HNP DISCUSSION PAPER

Improving Health for the Poor in Mozambique

The Fight Continues

Shiyan Chao and Kees Kostermans

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Health, Nutrition, and Population Discussion Paper

Improving Health for the Poor in Mozambique: *The Fight Continues*

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Report Submitted to the Commission on the Development of a New Health Sector Policy 2000-2010 for Mozambique, 1999

Abstract: The health sector in Mozambique has made significant progress in terms of increasing coverage of services. However, health remains a major concern in the area of poverty reduction. The study describes the health status of the population, especially of the poor, and how the sector responds to the needs. Huge inequalities continue to exist with regards to resource allocation, deployment of staff and availability of services among various geographic areas, between the urban and rural population, and between the poor and the non-poor. The study builds upon the existing studies on health and consolidates the sector knowledge. Based on the analysis, the study makes various recommendations on how the health sector reforms can be made more pro-poor by focusing on certain interventions, by targeting certain areas and population groups, by designing new delivery models that would bring the services closer to the population, and by improving financial management to serve the poor more effectively.

Keywords: Health, Health Services, Poverty Reduction, Mozambique

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PREFACE

Since the 1992 Peace Agreement, Mozambique has made excellent progress in recovering from its war-torn past. In the health sector, the Government has been rebuilding its network of health services under the ambitious Health Sector Recovery Program. This program has provided a framework for the country's partnership with most of the bilateral and multi-lateral development agencies active in the health sector. More recently, Mozambique's health sector has benefited from debt relief under the Heavily Indebted Poor Countries (HIPC) Initiative and the Enhanced HIPC Initiative. These events, in addition to a rapidly growing economy, have led to a considerable increase in resources for the health sector.

Despite the favorable developments, enormous challenges remain. Mozambique is still one of the poorest countries in the world, with around 70 percent of the population living below the poverty line. The Government has prepared a Poverty Reduction Strategy Paper (PRSP), entitled the Action Plan for Reduction of Absolute Poverty (2001-2005), as part of a concerted national effort to articulate a strategic vision and action plan to improve the welfare of the poor. The plan identifies six priority areas: education, health, agriculture and rural development, basic infrastructure, good governance and improved macroeconomic and financial management.

The Government is fully aware of the key role that the health sector can play in lifting people out of poverty and increasing their productivity. However, the poor will not be reached simply through increased expenditures and increased coverage. Experience in many African countries shows that the poor often benefit much less than the nonpoor from government health care expenditures. As this report demonstrates, Mozambique is no exception in this regard. An effective poverty reduction plan must therefore also show specifically how the health sector can serve the poor. Over the past few years, the Ministry of Health and its development partners have worked together to prepare a new health sector strategy. The results have been used to inform the preparation of the country's PRSP, and will be used to guide thinking on health sector development and implementation in the next decade.

This report attempts to summarize key aspects of the knowledge base upon which the health sector strategy was built. Utilizing existing studies and data, it documents how health sector development, debt relief, and poverty reduction strategies can work together to produce substantial and sustainable progress in the health sector. The report is therefore best seen as a piece of work-in-progress intended to capture and institutionalize the current state of knowledge on health sector issues in Mozambique. Our hope is that its publication would facilitate sharing of our evolving understanding of the link between health sector development and poverty reduction, as well as prepare the way for further documentation of this important link, as the country's health sector strategy is implemented in the broader PRSP context.

ACKNOWLEDGEMENTS

We benefited greatly from the discussions and workshops on the development of the new Health Strategy in Mozambique. The early draft of the paper has been shared with our colleagues in the Ministry of Health and development partners in Mozambique. We are grateful to many people who have contributed to the development of this paper, especially Jee-Peng Tan and Angel Mattimore. The findings, interpretations and conclusions expressed in the paper are entirely ours, and do not represent the views of the World Bank, its Executive Directors, or the countries they represent.

1. Introduction

Mozambique is one of the poorest countries in the world, with a population of 17.3 million and a per capita income of US$230 (Table 1). In the Human Development Index Mozambique ranked 169 out of 174 countries (UNDP, 1999). The country became independent in 1975. A continuous civil war between 1976 and 1992 left it with weak infrastructure and poor human capital. Poverty is pervasive, with as much as 66 percent of the population falling below the poverty line. In many aspects of socioeconomic development, Mozambique falls well below the averages of Sub-Saharan Africa.

Since the Peace Accord in October, 1992, peace, economic liberalization and extensive external aid together have contributed to a significant economic recovery and steady economic growth. Per capita GDP grew on average by six percent during 1992-99, and inflation was under control. However, the economic growth and revenue generation have not marched in pace with growing investment. The dependence on external aid has increased drastically. External funds finance about 50 percent of the total government expenditure. Major sources of financing for the social sector are from donors.

Mozambique is one of the African countries that have benefited from the Heavily Indebted Poor Countries Initiative (HIPC). In June 1999, the Executive Boards of the World Bank and the International Monetary Fund agreed that Mozambique had reached the completion point of HIPC and would benefit from the debt relief. It was also agreed that Mozambique would get additional assistance under the Enhanced HIPC Initiative. The total debt relief to Mozambique from both original and enhanced HIPC was about US$2 billion in net present value (about US$4.3 billion in current value). Social sectors are the major beneficiary of the debt relief. The expenditure for the social sector is projected to increase from US$158 million in 1999 to US$203 million in 2002. A critical element that links to HIPC and country's future economic development is the development of Poverty Reduction Strategy Paper (PRSP). The PRSP will outline a strategic framework and action plan for poverty reduction. The debt relief would certainly help to reach the targets under the poverty reduction strategies.

Poverty can be defined in many ways. The limitation on people's abilities and opportunities to enjoy long and healthy lives is one way to measure poverty. Poverty has strong impact on people's health, in turn, ill-health can put people into poverty. Health improvement is one of the key paths to poverty reduction. To develop a solid strategy framework, one has to understand health and its links to poverty. The government of Mozambique is preparing its PRSP called Action Plan for the Reduction of Absolute Poverty, 2001-2005, (PARPA). As a part of the preparation for PARPA, this paper intends to provide background information on health in Mozambique and links between health and poverty. It tries to summarize the current knowledge on the health of the population, particularly the poor, the health system's performance, and the health sector's policies. The main sources of information for this paper are the health sector expenditure review and the poverty assessment, Health Sector Strategic Plan (2001-2005), the most recent information available on health and poverty.

Table 1
Key socioeconomic indicators of Mozambique

	Indicator	Latest Year
Economic indicators		
Population	17.3 million	1999
GNP	US$3.9 billion	1999
GNP per capita	US$ 230	1999
Poverty indicators		
Poverty headcount [1]	66.1%	1997
Poverty gap [2]	27.3%	1997
Nutrition indicators		
Percent stunted	43.22%	1997
Percent wasted	6.42%	1997
Percent underweight	23.98%	1997

Sources: Economic indicators from World Bank Data Base and the rest from "Understanding Poverty and Well-Being in Mozambique: the First National Assessment," Ministry of Planning and Finance, Government of Mozambique, 1998.
[1] The percentage of the population in households with consumption per capita less than the poverty line.
[2] The mean distance below the poverty line, i.e., a measure of the depth of poverty, not just its incidence.

Section 2 of this paper provides information on health status. Section 3 summarizes the recent performance in the health sector. Section 4 assesses equity in access and use of health care. Section 5 reviews health expenditure and financing sources. The final section discusses major issues and policies related to health and poverty reduction.

2. Health of the People

A prolonged civil war only ended in 1992. The war led economic hardship and severe destruction of social infrastructure, including damage to the health care system. After the war, Mozambique inherited a very weak health care system that was urban-biased because of large destruction in rural areas. Inequalities of distribution of health facilities existed not only among provinces, but also within provinces. The state has played a predominant role in providing health services. The private sector in health was abolished during 70s and 80s and only experienced a rapid growth in mid 90s after the new legislation permitting private practice (Law 26/91 and Decree 9/92). Even now, the private sector is still operating mainly in the capital area. The public sector has been one of the best-supported sectors in terms of both government and external foreign resources. Donor aid in the health sector continues to be extensive. The government intends to expand health services, both curative and preventive, to the entire country through the National Health Service.

