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15. THE CASE OF MOZAMBIQUE

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I INTRODUCTION

This paper focuses on two health-related issues which are particularly relevant to the experience of Mozambique: the inflow and outflow of skilled health personnel, and the changes expected in the pharmaceutical sector in the current process of controlled liberalization. Mozambique has a serious shortage of qualified health personnel and imports all its required medicines. External aid contributes partially to fill the gap in the case of medical professionals. In relation to medicines, however, external aid finances more than 90 per cent of total medicines imported. Together, foreign technical assistance and drug imports absorb almost half of total health sector expenditure and largely determine the amount of health care the government can provide to the population.

This paper presents a brief background on the country and its health sector, and then discusses the consequences of this extreme dependence on foreign aid, with regard to expatriate health personnel and import of drugs. The paper suggests that the benefits of globalization will not accrue to the health sector for many years to come and, in the meantime, it could create additional pressures on scarce health resources.

Mozambique

The shift from a socialist to a market-oriented economy occurred in Mozambique with the introduction of a structural adjustment programme in 1987. This fundamental change had been on the agenda for years and had become inescapable owing to the virtual collapse of the economy, the devastating war and the extreme dependence on external aid. Under pressure

from the Bretton Woods institutions, central planning was abandoned to embrace liberal principles. The currency was substantially devalued, privatization of state companies began and state expenditure was cut. These changes, which occurred during (and despite) the intensifying war, resulted in a decline in real terms of financing for the social (health and education) sectors. Six years after the end of the war, the national currency has been stabilized, reconstruction has boosted investment and inflation has declined dramatically. These factors, coupled with good harvests, have pushed GDP growth to annual figures oscillating around 5 per cent. Nevertheless, the country's dependence on foreign financing is high, and external aid still constitutes around 60 per cent of the State's recurrent budget. Recently, Mozambique has embarked on an ambitious privatization programme. Hundreds of state-owned enterprises, such as tea-plantations, gas fields and infrastructure for tourism and utilities are being sold to private companies or individual entrepreneurs. The market-based, open and deregulated economy is attracting new private investors which is expected to have beneficial effects on the economy.

The health sector

After independence in 1975, all existing health facilities were nationalized, and private practice was abolished. Primary health care was adopted as a central policy and the rural health network was expanded substantially. The training of health personnel was accelerated. A national drugs' policy was gradually introduced[1]. Health expenditure increased significantly. For a short time, developments were promising and the health sector was internationally regarded as a model, attracting considerable support.

By the mid 1980s, however, the prolonged war and the economic crisis were threatening the survival of the national health service (NHS)[2]. Health expenditure had fallen dramatically. The security situation in rural areas worsened as health facilities and personnel were consistently targeted by guerrillas. The supply of drugs was disrupted. Accessibility to health services in rural areas was extremely reduced. Natural disasters compounded the crisis; emergency interventions increased with ever greater support from relief-oriented agencies and non-governmental organizations. The health sector fragmented along vertical lines as projects and programmes proliferated.

In 1991-1992, the Ministry of Health undertook a comprehensive policy review to prepare for the post-war transition, with the main focus being long-

[1] C. Barker C. The Mozambique pharmaceutical policy. *Lancet*, 1 October 1983, pp. 780-782.

[2] J. Cliff, N. Kanji and M. Muller, Mozambique Health Holding the Line. *Review of African Political Economy*, No. 36, 1986. pp. 7-23.

term sustainability[3]. The review focused on the rehabilitation of the health network and on human resources development. Private practice was reintroduced.

After the peace agreement in 1992, the health service expansion started again and more than 400 facilities have been constructed or rehabilitated. Skilled health workers have been redeployed to remote areas as training and upgrading capacity was strengthened. Coverage of basic health services has gradually increased. Service output expanded by 20 per cent during the period 1993-1996.

