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HEALTH AND DEVELOPMENT IN SOUTHERN AFRICA

Volume III

A Review of Health Care in Lesotho:
Issues, Analyses, and Recommendations

This sector assessment was undertaken in conjunction with the Southern Africa Development Analysis Project and has been used extensively, but not totally, in the Main Report and Country Papers

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SADAP HEALTH SECTOR REVIEW: LESOTHO

EXECUTIVE SUMMARY

By African standards, Lesotho is a relatively healthy country. Infant and early childhood mortality are comparatively low. There is virtually no malaria, schistosomiasis, sleeping sickness, or tetanus. Life expectancy at birth is more than 51 years. Yet the country is one of the poorest in Africa. Its economic prospects, tied in part to developments in the Republic of South Africa, are not bright. Population growth is outpacing agricultural production and seriously taxing the carrying capacity of the land.

The principal health problems are gastroenteritis, dysentery, venereal disease, pulmonary tuberculosis, measles, typhoid, and whooping cough. Tuberculosis, heart disease, hypertension, acute respiratory infections, typhoid, and gastro-intestinal diseases are the major hospital-reported causes of death. The underlying conditions of poor health are environmental (water supplies polluted by human and animal waste); nutritional (there is widespread protein-calorie deficiency); and educational (lack of public understanding of venereal, tubercular, and other diseases, their cause and prevention).

Although the government's strategy is to emphasize preventive health programs, the health system remains strongly curative in orientation. The 17 general hospitals and about 110 clinics and out-stations are not spaced so as to afford reasonable accessibility to a large portion of the

populace. The mountainous topography and sketchy road network effectively isolate many people from any formal health care. Development of an effective village health worker program, aggressive health education, and expansion of current efforts to install rural water systems and encourage latrine use could significantly improve the nation's health without requiring a major increase in hospital and clinic facilities.

The major factors likely to constrain attempts to raise the level of health in Lesotho are the following:

- Population growth--now estimated at 2.2 percent per year--raises an important question: How many people can the country's limited productive land base sustain?
- Economic growth is uncertain. The number of migrant workers in South Africa may have peaked. A significant decline of migrant employment will erase any gains made in domestic job creation.
- Food production may actually be declining, as donor food aid increases. Although such assistance obviously improves the nutritional well-being of many people, especially children, it may be having negative long-term consequences. Specifically, it may be diluting the urgency of increasing home food production and moderating the rate of population growth.
- In spite of better coordination in recent years, the continued administrative dichotomy of the mission/government health systems prevents efficient and equitable provision of services.
- Assuming that the government will soon have to shoulder a sizeable share of mission hospital operating costs, and that the nursing corps will be greatly expanded in the next few years, the Ministry of Health's recurrent costs will rise dramatically.

Given the major health programs planned through the mid-1980s, it is possible by then that Lesotho will have (1) trained adequate numbers of front-line and mid-level health workers; (2) improved the management capacity of the Ministry of Health; (3) established a reliable drug stockpiling and distribution system; (4) upgraded central and district hospital laboratory facilities; (5) extended safe water supplies to a large portion of the people; and (6) improved environmental sanitation through widespread construction of pit latrines.

Against these projected advances, donors should support projects in four other key areas:

- The ongoing process of integrating the mission and government health structures should be encouraged--without, however, compromising the identity of the mission institutions and alienating their supporters abroad. The major goals should be to place all new health facilities where they are most needed, to provide uniform training and terms of service for medical personnel, and to offer health care that is centrally planned and consistently priced from one section of the country to another.
- From a health standpoint, food aid is serving an immediate nutritional need for about a third of the people. But food aid may also be subtly discouraging domestic agricultural production and efforts to reduce the rate of population growth. The day could come, as a result, when even greater infusions of food assistance will not be able to prevent chronic, debilitating undernourishment in a country that has become overpopulated and underproductive. A phased (but not necessarily total) reduction of food aid should be supported.
- If the thrust of future health programs is to be preventive, a broad campaign to raise public consciousness on health issues, targeted toward

specific, achievable behavioral objectives, in a culturally sensitive and relevant manner, is an excellent complement to sound public health programming. Valuable groundwork has been done, for instance, in the development of health education textbooks for primary schools. But health should be fully integrated into the primary and secondary school curricula. The village health program also merits encouragement.

Migrant Basotho workers returning from South Africa receive no re-entry physical examination. Because many have contracted tuberculosis and other communicable diseases while in the Republic, they constitute a constant source of reinfection throughout Lesotho. Inasmuch as about one of every six Basotho is working outside the country at any one time, a comprehensive program should be developed to provide carefully selected, screening and diagnostic studies for common serious illnesses. Venereal disease and tuberculosis, for example, should be linked to definitive treatment in the case of venereal diseases, and referral to a source of definitive treatment in the case of tuberculosis. The examination would also be an occasion to acquaint returning workers with important preventive health information.

I. INTRODUCTION

A. BACKGROUND AND ACKNOWLEDGEMENTS

This review of the health sector in Lesotho was conducted as part of the comprehensive assessment of the health sectors of all Southern Africa countries being carried out for AID's Southern Africa Development Analysis Program (SADAP). Performing the review and analysis that are contained in this report was a collaborating team of professionals from the staffs of Family Health Care, Inc. (FHC) and Africare, and special consultants.

The field visit phase of the review and analysis effort was conducted from June 28 to July 12, 1978, by the five-member FHC/Africare team. The team was composed of the following (days spent in-country are in parentheses):

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During the total of 28 person-days spent in-country, the team collected an extensive variety of data and materials, and conducted dozens of interviews with officials of the Ministry of Health and of other branches of the government, and with provider, program, and administrative personnel from the private sector and foreign

donor agencies. A list of persons interviewed and institutions visited is attached to this report, along with a bibliography of materials used or referred to in the preparation of the report.

In preparation of this report in Washington, D.C. Robert N. Grosse, PhD, School of Public Health, University of Michigan, participated in the technical review process. Kevin Lowther served as the principal author of Volume III in the series: Health and Development in Southern Africa.

Most
Recent
Estimate

Health Status (Continued)

Population growth rate (% increase/year)	2.2
Number of years for population to double	32
Infant mortality rate (per 1,000 live births)	106
Family planning acceptors (cumulative, 000s)	-
Nutrition: Per capita supply of:	
Calories (% of requirements)	-
Protein (grams per day)	-
Attended deliveries (percent of total)	30.6

Health Resources

Government health expenditures (recurrent):	
Total (millions of U.S.\$)	4.0
As % of all government expenditures	7.2
Per capita (U.S.\$)	3.21
Population per physician:	
Registered	-
Practicing	15,400
Population per nurse:	
Registered	-
Practicing	2,910
Distribution of physicians:	
Urban (population per physician)	-
Rural (population per physician)	-
Population per hospital bed	5,900
Community water supply (% of rural population served)	-

Unit of Valuation

The official unit of currency in Lesotho is the South African Rand. During the team's visit, the exchange rate (used in this report) was:

R1 = U.S. \$1.60
U.S.\$1 = R 0.86

SOURCES: (2), (3), (8), (10), (11), (12), (13)

II. A PROFILE OF LESOTHO: THE CONTEXT OF HEALTH AND DEVELOPMENT

A. PHYSICAL FEATURES

The Kingdom of Lesotho is surrounded by the territory of the Republic of South Africa. High mountains form a natural border on the south and east. Only 13 percent (393,000 hectares) of its land is considered arable. The remaining area is suitable for livestock grazing. About half of the cultivated areas and mountain pastures are subject to erosion. An estimated one percent of the topsoil washes away annually. Most arable land is concentrated in the lowlands. The other distinct geographical regions are the foothills, the mountains, and the Senqu River Valley.

The lowlands contain the greatest proportion of cropped lands. Lying between 5,000 and 7,000 feet, the lowlands receive from 600 to 900 mm of rain per year. Occasional droughts occur. However, the country is relatively well-watered.

B. DEMOGRAPHIC PROFILE

Lesotho's population was estimated at slightly more than 1.2 million in 1976, when the last census was taken. However, as many as 200,000 Basotho¹ may be living and working temporarily in the Republic of South Africa.

1. The name for the people of Lesotho. An individual is referred to as a Mosotho.

The population is concentrated in the lowlands, where density averages 280 persons per square kilometer. A projection of the 1976 census indicated that about half the population is 24 years of age or under.

Population growth is variously estimated between 2.2 and 2.7 percent.

C. HISTORICAL AND CULTURAL CHARACTERISTICS

The Basotho "nation" was formed in the mid-1800s under the leadership of Moshoeshoe I. Following prolonged skirmishing against land-seeking Boers, the Basotho placed themselves under the protection of Great Britain in 1866. (At the same time, they were forced to concede much of their best farming and grazing land in what is now the Orange Free State of the Republic of South Africa.) Basutoland remained a British protectorate until 1967, when it achieved independent status as Lesotho.

With a minor exception (the Xhosas living in Quthing District), Lesotho is a mono-ethnic country. A single language and cultural tradition bind the nation together. The present king, Moshoeshoe II, retains ceremonial leadership of the Basotho and continues to appoint local chiefs.

Probably the most powerful cultural and political influence in Lesotho is the Catholic Church. While it exerts no overt or formal control over national affairs, the majority of those holding public office are Catholic. The influence of the church is thus real, if indirect.

D. THE POLITICAL SYSTEM

Lesotho achieved independence in 1967 as a constitutional monarchy. However, the constitution was suspended in 1970, following a national election in which the opposition Basotho Congress Party charged that the ruling Basotho National Party of Prime Minister Leabua Jonathan had "stolen" re-election. Efforts to reconcile opposing factions have not been successful, and the government continues to function without a constitution.

Basotho political tradition is consensual. The pitso, or open discussion of public issues, is still a respected institution in national and local life.

E. THE ECONOMY

Lesotho's major exports, in order of importance, are wool, mohair, cattle, and diamonds. Basotho labor is another major export, with remittances from Basotho miners and farm workers in South Africa contributing significantly to Lesotho's financial resources.

In its development plans the government continues to stress agricultural development, with a secondary emphasis on roads and job-creation through manufacturing. With fast-rising population pressure, however, and the likelihood of eventually having to reabsorb miners laid off in South Africa, prospects are not bright for Lesotho's shedding its status as one of the world's dozen poorest nations. Only generous amounts of foreign assistance and

receipts from the South African Customs Union enable the government to balance its recurrent budget, which has grown from R14.8 million in 1974 to an estimated R48.1 million in the current fiscal year. Capital spending has increased more than six-fold in the same period.