The health policy goal of the government is for all Mozambicans to have access to quality health care. The national health policy sets out the following objectives for the health sector: (a) reduce mortality, morbidity and suffering, especially among high risk groups such as women, children and all those displaced due to the war and natural disasters; (b) keep primary health care as the basis for the provision of good quality and sustainable health care and make it accessible to the majority of the population; and (c) develop the Ministry of Health's (MOH) technical and managerial capacity for planning, implementing and evaluating health care and support services. The Health Sector Strategy Plan defines the health sector's contribution to poverty reduction through interventions: health care provision; strengthening individuals and communities; and health advocacy (Council of Ministers, 2001).

Health status

The health status of Mozambican people is among the poorest in the world. Basic health indicators are worse than the average for Sub-Saharan Africa. The disease pattern remains pre-transitional, that is, mainly infectious and parasitic diseases, diarrhea, acute respiratory infection, measles, malaria, and tuberculosis and child malnutrition. Three basic health status indicators, infant mortality, under-five child mortality, and maternal mortality, are among the highest in the world (Table 2).

The spread of HIV infection has increased at an alarming speed in recent years. According to UNAIDS, HIV prevalence among male STD clinic patients tested in Maputo increased from 3 to 20 percent from 1987 to 1996. Among female STD clinic patients tested, HIV prevalence increased from 5 percent to 8 percent in 1997. Outside of Maputo, HIV prevalence among male STD clinic patients tested was 37 percent in 1998 and 26 percent among female STD clinic patients in 1997. The overall estimated HIV prevalence rate was 13.2 percent among adults in 1999 (UNAIDS, 2000a), but increased to 16.1 percent in 2000 according to the UN and MOH. The very latest estimates, however, based on better surveillance methods show a prevalence of 12 percent. The number of AIDS-related deaths is expected to rise from 118,000 in 1998 to approximately 400,000 in 2002 (UNDP, 2000).

Malnutrition is prevalent, particularly among children. Data indicated that about 30-40 percent of children surveyed suffered from chronic malnutrition (stunted growth) while six percent of children had acute malnutrition, indicated by wasting. Nutritional problems directly aggravate other health problems and increase the overall burden of diseases.

Table 2
Key Indicators of Health Status

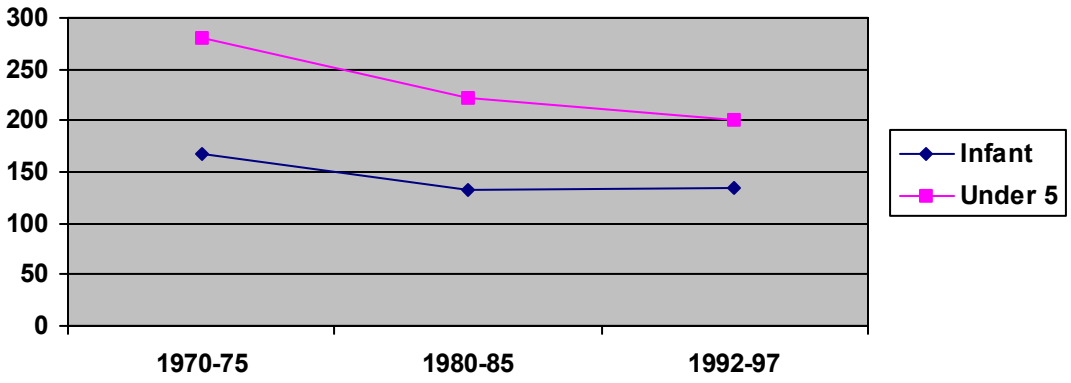
(Years indicated in footnote)

Indicador	Mozambique	Malawi	Zambia	Zimbabwe	SSA
Life expectancy	44	39	40	44	52
Infant mortality	115	134	80	69	102
Under-5 child mortality	219	234	197	74	170
Total fertility rate	6.2	6.7	5.5	3.8	5.3
Adult HIV prevalence (%)	13.2	15.9	19.95	25	8.57
Maternal mortality rate	1500	620	940	153	690
Low birth weight (%)	20	20	13	14	

Sources: All data comes from Mozambique's Health Sector Strategic Plan, 2001-2005 except HIV prevalence for SSA which comes from UNAIDS 2000b.

Some improvement in health status has been made since 1992, when the peace agreement was signed, and the economy has been growing at 8-14 percent per year. Some health outcomes have shown a positive trend. For example, mortality rates for infants and children under five fell significantly over the longer interval of 1970-1997, as shown in Figure 1.

Figure 1
Mortality rates for infants (under 1 year) and children under five (per 1000 live births), 1970-1997



Source: The World Bank/IMF estimates

The growth monitoring program also shows a slight improvement in nutritional status among children: between 1996 and 1999, the proportion of children with poor growth has decreased from 10.5 percent to 8.9 percent.

Improved performance in many areas sets the stage for major improvements in health outcomes. But this is true only if the threat of AIDS is taken seriously and addressed rapidly and adequately. The AIDS epidemic is relatively young in Mozambique compared with neighboring countries, but it is expanding fast and its impact on the society and families is increasing drastically. According to the latest MOH estimates (2000), adult HIV prevalence is now around 16 percent. All countries surrounding Mozambique have very high adult prevalence rates (between 20 and 35 percent), and these rates are already resulting in economic losses and substantial reductions in life expectancy. There is little doubt that Mozambique has to brace itself for the tsunami. The epidemic was first concentrated along the main transport corridors but is now spreading widely to other sectors and areas. AIDS is capable of reversing all improvements gained in health, absorbing a large proportion of the health budget and increasing the burden on the fragile health system, as seen in other neighboring countries.

Health status of the poor

The poor are in worse health than the non-poor (Table 3). Generally, they bear a higher burden of diseases and have much higher mortality rates than non-poor. An analysis of the Demographic and Health Survey (DHS) 1997 data shows that children from poor households are more likely to be malnourished and have a much higher mortality than children from non-poor households. The data also show that the poor are more likely to report illness, but less likely to get treatment (more discussion in section on equity in access to health care).

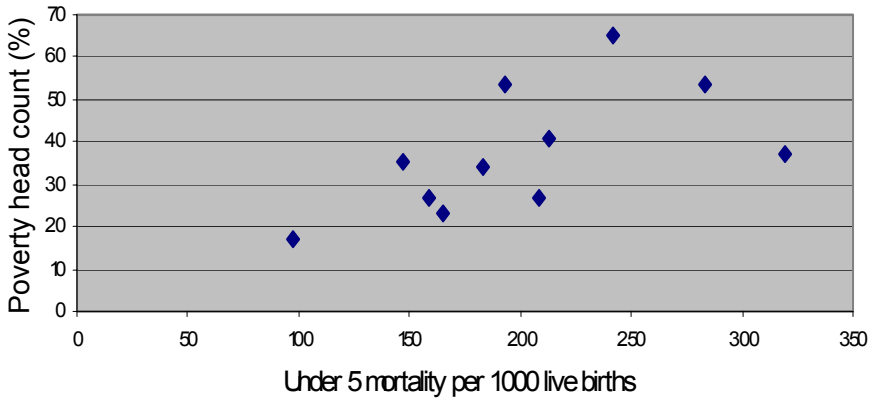
Table 3
Health indicators by poverty status, Mozambique, 1997

Indicator	National Average	Poor	Non-poor
Infant mortality rate (IMR)	147.4	187.7	94.7
Under-five mortality rate (U5MR)	218.7	277.5	144.6
Children stunted (%)	35.9	47.8	21.8
Children underweight - moderate (%)	26.1	36.9	14.3
Children underweight - severe (%)	9.1	15.3	4.5
Low mother's BMI (%)	10.9	17.2	4.2
Age specific fertility rate (15-19 years)	171.0	191.0	126.0

Sources: Instituto Nacional de Estatística and Macro International, 1997 and Gwatkin et al., 2000.

Infant mortality and under-five mortality are closely related to the poverty. Children from poor provinces are more likely to die. Figure 2 indicates that the correlation between under-five mortality and the poverty status of the provinces. The provinces with more poverty have higher child mortality rates.

Figure 2
Child mortality and poverty



Sources: Ministry of Planning and Finance et al., 1998 and DHS, 1997.

Clearly the poor need more health care. The following section assesses whether the health care system has addressed the needs of the poor and whether health services have reached the poor.

