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Reprioritizing Public Health Resources Toward Primary Health Care in Mozambique

Ministry of Health, Mozambique

Mozambique's epidemiological pattern is pretransitional: morbidity and mortality are associated with infectious and parasitic diseases such as malaria, diarrhea, acute respiratory infections, measles, and tuberculosis. Poor hygiene and sanitation, a limited safe water supply, poor nutrition, high vulnerability to recurrent epidemics and natural disasters, and reduced access to health care are all important health status determinants that interact with each other in a complex manner. Of particular importance is the high prevalence of absolute poverty that affects nearly 60 percent of the population.

Available data suggest that the HIV seroprevalence rate is increasing, particularly in the central provinces of Manica, Sofala, Tete, and Zambézia. Some 2,900 AIDS cases have been reported to date, but experts believe that the actual number of AIDS cases might be as high as 25,000. An estimated 800,000 persons are HIV-infected. One certainty is that HIV infection will overburden the health system.

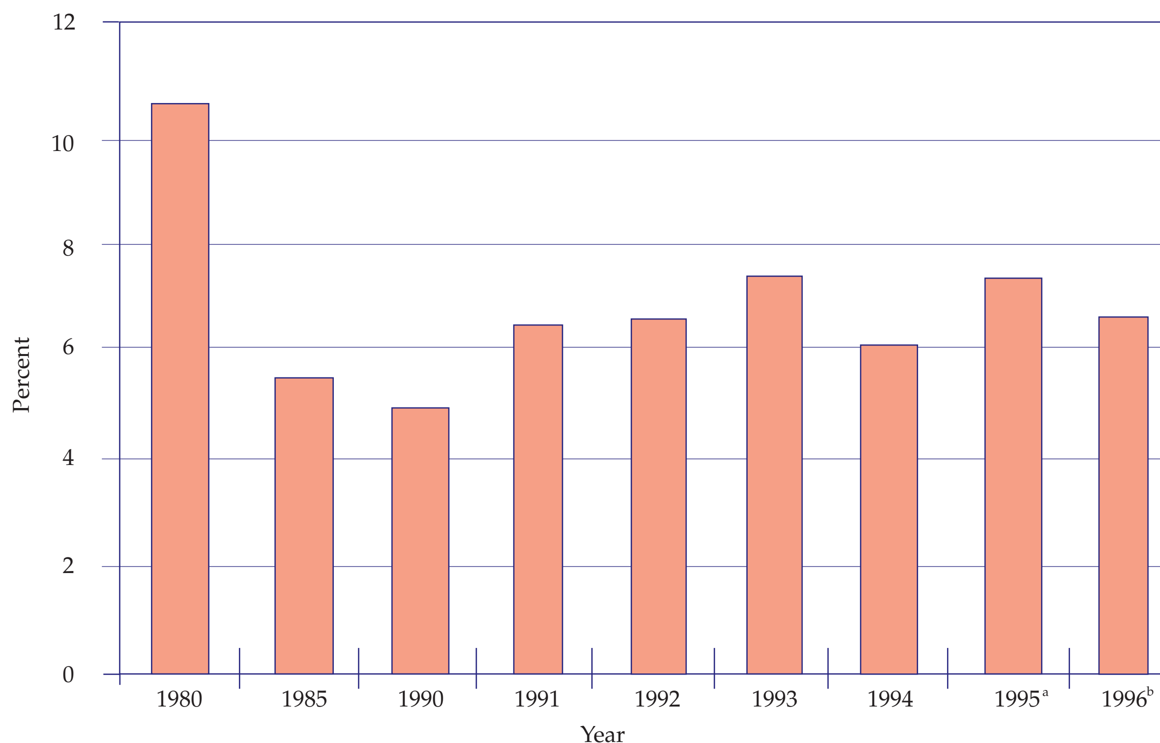
The country recently emerged from a 16-year war that had detrimental effects on the health sector and has virtually paralyzed the economy, particularly in the countryside. The resettlement of refugees and displaced persons and the improvement in access to rural areas are inducing a significant increase in the demand for health care, health needs, and community expectations.