External aid contributes about 50 per cent of total recurrent expenditure in the health sector and more than 90 per cent of capital expenditure. External financing is declining in proportional terms, down from about 80 per cent of recurrent expenditure between 1988 and 1992. The state budget is increasing in real terms (+20 per cent, from 1989 to 1996). Cost-recovery is still negligible, outside large hospitals. The annual expenditure of the whole health sector has stabilized at about US$ 100 million per year which represents little more than US$ 6 per head, one of the lowest values in the world.

II THE TRADE OF HEALTH WORKERS IN MOZAMBIQUE

Following independence, Mozambique lost most of its skilled health personnel, largely constituted by Portuguese settlers. The immediate, acute shortage was partially relieved by the influx of skilled health workers, mainly from socialist countries. Several western volunteers, moved by ideological or anti-apartheid motivations, complemented the foreign workforce. Meanwhile, the Ministry of Health launched an intensive programme for the accelerated training of health personnel, with the creation of new categories oriented towards primary health care.

The direction of flow has not changed over time: currently, about 300 foreign doctors work within the NHS while fewer than 20 Mozambican doctors work abroad.

Mozambique: health personnel

	Mozambican	Expatriate	**Total**
Specialists	156	231	**387**
Nonspecialists	200	64	**264**
Total	**356**	**295**	**651**

[3] A. R. Noormahomed, M. Segall, *The Public Health Sector in Mozambique: A post-war strategy for rehabilitation and sustained development*. Geneva, World Health Organization, 1993.

Source: Ministry of Health, 1998

The total number of national doctors now stands at about 400, about 50 of whom work outside the public sector. The present situation compares favourably with that prevailing in the past. In 1980, the NHS employed only about 300 doctors. Expatriates made up more than half the total, including the vast majority of specialists. The ratio of physicians per 1000 head of population has improved from 0.02 in 1980 to 0.04 in 1997, but it remains far from the average of 0.1 per 1000 in sub-Saharan Africa[4]. Thus, although the number of foreign doctors has increased since 1980, the ratio of national to foreign medical practitioners has improved significantly. In addition, deployment and staffing patterns have significantly improved. In 1990, on average only half of existing rural hospitals were staffed by a doctor. By 1997, the average number of doctors per rural hospital was about two.

There are many reasons behind the inflow/outflow imbalance. National doctors, particularly specialists, are absolutely inadequate in number to cover a relatively large hospital network, inherited from colonial times. The situation is made worse by their uneven distribution: around 46 per cent of national doctors and 79 per cent of national postgraduate doctors are working in Maputo City, where lucrative opportunities exist in the private, as well as the public sector. Most doctors complement their earnings from the NHS with part-time activities in the private sector or with "special" (i.e., paid) clinics in the public sector. The modalities of external aid compound the picture, as many posts for expatriates are tied as preconditions to projects. Additionally, expatriate professionals rarely face professional hurdles to practising inside the country, as almost every sort of medical qualification is accepted.

In relation to outflow, the migration of Mozambican doctors is hampered by the demanding requirements for obtaining a licence to practise medicine in many countries. Language constitutes a further barrier. Mozambique is surrounded by English-speaking countries, limiting immediate opportunities, and there are signs of saturation in other Portuguese-speaking countries further afield.

More than this, however, there are strong incentives for doctors to remain in Mozambique. Whereas in many southern African countries, medical professionals feel isolated and undervalued as well as underpaid, in Mozambique doctors are granted considerable social status and professional respect. They find opportunities beyond the health sector and are able to pursue careers in government, management and politics with the promise of financial compensation in the future.

This situation may alter in the future through pressure from medical professionals eager to hold internationally recognized qualifications. Already, there is growing interest in improving medical training in Mozambique to levels comparable with those of neighbouring countries. The costs of such a move

[4] World Bank, Sector strategy. Health, nutrition and population. Washington D.C., 1997.

would be significant, and the prime beneficiaries would be graduate doctors seeking employment opportunities outside the country, which would deplete the pool of national doctors in Mozambique and work directly against the national health policy. Furthermore, a more demanding curriculum at the medical school could reduce its already small output. For the present, this debate has not led to significant changes in the medical school, mainly because of a lack of resources.