3. Health Sector Performance

Various indicators show that performance of the health sector in Mozambique has improved. Since 1992, the health sector has developed significantly. The system is mixed with public, private, and quasi public/private institutions. The public sector still plays a dominant role in health care provision while the private sector and NGO facilities are growing fast. The private sector consists of non-profit and profit institutions. Attempts to outlaw traditional practice in the 1970s and 80s were unsuccessful. The traditional sector operates in parallel with the government health services. The public/private mix in health service provision has been increasing.

Health service provision

The public sector expanded after the end of the war in 1992. Under the umbrella of the Health Sector Recovery Program, the government started to rebuild the health sector, restructuring the National Health System (NHS) and improving service delivery. More than 400 health care facilities have been rehabilitated or newly built. Many health posts were upgraded to health centers with maternity facilities and provide both curative and preventive services. Table 4 indicates the distribution of the health infrastructure by province. Staff figures follow similar patterns.

Table 4
MOH/NHS health infrastructure network, 1997

Province	1997 Pop. (x 1,000)	Central Hospital	Provincial or General Hospital	Rural Hospital	Health Center	Health Post
Niassa	764	-	1 (764)*	1 (764)	15 (51)	90 (9)
Cabo Delgado	1,284	-	1 (1,284)	3 (428)	43 (30)	37 (35)
Nampula	3,065	1	1 (3,065)	4 (766)	45 (68)	106 (30)
Zambezia	3,202	-	1 (3,202)	3 (1067)	24 (133)	138 (23)
Tete	1,149	-	1 (1,149)	3 (383)	30 (38)	50 (23)
Manila	975	-	1 (975)	-	14 (70)	61 (16)
Sofala	1,380	1	-	4 (345)	17 (81)	99 (14)
Inhambane	1,112	-	1 (1,112)	2 (556)	47 (24)	26 (43)
Gaza	1,034	-	1 (1,034)	4 (259)	11 (94)	69 (15)
Maputo Province	809	-	1 (809)	1 (809)	14 (58)	43 (19)
Maputo City	966	2	3 (322)	-	16 (60)	17 (57)
Total	15,740	4	12 (1,311)	25 (630)	276 (57)	736 (21)

* Number of facilities and (number of people (x1000) served per facility).
Source: Management Sciences for Health, 1999.

Service provision has increased dramatically since 1992, partly due to new health facilities, but there is also the evidence that existing facilities are more productive.

Table 4 shows that great inequality exists among provinces. Zambezia Province seems to be one of the most underserved. However, the figures must be interpreted with caution. A low number of people per facility, such as in Niassa, does not necessarily mean that health services are more accessible. The low population density and great distance to facilities also affect access. Data on differences in health service utilization, presented later in Table 6, may be more revealing about inequities among the provinces in access to services. The Central Hospitals have a coverage area reaching beyond the borders of the province where they are located, while the Maputo Central Hospitals, a general and a psychiatric facility, serve –at least officially– the whole nation.

The management system under the NHS is still rather centralized. The resources are allocated from the Ministry of Health to provincial directorates of health, and to district directorates of health. Provinces have been programming their annual activities based on an analysis of past performance and needs. More recently, the provinces and districts have embarked on more substantive planning for health service delivery. New planning methods have been piloted in several provinces.

The public sector provides regular and "special" services. The regular services are offered in public facilities for very low prices or free of charge. Special clinics are attached to larger government hospitals. These special clinics are highly subsidized operations catering to the highest socioeconomic class. They have their own revenue-generating capacity and thus are able to provide better quality service. They have

their own independent accounting system and are a major magnet for specialists to remain in the public sector.

The private sector is limited mainly to the large cities. Private individual and group practices have increased in some areas. International and national NGOs run some non-profit health facilities and also provide funds directly to the NHS.

Health service outputs

Between 1993 and 1999, service outputs of health centers and hospitals have increased by 50 percent. Service units for polio vaccinations increased by 210 percent, and out-patient consultation units grew by 107 percent, while MCH consultations, institutional delivery and bed occupancy service units increased by 44 percent, 47 percent and 20 percent respectively. The large increase in vaccinations is due mainly to the polio eradication campaigns.

Mozambique has a better developed information system than many Sub-Saharan countries with comparable levels of per-capita income. One indicator developed and used in the health planning is the "care unit." Calculated on the basis of the time spent on the service, the care unit gives a weight to each of the five major health services that together account for the vast majority of service outputs: vaccinations, outpatient consultations, MCH consultations, deliveries, and hospital bed days.[1] The care unit provides a measure of service output and service utilization. Care units produced per health worker, a measure of efficiency, increased from 6005 to 6744, an improvement of 11 percent from 1993 to 1999. Some health outcome indicators also show an improvement such as nutrition indicators and mortality rates.

Table 5
Performance of the health sector, 1993-1999

	1993	1994	1995	1996	1997	1998	1999
Utilization/coverage							
No. of consultations/habitant	0.36	0.37	0.41	0.46	0.57	0.66	0.77
Percent deliveries by trained staff	26	29	28	30	35	36	37
Antenatal care coverage (%)	57	63	65	73	90	90	94
Postpartum care coverage (percent)	22	26	28	31	37	41	44
Percent of children received DPT 3rd doses	45	55	57	59	73	80	81
Anti-tetanus vaccination coverage (percent)	60	65	66	67	80	89	90
Care units per habitant (percent)	2.37	2.43	2.47	2.62	3.20	3.18	3.26
Care units/staff	6005	6713	6078	6310	6524	6685	6744
Difference in coverage between DPT 1st and 3rd doses (%)	25	26	23	23	21	18	17
Health status							
Intra partum mortality (per 1000)	0.15	0.44	0.42	0.35	0.31	0.33	0.29
Maternal mortality ratio (per 100,000 deliveries, in the clinic)	2.34	2.28	1.84	2.02	1.81	1.58	1.54
Percent children stunted (Z<-2)	12.8	10.8	11.1	10.5	9.7	9.6	8.9
Percent low birth weight (<2500 gr.)	13.4	13.5	13.5	12.6	12.1	12.3	12.2

Source: Mozambique Ministry of Health Annual Reports, 1993-1999.

[1] Care Units (CU) were calculated as follows: vaccination = 0.5 CU; MCH contact = 1 CU; outpatient = 1 CU; inpatient = 9 CU; and delivery = 12 CU. UNDP, 1999, Mozambique: National Human Development Report.

One needs to be cautious interpreting these figures because the increase in outputs is certainly partly due to improved reporting. The overall coverage of the national health system is still limited. It is conservatively estimated that about 50 percent of population have access to basic preventive and curative health services, meaning that they live within 10 kilometers of a facility. The DHS, 1997 data give the following figures for service coverage: about 44.2 percent of deliveries were assisted by a health professional and 47.3 percent of children aged 12-23 months had received full immunization (MOH, 1999).

Service outputs have increased, but are still distributed unequally. Maputo City has much better indicators for outpatient and inpatient visits per person and thus higher total of care units per capita. However, in terms of care units per health provider Maputo City ranks lowest, partly because of a concentration of health professionals there.

Table 6
Care units per person by province, 1997

Province	Outpatient visit	Inpatient	Deliveries	MCH Contacts	Immunization	Care Units Per Health Provider	Total Care Units
Niassa	0.639	0.138	0.023	0.551	0.800	6,462	3.113
Cabo Delgado	0.415	0.114	0.011	0.293	0.722	5,328	2.220
Nampula	0.412	0.124	0.013	0.424	0.752	7,619	2.486
Zambezia	0.392	0.089	0.010	0.297	0.707	7,811	1.956
Tete	0.574	0.165	0.015	0.356	0.735	6,589	2.953
Manica	0.599	0.166	0.019	0.472	0.786	7,294	3.194
Sofala	0.736	0.297	0.016	0.312	0.687	6,934	4.256
Inhambane	0.608	0.172	0.017	0.565	0.802	5,742	3.330
Gaza	0.715	0.279	0.023	0.646	1.046	8,317	4.673
Maputo Province	0.806	0.203	0.015	0.515	0.734	8,251	3.692
Maputo City	1.352	0.616	0.039	0.589	0.850	4,614	8.378
National	0.583	0.185	0.016	0.421	0.766	6,815	3.247

Source: Management Sciences for Health, 1999.