Thus, at this juncture, the government adjusted its health policies to maximize the health benefits to the population from available resources. The strategy stresses the need to allocate resources for those activities proven most effective in improving the health status of the greatest number of people at relatively low cost, in contrast to those that are costly and benefit only individuals or relatively small groups of the population. The focus on allocative efficiency should not cause technical efficiency to be overlooked as a means of providing services of an acceptable standard at the lowest cost possible.

Health Financing

The main sources of funds for the National Health System are the state (public funds) and the international community (external funds). The Ministry of Planning and Finance allocates public funds for recurrent expenditures on an annual basis. Final allocations are agreed on through negotiations between the Ministry of Planning and Finance and the Ministry of Health (MOH), including the distribution of funds among

Figure 14.1. *Recurrent Health Sector Expenditures as a Percentage of Total Recurrent Expenditures, Selected Years 1980–96*



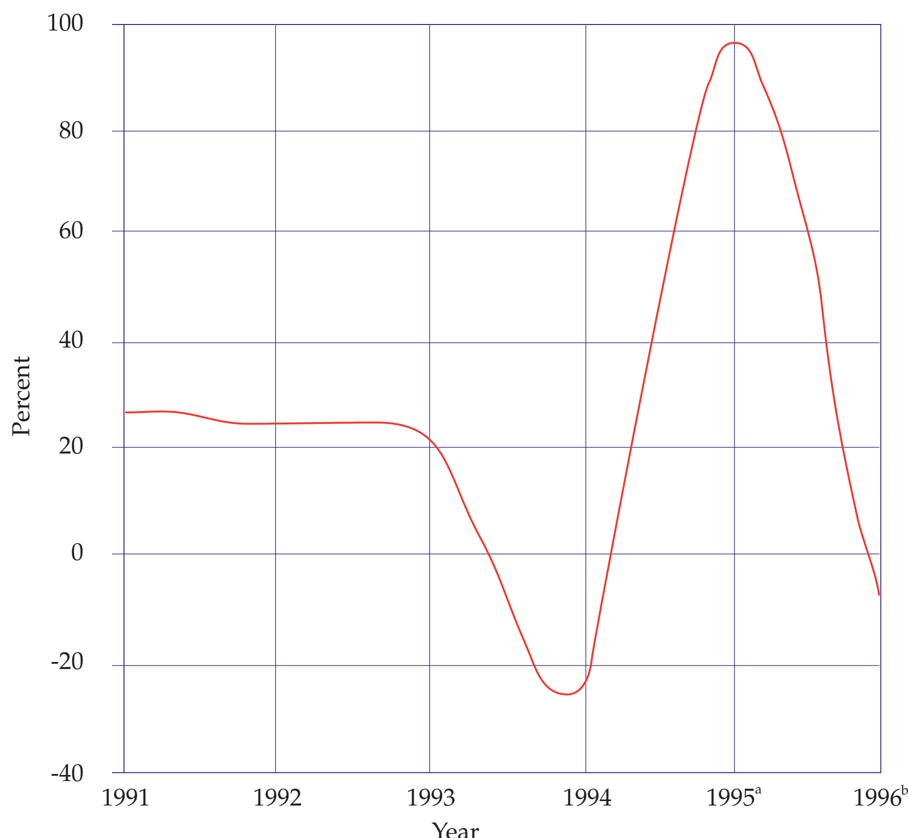
a. Estimated.
b. Projected.
Source: Government of Mozambique data.

provinces and subordinate institutions. Since 1992 the authorities have been conducting an allocation exercise with central-level staff and with donor participation at the provincial level that includes both public and external funds. At some point during the fiscal year, the Ministry of Planning and Finance usually provides some extra funds to compensate for inflation or unexpected expenditures. Public hospitals, including so-called special clinics, charge user fees, and drugs are dispensed at a subsidized price of 70 to 80 percent of their actual price. Currently the government recovers only 2.9 percent of its recurrent expenditure on health through these mechanisms. After a sharp decrease in the health sector's share of total government recurrent expenditure in the 1980s, a positive trend (above 6 percent) has been evident since 1991 (figure 14.1).

As a result of resources being released from the defense sector, the health budget grew by some 40 percent in real terms from 1994 to 1995, a figure well above the previous commitments agreed upon. Nevertheless, the prospects for financial sustainability in the health sector remain poor, because of the enormous gap between needs and available resources. Excluding salaries from this analysis, the annual growth in expenditures on goods and services in real terms between 1991 and 1993 was above 20 percent (figure 14.2). The dip in 1994 was due to extraordinary budget allocations for the peace process and for general elections.

