "tribe"
qazi:	judge
ruhani:	religious dignitaries
sharia:	Islamic law
sheikh:	religious dignitary
Shi'ite:	dissident sect in Muslim religion, regarding Ali as the Prophet's rightful successor
shura:	assembly, council that decides on major issues
Sunni:	mainstream of the Muslim religion
tanzeem:	"organization," party
tariqat:	"path," Sufi teaching, Sufi brotherhood
ulema:	plural of <i>'alim</i> , religious scholar
Wahabbi:	integrist school of thought in Sunni Islam, adhering to the Hanbali law school; the official line in Saudi Arabia, fundamentalist and integrist
watan:	homeland
zaban:	language

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About Management Sciences for Health

Management Sciences for Health (MSH) is a private, non-profit organization, dedicated to closing the gap between what is known about public health problems and what is done to solve them. Since its founding in 1971, MSH has collaborated with health decision-makers throughout the developing world, in an effort to improve the quality of health and population services and to make these services available and affordable for all.

During its 22-year history, MSH has assisted public- and private-sector health and population programs in over 70 countries in Africa, Asia, the Caribbean, Central and Eastern Europe, Latin America, the Near East, and the Pacific. MSH has provided technical assistance, conducted training, carried out applied research, and developed systems for use in health program management. MSH maintains a staff of 190 technical and management experts, who are based in the Boston, Massachusetts headquarters, 23 field offices throughout the world, and three project offices in Washington, D.C.

Although MSH's initial focus was on establishing family planning programs in developing countries as a means to improve maternal and child health, in later years this focus was expanded to address other areas of primary health care. MSH concentrated on working with ministries of health to integrate their health services into comprehensive health care systems, and provided management training to senior health officials to improve the management of health programs at the central level. In the mid-1980s, organizational growth and increasing specialization led to internal restructuring, as MSH created technical programs to group staff and resources by areas of expertise. Six technical programs at MSH provide a mechanism for MSH staff members to carry out short-term assignments in their specialty areas: Population, Management Training, Drug Management, Strengthening Health Services, Health Financing, and Management Information Systems. Each of the Programs works with government agencies and other organizations in developing countries to help bridge the gap in public health management.