The rather low efficiency of health workers in the northern provinces Niassa and Cabo Delgado can be explained partly by the low population density in those provinces, while Maputo City clearly has a relative oversupply of workers and relative overuse of services. The low level of service units per inhabitant in the two northern provinces shows that the services still have low availability, probably because of distance. The solution therefore seems to be to increase basic-level multi-purpose health cadres in relatively small facilities. In Nampula, Tete, and Zambezia provinces, the issues are different: low utilization rates combined with high outputs per health worker. These provinces would need more staff to expand service coverage. The best performing province seems to be Gaza, with a high productivity of staff and good use of services by the population (this province suffered most from the flood in 2000). Comparing these data with similar data from other years, one can detect clear increases in health worker efficiency and in utilization of services.

4. Health Expenditure and Financing

National health expenditures

In an effort to better understand the health expenditure, the MOH constructed a national health account (NHA) using 1997 data. Useful information was collected on health expenditure and financing. However, the available data are incomplete and cannot be sufficiently disaggregated into a "sources and uses" matrix. The information on health expenditures and financing for 1997 is presented in Tables 7 and 8. The information includes both public and private sector health expenditures.

According to the NHA estimate, the health sector spent about US$140 million 1997. This is equivalent to US$8.84 per capita and is comparable to the level of health spending in many low-income countries, such as Malawi and Ghana. This level falls short of the US$12.00 standard established under the World Development Report, 1993, and the US$9.24 standard under Better Health in Africa, 1994.

Table 7
Health expenditures by financing sources and financing agents, 1997 (in million U.S. dollars)

	Financing Agents						
Sources of funds	**MOH**	**Other Ministries**	**Employers**	**NGOs**	**Households**	**Total**	**% of Total**
Treasury	28.5	2.4	-	-	-	30.9	22.0
Donors	46.8	-	-	26.4	-	73.2	52.0
Employers	-	-	9.2	-	-	9.2	7.0
Households	-	1.8	-	-	24.9	26.7	19.0
Total	75.3	4.2	9.2	26.4	24.9	140.0	100.0
Percent of total	54.0	3.0	7.0	19.0	18.0	100.0	

Sources: Management Sciences for Health, 1999.

Table 7 indicates there are four major sources of funds for health financing: government treasury, external donors, employers, and households. External aid financed more than 50 percent of the total health expenditures and the government took 22 percent of the share. Even at high levels of poverty, households spent almost as much as the government did on health care (19 percent) (see Figure 3). Funds from each source were channeled through financing agencies that either provide or purchase health services. Much of the health expenditure is channeled through the MOH (54 percent). In fact, health has become one of the larger sectors supported by the government and by donors. NGOs handle 19 percent of the health expenditures.

Table 8
Health expenditures by financing agents and providers, 1997 (in million U.S. dollars)

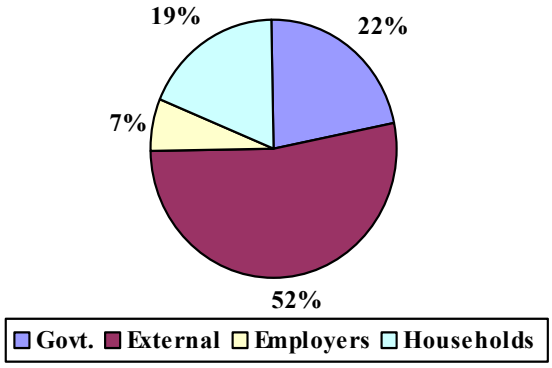
Health providers	Financing Agents						
	MOH	Other ministries	Employers	NGOs	Households	Total	% of Total
MOH/NHS	75.3	-	3.8	24.4	1.5	105.0	75.0
MOH/SC	n.a.	-	-	-	5.2*	5.2*	4.0
Other min.	n.a.	4.2	-	-	-	4.2	3.0
NGOs	-	-	-	2.0	-	2.0	1.5
For-profit providers	-	-	3.0	-	4.5	7.5	5.0
Employers	-	-	2.2	-	-	2.2	1.5
Traditional medicine	-	-	-	-	9.9	9.9	7.0
Communal pharmacies	-	-	0.2	-	3.8	4.0	3.0
Providers abroad	-	-	n.a.	-	n.a.	n.a.	-
Total	75.3	4.2	9.2	26.4	24.9	140.0	100.0
Percentage of total	54.0	3.0	7.0	19.0	18.0	100.0	

Source: Management Sciences for Health, 1999.
*MSH estimations.

As health service providers, the MOH/HS and special MOH clinics consume a substantial share of resources (79 percent). MOH facilities receive resources from a variety of financing agents: the government itself, employers, NGOs, and households. Traditional medicine, also a major service provider, accounted for 7 percent of the health expenditures. Private for-profit providers took 5 percent of the total resources. Very limited services were provided by employers (1.5 percent).

No reliable data exist on health expenditures by levels of care. However, the rough estimates indicate that government and donors spent US$2.42 per capita on primary and secondary care and US$4.89 per capita on all levels of care in 1997 (MSH, 1999).

Figure 3
Sources of health financing, 1997



Health financing policy

The current financing policy is based on the principle that all Mozambicans should have access to quality care at an equitable price. The NHS in Mozambique has received substantial contributions from the international community. Donor funds contributed more than 50 percent of total health financing. Major multilateral and bilateral agencies active in Mozambique include UNICEF, WHO, UNFPA, the African Development Bank, the Islamic Development Bank, the World Bank, and cooperation agencies from the European Union, USA, Ireland, the United Kingdom, Denmark, the Netherlands, Italy, Norway, Switzerland, and Spain. External support is provided as direct budgetary support, program support, project support or technical assistance. Overall, donors financed about 60 percent of the national budget through budget support. A portion of project aid to the health sector assumed the form of earmarked budget support. Earmarked budget support began in 1990 and has increased significantly. On average, at least US$5 million has been provided to the health sector annually as earmarked budget support (Pavignani and Durao 1999).

Out-of-pocket expenditures are one of the major sources of health financing. User fees for curative outpatient services in the public sector were first introduced in 1997. The fees were set low initially and increased later through changing the law. Hospitals were also allowed to charge in-patients and foreigners and to charge for special services in 1994 (Medical Care Development International, 2000). Fee revenues from inpatient and outpatient facilities are small (around 3 percent of total government resources for health) but appear to be growing.

Since 1997, the HIPC debt relief initiative has provided a new source of health financing funds. HIPC has meant an increased allocation to the health sector. Table 8 indicates the debt relief accounted for 4.25 percent of the total MOH expenditure and mainly financed non-salary recurrent expenditures.

Funds for personnel emoluments are split between MPF/Treasury (54.5 percent) and donors (45.1 percent). Drugs are funded almost solely by donors (91.8 percent) and debt relief (8.2 percent). There is hardly any Treasury funding for drugs. Funding for other recurrent costs comes from a variety of sources: MPF/Treasury, 42.9 percent; debt relief, 7.2 percent; fees, 3.4 percent; and donors, 46.6 percent.

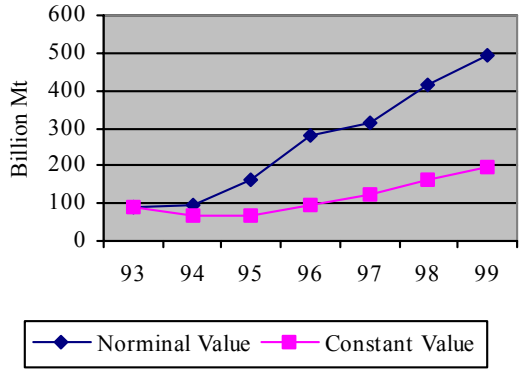
Table 9
Sources and uses of MOH/NHS health expenditures in 1997(in million US dollars)

Items	Government				Donors	Total
	MPF/ Treasury	Debt Relief	Fee Revenues	Subtotal Gov't		
Personnel emoluments	11.713	0.004	0.089	11.806	9.684	21.490
Drugs and med. eqpt.	-	1.500	-	1.500	16.844	18.344
Other recur. costs	10.179	1.702	0.803	12.684	11.065	23.749
Investment expenses	2.567	-	-	2.567	9.295	11.862
Total expenses	24.459	3.206	0.891	28.557	46.889	75.446
Share (percentage)	32.42	4.25	1.18	37.85	62.15	100.0

Source of basic data: Management Sciences for Health, 1999.