Mozambique's dependence on international aid is overwhelming. In 1995 about 50 percent of recurrent expenditures were externally funded, and donors' share in capital and recurrent expenditures was approximately 70 percent. That same year per capita, internally funded recurrent expenditure was US$1.25, while the externally funded component stood at US$4.10 per capita. Although the increasing health needs have been widely recognized, the level of external assistance is decreasing, probably because of new emergencies elsewhere in the world.

Figure 14.2. *Growth in Expenditures on Goods and Services in Real Terms, 1991–96*



a. Estimated.
b. Projected.
Source: Government of Mozambique data.

Donors' funds, both in kind or in cash, enter the system in many ways: directly through government channels, indirectly through agencies, or as services delivered by nongovernmental organizations. In recent years, the authorities have developed strategies to track external resources and to integrate them into working plans and program budgets. The assumption is that transparency and accountability have improved, and probably efficiency as well. Nonetheless, coordination could still be improved.

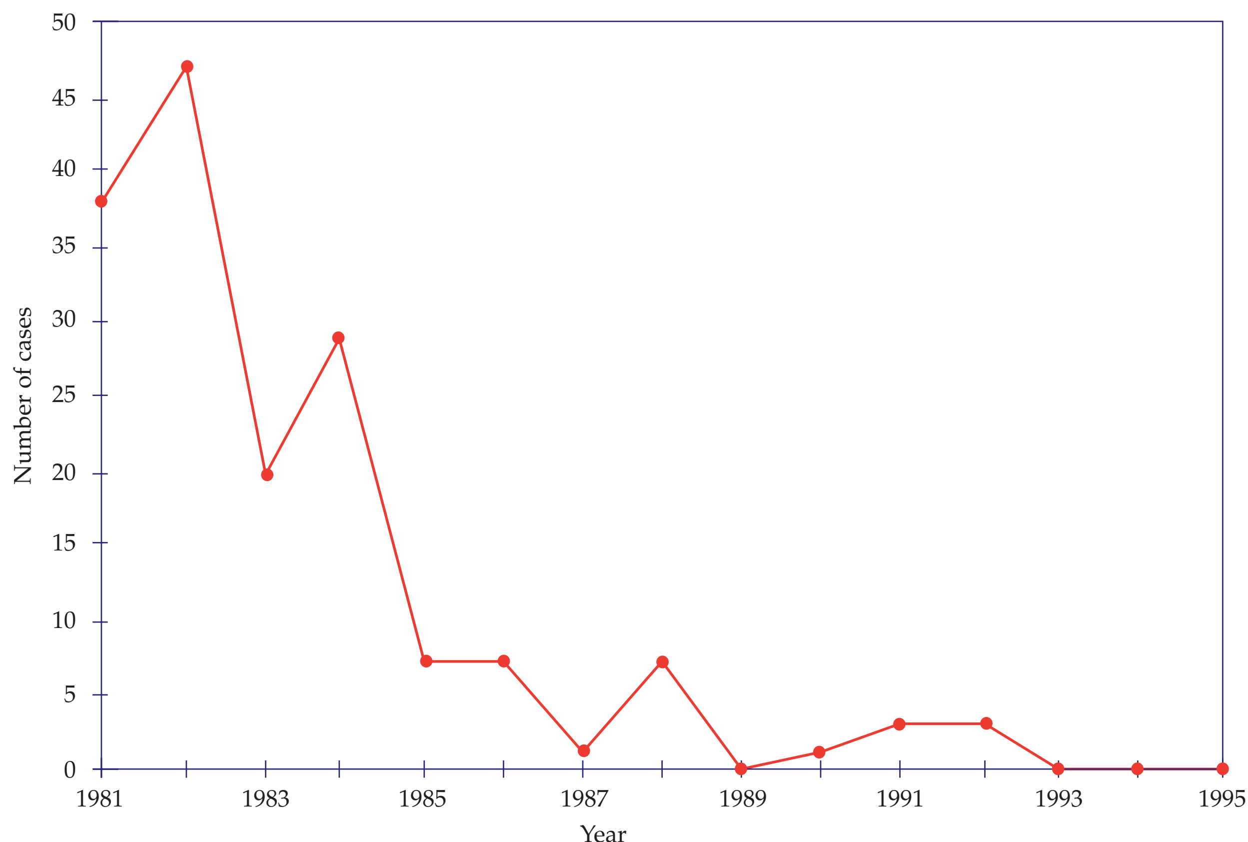
Estimates indicate that to reestablish the health network that was in place before 1981, some US$500 million dollars are required over a five-year period. About half this amount would be spent on rebuilding and rehabilitating first-level facilities. Preliminary estimates indicate that the functional and physical rehabilitation of a health facility increases its running costs three- to fivefold.