The Lesotho economy is inextricably involved with that of South Africa. The Republic is the country's prime source of employment. It is the prime market for its exports, and its principal supplier of raw materials and consumer goods. Moreover, it operates the customs and currency unions which dominate Lesotho's fiscal picture. Lesotho's economic fortunes thus rise and fall with those of South Africa's. Many Basotho leaders must be concerned not only with the economic impact of future political violence in South Africa; they must also consider the distinct possibility that a majority-ruled South Africa could be a mixed blessing to Lesotho. For instance, the enormous population growth among black South Africans will compel any future African-dominated government in the Republic to favor employment opportunities for its own citizens. Basotho workers and the Lesotho government could suffer accordingly.

F. AGRICULTURE AND LIVESTOCK DEVELOPMENT

Agriculture, cattle raising, and the production of wool and mohair are the principal economic activities in Lesotho. In spite of major agricultural development schemes, however, food production is not keeping pace with

Soil erosion, the absence of labor (working in South Africa) and the lack of effective economic incentives conspire to hinder real agricultural growth.

Nonetheless, agriculture is absorbing a greater share of Lesotho's recurrent and development capital than any other sector. More than R20 million--about a quarter of the present capital budget--has been allocated to agriculture. Agriculture's recurrent budget for 1978/79 will consume an estimated 29 percent of total government operating expenditures.

As an indication of the importance that the land plays in Lesotho's national livelihood, 72 percent of all families are reported to have livestock; 80 percent raise maize (the staple food); 55 percent raise summer sorghum; and 32 percent produce beans.

In spite of the fact that about 44 percent of all food consumed is grown on family plots, government agriculture programs have been stressing consolidated farming programs and de-emphasizing the role of smallholders. About a third of the country's food is purchased from outside the country. Only 13 percent is raised commercially in Lesotho. Significantly, about 10 percent of all food consumed is donated from abroad.

G. INDUSTRY AND MINING

Lesotho has three natural resources: (1) diamonds, which are being mined on a modest, though increasing,

(2) water, which could someday be harnessed for power and/or sold to the Republic, which is short of water; and (3) its rugged scenery, which serves as a background for a growing tourist industry.

What Lesotho does not have is jobs. Outside of the agricultural sector, few wage-earning opportunities are being developed to absorb the country's rapidly growing labor pool. With the likelihood that South Africa will require gradually fewer Basotho workers in the years ahead, the government is committed to attracting manufacturing enterprises to Lesotho.

H. TRANSPORTATION RESOURCES

Because of its mountainous terrain, Lesotho is not easily traversed. The national road system is not well developed, and a large number of the people, who tend to live in scattered small villages, are not within ready access of public services, including health facilities. Certain sections of the country are virtually isolated except by small plane, pony or mule, or by four-wheel drive vehicles.

Two major road construction programs are currently underway through central Lesotho and will do much to tie the country together. However, mountain areas will remain hard to reach.

A major concern in the future is Lesotho's accessibility to the outside world. Being surrounded by South Africa, Lesotho is vulnerable to severe disruption of its

the transport of food and other essential materials in the event of violent political upheaval in the Republic.

I. HOUSING

Only six percent of the Basotho live in "urban" communities, which are really small towns. The vast majority live in villages, many of them counting as few as a dozen or so families.

Housing generally is constructed of stone or mud bricks and roofed with thatch or metal sheeting. Few homes are equipped with latrines or other waste disposal facilities.

J. EDUCATION

Lesotho has one of the highest literacy rates in Africa (about 50 percent). This is largely a legacy of a century-old missionary presence, reflected today in the fact that 55 of the nation's 62 secondary schools are operated by church organizations. The missions also run 98 percent of the 1,087 primary schools.

The shortage of qualified teachers at both the primary and secondary levels, however, restricts the output of graduates who are prepared to develop useful skills at the new National Teacher Training College, the Lerotholi Technical Institute, or the National University of Lesotho. This raises doubts about the educational system's ability to produce persons qualified to train for positions in an expanding health service, especially if there is competition for eligible candidates from other government programs and from the private sector.

III. THE HEALTH SECTOR

A. A PROFILE OF THE HEALTH SITUATION IN LESOTHO

1. Health Status and Patterns of Morbidity and Mortality

History and geography have provided Lesotho with mixed blessings in terms of health. Missionary health programs, dating to the 19th century, initiated a strong curative tradition which was reinforced in the colonial period under British administration. Current efforts to promote preventive medicine need to counter-balance the strong curative bias.

Lesotho's mountain-based and temperate climate, meanwhile, is an important factor in the low prevalence of many diseases which afflict other countries in tropical Africa. There is virtually no malaria, schistosomiasis, sleeping sickness or tetanus. But the rugged geography inhibits adequate food production and sound environmental sanitation. Respiratory and gastro-intestinal diseases are common. In addition, many people are physically isolated from health facilities. An estimated 10 percent of the population must walk at least 14 hours to reach the nearest clinic or hospital.

By tropical African standards, the Basotho are relatively healthy. Life expectancy at birth is more than 51 years. Combined infant and early childhood mortality is comparatively low. On a per capita GNP basis, Lesotho is one of the poorest countries in Africa. Its future economic prospects are at best modest. Population growth is

seriously taxing the carrying capacity of the land. The government is faced with difficult choices concerning the type and scope of health services that can and should be provided, given the limited financial resources likely to be available.

Lesotho's principal diseases continue to be venereal infections, gastro-enteritic disorders, measles, pulmonary tuberculosis, acute and chronic respiratory infections, hypertension, and typhoid. Other major health problems are trauma, pregnancy/childbirth complications, and protein/calorie deficiencies.

The main causes of death as reported by hospitals, and therefore not an accurate expression of the causes of all deaths, are pulmonary TB, heart disease and hypertension, acute respiratory infections, typhoid fever and gastro-intestinal diseases.

The following are government statistics on the reported incidences of major notifiable diseases from 1975 through 1977:

	<u>1975</u>	<u>1976</u>	<u>1977</u>
Typhoid/Paratyphoid	333	245	209
Dysenteries	594	583	1,545
Gastroenteritis	8,484	11,281	16,522
Whooping Cough	1,633	2,183	1,455
Measles	5,902	3,691	10,435
Syphilis	N.A	6,871	8,628
Gonorrhoea	9,025	13,292	13,873
Pulmonary Tuberculosis	2,751	1,926	1,926

Since the relationship of reported incidence to actual incidence varies over time and from one disease to another, the reliability of these data is difficult to determine; in general, an under-incidence may be assumed. But the large increases in reported incidences of some diseases are probably not insignificant. For example, the reported incidence of gastro-enteritis doubled over a three-year period, and the number of reported dysentery cases tripled. Measles nearly doubled, and the presence of venereal diseases grew significantly.

With the exception of measles, immunizable diseases do not appear to present serious hazards. Only 12 cases of polio and 37 cases of diphtheria were reported in 1977.

The major diseases (other than measles) are associated with the absence of clean water, sanitary waste disposal, and health education. Typhoid, dysentery, and gastro-enteritis can be drastically reduced by making available safe water supplies and encouraging proper disposal of human and other wastes. Venereal diseases and tuberculosis spread largely through public ignorance and through the inability to identify and treat new cases and follow up old cases. The large number of migrant Basotho men working in South Africa are probably the principal vector for new venereal infections and re-infection.

2. Food and Nutrition

Although the general level of nutrition in Lesotho has improved since 1956, when the World Health Organization

first surveyed the nation's nutritional health, there is basis for extreme concern for the future. A national nutrition survey in 1976 indicated that the average child between the ages of two and five years was two to three centimeters taller and a kilogram heavier than the average child of a generation earlier. But the survey also found that one in five Basotho children is "chronically undernourished" and that half of the population was getting less than the minimum daily calorie intake.

James Anderson, a nutrition education consultant to the government's Food and Nutrition Coordinating Office, believes on the basis of clinical returns that as much as 75 percent of the population may be getting less than minimum necessary calorie intake. An estimated 25 percent of all children suffer chronic protein/calorie malnutrition. A household consumption survey planned for 1979 is expected to define nutrition status more clearly.

Several trends suggest that the level of nutrition, if not actually declining, is extremely vulnerable to deterioration:

First, notwithstanding attempts to rejuvenate the agricultural sector, it is not clear that food production is even keeping pace with the rapid population increase. Some observers believe that per capita food production is declining.

Second, although the large-sector donor food programs obviously do much to sustain nutritional well-being, they may also be giving Lesotho a false sense of security. Food aid has been institutionalized in Lesotho over the past sixteen years, and now reaches one-third of the population. Some argue that

it is responsible for retarding progress toward the nation's stated goals of increased food production and reduced population growth. Whatever the truth, ten percent of Lesotho's food now comes from outside donors, and the amount is expected to continue rising to fill the gap between food needs and production plus imports. But for how long? The nutritional implications of food assistance have not been thoroughly analyzed.

Third, there are signs that the age-old custom of breast-feeding is beginning to submit to "modern" influences, as it has elsewhere in Africa. Basotho women customarily breastfeed their children until they reach the age of two. (The median age is reported to range from 15 to 18 months.) Any decline in breastfeeding could have consequences for infant health, since the evidence already shows that nutritional status begins to worsen between six and twelve months of age.

The World Health Organization nutrition study in 1956-60 indicated that the Basotho diet was deficient in animal protein, calories, riboflavin, nicotinic acid, iodine, and Vitamin A. Goitre was endemic. Inasmuch as the basic diet has not changed substantially in the interim, these deficiencies almost certainly persist today.

Major foods are maize (which is made into mealie-meal porridge and eaten when possible with a vegetable relish), peas, beans, sorghum, and some fruit. Meat, milk, and eggs are eaten when available. Unfortunately, consumption of large quantities of sorghum-based beer unfortunately induce cases of pellagra by satiating appetites with empty calories (although this problem is reported to be less and less common.)

Lesotho is only just beginning to grapple seriously with this acute nutritional problem. A cabinet-level Food

and Nutrition Council has been established. Its executive body, the Food and Nutrition Coordinating Office, has the difficult task of determining the true dimensions of the problem and then of uniting several ministries behind a comprehensive program to achieve satisfactory nutritional levels throughout the country.