Using government tax revenues and donor budgetary support, MOH/NHS provides *global budgets* to provincial district health offices, which in turn allocate these to the district health offices below them. Some donors also provide *off-budget support* directly to provincial health offices. These off-budget items pose particular difficulty to the Ministry of Planning and Finance (MPF), as they are not recorded in the Triennial Public Investment Program (and in the annual development budget). Thus, their execution rate is often unknown. Some donors also channel "off-budget" funds to NGOs, which then provide support to MOH/NHS. Current planning is not activity-based (budget linked to objectives or outputs) although MOH has shown interest in moving in this direction. At present, the state accounting system cannot provide an appropriate picture of activities and outputs as a function of budget allocation or spending.

Figure 4
Health recurrent budget, 1993-1999



Under HIPC and later the Enhanced HIPC Initiative (eHIPC), the government also aimed to increase current health expenditures annually, both in real terms and as a share of total current expenditure in line with medium-term expenditure framework. Current expenditures on health, as a proportion of total current expenditures of the government, evolved as follows: 1998 – 9.1 percent; 1999 – 10.2 percent; and 2000 – 13.4 percent. Under HIPC the government continues to show its commitment to the sector. Over the period 1993-1999, the government's recurrent budget for health increased from 91.6 billion to 193.8 billion Mt in constant value. Under eHIPC, the government of Mozambique's budget for the social sectors increases by about US$ 40-50 million per annum. Since 1997, the Debt relief has contributed about 110 billion Mt to the health sector.

5. Equity in Health Care

Distribution of resources

Inequality persists in health resource distribution among provinces. Maputo City has the advantage over all the provinces in human and physical capital as well as in financial resources. Zambézia Province presents the worst situation in both human and physical resources (Table 10). In general, the northern provinces are worse off than the southern part of the country for all inputs. Many of the health services delivered in Maputo City have, in theory, a national function –the Central Hospital of Maputo is the highest referral facility in the country and is a major training ground for many levels of health workers. In practice the services are mainly delivered to the local urban population.

Table 10
Distribution of health resources by province, 1999

Province	Beds/1000 population	Maternity beds per 1000 women in reproductive age	Drug exp. per person* (MZM)	Population per technical staff	Funds per person** (MZM)
Maputo City	2.36	2.37	51,546	578	176,911
Sofala	1.24	1.54	19,361	1,478	67,270
Gaza	1.05	1.64	15,759	2,020	44,985
Maputo Prov.	1.05	1.61	12,476	1,942	51,470
Inhambane	0.99	1.62	15,553	1,991	53,036
Niassa	0.89	1.03	9,288	1,833	48,816
Manica	0.80	1.11	16,576	2,115	56,318
Tete	0.78	0.94	18,039	2,263	63,035
Nampula	0.77	0.77	6,497	2,814	14,877
Cabo Delgado	0.59	0.71	9,897	2,431	34,151
Zambézia	0.48	0.68	7,836	3,351	24,665
National Average	0.89	1.12	14,134	1,955	47,461

Sources: MOH, 1999.

* Includes the drugs distributed by the center to the provinces. 1US$= MZM 12,000.

** Funds per person refer to the total recurrent costs (state budget and external funding), and does not include funds for central institutions.

Inequality in fund allocation among provinces was substantial. Table 11 indicates that Maputo City received from the government more than ten times the funds per capita than Zambézia did. External funds tended to be distributed to disadvantaged areas; however the allocation did not fully correct the inequality. Overall, Maputo City still got about seven times more per capita than Zambézia did. The progress in narrowing the funding gap is slow, and inequality in resource allocation persists over the years. The inequality in fund allocation clearly results from unequal distribution of other resources such as health professionals and infrastructure, which can change only slowly over time.

An inequality also existed in levels of care. While primary level facilities furnished 37 percent of the activity outputs measured in health care units, they only received 22 percent of the government resources. On the other hand, the three central hospitals only produced 15 percent of the services (measured by service units) but received 37 percent of these funds. Even considering that the central hospitals provide a more sophisticated level of care and supply services that benefit the other levels, such as training, the fund allocation to them still seems relatively generous.

Table 11
Funds per capita available in the capital city and the least favored province (expressed in MZM)

Year	Maputo City			Zambezia Province			Ratio of Zambezia's funding to Maputo's Maputo/Zambezia		
	State	External	Total	State	External	Total	State	External	Total
1994	5763	1753	7516	449	559	1008	12.8	3.1	7.5
1995	15350	1955	17305	1415	3007	4422	10.8	0.7	3.9
1996	26851	7294	34145	1816	6902	8718	14.8	1.1	3.9
1997	27306	14463	41769	1797	3807	5604	15.2	3.8	7.5
1998	38482	25261	63743	2849	3854	6703	13.5	6.6	9.5
1999	49376	12862	62238	4608	4637	9245	10.7	2.8	6.7

Source: MOH, 2000.

The extent of use of the available funds varies significantly among provinces (Table 12). In 1999, the use ranged from 29 percent to 102 percent for state funds and 53 percent to 99 percent for external funds. In general, Maputo province, Maputo City and Cabo Delgado use funds better. Zambézia as the least served province also has the lowest level of spending the available resources. The situation has not improved over the years. Limited absorptive capacity is an important issue that needs to be addressed. Effort need to be made to improve absorptive capacity to break a vicious cycle: the less the poor provinces are able to spend, the less funds they receive.

Table 12
Budget execution in percentage by province for 1997-99

Province	Government			Actual expenditure / budget (percent) External funds			Total		
	1997	1998	1999	1997	1998	1999	1997	1998	1999
Niassa	77	96	95	65	82	67	68	86	79
Cabo Delgado	86	93	102	88	83	82	87	82	87
Nampula	68	88	-	88	91	-	77	84	-
Zambezia	97	72	75	87	56	58	90	65	65
Tete	54	60	29	89	90	94	76	78	78
Manica	98	100	88	89	94	64	94	96	71
Sofala	94	96	78	98	96	99	88	95	85
Inhambane	79	90	93	76	107	59	77	92	73
Gaza	92	68	95	93	69	53	92	68	78
Maputo	100	83	88	100	98	99	98	90	90
Maputo City	90	97	95	76	99	94	80	95	85
H.C. Maputo	98	51	-				93	45	
Country	86	80		86	88		85	82	

Sources: MOH, 2000.

Equity in access to health care

As indicated earlier, the poor have much worse health status than the non-poor. In addition to socioeconomic status, inequality in access to health care contributes to their inferior health status. Household survey data show large differences in health behavior and health access between the poor and non-poor.

Although the poor generally suffer more from illness than the non-poor, perceived needs for care and actual care-seeking behavior do not necessarily reflect their real needs as defined by clinical conditions. Household survey data show that the poor are less likely to report illness than the non-poor, and among those who reported ill, the poor are less likely seek care than the non-poor (Christy and Ferrara 1999; Cabral, 1999). In general, younger age groups, female population, and people living in northern provinces are more likely to report illnesses.

Table 13 shows the poverty characteristics of those who reported illness and received care during the month prior to the survey. The poor are defined as people living below the poverty line (estimated in 1996 to be at 3,941 Mt, 4,520 Mt, 6,934 Mt and 13,323 Mt respectively for the north, center, south, and Maputo City) while the ultra-poor are those living at less than 60 percent of the poverty line.

Table 13
Characteristics of those reporting illness and receiving treatment

	Rural				Urban				Total			
	Ultra poor*	Poor	Non-poor	All	Ultra poor	Poor	Non-poor	All	Ultra poor	Poor	Non-Poor	All
Percentage of those who reported illness and received treatment	56	56	60	57	64	70	81	74	58	59	64	61
Percentage of children 0-5 yr. who reported illness and received treatment	66	64	73	67	72	77	84	80	67	67	75	70

Source: MPF, 1998.
*Ultra poor is defined as 60 percent of the reference poverty line, which was US$170 consumption per person per year in 1996-97 survey.

Table 13 shows that the likelihood of receiving treatment increases for those living in urban areas (74 percent rather than 57 percent). Differences between poor and non-poor are small in rural areas, while they are significant in urban areas. Among those who reported illness, urban residents are more likely to obtain treatment. The non-poor in urban areas certainly have advantage over the rest of the population. For all groups, children had higher use of services than the rest of the population, suggesting that households make greater efforts to treat children.