Approaches and Options

Mozambique has accumulated experience in implementing primary health care (PHC) and essential drugs policies aimed at improving allocative efficiency. The government assumed that PHC interventions would yield large benefits to most citizens. Available data suggest that some PHC interventions have considerably reduced the incidence rates of poliomyelitis; neonatal tetanus; and, to a lesser extent, measles (figures 14.3 and 14.4).

The National Health System was organized to provide four levels of care, with PHC interventions mainly carried out at the first level (health posts and centers). A referral system was established to increase the

Figure 14.3. *Reported Cases of Poliomyelitis, 1980–95*



Source: Government of Mozambique data.

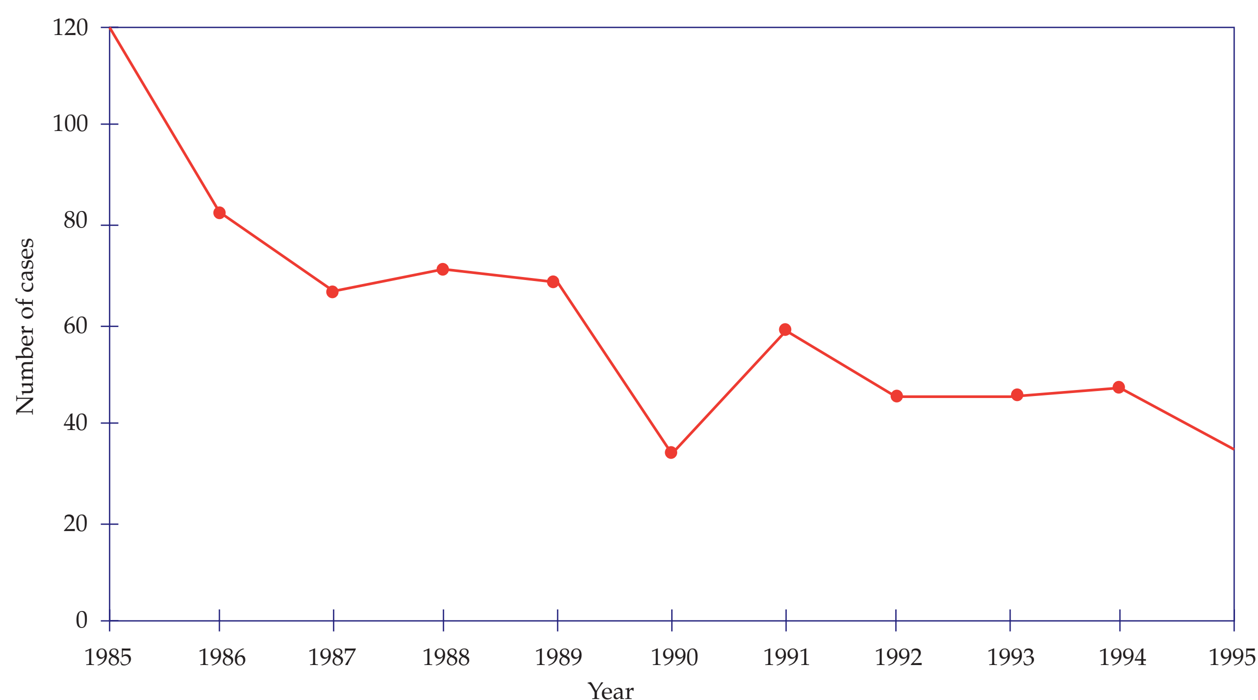
efficiency of the services, but was severely disrupted during the war, when the PHC network was virtually nonfunctioning, especially in rural areas. At that time, for security reasons, the government made no investments in those regions and the quality of care decreased significantly. Also the average distance from people's homes to health units increased and access decreased. Thus in its present state the referral system exists largely in theory only. In this context, the bias toward urban areas was reinforced. Partial data suggest that large cities absorb more than 60 percent of overall health expenditure. Moreover, the central and southern provinces are better endowed than others. These imbalances are also a legacy of the colonial era.