Until now, the public sector has maintained a policy of employing all health cadres. This choice was justified by limited training capacity and by the small size of the health sector workforce which, in 1996, numbered only 10,000 health professionals. Training facilities, run by the Ministry of Health under centrally planned human resources programmes, are expected to produce only the number of health professionals considered employable by the national health service.

Some cooperation agencies have recently started employing national professionals: they are readily available, familiar with the country and, sometimes, cheaper than international staff. Whereas this policy has met with warm support from national cadres, its effects on the health sector are problematic. Immediate financial gains are putting pressure on qualified professionals to leave their posts within the NHS in order to take up management or consultant positions. The substantial investment in their training (often carried out abroad) is therefore producing dubious returns. Furthermore, their new tasks are frequently unrelated to their core expertise.

The immediate consequence of the imbalances caused by a shortage of national doctors is the huge cost of foreign technical assistance. The relatively high number of expatriate doctors is almost totally covered by external financing which absorbs as much as 10 per cent to 15 per cent of the total sector expenditure, excluding the overhead costs such as taxation and administration often associated with expatriate posts.

In the past, the foreign workforce was recruited through an array of different schemes, depending on the financing agency and the cooperation agreement. This situation resulted in a disparate salary range linked to the hiring agency rather than to the job actually carried out, erratic deployment, supply-oriented staffing, and doubtful loyalty to the NHS. In order to overcome these constraints, a unified approach has recently been introduced where donor funds are pooled to finance the recruitment of specialized doctors. The posts are tendered, and the range of salaries has been compressed into standard scales according to objective criteria. Many of the specialists applying for these posts are citizens of countries born of the break-up of the Soviet Union. Many came to Mozambique during the 1980s within the framework of bilateral agreements and have stayed on. National doctors may also qualify for an NHS post funded by the pooling agreement as long as they have been working in Mozambique for three years, but outside the NHS. Those returning to the NHS after several years' work on donor contracts could cost the health service much more than they otherwise would as nationally recruited personnel.

Thus Mozambique represents an extreme case of donor dependence which, in the medium-term, cannot be reversed. On the contrary, the expansion

and upgrading of the health network will require more trained health personnel and this need is likely to be met only through international contracts.

Gradually, a larger number of national qualified cadres are entering the labour market. Whereas their total number is still low (about 500 university-level health professionals), it is expected that within a few years, internal financial constraints will limit their employment in the public sector. The training of health cadres has, until now, been the exclusive responsibility of the public sector. New university-level private institutions are being created and some of these are contemplating health-related training. This will further increase the supply side of the market, but its net effect is not easily foreseeable. Besides this, the profit-making private sector is very limited in strength and coverage and will not create many jobs in the short term. Furthermore, the changes under way in external assistance will limit the number of jobs offered to expatriates and national health workers. Many international agencies which ran large operations during the emergency period are now downsizing or closing down their interventions. The effects of all these changes may be that there are more qualified personnel than posts. Many of these individuals will be expatriate doctors who have lived here for years. Others will be national doctors released by international organizations due to downscaling of country programmes. Competition between local and expatriate doctors may then increase.

The decentralization of state administration will certainly affect the health sector, conditioning the workforce and its market. A possible scenario is the fragmentation of the health services, with large portions of service delivery handled over to local authorities, charities, churches and nongovernmental organizations. This new setting would almost certainly reduce the planning capacity of the Ministry of Health. The relatively rational deployment of health personnel, now possible within a single unified system, would be undermined. The demand for skilled workers would increase.