3. Environmental Impacts on Health

a. Housing

Housing per se is not commonly cited as a major contributor to ill health. However, dampness, crowding, poor ventilation and cold that result from poor housing probably contribute significantly to morbidity and mortality. Although an estimated 94 percent of the people live in rural areas, the government's housing policy is focused on problems of urbanization, especially in Maseru. The Second Five-Year Development Plan stresses means to expand middle and lower income housing for civil servants and commercial/industrial sector workers.

Housing in rural areas generally is constructed of stone, locally-made bricks or blocks.

b. Water

Lesotho is a well-watered country. Drought and local shortages are occasional problems, and adequate quantities of water are generally, available. The major concern, however, is water quality. Along with, and related to improper waste disposal, the lack of clean water is responsible for the high incidence of dysentery, gastro-enteritic diseases, and typhoid.

An AID-financed study [Metcalf and Eddy, 1977] estimated that 94 percent of the people in Lesotho were without a water system. A 1976 report [Feacham] estimated that only 8.8 percent of the rural population had access to piped water, and only 11.8 percent had some form of protected supply.

Given the difficulties encountered in building new village water systems, these percentages cannot have changed appreciably for the better. Capital costs of such systems are high and there is a persisting shortage of persons trained to install them. A further problem is training local "water-minders" who can maintain their villages' water systems.

The Ministry of Rural Development (MINRUDEV) is responsible for the village water program. It can expect adequate funding for these projects from Great Britain, the EEC, and probably USAID. However, the ministry has been unable to establish new posts for the technicians required to plan and implement the water systems. It also has been hampered by "Buy British" requirements under the United Kingdom program. Materials for approved projects have been delayed, thus dampening local readiness to engage in self-help.

A rural water supply program proposed recently by USAID aims to solve the MINRUDEV's management and manpower training needs and to support construction or improvement of 358 rural water supply systems by 1983. Assuming that this goal is achieved, it will represent a major step towards improvement

in environmental health. However, given Government of Lesotho budget and manpower constraints, which may limit how many water systems actually are installed, and given natural population increase, the majority of Basotho can expect to live indefinitely without safe water supplies. It is therefore critical that efforts to eliminate sources of water pollution be pushed all the more strongly.

c. Sanitation and Waste Disposal

With assistance from the United Nations Capital Development Fund (UNCDF) and WHO, Lesotho three years ago began a program of self-help latrine construction at primary schools. The program has been plagued by inadequate transportation and, at first, by apathy among parents, who were expected to help build the school latrines. The chief health inspector in the Ministry of Health and others consulted believe that the people now understand the importance of latrines to good health and will be more ready in the future to lend their help in constructing them. Moreover, it is hoped that villagers will begin to construct their own latrines.

The original UNCDF-sponsored latrine program was to have benefitted 660 of the country's more than 1,100 primary schools. Because of the problems cited above, it fell far short of that goal. A WHO consultant will review the technical aspects of the program late in 1978 before extension of UNCDF funding is finally determined. If the assistance is forthcoming, the chief health inspector estimates that it

will require three to four more years to install latrines at about 600 primary schools. An additional need will be to instruct school personnel (and villagers who adopt latrine use) to maintain the latrines and move them when they fill up.

Urban refuse disposal, meanwhile, is becoming an increasing concern. The government is taking over collection from private contractors and is using non-organic wastes to fill dongas (gullies caused in the process of soil erosion). People also are being taught the advantage of composting their organic wastes.

d. Occupational Hazards

Pending development of larger-scale industrial enterprises, Lesotho has little need for an occupational health program. It does have reason to be concerned, however, over the health of the tens of thousands of Basotho who go annually to work on the farms and in the mines of South Africa. Migrant laborers receive a cursory examination before they leave Lesotho; virtually all pass. But returning workers are not examined. Miners who have contracted venereal disease or tuberculosis pass undetected into their home communities. Additionally, because the exams given before leaving Lesotho are perfunctory, miners injured in South Africa are unable to prove that their disability was incurred in the Republic and to obtain adequate compensation. A thoughtfully developed, limited history and physical examination of migrant workers upon leaving and returning might well justify the cost in terms of compensation for

disability and control of communicable diseases, particularly venereal diseases and tuberculosis acquired while in South Africa.

4. Population and Maternal and Child Health/Family Planning

Lesotho's population is increasing at an estimated rate of 2.2 percent annually. The actual rate may be somewhat higher. Government policy, stated in the Second Five-Year Plan, is to reduce the annual population growth rate to 2.0 percent. However, the government so far has preferred not to go beyond encouraging methods of child spacing traditionally practiced by the Basotho. The government may soon reconsider this posture. Population growth may already have exceeded the carrying capacity of Lesotho's productive land base. The question of how many people Lesotho can ultimately sustain is a very serious one. It must be viewed, as well, within the context of South Africa's population growth. Official estimates there anticipate a doubling by the year 2,000 from 26 million to nearly 50 million.

The Basotho have long valued large families. At the same time, they have commonly spaced births through prolonged breastfeeding of infants and abstinence from intercourse during this period. However, a perceptible decline in the popularity of breastfeeding in urban areas and other "modern" influences may be undermining this natural restraint on population growth. The median length of breastfeeding may also be declining nationwide. Combined with the more

frequent return, on leave, of migrant male workers from South Africa, increased pregnancy rates are possible. The declining child mortality rate also is countering any current success in reducing the rate of population growth. Finally, religious convictions--especially those of Lesotho's large number of Catholics--are generally believed to inhibit progress in family planning. This partly explains the predominantly-Catholic government's hesitance to advocate birth control. It is likely, however, that inhibitions at official levels may not be universal among Basotho Catholics. An official of the Lesotho Family Planning Association reported that many of its clients using contraceptive devices are Catholics.

It seems fair to predict that child spacing and reduction in family size will become increasingly acceptable in Lesotho, especially if prospective parents feel economically secure enough to opt for fewer children. Other factors, however, may work against family planning. The availability of seemingly unlimited food assistance will continue to assuage the consequences of a family having one more mouth to feed. And the fear among migrant workers that their wives might be unfaithful in their absence discourages acceptance of birth control devices.

As more children are being delivered in Lesotho each year, it is also evident that more of them are being born in hospitals and clinics. However, the absence of maternity facilities and trained midwives at most clinics and the

lack of accommodation for expectant mothers at hospitals limit progress in this area. Only about one quarter of all births are supervised. Most deliveries are attended by "grannies" and other women. There are no traditional or trained midwives as such.

Maternal health is difficult to gauge. For instance, there were 39,000 antenatal first-visits registered at clinics in 1973, between 80 and 90 percent of the estimated number of pregnancies. Only 15,358 were registered in 1974, which suggests that figures for earlier years were inflated. A total of 26,031 first-visits and 48,728 second-visits were recorded in 1977. If these statistics are reliable, they indicate improved awareness among women of the advantages of antenatal care.

The health of mothers who deliver in hospitals or at clinics is indicated in part by the stillbirth rate (2.3 percent of total births). Maternal mortality statistics have not been collated. However, Mafeteng Hospital reported no maternal deaths in 1977 among 686 deliveries; and Quthing Hospital, which delivers an estimated one-third of that district's babies, recorded five maternal deaths during 845 deliveries last year. "Although a lot of the deliveries are done at home in Lesotho by family members or traditional doctors," says the Mafeteng Hospital Annual Report for 1977, "our impression is that, in general, patients reach this hospital in time if something goes wrong."

The health of newborns is not easily assessed. The average weight of babies born in hospitals or clinics may not be much greater than six pounds. The number of perinatal deaths is impossible to estimate accurately because few mothers attend post-natal clinics. Some health staff suspect that many mothers fail to bring a sick or underweight child to an under-five clinic for fear of being blamed for its condition. Catholic Relief Services (CRS), which operates 60 MCH clinics and 70 outstations, reaches an estimated 50,000 to 55,000 children at monthly well-baby clinics, using U.S. PL-480 food as an inducement. But CRS does not know what percentage of mothers are actually using the services. The current director suspects that those mothers and children most in need may be the ones least disposed to attend.

Improved maternal and child health, in the long term, clearly is related to access of primary health care facilities to most citizens, among other factors. Because of the physical limitations of hospitals and the problems of transport, rural clinics and their nursing staffs will necessarily play the principal role in providing supervised deliveries. As this service is extended, more mothers almost certainly will take fuller advantage of post, as well as antenatal care. This assumes, of course, the training of adequate nurse/midwives and the equipping of clinics, properly distributed, to handle obstetrical cases.

5. Mental Health

Lesotho has one of the more extensive mental health services in Africa. The 120-bed Mohlomi Hospital has been operating since 1965. Each district hospital has a 16-20 bed psychiatric ward. The mental health budget has increased 172 percent in the past five years, representing a slight increase from 6.6 to 6.9 percent of the total health budget.

Schizophrenia consistently accounts for slightly more than one half of all new admissions. Alcohol-related mental disorders appear to be increasing, although pellagra (nutrition-related) cases have been declining in recent years.

Concern has been expressed that mental illness will increase if the pace of urbanization quickens, if the role of traditional healers in treating psychoses is pre-empted by changing attitudes, or if South Africa finally experiences a period of severe racial/political confrontation.

6. Leprosy

Although Lesotho maintains a small leprosy hospital settlement, community-based treatment may be gaining adherents as a more effective alternative. The World Health Organization advised several years ago that there was neither medical nor social reason to segregate most of the hospitalized leper patients from their home communities. WHO said there should be greater emphasis on early detection and follow-up. A leprosy workshop held in the summer of 1978 pointed in the same direction. The consensus was that

that Lesotho can virtually eliminate leprosy within a decade. Recommended action includes repealing legislation now requiring institutionalization of leprosy victims, use of a second drug (more expensive, but more effective), equipping hospital laboratories to better diagnose the disease, greater stress on leprosy in the nursing curriculum, and a national campaign to dispel popular fear of lepers and to encourage their acceptance in the community.