The national pattern is replicated within each province, that is, resources and consumption are concentrated in the capital city, leaving some rural areas underserved. Note that the systems for budgeting and monitoring spending prevent a precise determination of the proportion of spending on PHC.

Available data demonstrate that a major shift in resource allocation occurred during the 1980s (table 14.1). Spending on the primary and secondary levels decreased from 64 percent in 1982 to 42 percent by 1991. The same pattern was apparent in expenditures in the provinces from 1993 to 1995 (table 14.2). The proportion of public expenditure devoted to hospitals increased, while external funds covered spending on PHC. As mentioned earlier, the constraints associated with war and instability may have reduced health care activities, and hence resource allocation, particularly to rural areas. Health care activities, particularly in rural areas, likely decreased because of the war. Another factor was the migration to cities, which increased the urban demand for health care, and therefore increased resources requirements in the cities.

The exact number of PHC facilities is unknown because of the ongoing rehabilitation, the precarious functioning of some of them, and the lack of reliable data. Table 14.3 shows a conservative estimate of the number of health facilities as of March 1996.

Figure 14.4. *Reported Cases of Neonatal Tetanus, 1985–95*



Source: Government of Mozambique data.

The government launched the five-year Health Sector Recovery Program in 1996 to rehabilitate and upgrade the existing health network and laboratory facilities. The program's objective is to increase the number of small facilities, thereby making services more accessible and reducing the average distance between homes and health units. The plan is to build 600 new health posts and health centers and to rehabilitate other infrastructure. By 2002 Mozambique should have 1,450 first-level health units. At the same time, the authorities will address the current imbalance in the distribution of facilities (table 14.4). Finally, the government expects that the number of points for immunization delivery will double and that large health

Table 14.1. *Total Public and Private Health Expenditure by Level of Care, Selected Years 1982–95*

Level of care	*1982*	*1989*	*1991*	*1993*[a]	*1995*[a]
Levels 1 and 2	64	44	42	61	46
Levels 3 and 4	36	56	58	39	54
National Health System	100	100	100	100	100

a. Excluding Gaza, Sofala, and Manica.
Source: 1982 and 1989: World Bank (1992); 1991, 1993, 1995: government of Mozambique data.

Table 14.2. *Public Health Expenditure by Level of Care in the Provinces, 1993 and 1995*

Level of care	*1993*[a]	*1995*[a]
Levels 1 and 2	42	31
Levels 3 and 4	58	69
National Health System	100	100

a. Excluding Gaza, Sofala, and Manica.

Table 14.3. *Health Facilities by Level, March 1996*

Level of care	*Number of health units*
Level 1	700 health posts, 200 health centers
Level 2	24 rural and general hospitals
Level 3	7 provincial hospitals
Level 4	3 central hospitals, 2 specialized hospitals

Table 14.4. *Ratio of Population Per First-Level Unit, 1996*

Category	*National average 1996*	*Best ratio 1996*	*Worst ratio 1996*	*Year 2002 target ratio in high population density areas*	*Year 2002 target ratio in low population density areas*
Inhabitants per health post	25,700	10,500	37,900	20,000	10,000
Inhabitants per health center	90,100	48,300	126,400	60,000	40,000

Source: Government of Mozambique data.

centers will have clinical laboratories. Thus overall, the implementation of the Health Sector Recovery Plan should result in major improvements in the population's health.

Rural hospitals play a crucial role in the health care delivery system. In making critical services available outside cities, they provide referral and logistic support to the first level and enhance the system's effectiveness and credibility. The expected output of the Health Sector Recovery Program will be to provide the average rural hospital with 100 beds to deliver referral and backup services (distribution of drugs and vaccines, supervision, and so on) to a cluster of three to four districts serving a population of 300,000 to 500,000 people.