According to recent projections of the Ministry, the needs for specialist doctors will double in the next ten years, to accompany the expansion and upgrading of the health network. The Ministry's plan to accelerate postgraduate training of national doctors is unlikely, in such a short period, to meet these needs. A further, if limited, increase of expatriate specialists is therefore expected. Within a few years, delivery of primary health care should become the sole responsibility of national cadres, whereas senior foreign specialists will still be required to staff large hospitals and to fill high-level public health positions.

III THE PHARMACEUTICAL SECTOR

With regard to drugs, the picture is more complex. The market for drugs offers big business opportunities to pharmaceutical companies, but has many imperfections. The research and promotion costs are huge, and competition has led multinational pharmaceutical companies through a process of merging and concentration.

Developing countries consume an estimated 25 per cent of world drug production[5]. In spite of the limited market, developing countries are subject to the powerful marketing practices of multinational companies. The criteria of safety, tolerability, efficacy, ease of use and cost, usually utilized for defining the value of a drug, do not always coincide with the economic interests of the pharmaceutical companies. In developing countries, where the possibility of suing a multinational company is remote, ineffective, needlessly expensive, inappropriate or even harmful products are on sale. As a result, the consumer buys and utilizes the drug, prescribed by a health professional, but is not entitled to choose it, nor is he or she usually in a position to make a well-informed choice. This is particularly true in developing countries, where information on drugs available to patients is poor or nonexistent, and the quality of drug advertising is unreliable . There is a need, therefore, for greater regulation in order to protect the consumer from potential abuses and risks.

Because of the existing procedures and regulations, the health sector in Mozambique is still relatively protected from the negative effects of sales promotion. For the majority of health workers, for instance, the sole source of information is the widely known therapeutic guidelines of the Ministry of Health. The sales representative is still relatively uncommon, limited to a few high-level facilities or private practices. This relative protection however, is waning. Particularly in Maputo, doctors are increasingly prescribing drugs that are not included in the national formulary, using brand names or ignoring the existing therapeutic guidelines. The Ministry's capacity to control these practices is clearly limited. Beyond the negative effects on patients' health, the economic implications are worrying: more expensive and unnecessary drugs are consumed. As the internal cost of most drugs is only a fraction of the market cost, out-of-pocket contributions by patients only partly cover the drug cost. Furthermore, as drug imports are limited *de facto* to available donor support, expanding consumption of expensive and unnecessary drugs will ultimately jeopardize the import of low-cost essential drugs.

In the early years after independence, Mozambique adopted an original and successful pharmaceutical policy. The key elements of the initial accomplishment were the introduction of a national formulary (including about 400 essential drugs); the mandatory use of generic names;
regulation with regard to level of prescription (the drugs were listed according to the level of health personnel entitled to administer them); and savings in the procurement of drugs achieved through international tendering managed by the state company MEDIMOC (which has so far enjoyed monopoly status).

In the 1980s, however, many shortcomings surfaced in the procurement and supply system, leading to chronic shortages and stock deficiencies. The main reasons for the poor performance of the pharmaceutical sector were the severe contraction of internal financing, which resulted in extreme dependence on external aid (more than 90 per cent) for the procurement of drugs;

[5] N. Kanji, *Drugs policy in developing countries.* London, Zed Books, 1992.

exacerbation of the situation by the conditionalities attached to external aid and by the complex coordination arrangements required; the size and shape of the country with its poor road, communication and transport networks; the disruption of the distribution chain during the war; management weaknesses mainly due to the huge shortage of skilled personnel; and the fragmentation produced by "vertical" health programmes, which imported and distributed their own drugs.

Mozambique imports US$ 25 million to 30 million worth of drugs yearly; this represents less than US$2.00 per capita. However, the efficiency of the present procurement system, based on international tendering for large amounts of generic drugs, has resulted in better than expected availability of drugs. In addition, the reduced number of qualified prescribers minimizes the consumption of expensive drugs. To rationalize the situation, some donors have pooled their contributions in a common arrangement, managed by the Ministry of Health, which finances the purchase of large amounts of drugs. It has been very difficult to put the new scheme in place, but initial results are promising. Meanwhile, special imports linked to vertical programmes are gradually incorporated into the mainstream purchasing and distribution mechanism.