B. THE HEALTH DELIVERY SYSTEM IN LESOTHO: AN OVERVIEW

1. The Organization of Health Services Delivery

The organizational structure and administration of health services in Lesotho have been characterized by fragmentation and lack of coordination. The public sector services, which are predominantly made up of acute care services delivered from nine hospitals, are provided through a centralized administration by the Ministry of Health. However, the majority of all health services are provided through hospitals and clinics operated by church/mission groups in the private sector. These groups and their facilities were functioning largely independently of each other and of the Ministry, until 1974, when they formed the Private Health Association of Lesotho (PHAL) in order to coordinate their activities. Affiliates of PHAL comprise eight hospitals (43 percent of Lesotho's total bed capacity), and 60 clinics (70 percent of the country's clinics); in 1975 they employed 30 percent of all doctors and 39 percent of all nurses in Lesotho.

The objectives of PHAL are "to develop the highest level and the widest distribution of health services in Lesotho through mutual cooperation of all members and cooperation with the Ministry of Health." Significant progress has been made by PHAL in achieving coordination and cooperation among its members. During the past several years, PHAL has sponsored workshops on rural health development,

health information and statistics, village health workers, and primary health care. In an attempt to develop its capacity to provide cooperative assistance to the Ministry its implementation of the USAID-financed rural health development project, PHAL has received private donor funding for a three-year \$600,000 project "program to improve primary health care organization and services in Lesotho". A Mosotho has just been selected to serve as Executive Director of PHAL to replace the current expatriate serving in that post.

An important component of the PHAL program will be its assistance in the development of regional health service areas (HSA's). The development of 17 HSAs (each defined by the catchment area of one hospital) is contemplated both by the decentralization of the Ministry of Health proposed in the Second Five-Year Plan, and by the implementation plan of the rural health development project. The key ingredient of all proposals for regionalizing the organizational structure of primary health care service delivery at the district ("regional") level would be the integration of management and administrative functions (to some degree) of Ministry institutions with PHAL institutions.

At the time of the team's visit, the organizational structure was not appreciably altered toward decentralization, possibly because the initiation of the rural health development project had been delayed. In any case, many

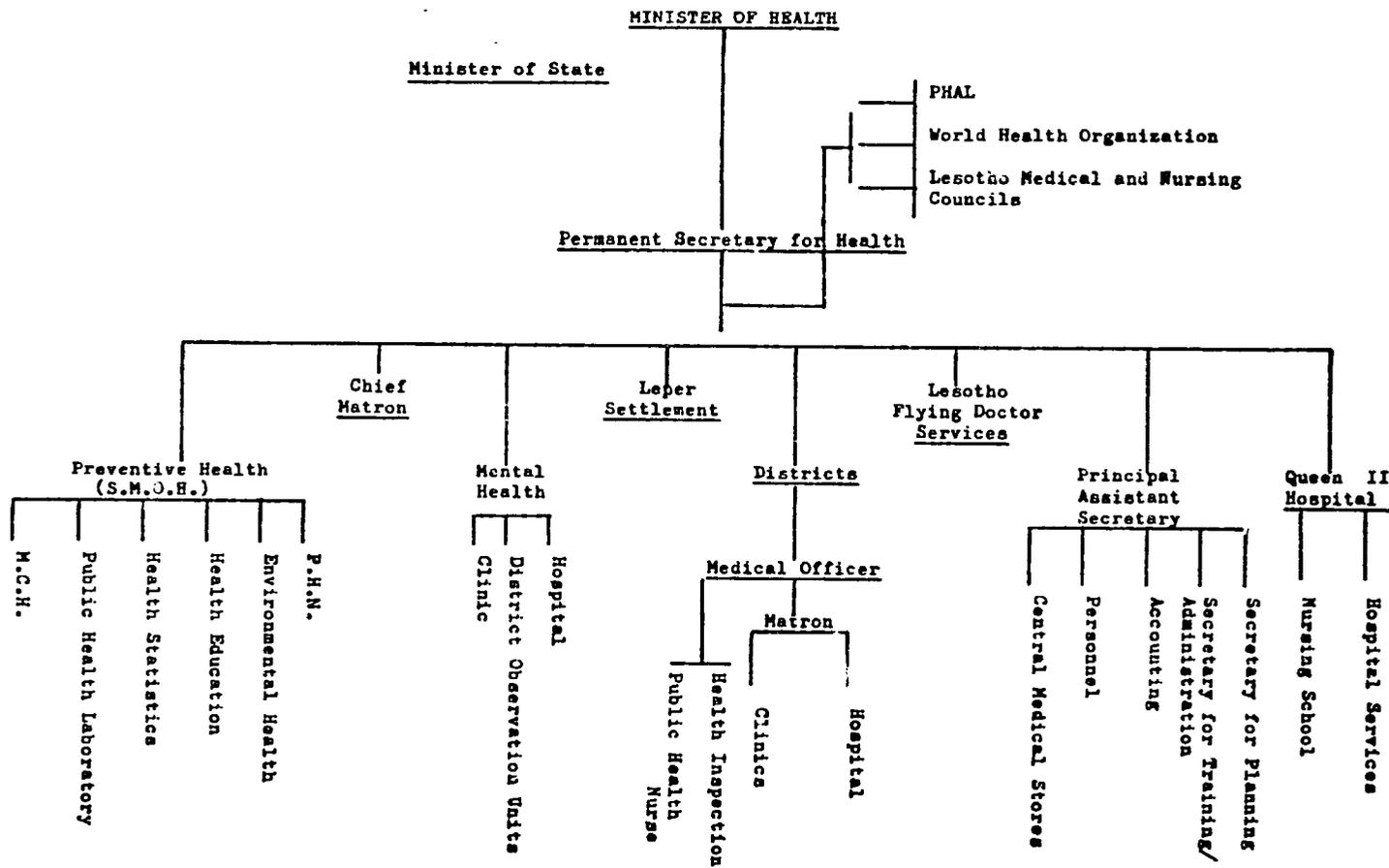
complex issues relating to organizational structure and managerial lines of responsibility under a decentralized administration have yet to be addressed by the Ministry, both on a conceptual and an operational basis.

Figure 1 presents the organizational structure presently in place at the Ministry of Health. Inadequate staffing and lack of managerial expertise at all levels has plagued the Ministry's operations in recent years. It is expected that Phase I of the rural health development project will help to alleviate this problem, according to the Project Paper, by "upgrading the planning, administrative, and management competence of the Ministry to the level required to develop and maintain a national health services delivery system." The project hopes to accomplish this by providing technical assistance in health planning and administration, and by giving short- and long-term training in these fields to Basotho.

The Ministry of Health has had a health planning unit as a component of its administrative structure since 1970. It was staffed by an expatriate for the first four years, and then by a Mosotho. Just prior to the team's visit, the health planning post was taken over by a Mosotho recently returned from advanced training in the United States. The health planning unit will need additional staffing and improved statistical and analytical expertise in order for it to play an effective role in helping to rationalize the organization, administration, and management of health services delivered by the Ministry, and in coordinating its activities with PHAL.

Figure 1

ORGANIZATION OF HEALTH SERVICES,
LESOTHO MINISTRY OF HEALTH



Source: Government of Lesotho, "Annual Report for the Ministry of Health and Social Welfare for the Year 1975." p. 7.

2. Overview of Health Manpower Resources

The curative emphasis of the current health system is reflected in the breakdown of the Ministry of Health establishment list: a total of 933 of the 1,092 positions are committed to hospital and clinic services (including the mental health and leprosy units). There are no health workers per se under other ministries, although many government departments have responsibilities which affect health either directly or indirectly.

The Ministry of Health has been severely handicapped by the absence of adequately trained administrative/planning staff--a problem to be addressed by the AID-funded Rural Health Training Program. There are no qualified hospital administrators currently working for the government, and the planning section has only recently received professionally trained staff.

Health personnel statistics for recent years are educated estimates, to judge by the conflicting figures available. The collection and analysis of health data are hampered by incomplete reporting from the field and by an understaffed ministry statistical unit. Figures given in Tables 1-3 are approximations, but are the best available data on the current health manpower resources in Lesotho. Note that traditional healers, shown in Table 1 to number some 800 in 1976, are discussed in section III C, as are other categories of health manpower.

TABLE 1
HEALTH MANPOWER IN SERVICE: PUBLIC & PRIVATE
Lesotho, 1974 - 1978

Type		Numbers	YEARS				
			1974	1975	1976	1977	1978
Physicians			52		69		70
Dentists			3		4	4	4
Nurses	Practical or Enrolled					62	
	Registered			275	275	299	
	Midwives						
	Registered Midwives						
Lab Technicians			3			20	20
X-Ray Technicians			3			3	3
Physical Therapists						3	3
Environ- mental Health Workers	Professional						6
	Paraprofessional						17
Front- line	Traditional			822			
	Basic Health Worker						100-120
	Advanced Health Worker						
Senior & Midlevel Management & Planning Statistics							5
Clerical/Junior Administration Workers, Aides, Orderlies							
Maintenance							
Pharmacists			4		4		

SOURCE: Ministry of Health, Maseru.

TABLE 2
 MINISTRY OF HEALTH
 & RELATED GOVERNMENT HEALTH POSITIONS,
 Lesotho, 1978

Health Positions	# of Positions Which Are:	
	Approved	Funded
Physicians	39	39
Dentists	1	1
Senior Level Nurses (Matrons)	12	12
Midlevel Nurses (Sisters)	201	201
Entry-Level Nurses (State Reg)	62	62
Nurse Midwives	-	-
Midwives	-	-
Health Inspectors	9	9
Health Assistants	19	19
Rural Health Workers	-	-
Lab & Assistant Lab Technicians	14	14
X-Ray Technicians	2	2
Other Professionals	See List	99
Management/Clerical/Statistics	121	121
Hospital Ward Workers	513	513
Pharmacists	2	2

Ministry of Health Positions--Other Professionals:

Orthopedic Technician	1
Physiotherapist	2
Cyto-Technician	1
Social Worker	1
Senior Dental Mechanic	1
Dispenser	44
Pupil Dispenser	21
Psychiatric Social Worker	2
Psychiatric Tutor	1
Occupational Therapist	2
Health Educator	3
Sanitary Worker	12
Purchasing & Stores Officer	1
Hospital Services Administrator	1
Leprosy Superintendent	1

SOURCE: Ministry of Health, Maseru.