Overall, about 40 percent of population who reported illness did not seek for care. For the rural population, the percentage is slightly higher. The two main reasons for not seeking care are distance and lack of money (Table 14). More than for the rest of the population, the health care seeking behavior of the poor is affected by lack of confidence in the system, lack of drugs at the facilities, and the perception that their illness is not severe. The rural population is over-represented for all reasons, but especially so when distance and lack of drugs are given as a reason for not seeking care.

Table 14
Reasons for not seeking health care at a facility

Reason	Percent of total	Estimated total pop.	Median age	Percent rural	Percent poor or ultra poor	Percent still ill
Facility too far	38	256,872	25	99	35	45
Lack money	35	240,293	23	78	37	42
Illness not severe	8	50,906	19	86	22	25
Lack of drugs	6	39,344	24	96	15	50
No confidence	0.4	3,065	40	85	11	41
Other	12	80,488	23	80	27	42
Total	100	682,869	24	88	34	42

Source: Christy and Ferrara, 1999.

In a large but thinly populated country like Mozambique, distances play an important role in access to health care , as the following table indicates. Unfortunately median distances are not available for the various groups. The mean distance, which doesn't characterize a non-normal distribution well, does not show big differences between the poor and non-poor.

Table 15
Mean distance in kilometers to selected services for rural households

Service	Ultra-poor	Poor	Non-poor	All
Doctor	47	47	43	46
Traditional practitioner	1	1	2	1.5
Midwife	23	22	19	21
Health post	19	19	17	19
Health center	31	30	26	29
Pharmacy	31	29	25	28
Market	17	17	15	16
Primary school	4	5	4	5
Public transport	18	17	15	16

Source: Ministry of Planning and Finance et al., 1998 (the sample from LSMS 1996-97).

Table 16, which shows the accessibility of health professionals by poverty status indicates that the non-poor have better access to doctors, health centers and pharmacies.

Table 16
Percentage of rural population with specified health services in their village, 1997

Health service	Ultra poor	Poor	Non-poor	All
Doctor	1.3	1.6	3.2	2.1
Traditional healer	94.7	94.3	92.3	93.7
Nurse	14.3	15.3	20.4	16.8
Midwife	19.2	19.9	19.2	19.7
Health post	18.4	18.5	20.5	19.1
Health center	3.9	4.6	6.4	5.1
Pharmacy	3.7	4.1	6.0	4.6

Source: Ministry of Planning and Finance et al., 1998.

The following data from the 1997 DHS indicate that the poor benefit less from health services than the non-poor. The data were stratified for urban and rural expenditure quintiles. Table 17 shows health service statistics for a wide variety of elements, such as vaccination, treatments for common diseases, antenatal care, delivery attendance, and use of contraception. The data on knowledge of HIV transmission are also presented for the various groups. The numbers speak for themselves: large differences are recorded in service coverage for the poor and the non-poor. The rural people are worse off for almost all services. For example, vaccination coverage differs threefold (33 percent for the lowest quintile and 95 percent for the highest). ORT use is twice as high among the highest quintile as it is among the lowest, that is, 84 percent vs. 42 percent. Of the very poor, only 46 percent attend antenatal care, while 99 percent of the highest quintile does so (for more than two visits, these figures are respectively 37 percent and 75 percent). Use of contraceptives is low among all groups but extremely low among the poor, both male and female.

Table 17
Analysis of DHS 1997 data on health behavior and access by expenditure quintiles

		Urban					Rural				
Indicator	**Definition**	**Expenditure quintiles**					**Expenditure quintiles**				
		1	2	3	4	5	1	2	3	4	5
Immunization coverage (percent): (Children age 12-23 months by vaccination card or mother's report)											
Measles		*	*	*	91.7	92.7	33.0	38.2	40.8	69.7	95.5
DPT3		*	*	*	93.7	93.1	32.2	50.6	45.2	70.4	95.5
All		*	*	*	83.8	84.1	19.7	27.6	30.3	61.9	88.2
None		*	*	*	1.6	1.3	36.1	28.3	28.4	7.1	0.9
Medical treatment of illnesses (percent):											
Treatment of diarrhea:											
Prevalence	Percent ill in the preceding two weeks	*	*	32.5	37.7	25.8	20.9	26.0	18.2	12.1	5.1
ORT use	ORS, RHF, or increased liquids	*	*	(82.1)	66.0	83.3	42.4	52.5	68.4	73.0	(84.0)
Seen medically	Brought to a health facility if ill	*	*	(67.9)	32.8	52.8	25.2	30.1	30.4	37.8	(67.7)
Percent seen in a public facility	Among those medically treated	*	*	(67.9)	32.1	51.3	25.2	30.1	23.6	37.8	(67.7)
Treatment of acute respiratory infection:											
Prevalence	Percent ill in the preceding two weeks	*	*	23.1	14.9	15.7	11.7	11.6	9.3	7.7	16.7
Seen medically	Brought to a health facility if ill	*	*	*	(73.7)	63.8	17.3	32.4	45.2	39.7	(16.3)
Antenatal care visits (percent):											
To a medically trained person	Doctor, nurse, or nurse-midwife	*	*	87.6	94.4	97.9	46.6	67.1	61.9	87.5	99.1
To a doctor		*	*	1.2	1.4	12.2	0.1	2.0	0.3	0.9	0.6
To a nurse or trained midwife	Nurses and nurse-midwives	*	*	86.4	93.1	85.6	46.5	65.1	61.6	86.6	98.5
2+ visits		*	*	82.3	81.8	82.4	36.8	62.7	54.4	75.2	74.9
Delivery attendance (percent):											
By a medically trained person	Doctor, nurse, or nurse-midwife	*	*	71.2	81.6	83.8	18.1	34.0	27.1	55.0	78.8
By a doctor		*	*	0.6	3.3	10.1	0.2	1.0	0.4	2.3	1.5
By a nurse or trained midwife		*	*	70.6	78.4	73.7	17.9	33.0	26.7	52.7	77.3
Percent in a public facility		*	*	71.2	81.6	83.5	17.0	31.8	26.6	56.0	78.5
Percent in a private facility		*	*	0.0	0.0	0.1	0.0	0.0	0.3	0.1	0.0
Percent at home		*	*	28.8	17.2	14.7	82.4	67.5	71.1	42.1	20.9
Use of modern contraception (percent): (Currently married persons using a modern method)											
Females		*	(1.7)	9.9	9.1	21.8	0.9	1.8	2.4	3.8	6.1
Males		*	*	(13.6)	6.4	21.6	0.6	1.1	4.1	6.8	17.8
Knowledge of HIV transmission (percent):											
Females		*	(28.2)	23.2	29.0	44.8	26.8	36.2	30.4	30.7	32.4
Males		*	*	(64.3)	63.7	69.3	40.8	48.1	36.8	44.0	77.2

Source: Gwatkin D. et al., 2000.

Overall use modern contraception is very low. Almost none of the poor use any modern methods at all. Knowledge about HIV transmission is also far too low, particularly for women. Differences in knowledge levels among quintiles are smaller for females than for males.

6. Making the Health Sector More Pro-Poor

Health sector development in the PRSP context

The 1997 poverty assessment indicates that almost 70 percent of the population live in absolute poverty. Rural areas, where more than 80 percent of the poor live, bear the greatest burden in terms of poverty incidence, depth, and severity. Based on the poverty assessment, the government developed an Action Plan for Reduction of Absolute Poverty or PARPA (2000-2004). The poverty strategies outlined under the plan are (a) generating rapid and sustainable growth; (b) investing in human capital through improved delivery and quality of social services; and (c) developing a program including safety nets that fosters the social and economic integration of the most vulnerable groups. The new PARPA (2001-2005) continues to emphasize the importance of rapid and broad-based growth through creating a favorable climate for investment and productivity and promoting human development. Health has been identified as one of the six fundamental areas for action because the health sector plays a key role in directly improving the well-being of the poor while it also contributes to economic growth.

So far, Mozambique has performed well to meet the targets set in the poverty action plan. The overall growth of the economy has been strong and inflation has been kept low, although the floods of 2000 have caused setbacks. The growth has been broad-based, with agriculture, industry and services growing more than seven percent. Substantial progress has been made in the areas of privatization, public enterprise reform, and fiscal reform.