The Essential Drugs Programme, introduced in 1986, has proved effective in ensuring supply to primary health care facilities and rationalizing prescription. Standardized kits are supplied to health centres and posts, according to anticipated out-patient load and the training level of the prescribers. The controlled supply of adequate amounts of drugs limits the most frequent prescribing distortions; in fact, field surveys have shown prescription patterns which compare favourably with other countries.

In order to address the main weaknesses of the subsector, the Ministry of Health has recently developed a new strategy. A new bill, recently approved by Parliament, aims to consolidate the positive aspects of the national policy and support adjustments envisaged in the new strategic plan. Although the bill allows for the controlled liberalization of drug imports, the Ministry will continue to be responsible for the supply of drugs to the NHS. The production of pharmaceutical products will be permitted, as well as private ownership of pharmacies under the technical responsibility of a pharmaceutical professional. Lastly, the bill mandates the establishment of a drug board, reporting to the Minister of Health, with regulatory, quality control and inspection functions.

The new legislation aims to accommodate the changes determined by economic reform and the re-introduction of private medicine through controlled liberalization of drug imports and sales. It is expected, however, that it will result in increased drug costs because of the registration expenses incurred by the private import firms. On the other hand, external funding for drugs is unlikely to grow substantially, making the net outcome a decrease in drugs imports. More efficient donor coordination is therefore mandatory. The pooling mechanism for drug purchase and importation, recently adopted by some donors, as well as an improvement in the current cost-recovery system might, albeit partially, counterbalance the prospect of reduced drug availability.

As with the movement of medical professionals, liberalization of drug importation and sales in Mozambique may have at least short-term detrimental effects on the capacity of the country to deliver quality health services to its population. Despite the attractiveness of open economic policies in some sectors of the country, in health the damage may outweigh the benefits, particularly for those with little ability to pay more for publicly provided health care.

IV CONCLUSIONS

In focusing on its two most expensive resources, doctors and drugs, this brief review has highlighted some of the effects that the complex changes under way in Mozambique might exert on a weak health sector.

It will be some years before the internal supply of doctors approaches affordable demand, significantly reducing the present imbalance with foreign technical assistance. Only robust and sustained economic growth will enable substantial internally financed health service expansion, allowing Mozambique to continue importing professionals at its present level. The expected increased supply of qualified health workers could then be absorbed by the expanding services but would leave the present gap untouched. Without growth, unemployment among doctors (both local and expatriate) might become a new, unexpected and unpleasant reality for Mozambique. On the other hand, pressure to improve qualifications to international standards may create a reverse flow of national doctors, initiating a brain drain that has so far, and quite unusually, been avoided.

With regard to the pharmaceutical sector, controlled liberalization will bring some competition into the country. However, since private medicine is expanding at a slow pace and is limited to urban areas, and absolute poverty is still common, no proliferation of pharmaceutical products can reasonably be expected. For the few new drugs introduced on the market, more information regarding their utilization and side effects will be required for prescribers and patients. However, the danger is that these medicines will consume an unreasonable share of available resources. Only clear improvements in donor co-ordination, the reduction of tied purchasing, and the strengthening of the present cost-recovery system, coupled with more efficient internal distribution and waste-reduction activities can limit the expected decline in drug availability.

For the Mozambican health sector, globalization and increasing international trade is not a uniformly attractive prospect. While greater economic activity increases health risks and the burden of occupational disease, trade in health commodities can increase pressure on government policies aimed at achieving equity and efficiency in the delivery of essential health services to all Mozambicans. Although the health system may eventually benefit from economic growth resulting from globalization, the short-term benefits are likely to be enjoyed by individual doctors, private pharmacists and drug companies. Those who stand to lose - at least in the immediate future - are the poor majority of the population.