3. Overview of Health Facilities

Because the missions and government have not coordinated placement of hospitals and clinics over the years, there are serious imbalances in the geographic distribution of health services. Government hospitals are located in each of the district headquarters. However, mission hospitals and their satellite clinics do not necessarily complement government coverage. Bed-to-population ratios thus grossly favor Maseru District (the most populated) and Butha-Buthe District (one of the least populated) at the expense of three of the more populous regions (Mohale's Hoek, Mafeteng, and Berea Districts).

Difficult terrain and poor transportation require most of the people to walk considerable distances to reach medical care. One study [Gish, 1976] recently estimated an average seven-hour turn-around time for half the population. More than 10 percent of the people were believed to be walking 14 hours or longer.

According to Ministry of Health Statistics just compiled, for 14 of the country's 17 general hospitals, the occupancy rate for government hospitals in 1977 was only 66.4 percent; and for mission facilities, only 54.6 percent (see Table 4). These figures are lower than occupancy rates for previous recent years (government district hospitals had an overall occupancy rate of 77 percent during the period 1971 through 1973).

Relating the aggregate data in Table 4 to the population base shows that the overall utilization rate was 0.4 bed-days per person per year and hospital bed capacity was 1.6 beds per 1,000 population. These data suggest the following:

- Hospital bed capacity is currently adequate.
- Further explanation in aggregate is not warranted until utilization increases.
- Utilization is low (at the level of a tightly managed U.S. HMO) because of:
 - (a) lack of access to primary care case-finding and referral;
 - (b) generally difficult transport.
- As primary care and regional integrated health services improve, hospital utilization will appropriately increase, perhaps doubling the patient days. However, until occupancy rates overall reach 80-85% or higher in an urban area, and length of stay data become available, showing length of stay appropriately short, probably between 8-10 days, only then should consideration be given to expansion of bed capacity.

Table 4

CAPACITY & UTILIZATION OF HOSPITALS IN LESOTHO, 1977

Sector & Type	Number	Beds	% Occupancy	Admissions	Length of Stay	Patient Days
Government	9	1,038	66.4 ^a	N/A	N/A	251,133
Mission	8	777	54.6 ^b	N/A	N/A	154,742
All Other (including Private)	2 (Leper, Mental)	200 ^c	107	N/A	N/A	77,864
TOTALS	19	2,015	N/A	N/A	N/A	483,739

a. Based on eight hospitals for which complete data is available.

b. Based on six hospitals for which complete data is available.

c. Estimated.

SOURCE: MOH Statistics Office.

The aggregate figures for occupancy, however, probably reflect wide-ranging rates for individual hospitals, some of which may be said to be currently overcrowded. (In 1973, district hospitals' occupancies ranged from 61 percent [Mafeteng] to 104 percent [Makhotlong]). Although utilization of a hospital is typically dependent on the size of the population in the catchment area having relatively good access, most Basotho live dispersed in rural areas and have difficulty getting to a hospital in any event. Thus it is likely that hospitals located in sparsely populated areas must rely on adequate referral processes and transportation networks to keep utilization and occupancy high. In Lesotho, it appears that hospitals are distributed unevenly relative to the population, and that resultant low occupancy rates for some are related to poor referral processes and inadequate transportation.

The question of hospital location and utilization is particularly important in view of the Ministry's current plan to make each of the 17 hospitals a referral hospital and administrative center serving a specific catchment area. For instance, five of the nation's 17 hospitals are in Maseru District alone. (Table 5 provides summary data on the locations and sizes of government and non-government hospitals in 1976.) Considerable thought and planning will be required to develop adequate administrative means for managing a system in which each hospital defines a catchment

Table 5
HEALTH INSTITUTIONS IN LESOTHO (1976)

District	Population (de Jure) (1976 Census)	Hospitals				Clinics				Outstations	
		Government		Non-Government		Government		Non-Government		Gov't	Non-Gov't
		#	Beds	#	Beds	#	Beds	#	Beds		
Butha-Buthe	77,835	1	85	1	113	3	-	3	2	-	2
Leribe	207,274	1	104	1	177	2	-	16	74	-	4
Berea	143,676	1	78	1	37	-	-	7	2	-	-
Maseru	265,030	1	317	4	374	3	6	13	25	-	9
Mafeteng	148,985	1	119	-	-	3	8	7	25	-	4
Mohale'shoek	134,889	1	72	-	-	4	12	3	12	-	-
Quthing	83,076	1	90	-	-	2	8	2	13	-	-
Qacha'snek	75,431	1	64	1	36	5	15	5	21	-	-
Mokhotlong	71,764	1	55	-	-	4	13	4	4	-	-
TOTAL	1,213,960	9	984	8	737	26	62	60	178	-	19

Notes:

1. The clinic refers to any non-hospital health facility with resident qualified staff.
2. Hospitals exclude a specialist hospital.

Non-Government Organizations Operating Health Facilities:

	Hospital	Clinic	Outstations
Roman Catholic	4	38	6
Anglican Church	1	2	2
Lesotho Evangelical	2	3	4
Seventh Day Adventist	1	2	7
Red Cross	-	10	-
Community	-	4	-
Other	-	1	-

area both for referral and management purposes--especially when that system is half-public, half-private in ownership and control. Although the USAID Rural Health Training Project is premised on the development of this system, the detailed steps required by the process of developing the administration are yet to be articulated.

Many of the country's hospitals and clinics require renovation and improvements. A Clinic Improvement Program has been designed to rehabilitate nearly half the existing clinics and health centers. A primary complaint at the hospitals focuses on the lack of adequate maintenance. Although most buildings are old, they are serviceable if properly maintained.

4. Overview Of Health Services Financing

Health has been receiving a steadily declining share of the nation's financial resources. The recurrent budget for health has decreased from 12.4 percent of total government operating expenditure in 1959 to between 6.8 and 7.5 percent for the five most recent fiscal years. The capital budget share for health has dropped from 2.5 percent in 1974-75 to 1.2 percent this year (see Table 6).

As the relative amount devoted to recurrent costs has gone down, the share allocated to hospital services has increased slightly faster than for other line items in the health budget. However, it is also likely that clinics and ambulatory care capacity are included in the hospital line item of Table 7. This table gives the breakdown of the

Table 6

GOVERNMENT HEALTH BUDGETS IN LESOTHO, 1974-1979 (\$000s)

	Fiscal Year				
	1974/75	1975/76	1976/77	1977/78	1978/79
Capital (Development)	350	558	674	919	933
% of total	2.5	2.9	2.3	2.1	1.2
Recurrent (Revenue)	1,508	1,963	2,414	3,814	4,008
% of total	6.8	6.7	7.1	7.5	7.2
Total Budget per Capita	\$1.63	\$2.35	\$2.56	\$3.84	\$3.92

Note: Capital budget figures are expenditure provisions; actual spending has been consistently below these figures.

Source: Government of Lesotho, "Estimates of the Revenue and Expenditure of the Kingdom of Lesotho" for the respective years, and "Annual Report for the Ministry of Health and Social Welfare," 1975 and 1976.

TABLE 7

BREAKDOWN OF RECURRENT HEALTH BUDGETS
FOR LESOTHO (IN RAND)

	<u>74-75</u> / %	<u>75-76</u> / %	<u>Revised</u> <u>Est 77-78</u> / %	<u>Est.</u> <u>78-79</u> / %	<u>% Rise</u> <u>74-79**</u>
Administration	134,840 10.3	149,350 7.7	248,520 7.6	263,198 7.6	95.2
Hospital Services	922,670* 71.0	1,447,880 74.3	2,466,469 75.0	2,588,382 74.9	181.2
Mental Health	85,820 6.6	116,170 6.0	215,450 6.6	233,750 6.8	172.0
Public Health	110,250 8.5	150,270 7.7	277,216 8.4	283,951 8.2	158.0
Leprosy Control	<u>46,420</u> <u>3.6</u>	<u>84,160</u> <u>4.3</u>	<u>80,049</u> <u>2.4</u>	<u>85,699</u> <u>2.5</u>	<u>84.6</u>
TOTALS	<u>1,300,000</u> <u>100.0</u>	<u>1,947,830</u> <u>100.0</u>	<u>3,287,704</u> <u>100.0</u>	<u>3,454,980</u> <u>100.0</u>	<u>165.8</u>

* Includes R380,250 for Queen Elizabeth II Hospital in Maseru. Expenses for the hospital are merged in figures for following years.

**The data are unadjusted for inflation.

SOURCE: Ministry of Health, Maseru.

Ministry's recurrent budget for recent years according to major categories of spending.

Government expenditure for health does not reflect the costs of operating the mission facilities. These are borne almost entirely by the church organizations that founded and continue to sponsor them. According to the executive secretary of the Private Health Association of Lesotho (PHAL), which represents the mission facilities, these institutions as a group urgently need a sizeable annual government subsidy if they are to continue operating. In response to rising costs and declining donations from abroad, the missions have been forced to raise patient fees (to well above government fees) and to pay their staff salaries which are well below the government average. PHAL has recommended a unified wage structure for all health personnel. In any event, the government eventually will have to shoulder an increasing share of the recurrent cost of the mission health system.

C. HEALTH DELIVERY SYSTEM: PERSONAL AND PREVENTIVE SERVICES

1. Front-line Services

a. Personnel

The Basotho have long used the services of their own medicine men and herbalists. An estimated 1,000 or more traditional healers are believed to be practicing today, scattered relatively evenly throughout the country. Training and apprenticeship are frequently extensive, lasting for several years; unlike western-trained (allopathic) medical practitioners, they collect the larger portion of their fee only if the patient is cured.

Studies done on traditional herbal remedies in Lesotho have shown that it is more than likely that a skilled medicine man or herbalist can achieve genuine results for many patients. They may also play an important role in community mental health. Whatever their effectiveness, traditional healers are often the only source of basic (primary) health care for the majority of the rural population. Now that the Ministry of Health plans to develop a large cadre of village health workers (with assistance from USAID), there is a need to consider how practicing traditional herbalists can be carefully integrated into the rural health system. A Village Health Worker workshop, sponsored by the Ministry in August 1977, touched only superficially on the future relationship between the traditional medical

community and the village health workers who will ultimately bear the greatest immediate responsibility for their communities' health.