Private medicine has been playing a role since 1991, when it was reintroduced. While the number of for-profit providers experienced modest growth in Maputo, the capital, little growth was recorded among non-profit operators. Experts believe that this is because of the prohibitively high capital cost of setting up a private business, along with the small number of people able and willing to pay (who are located mainly in urban areas). There is also some skepticism about the quality of the services provided. Thus some transitional, and perhaps ambiguous, arrangements emerged. Large hospitals opened so-called special clinics, where they provide better logistic services at a higher fee, but still well below the real cost of services. A significant portion of the revenue collected is used to top up health workers', mostly doctors, salaries. In rural areas, churches are managing some facilities, but the state and donors cover most of the capital and recurrent costs. The churches' contribution is limited to appointing some health workers, often those in charge of the facility, and providing a marginal share of recurrent expenditure. The impact of the private sector and the special clinics in freeing resources for PHC is unknown. Data should be collected to evaluate this.

The public-private mix should evolve into a partnership, with clearly defined roles and responsibilities. In this respect, the public sector should be in charge of critical facilities and services, that is, referral hospitals and preventive services. Donors should fully support these core services. Nonprofit operators should be partners of the public sector in providing basic services to underserved populations at a reasonable cost. Neither donors nor the government should subsidize the operations of for-profit providers.

Investment Program and Resources for PHC Activities

The government has started an adjustment process to reduce the gaps in health care delivery that includes measures to reduce both consumption and the concentration of resources in the major cities. However, the

reconstruction exercise is being hampered by the poor infrastructure outside the health sector: poor roads, communications, and services; rudimentary banking systems; and the general lack of private sector development. The search for greater equity is sometimes at odds with economic priorities. Only a long-term political commitment, supported by the international community, can reverse the current situation.

Pharmaceuticals

Drug requirements are increasing steadily and currently amount to US$50 million per year. Drug imports for 1996 amounted to an estimated US$33 million. About 98 percent of expenditure on drugs is donor funded. In the last four years, Mozambique has obtained less than half its drug requirements. The situation is somber: drug stocks are low and shortages are registered nationwide. The government has made emergency funds available to stabilize the drug supply on an ad hoc basis.

In 1986 the authorities introduced an essential drug program for PHC. With annual imports worth some US$4 to US$5 million, about US$500,000 will be needed yearly to accommodate the increase required by the growth of the health network. The program has been considered successful in securing basic drug supplies for the PHC network, as well as being relatively reliable and efficient. The government plans to strengthen this program.

Human Resources

The rapid growth in the number of health workers registered after independence consisted mainly of lower level personnel. Half the staff is ancillary, without any formal health training. Among skilled personnel, most received only elementary or basic training, and fewer than 10 percent have a university degree or mid-level certificate. In addition, few officials are trained to take on managerial positions.

In 1992 the MOH launched the Health Manpower Development Plan 1992–2002 to restructure the work force. In the medium run, the number of health workers should not increase significantly; however, the ratio of skilled to unskilled personnel will increase from the 1991 figure of 1:1 to 2:1 by 2002. The proportion of untrained workers will slowly decrease through attrition, and the MOH's hiring policy gives priority to university graduates and personnel with mid-level certificates. Of the skilled personnel, 33 percent are oriented toward PHC, and this proportion will increase to 40 percent by 2002. Training capacity is being reinforced, and recurrent expenditure allocations for training have increased. The training of medical technicians and medical staff will receive substantial inputs. These cadres are expected not only to provide curative care, but also to be in charge of health centers and to act as health team leaders. They will run facilities staffed by a balanced health team of maternal and child health, preventive medicine, in-patient, pharmacy, laboratory, and administrative personnel.

Patterns of personnel deployment have favored large hospitals and cities and southern and central provinces. The MOH is now addressing this imbalance by giving high priority to understaffed provinces when deploying new staff. In the last few years, staffing patterns have been improving (table 14.5).

Unfortunately, high-level professionals strongly resist hardship appointments. Incentives to attract health professionals to serve in rural areas should include housing, vehicles, hardship bonuses, and better career opportunities. Improved staffing patterns will not be restricted to the PHC network: mid-level nurses and midwives are being trained to strengthen hospital capacity, to cope with the expected increase in the work load, and to ensure better quality care. In addition, improved management at all levels should increase morale, productivity, equity, and quality of care.