Social service reforms, as one of the key strategies for poverty reduction, were implemented in both the education and health sectors. The following section focuses on the health sector reform.

Health sector development

Health sector reform started after the war in response to the need to rebuild the health system that was damaged by the war. The objectives of the Health Sector Recovery Program (HSRP) launched in 1995 were to increase access to and quality of services by rehabilitating and adding to the network of first-level care facilities, and rural hospitals, and by providing adequate staffing, drugs, and supplies. The program, with an original cost of US$355 million for six years, has been supported by government budgets (33 percent) and external aid funds (67 percent), including a World Bank sector investment credit of almost US$100 million. In its five years of implementation, the HSRP has made good progress in rebuilding the health infrastructure. Health coverage has been improving steadily.

The program originally aimed mainly at restorating physical infrastructures destroyed during the war, but soon it started to redefine sector priorities and readjust imbalances in resources allocation and inequity in access to care. The government and donors recognized that the health sector was moving from a phase of recovery from the civil war to a more forward-looking phase of improving the health system and services. The emergency management approach would not meet the requirements of the sector's development. There was a need for policy reform in the sector. Under this reform, the MOH stated its mission was to promote and preserve the health of the people of Mozambique, and to promote and deliver services of good quality in a sustainable way, making them available to all Mozambicans with equity and efficiency. The mission statement was guided by the following principles: efficiency and equity, flexibility and

diversification, development of partnerships and community participation, transparency and accountability, and integration and coordination. The main objectives of the health center are now to increase the availability of good quality services and to improve efficiency and equity.

Since the end of the war, the health sector in Mozambique has attracted substantial contributions from the international donor community. Donor funds helped and continue to help in filling in the financing gap for health. However, donor involvement often resulted in fragmentation and inefficiency in resource management. The HSRP was an important step towards more coordinated sector financing. Even if it did not meet all the requirements of sector-wide approach (SWAp), which provides an instrument for common planning and managing of both government and donor funds. The sector is now moving towards the SWAp with a broad sector policy framework and coordinated resource management. Formulation of a new Strategic Plan was part of the SWAp process. The government and the large majority of the external partners in the health sector signed a Code of Conduct in 2000, which defined the rules cooperation between MOH and external partners. A new Health Sector Strategic Plan (2001-2005) was approved by the Council of Ministers in April 2001.

The financing strategy of the sector will focus on (a) increasing the overall resource envelope; (b) improving the efficiency and execution of funds available through improved management of resources; (c) making resource allocation criteria and methods more transparent and equitable; and (d) overhauling the user fee system.

Mounting an effective health sector response

The government's poverty program for the health sector is targeted towards basic service delivery, with a vision that the poor will benefit from these services. However, without other specific targeting mechanisms in place, there is no guarantee that the services will actually reach the poor. Health sector policies and services have to pay specific attention to the poor and their health needs. A new health expenditure review will be carried out. This will provide more information to adjust policies and interventions for more pro-poor health outcomes.

Major health issues

The morbidity and mortality of Mozambique's population has a pre-transitional epidemiologic pattern, in which infectious diseases dominate over degenerative diseases. As indicated above, health in Mozambique is extremely poor, particularly for rural population. Poor health can put people into poverty and can keep them in poverty. The poverty reduction strategies therefore have to address the disease burden imposed on the nation and on families.

Diseases such as malaria and tuberculosis are major causes of illness and death in the country. The fights against such diseases are the health sector's priorities. The "Roll Back Malaria" campaign provides a window of opportunity to scale up the national response, as does the Stop TB Initiative. TB needs extra attention in the context of increasing HIV prevalence, since the disease is now often symptomatic for AIDS.

Improving nutrition is another important element in a poverty strategy for the health sector. The poor suffer disproportionately from malnutrition. Furthermore, the attributable risk of malnutrition to common morbidity and mortality far outweighs the attributable risk of any other health condition. The health sector can play a crucial role in nutritional education and in making micronutrients such as Vitamin A and iron available to the people who need them. School deworming programs also would have a large impact on the educational attainment of otherwise anemic children.

The HIV/AIDS epidemic adds huge weight to the national burden of disease. The impact of AIDS on poverty at the national and household levels will be enormous in the coming years. About 11,000 cases were registered by the end of 1998' however, the registration probably captured less than 10 percent of all cases. Indications show that the adult HIV rate is currently climbing rapidly and is now estimated at 12 percent. The prevalence rate in Mozambique could soon become as high as in its neighboring countries such as Malawi, Zambia, and Zimbabwe unless drastic actions are taken immediately to contain the epidemic.

HIV/AIDS poses a very serious threat to the development of Mozambique, but its impact has not been fully recognized. It is an undeclared national emergency. Denial and stigma associated with AIDS are still common in Mozambique although the impact of HIV/AIDS on society, communities, and households is becoming obvious. Only relatively recently has the government taken more aggressive steps to fight the HIV/AIDS epidemic. In September 1999, the government adopted a National Strategic Plan to Fight STDs/HIV/AIDS over the period 2000-2002. Given Mozambique's limited implementation capacity, the plan focuses realistically on population groups that are especially vulnerable to HIV/AIDS. It aims to provide essential prevention and care interventions to at least 1,600,000 people with irregular sex partners and 15,000 people living with HIV/AIDS. The government has also recognized that fighting HIV/AIDS requires a national response involving all sectors. It planned to create two coordinating bodies for a multisectoral response at the central level: an Inter-ministerial Committee for AIDS (which will have general oversight responsibilities and involve representation from eight ministries) and a National AIDS Commission (which will have more direct national management responsibilities). The implementation of the AIDS strategy requires not only resources at the central level but substantial effort from communities.

AIDS needs to be dealt with as one of the top priorities in the poverty reduction strategy. The AIDS epidemic has to be addressed not only as a health issue, but also as a development issue and a poverty reduction issue. Since AIDS affects every aspect of the society and can most often only be prevented long before people get to a health facility, the interventions against AIDS have to be multi-sectoral. The role of the health sector, however, is critical.

Major health services or disease priorities that are explicitly listed under the government's poverty program are:

- Polio eradication, elimination of neonatal tetanus, eradication of leprosy as a public health problem, reduction of the incidence of common diseases, such as HIV/AIDS, tuberculosis, malaria, and childhood diseases that cause high morbidity and mortality;
- Improvement of the nutritional status of the population, especially children, including prevention of micro-nutrient deficiencies;
- Increased access to obstetric services;
- Reduction in incidence of preventable diseases through (a) vaccination of children 0-23 months, school-age children, and women of childbearing age, (b)expanding the coverage of the target groups, and (c) introduction of Hepatitis B vaccine;
- Reduction of oral/dental problems in school-age children and adolescents, in strict cooperation with the education sector.

Serving the poor more effectively

The poverty study showed clearly that the main factors limiting access to health services by the poor are distance and cost.

Reducing geographic inequality in access to care

The above analysis show that health resources are still unequally distributed among provinces and that the poor have to travel longer distances to any health facilities and health personnel. The distribution of health staff does not necessarily match the needs of the population. The distance issue is more acute in the four northern provinces (Niassa, Cabo Delgado, Nampula and Zambézia). Service statistics, especially the low utilization rates in those provinces, indicate the need for extra efforts to reduce access barriers in these provinces.

With regard to distance, the system has to design ways by which the services can be brought closer to communities. This is not necessarily a matter of building more health facilities. Other ways to ensure that services are delivered to under-served areas include developing outreach services and deploying of community-based health workers. In accordance with the government's policy, a package of basic services has to be provided to the whole population. Even after years of effort, by 1997, it was estimated that only about 50 percent of the population had access to most basic services. It is obvious that most of the people excluded from the system are the poor. Inclusion is expensive and requires specific geographic targeting.

Resource allocation in the past has not helped much in reducing inequality among provinces. The disadvantaged provinces received far fewer funds than better-off provinces. For example, per capita government expenditure on health in Maputo City is US$2.8, while Zambezia only gets US$0.60 (1998). The government is taking steps to correct inequality in access. At the beginning FY 2000, the Ministry of Health allocated its resources to the provinces in a more equitable way. New budget allocations are based less on historical patterns and more on population size and density. Given the debt relief, positive economic development in the country, and increasing proportion of the budget going to the health sector, the Ministry of Health is in a unique position to improve equity among provinces without having to decrease any provincial allocation. Similarly, MOH can provide a larger proportion of the budget to basic services without having to decrease the budget for the tertiary and quaternary level care.