More than 100 village health workers already have been trained under three independent programs based at Scott Hospital in Morija District, at Quthing District Hospital, and at Tebellong Hospital in Qachas' Lek District. The village health worker (VHW) is expected in a few years to become the principal front-line health of the organized health care system. In substance, the VHW is to fill the preventive/promotive role envisioned by the World Health Organization model for such programs: VHWs are to encourage their own communities, by which they are selected, to practice proper personal hygiene, institute local sanitation projects, and improve nutritional habits. They are to provide basic curative services, where needed, but to concentrate on preventive measures and health education. They also will serve as an extension of the primary health care system, such as in following up "delinquent" tuberculosis and venereal disease patients.

The USAID Rural Health Training Program is expected, over its five-year course, to prepare about one thousand VHWs. In the meantime, it is likely that small VHW programs --organized and supported by individual hospitals on their own initiative--will continue to take root. Although national VHW guidelines are yet to be written, the VHW workshop came to a consensus that VHW projects should be

permitted some flexibility, thus allowing more realistic application to local circumstances.

Possibly the most significant problems identified thus far with the VHW concept are remuneration and supervision. Some VHWS (who tend to be women with a few years' elementary schooling) are paid token salaries (about R5 monthly). The money usually comes from a hospital's petty cash. Most existing VHWS are not paid, and there is some debate over whether in the future the emphasis should be on having volunteer or paid VHWS. Another constraint on the future development of the VHW program may be the degree of supervision they receive. VHWS probably will require regular professional encouragement and periodic retraining. Whether this can best be provided by nursing personnel assigned to rural clinics, or as some believe, by former VHWS upgraded to paid supervisors remains to be decided.

A third cadre of front-line health workers are the 45 nutrition and home economics extension personnel who function under the Ministry of Agriculture's nutrition unit. Each one works roughly in a six-mile radius, speaking to groups of women about nutrition, child care, and handicrafts.

b. Facilities

Neither traditional medical practitioners, village health workers, nor the home economics extension agents require nor use special facilities.

c. Costs

Medicine men and herbalists are self-sustaining, through fees and/or farming or wage employment; village health workers are expected to be self-supporting, although a few are paid small monthly stipends; and the home extension program costs about R200,000 annually to operate. (It was not possible for the team to evaluate the effectiveness of the latter.)

The village health worker program conceivably could become relatively costly. For instance, if it is decided to pay VHWS (paid R5 monthly) and 50 supervisors (paid R500 a year) the currently planned program would ultimately cost about R85,000 annually.

The cost-basis of VHW programs should be officially defined as soon as possible. VHW projects now developing on their own are setting a local precedent for payment of at least some village health workers. It is conceivable that a mission hospital, having started a VHW program in which it pays some or all of the workers, may not be able to sustain that cost indefinitely. If the government eventually takes over VHW programs, can it maintain past payment practices? And if not, will the VHW program in that locale become dormant, discouraging future efforts to revive the VHW concept in that area?

2. Mid-level Services

a. Personnel

The nursing profession is composed of about 300 nursing sisters (including some qualified as midwives) and

62 enrolled nurses, public health nurses and matrons. The latter are in administrative positions.

According to a 1976 compilation, about two-thirds of all nurses work in a hospital setting (including out-patient clinics) with the balance working in rural health and MCH clinics.

Most nurses now in mission or government service have been trained only for hospital-based nursing, roles, and are not qualified to diagnose and treat patients' common medical needs. Those in rural clinics are, nevertheless, often forced to use their judgment and experience in the absence of a physician.

Other mid-level personnel engaged in health-related work include:

- Sixteen health assistants who function under public health inspectors. They are responsible for following up tuberculosis cases and other cases of infectious disease (such as occasional outbreaks of typhoid and plaque), and for giving talks to village meetings on the importance of environmental sanitation.
- Forty-four Dispensers who assist in clinic and outpatient services.

b. Facilities

As noted in Table 5, "Health Institutions in Lesotho," there are 86 clinics--including 60 operated by mission organizations, the Lesotho Red Cross, Catholic Relief Services and even a few communities. There are also about 19 dispensaries, or "outstations," maintained by church and voluntary agencies.

Clinic facilities vary considerably in size, condition and accessibility. Catchment areas range from as few as 4,000 people for a clinic in Mokhotlong District to more than 20,000 in several places. Some clinics are no more than rondavels; others are relatively commodious and well-equipped. Many, however, urgently need improvement.

c. Costs

The annual salary cost for all government nursing personnel in the current fiscal year (including pupil nurses and pupil dispensers) is roughly R560,000. Annual salary costs for mission hospital and clinic nursing staff are approximately R113,000.

Costs for operating clinic facilities alone cannot be determined from the data available.

3. Referral, Consultation, and Supervision

a. Personnel

Current and unconflicting data is not easily obtained. What follows is necessarily a general approximation of the number of upper-level professional medical personnel.

There were an estimated 69 physicians practicing full-time in Lesotho in 1976. That figure appears not to have changed much since then, if at all. Basotho doctors numbered 28, with the Dutch and Swiss contributing 15 and 8 respectively. The 12 doctors in private practice today are all Basotho. A number of Ugandan exiles have recently joined the government medical service.

Physicians remain heavily concentrated in Maseru District. More than half can be found in the area. Queen Elizabeth II Hospital in the capital has 19 physicians. Eight or nine are in private practice in Maseru. There are six doctors at Scott Hospital in Morija and three at St. Joseph's Hospital at Roma.

There are a few specialists, including three or four dentists and two ophthalmologists, who have been doing excellent work at Queen Elizabeth II Hospital. The government establishment list does not include positions for specialists in pediatrics, orthopedics, family medicine, and many other specialty areas.

The salary levels of the three basic medical officer categories in Lesotho--government, mission, and private-- differ considerably. While private practitioners may be earning as much as R20,000 annually, the average government physician currently makes only about R7,000. Specialists in government service receive an average of about R8,400, as do senior medical officers in charge of public health and the mental health hospital.

Opinions vary on how to encourage Basotho physicians to remain in government service, as well as in the country. (A fair number are reported practicing privately in Europe, North America and elsewhere in Africa.) Some say more competitive salaries are needed. Others believe better hospital working conditions and greater opportunity to engage in specialty work would be adequate incentive. Probably some combination of the two would have positive effects.

However, so long as expatriate physicians are willing to serve in Lesotho at relatively low pay (usually topped off by donor agencies), the country may be able to get along by only gradually increasing the corps of its own physicians. It is apparent that many physicians in government service, notably those based at district hospitals, are not being employed efficiently. They are frequently tied down to very basic outpatient clinic work--work which could and ought to be done by nurses trained to diagnose and treat the majority of cases. When this problem is resolved, it will free enormous blocks of physicians' time for more complex work, and perhaps for greater involvement in training.

b. Management

As noted in many recent studies of the health system, the shortage of trained administrative and supervisory staff is critical. The Ministry of Health's positions for principal or senior medical officers are currently unfilled and have been vacant for some time. The burden of directing the day-to-day affairs of the Ministry has fallen almost entirely upon the Permanent Secretary in recent years. The need for administrative expertise, both within the Ministry headquarters and the hospitals, is manifest. These needs presumably will be met through the USAID Rural Health Training Program, which focuses on development of the Ministry's administrative/supervisory capacity during Phase I, the first 18 months of the project.

Planning, statistical, and logistical services (particularly central medical stores) also have been inadequately

staffed. The planning department was established only in 1970. Since June 1978, it has been headed since June 1978 by a highly trained and experienced member of the Ministry staff who intends to take a more active hand in shaping health programs and priorities. In this context, it is important to note, however, the imperative need to develop a system for planning the entire national health delivery system--one which integrates considerations of the government's health services with those of the private, mission health services represented by the Private Health Association of Lesotho. The existence of this dual health structure currently militates against efficient and equitable provision of health services. The mechanisms for rationalizing the planning of these two components exist and are being employed already to some degree. For example, the Clinic Improvement Committee, an interministerial group which includes the PHAL, has been given responsibility for determining which clinics to improve and where to site new clinics. However, effective coordination and efficiency in managing a dual network will require more comprehensive structures--particularly when hundreds of VHWS are added to the system at the periphery.

Fiscal management of government health services suffers from being highly centralized. Hospitals do not participate in the budgeting process. There is thus no way to allocate resources according to actual need, nor any real means by which hospital staff can plan and justify their requirements against the availability of resources. The situation results

frequently in the dispatch of equipment to a hospital that needs it less urgently than another, or not at all.

Unreliable supply and distribution of medicines have been a constant source of complaint at government hospitals and clinics. It is expected that a proposal to establish a central agency to procure, stockpile, and distribute medicines --urged in the Farah Commission report of 1977-- will be implemented shortly with assistance from the Government of the Netherlands. The program would serve both mission and government facilities.

D. TRAINING

Training of nurses at several levels, as well as some nurse/midwives, has been conducted for some years at Queen Elizabeth II Hospital in Maseru and at three mission hospitals (Maluti, Scott, and St. Joseph). All specialist training for nursing, medical, and other health personnel has been done abroad (including elsewhere in Africa). The proposed AID-funded Rural Health Training Program would institutionalize Lesotho's ability to train most of its required nursing personnel--namely nurse practitioners (nurse clinicians) capable of doing major diagnostic work and treatment; nurse assistants who would take over many of the more routine nursing functions; and village health workers. Expansion of these cadres is wisely regarded as the most effective and efficient method for delivering primary health care and for promoting preventive health, particularly in the rural areas. (The Private Health Association of Lesotho is seeking funding for a training program of its own, intended to complement the MOH/AID rural health training thrust.)

In spite of the recognition that the health system will have to extend itself further into rural settings, both the head of the government nursing school in Maseru and the Ministry maternal/child health coordinator are concerned that the nursing curriculum and practical experience do not prepare new nurses to cope with the

challenge of working in difficult physical and professional circumstances in rural areas, especially in the mountain regions. The practical experience which student nurses receive at the new Tsakholo clinic, used for training purposes, is seen as being given in an environment which is too controlled and removed from real problems to be fully effective. The nursing school tutor would add six months to the nursing curriculum and would station student nurses in rural clinics more akin to those they are likely to be assigned to upon graduation. With such a curriculum, not only would they obtain more realistic exposure, she believes, but they would also help alleviate severe staffing shortages in the field. The maternal/child health coordinator also suggests that nurses be multi-skilled rather than over-specialized.