Improved Managerial Capacity and Donor Coordination

Despite achievements in PHC delivery, the efficiency and quality of care are low. Factors correlated with this situation include low staff productivity, frequent wastage of resources (improper storage of drugs and

Table 14.5. *Average Composition of Health Teams by Level of Education, 1990 and 1995*
(number of staff)

	Health posts		*Small health centers*		*Large health centers*		*Rural hospitals*	
Level of training	*1990*	*1995*	*1990*	*1995*	*1990*	*1995*	*1990*	*1995*
University	0.0	0.0	0.0	0.1	0.0	0.4	0.5	2.4
Mid-level	0.0	0.1	0.1	0.5	0.4	2.2	3.2	6.1
Basic	0.4	0.4	2.1	2.3	9.2	8.7	27.5	20.8
Elementary	0.4	0.6	1.5	1.6	5.8	5.2	6.4	8.3
Average team	0.8	1.0	3.7	4.5	15.4	16.5	37.6	37.6

Source: Government of Mozambique data.

vaccines, pilferage, and loose control of stocks), and misuse and poor maintenance of equipment and vehicles. In a financially strained environment, improved system efficiency is essential. The existence of several separate projects weakens the system's already fragile institutional capacity, and the need for parallel administrative procedures acceptable to donors impairs institutional development. Effective coordination would reduce the number of projects and nongovernmental organizations, improve the accountability of all partners, facilitate project integration within a national framework, and help achieve a planning methodology that would link inputs to outputs. The government and donors should try to ensure that an effective coordinating mechanism is in place that can address global, geographic, and sector priorities. Such efforts should help ensure the equitable allocation, rational use, and proper monitoring of public health and external funds.

The public sector, including health, is moving toward decentralization. To this end, the government is creating municipalities, and some functions of the district health directorate will be transferred to local authorities. However, the government recognizes that districts and provinces are not yet ready to receive broader responsibilities. Therefore, decentralization in the health sector is currently primarily concerned with capacity building at all levels. To promote decentralization, donors' funds are now being channeled directly to recipient authorities. In the context of reform, discussions are underway about redefining the MOH's roles and functions, particularly at the central level.

The recovery program should not be limited to increasing coverage and service volumes. It should also improve the quality of care. Increased efficiency in using scarce resources is crucial. The reconstruction of the PHC network must be backed by greater financial allocations, a reasonable drug supply, and better management skills and systems. In addition, users should be active partners of the National Health System rather than simply passive beneficiaries.

The MOH foresees a modest increase in public expenditure from the present level of US$1.25 per capita to about US$1.48 per capita by the year 2002, of which US$0.25 will be for capital expenditure. Various cost-recovery schemes (insurance, fees, drug sales) will add about US$0.18 per capita. External financing is expected to increase marginally from US$4.10 per capita in 1993 to US$4.94 per capita in 2002. Table 14.6 compares per capita expenditures in 1993 with estimated per capita expenditures in 2002.

The cost-recovery system has been debated with respect to what share users should pay, different approaches, and a suitable time frame for implementation. Some political issues are involved in updating user fees and concerns about their possible negative impact on access, given the high levels of absolute poverty. People will not be able to afford to pay a significant share of health service costs for many years. Thus fees should be increased progressively, based on the rate of economic recovery and income levels. The MOH is examining the possibility of introducing a social insurance scheme and other community-based copayment schemes.

Cost recovery is important to maintain a progressive reduction in donor dependency. The National Health Scheme will rely on external support for many years to come, but internal funding (both public and

Table 14.6. *Per Capita Expenditure, 1993 and 2002*
(U.S. dollars)

Per capita expenditure	*1993*			*2002*		
	Internal	*External*	*Total*	*Internal*	*External*	*Total*
Investment	0.15	2.20	2.35	0.25	1.25	1.50
Recurrent	1.02	0.62	1.64	1.23	0.88	2.11
Drugs	0.00	1.28	1.28	0.00	2.81	2.81
Cost recovery	0.02	0.00	0.02	0.18	0.00	0.18
Total	1.19	4.10	5.29	1.66	4.94	6.60

Source: Government of Mozambique data.

private) is expected to expand. Even so, the donor share of recurrent expenditures will be substantial. A balanced situation, with internal resources covering most of the health services' costs, is not anticipated until well beyond the year 2000.

References

World Bank. 1992. *Public Expenditure Review.* Washington, D.C.