Reducing inequality in financial access to care

Cost of services is another barrier preventing the poor from seeking care. Lack of money was the number one reason for the poor for not using services when they are ill. The user fee system has serious deficiencies. The official fees for health services are set relatively low in Mozambique, and the system does not generate substantial revenues. For example, a consultation fee is about US$0.09 in 1997. The user fee system began in 1977. During the 1980s, it was merely symbolic for cost recovery purposes. In 1996, it recovered 2.7 percent of the government's recurrent health spending. Nevertheless, the household survey data show that people pay for services, and costs become barrier to health care, particularly for the poor. One of the major issues is the illegal charge to patients, which became pervasive in the 1990s. These illegal charges are a multiple of the official fees, but because of their very nature, little systematic information exists about them.

When the user fee system was introduced, there was a sense of social justice, reflected by a long list of exemptions. The exemptions clearly indicated that those who could pay should do so while those who could not pay should not be penalized. The exemption list includes certain types of services, such as preventive care or STD care, and so on, and certain categories of people, such as children under five, the elderly, the poor, and so on. In the reality, the system is complex and rarely functions. There are no clear guidelines defining exemption categories or giving instructions on how to collect fees and how to use the funds collected. The categories that are difficult to define, such as the poor, do not get exempted. And even if the people get exempted from official fees, in order to actually get services, they have to pay unofficial charges. The objectives of the user fee system also evolved over time. The system was designed as a mechanism to generate revenue rather than as a measure to raise awareness of the value of health

services and encourage social justice and the better use of services. As one of the indictors under HIPC debt relief, the collection of user fees has to be increased to 10 percent of the government's recurrent expenditure (IMF, 1997). Fee collection in recent years has increased from US$0.7 million in 1996 to 1.7 million in 1998. At the same time the government's recurrent budget has increased significantly, so the fee collection target of 10 percent is difficult to achieve. So far, user fees contribute to about 5 percent of the government's recurrent budget.

The Expenditure Review (MSH 1999) analyzed the user fee system and concluded that the fee collection system is highly inefficient, abuses public resources, dissatisfies patients, and thwarts the achievements of public sector goals. It suggested that the government define the objectives of the user fee system, set up realistic targets for fee collection, simplify the fee structure, ensure the fees collected to be used as intended, improve financial management of the fee system, and regulate special services. So far, no systematic assessment of illegal charges has been published. The issue of illegal charges has to be addressed before considering any increase of fees to reach the revenue generation target. The system is clearly hurting the poor and increasing inequity. Given that the majority of population is poor, the user fee system will certainly not generate substantial amount of funds for the health sector nor improve equity. The country needs to explore other financing options that would promote equity and risk sharing.

To improve both physical and financial access to health care by the poor, the government will have to focus more on resource allocation, service delivery, and the user fee system. The strategies need not be limited to improvement of supply. They can also involve changing the demand for services and making them more affordable.

The strategies for improving supply and access do not necessarily require building more physical infrastructures. One of the proposed solutions to improving access is to move health services out of facilities and become more community-based. By giving local communities more say in the services, the health care workers will need to become more responsive to the actual needs of the people and to treat patients in a humane way. Illegal charges can only be controlled at the local level, where health workers become accountable to the communities they serve. Such a community-based approach fits well with the decentralization policy of the government. The health system needs to reach out to people, particularly to the poor.

The above analysis also suggests that targeting strategies need to focus on geographic targeting to help the poorer provinces catch up in terms of access and better use of resources. The health system needs to increase its inclusion of the population, particularly the poor population that is usually left out of the system. This can be done by investing more on facilities and human resources in underserved areas.

The equity index the health sector uses in Mozambique is a very useful instrument to compare the use of health services among population groups. Use of the index could be widened to measure inequities within provinces or districts, or between urban and rural populations. The current equity index already provides a focus on equity well beyond what health systems in many other countries have achieved, but the index still may hide many inequities because it is based on averages. Therefore it seems important to use the smallest possible unit of analysis, such as a district or even areas within a district.

Improving overall service delivery

Efficiency in the use of funds and in getting value for money are areas that need substantial improvement.

Increasing efficiency

Service outputs are increasing, but these increases have yet to translate into better health outcomes. Even though socioeconomic factors other than health sector factors contribute to the poor health, one may still question the quality and efficiency of health services. Very limited data exist to allow an adequate assessment of the efficiency of service provision in Mozambique. Under the expenditure review (MHS 1999), cost per service unit was used to measure efficiency in service provision. Significant variations in cost per service unit were found among provinces. Maputo City has the highest cost per service unit, where a relative oversupply of workers may contribute to the service costs. A wide range of inefficiency indicates poor quality. However, without control of quality of services and case mix, it is difficult to draw conclusions about efficiency from cost-per-service unit alone. A more comprehensive study on quality and efficiency was carried out in three provinces (Gaza, Niassa, and Zambezia) with analysis of various indicators for quality of antenatal care and outpatient consultation. The results also show the variations among facilities and among the three provinces. Some facilities definitely use resources better than others do. Higher expenditures do not necessarily result in better quality of services or overall sector performance.

Enhancing budget execution

The low ratio of actual expenditures versus allocated budget indicates poor resource management and limited absorptive capacity. Even when the sector is clearly under-funded, funds often remain unspent and have to be reprogrammed to the following year. Poor absorptive capacity only partly explains the problem. Complex financing procedures from the donor side and poor resource planning and management also contribute to under-use or inefficient use of resources. An effort has been made to address those issues through system development and program financing.

Finally, to improve accountability and prudent use of scarce resources, it is critical to increase involvement of the local population in the management of those resources. While the center provides guidance on standards and targeting, decentralizing resource management may increase efficiency and effectiveness.

BIBLIOGRAPHY

Cabral Z., 1999. A Study of Access to Basic Education and Health in Mozambique, Final Report: Community Level, Oxfam, Mozambique.

Christie F. and P. Ferrara, March 1999. "Health Expenditure Review in Mozambique: The Social Context," Management Sciences for Health.

Council of Ministers, 2001. "Health Sector Strategic Plan (2001-2005-2010)." Republic of Mozambique.

Gwatkin D. R., S. Rutstein, K. Johnson, R. Pande, and A. Wagstaff, 2000. "Socio-Economic Differences in Health, Nutrition, and Population in Mozambique." HNP / Poverty Thematic Group. The World Bank. Washington, D.C.

Instituto Nacional de Estatística and Macro International Inc., 1997. "Moçambique, Inquérito Demográfico e de Saúde."

International Monetary Fund and The International Development Association, 2000. "Decision Point Document for the Enhanced Heavily Indebted Poor Countries (HIPC) Initiative."

Mahon, J., and C. Schwabe, 2000. "Health Service Costs and Cost Recovery in Cuamba."

Management Sciences for Health, 1999. "Health Expenditure in Mozambique: An Analysis of Major Policy Issues."

Medical Care Development International. March 2000. "Health Service Costs and Cost Recovery in Cuamba District, Mozambique."

Ministry of Health, Government of Mozambique, 1993–99. Annual Reports.

Ministry of Planning and Finance, Government of Mozambique, Eduardo Mondlane University, and International Food Policy Research Institute, 1998. "Understanding Poverty and Well-Being in Mozambique: The First National Assessment (1996-97)."

Mozambique National Health Services, Ministry of Health, 1999 and 2000. "Informação Estatística Sumária."

Pavignani, E. and J. Durao, 1999. "Managing external resources in Mozambique: building new aid relationships on shifting sands?" Health Policy and Planning: 14(3): 243-253.

Republic of Mozambique, 1999. "National Report on Social Development, 1995-1998."

Republic of Mozambique, 2001. "Action Plan for the Reduction of Absolute Poverty (2001-2005)," 4th draft.

UNAIDS and World Health Organization, 2000a. Epidemiological Fact Sheets on HIV/AIDS and Sexually Transmitted Infections – Mozambique, Malawi, Zambia and Zimbabwe.

UNAIDS and World Health Organization, 2000b. AIDS Epidemic Update: December 2000.

UNDP, 1999. "Mozambique: Economic Growth and Human Development: Progress, Obstacles and Challenges." *National Human Development Report*.

UNDP, 2000. "Mozambique: National Human Development Report."

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