The training of most health personnel may some day be centered in large measure in the faculty of health sciences proposed for the National University of Lesotho. Assistance to the initial development phase of the faculty of health science is being supported by a three-year \$500,000 grant from the United Nations Development Programme (UNDP), with technical assistance being provided by the WHO. It is not presently envisioned as a full-fledged medical school, nor would it focus on producing physicians. Rather, it would provide academic grounding in the health sciences for persons intending to pursue paramedical and nursing careers, as well as advanced medical training. According to the

Vice Chancellor, the first students will be accepted for the 1980-81 academic year. Queen Elizabeth II Hospital would function as a teaching base, to the extent necessary.

The training of Basotho physicians, under this arrangement, would involve schooling both at home and abroad. This may enable the Ministry to maintain closer contact with Basotho medical students abroad, to monitor their progress, and perhaps to promote a more enduring sense of commitment to returning home for public service.

Without question, the development of a medical school is premature at this time and is probably not warranted for at least two decades. A medical school of adequate quality will draw resources away from development of primary care rural services and preventive public health approaches which are far more needed and far more cost-effective in meeting the nation's basic health needs at this stage of the country's development. If a school is started, it will be extraordinarily difficult to attract and maintain a staff of good quality. Not only will the school and associated facilities be a resource drain, the resulting poor quality of the medical school will likely be inadequate for the technical and backup support for primary care and for the the public health system. Paying for physician education abroad for the next ten years is almost certainly going to result in better quality Lesotho physicians, produced more inexpensively. If medical schools and post-graduate

training are carefully selected, physicians may be produced who can take on leadership roles in public health, primary care and medical care administration and thus contribute to the provision of a better balance between preventive and curative services.

E. FOREIGN DONOR ASSISTANCE

Major donor aid for health-related projects has been granted for school and institutional feeding, village water systems, environmental sanitation (primary school latrines), nutrition projects, drug stockpiling, clinic and hospital improvements, training and MCH/child spacing.

Critical programs to be funded in the next few years include the USAID Rural Health Training Project, rural water systems development (to be funded by a number of donors), latrine construction at primary schools (funding probably to be continued by the United Nations Capital Development Fund), and projects to improve drug stockpiling /distribution and laboratory services.

Funding for the proposed referral hospital to replace Queen Elizabeth II Hospital in Maseru has not been obtained. However, government officials and others indicate that funds for this project, at least on a phased basis, will become available.

The largest form of ongoing assistance is the food aid program. Begun in 1962, it has been virtually institutionalized and appears to have grown into a permanent feature. The future of food assistance will be discussed below.

As illustrated in Table 8, cooperation among donor agencies on various projects is fairly common. The government has held two donor conferences in recent years in an effort to improve coordination of foreign assistance. It is hard to determine how successful these efforts have been. The number of donors and development projects in Lesotho have multiplied in recent years. It is hard to suppress the impression that some donor activities quickly take on a life and purpose of their own.

Table 8

HEALTH & HEALTH-RELATED PROJECTS (Feb. 1978)

Donor	In Progress	Total (In Rand)	Ends	Planned	Total (In Rand)	(Year(s))
USAID	Preschool feeding (with CRS)	1,700,000	Ongoing			
	Rural Water Supply	133,000	1983		10,947,992	
	Nutrition Surveys & Planning	195,000	1980			
	Nurse Assistant Training	42,000	1981			
	Child Spacing Information	*	Ongoing	Rural Health	2,800,000 (Est)	1978-83
	MCH/Child Spacing	29,065	1978			
UNICEF	Drugs, Supplies, Equipment	107,000*	1981			
	Immunization Campaign	204,000*	1981			
	Vaccines	5,030	Ongoing			
	Village Water Supply	505,000*	1980			
	Village Water Supply	4,571	1981			
	Primary School Latrines	40,000	1983			
	School Gardens/Water	7,058*	1981			
	Traditional Birth Attendants Training	240*	1981			
	Inservice Nurse Training	3,652	1981			
	Nutrition Education	3,700	1981			
	Health Education	2,434*	1981			
	Public Health Transport	6,956	1981			
	DANIDA	Qacha's Nek Hospital	-	1981		400,000
	Rural Clinic	15,000*	Ongoing			
AFRICAN DEVELOPMENT BANK	Immunization (Loan)	700,000				
WHO	Laboratory Upgrading	29,750	1980			
	MCH/Child Spacing	29,095*	1978			
	Public Health Nurse Training	8,500	1981			
NETHERLANDS	Drug Production *	350,000	Ongoing			
WORLD FOOD PROGRAM	Hospital Improvements	100,000	1980			
	Primary School Feeding	1,275,000	Ongoing			
	Institutional Feeding	760,000	Ongoing			
	Mountain Food Reserve	680,000	1978			
UNITED KINGDOM	Drugs, Supplies, Equipment	107,000*	1981			
	Drug Stockpile	24,610	1978			
	Rural Clinic Improvement	29,000*	1981			
	Paramedical Training Facilities	147,000	1978			
	Village Water Supply	505,000*	1980			
IPPF	Child Spacing Services	40,095	Ongoing			
	Community Clinic	10,941	1980			
OXFAM	Community Clinic	15,000*	Ongoing			
ICCO				PHAL Support		
UNFPA	MCH Development	20,000	Ongoing			
	Clinic Improvement	29,000*	1981			
IRISH GOVERNMENT				Laboratory Upgrading		
EUROPEAN DEVELOPMENT FUND	Rural Clinic Improvement	29,000*	1981			
	Village Water Supply	505,000*	1980			
SAVE THE CHILDREN FUND	School Kitchens	4,446	1980			
	School Gardens/Water	7,058*	1981			
CATHOLIC RELIEF SERVICE	Preschool Feeding	1,700,000*	Ongoing			

* Support function shared with one or more donor agency. Amount indicates overall funding.

IV. ISSUES OF CURRENT CONCERN

Reference is made in a number of studies and reports of the weaknesses of the organizational and managerial functions of the Lesotho health care delivery system.* PHAL itself was established with the expressed purpose of trying to reduce the inefficiencies which resulted from the fragmentation of the management and administrative structures within the private health sector and from the lack of even fundamental coordination with the Ministry of Health. Both the USAID-financed rural health development project and the PHAL program to improve primary health care services organization and services direct a significant portion of their programming emphases at upgrading the planning, supervisory, and managerial infrastructure of the health delivery system. Thus there is great potential for solving some of the fundamental problems of health planning and administration.

However, the SADAP team found that the Ministry and the donor agencies have yet to undertake basic preliminary steps which must be taken in order to prepare the groundwork sufficiently for projects and programs in rural primary health care that are about to be implemented.

* USDHEW, Synchrisis: The Dynamics of Health, Volume XIII: Botswana, Lesotho, and Swaziland, Washington, D.C.: DHEW Office of International Health, May 1975, pg. 75.

Agency for International Development, "Lesotho Rural Health Development Project Paper, #690-0058, January, 1977", approved September 29, 1977, pp. 7-25.

American Public Health Association, "A Review of the Health Sector of Lesotho," by Gish, Boostrom, Franks, and Powell (November 1972), pp. 10-14

What follows is an analysis of those fundamental preparatory activities which the SADAP team believes are necessary, and a discussion of how they would enhance the chances for substantially increasing the impact of the proposed projects and programs.

A. LINKING HEALTH POLICY PLANNING AND PROGRAMMING TO DECISIONMAKING

There are only nominal organizational structures and processes now in place which will link health policy analysis and programming with overall national policy-making and resource allocation decision-making. At present, there is one professional planner at the Central Planning and Development Office who is responsible for social infrastructure planning (including health; lands, surveys, and town planning; housing; water supplies; sewerage and sanitary services; and other urban services). This planner's function is essentially limited to brokering foreign donor assistance in all social services sectors. There is exchange of information and coordination with the MOH health planning unit, but there is currently no formal process by which the health planning and policy analysis performed by the MOH health planning unit can become a basis for the decisions made about MOH priorities within the MOH, nor a process for its becoming a basis for decisions made by national leaders on the allocation of resources to the health sector. The groundwork has been prepared, and clearly the USAID project and PHAL program will assist in further development of these

processes. But, a highly developed and skillful health planning unit within the MOH will have minimal impact on health services development if its analyses, projections, and recommendations do not get a full hearing from top-level decision-makers within the MOH and at the Central Planning and Development Office.

B. IMPROVING HEALTH SERVICES ADMINISTRATION AND MANAGEMENT

The USAID-financed rural health development project paper describes the concept of a health service area (HSA) as being the fundamental organizing principal of a new administrative structure for the Lesotho health care delivery system--including both public and private institutions. These areas are to be defined by the catchment areas of each of the 17 hospitals. According to the project paper, within each of the 17 HSAs, the government plans to develop and integrate three-tiered health delivery structures called HSA units, each unit to be composed of:

- an HSA hospital;
- between 2 and 15 rural health clinics to be supervised by the HSA hospital and to serve a population of 5,000 to 10,000; and
- a cadre of village health workers (VHWS) operating out of the rural health centers each serving 5 to 10 villages of 1,000 people or less.

At the time of the SADAP team's visit, there did not appear to have been any planning done beyond what was presented in the USAID project paper. The PHAL program proposal did present a suggested administrative organization of the

regional (HSA) level of this proposed reorganization, but it also pointed out that serious issues remained to be resolved, both in regard to the theoretical concept and in respect to the operational feasibility of any proposed method and schedule for implementing it.

The concept calls for the administrative merger of two seemingly incompatible systems. The government health services are provided mostly in hospital settings and provide largely free services supported by public funds; the private mission health services include most of the clinics and about half of the hospitals and are operated and administered separately, and must charge for their services in order to meet operating expenses. Furthermore, the uneven distribution of hospitals is such that a number of the hospitals (which are to become HSA supervising hospitals) have overlapping catchment areas, and, in effect, compete with each other for patients. The mission hospitals in particular need to fill beds with paying patients in order to avoid operating deficits. The problems inherent in trying to integrate two such different systems have already become evident: some mission hospitals have instituted their own village health worker training programs in different parts of the country, and lack of standardized personnel, remuneration, and supervision policies regarding such VHWS already presents problems for the Ministry of Health.

As logical as the concept itself may be, the feasibility of implementing it will hinge on the likelihood of resolving conflicts between the public and private sectors which are certain to arise over issues of administrative process and control. Such issues are too fundamental to be resolved simply by mutual pledges of cooperation and coordination if, indeed, the integrated HSA concept is actually to take effect. But under the present conditions in Lesotho, the bases for compromises and accommodation appear weak. For example, the question of manpower assignment and supervision will most likely be closely related to issues of budgetary and administrative control. Under present conditions of manpower shortages and tight budgets, any regional reorganization should be accompanied by a comprehensive assessment of optimal resources allocation, and indeed this could usefully be a priority task of the new health planning unit. However, questions of budgetary and administrative control (MOH vis-a-vis PHAL) under the regionalized system will be hard to resolve successfully in a situation where peripheral facilities and personnel are being expanded (by the public sector) at the same time some hospital facilities are underutilized and operating at a deficit. Extension of primary care in peripheral rural areas will put stress on both MOH and PHAL management systems which are undeveloped at present, and which may be required to deal with increased hospital utilization while developing procedures and personnel for the expanded primary care network. Unifying a fragmented management

structure under these potential constraints will require the prior resolution of a whole range of policy and program issues that have yet to be addressed.

C. THE ROLE OF DONOR ASSISTANCE

Because Lesotho has attracted a high level of financial and technical assistance devoted to improving health and the health care system, it is natural for the health planning activities to reflect the priorities and analytical orientations of the donor community. While there exists to some extent a consensus among the donor community on the general outlines of an appropriate national health policy for Lesotho, Lesotho needs to develop a health planning capability that is reflective of independently-derived national aspirations and is the result of the analytical findings of its own highly trained planners. There are certain kinds of assistance, even in primary health care, which can have unforeseen consequences and may ultimately be destructive of Basotho values and institutions. The emphasis on training for the development of administrative and managerial expertise among the Basotho in the Ministry of Health ought to be balanced by a recognition that sensitivity to the social and cultural values of Lesotho is as important as the acquisition of technical skills by health planners or administrators, trained in a foreign country.

The question of Lesotho's absorptive capacity in implementing the wide variety of donor-assisted health projects has two important facets. One critical dimension

is the physical capability of the administrative system to implement, manage, and/or monitor the multitude of projects. At present, there are insufficient administrators and managers within the Ministry to handle the volume of tasks required of it. The fact that the USAID project recognizes this, and is directing its assistance at solving the problem, is a major step, but it will be several years from now before any positive results will begin to be felt. Just as critical as the absorptive capacity of the administrative system, however, is the capacity of the society and its culture to respond positively to the initiatives embodied in the assistance projects. If the people who are expected to be beneficiaries of the assistance do not accept and support the premises and purposes of the programs, then it is unlikely--at least in attempts to improve primary health care services--that much lasting good will be accomplished. Even before an assistance program can reach its intended beneficiaries, moreover, there must be a minimum degree of involvement and support from the national leadership--support that signifies that the objectives of the assistance have been internalized by political leaders.

To some national political leaders in Lesotho, the acceptance of primary health care as the top priority in health development is qualified by a desire for improved curative facilities in the capital city and by a wish to have a local medical school. As donors of health-related assistance proceed with their infusion of money and

expatriates in support of primary health care improvements, they should be sensitive to the ambivalence of Basotho perceptions and support of the assistance. Improving the absorptive capacity and the receptiveness of the society can be accomplished only slowly and in only limited degrees through the influence of expatriates.

V. PRIORITIES AND RECOMMENDATIONS

Given the major health advances planned for the next few years, it is reasonable to expect that by the mid-1980's Lesotho will have:

- trained adequate numbers of front-line and mid-level health workers;
- greatly improved the management capacity of the Ministry of Health and Social Welfare;
- established a dependable stockpiling and distribution system for medicines;
- upgraded central and district hospital laboratory facilities;
- extended safe water supplies to the better part of the population; and
- greatly improved environmental sanitation through widespread construction and adoption of pit latrines.

A. RATIONALIZING THE DUAL HEALTH SYSTEMS

Lesotho has two health systems. No matter how efficiently each is managed, the health of the country will be better served, and more economically served, as the two systems gradually integrate. This process is ongoing. The creation of the Private Health Association of Lesotho acknowledged the need to improve mission-government coordination as much as it recognized the same need within the private health community.

The mission health system is an irreplaceable asset to the country. It has grown with the nation and occupies a respected place in the public mind. Any attempt to submerge

it in to a unified national health system would be counter-productive and alienate support from abroad. But much can be done, without compromising the identity of the mission institutions, to assure that health services are planned and delivered to the people on the most efficient and equitable basis possible. This requires, at a minimum, that the placement of new health facilities, the training of personnel and the nature of health services offered be determined centrally, in the Ministry of Health, with the benefit of broad participation during the stages leading to the point of decision.

Projected strengthening of the Ministry's administrative capacity (and the parallel management improvements proposed for PHAL institutions) suggests that rationalizing the two health systems is possible within the next decade. However, a financial factor could complicate the process. As integration proceeds, pressure is mounting on the government to assume a greater share of the recurrent costs of operating mission facilities. This may anticipate greater government control over the direction of mission programs. It also presumes that the government is prepared soon to increase health's share of recurrent resources. If not, there will probably be a marked deterioration of the missions' ability to maintain their current level of service to the people.

B. THE LIMITS OF FOOD AID

Food relief began in Lesotho in 1962. It is no longer relief: it has become institutionalized. An estimated 10 percent of the nation's food is imported and distributed by the World Food Program and Catholic Relief Services. It reaches an estimated 400,000 people or more, including infants and school children.

From the standpoint of health, food aid serves an immediate nutritional need. However, in the longer view, it may have serious negative consequences for national health. For example, the growing influx of donated food subtly undermines any sense of purpose that might be developed for reducing the rate of population growth; at the same time, donated food is probably a disincentive to domestic food production. Since the world community will not allow Lesotho to starve, the country can count on indefinite food aid, if it so chooses. And the current projections indicate a rising "need." But where does the upwardly-spiraling cycle end? One likely destination is a country dangerously overpopulated, where even greater infusions of food aid cannot prevent chronic, debilitating undernourishment among a majority of the people.

Recent decisions to establish an experimental Mountain Region food reserve of 5,000 metric tons of unmilled maize and a 30,000-ton strategic food reserve are excellent first steps toward weaning the nation from growing dependency on donated food. These should ensure the internal

capacity to provide genuine relief in poor harvest years or in the event supplies from the Republic of South Africa are cut off.

Lesotho is committed to achieving self-sufficiency in food. But how much more real that commitment would appear, at home and abroad, if it were matched by a commitment requiring a phased withdrawal of food assistance, over a set period of years. Rather than aggravating the existing level of undernourishment in the country, such a reduction would underline the virtue of increasing home production of nutritious foods and of adjusting population growth to the actual carrying capacity of the land and other natural resources.

C. HEALTH AND NUTRITION EDUCATION

Deepening public awareness of personal health practices and sound diet can measurably improve the people's health. With the benefit of a single language (Sesotho) and relatively high literacy, the country has an excellent opportunity to employ educational tools effectively in behalf of better health and nutrition. Personal hygiene, understanding of disease vectors and basic nutritional knowledge should be taught at every level of the educational system. Where possible, health and nutrition education should be conducted at the community level--by village health workers or in the context of development projects, such as in agriculture and environmental sanitation.

If the thrust of future health programs is to emphasize primary care providing balanced preventive and curative

services, a broad campaign to raise public understanding about critical aspects of behavior that affect human health merits very serious consideration. Some valuable groundwork has been done--for instance, development of health education textbooks for use in primary schools and the inclusion of health education in the curriculum of the National Teacher Training College. But the subject is not yet part of the primary school curriculum, although a newly-formed health and physical education committee in the Ministry of Education may signal progress in this area.

D. MINERS' HEALTH: BEFORE AND AFTER

Although South Africa already is slowly cutting back on the number of Basotho being recruited for mine work, tens of thousands will continue to go to the Republic annually for the foreseeable future. They should go healthy and return healthy. Unfortunately, many return with tuberculosis or venereal disease. No physical examination is given upon return, so the miners constitute a constant stream of disease carriers and help account for the widespread presence of venereal disease.

Because so many Basotho spend much of their prime working years as migrant laborers, a program to give them appropriate physical exams upon leaving Lesotho and immediately upon returning could pay major health dividends. A well-organized arrival-departure examination procedure would also be an opportunity to acquaint them in use of health information.

In considering the need for the appropriateness of such an examination procedure, it would be very important that an examination be selective, focus on issues that are relevant to compensable illness, payable by South Africa to residents of Lesotho, or to identify and treat in a timely manner communicable diseases. Screening physicals on healthy young adult males are unlikely to be of value unless they are extraordinary selective, having a clear purpose and goal in mind. (See discussion on occupational hazards in Chapter III, Section A3d).

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PERSONS INTERVIEWED

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- Ms. Candy Weber, Peace Corps Volunteer and general assistant to the Private Health Association of Lesotho
- Mrs. Celestina Phafane, Director, Food and Nutrition Coordinating Office (FNCO)
- Mr. James Anderson, Nutrition Education Consultant, FNCO
- Mr. Dennis O'Brien, Director, Catholic Relief Services, Maseru
- Dr. A. D. Lebona, President, Lesotho Medical Association
- Mr. V. P. Machai, Community Development Coordinator, Ministry of Rural Development
- Mrs. M. Seipobi, Maternal/Child Health Coordinator, Ministry of Health and Social Welfare
- Mrs. Nthunsi Borotho, Senior Planning Officer, Ministry of Health and Social Welfare
- Dr. J. L. Molapo, Permanent Secretary, Ministry of Health and Social Welfare
- Mr. T. Thabani, Permanent Secretary, Ministry of Interior and Permanent Secretary-designate, Ministry of Health
- The Honorable Patrick 'Mota, Minister of Health and Social Welfare
- Mr. John Briggs, Director, Food Management Unit, Maseru
- Mr. Alan C. Foose, Executive Secretary, Private Health Association of Lesotho
- Dr. Uli Morf, Medical Officer, Mafeteng Hospital
- Dr. Rein Lambers, Medical Officer, Quthing Hospital
- Dr. Willem DeRhoter, Medical Officer, Quthing Hospital
- Mr. Charles Slemenda, Village Health Worker Coordinator, Quthing Hospital
- Sunny Fong, Health Education Coordinator, Ministry of Health and Social Welfare

- Dr. M. Mokete, Superintendent, Queen Elizabeth II
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- Mr. Jiddo Van Drunen, Junior Professional Officer, UNDP
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