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Scaling-up access to antiretroviral treatment in Southern Africa: Who will do the job?

Authors: Katharina Kober (MA, MSc) and Wim Van Damme (MD, PhD),

Institution: Institute of Tropical Medicine, Department of Public Health, Antwerp, Belgium

Address for correspondence (also for requests for reprints):

Wim Van Damme

Department of Public Health

Institute of Tropical Medicine

Nationalestraat 155

2000 Antwerp, Belgium

Email: wvdamme@itg.be

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Abstract

Malawi, Mozambique, Swaziland and South Africa belong to the countries with the highest HIV/AIDS burden in the world. All four countries have ambitious plans for scaling-up antiretroviral treatment for the millions of HIV positive people in the region. In January 2004, the authors visited these countries with the intention to observe directly the impact of AIDS, especially on the health systems, to talk with policy makers and field workers about their concerns and perspectives regarding the epidemic, and to investigate the main issues related to scaling-up antiretroviral treatment. We found that financial resources are not regarded as the main immediate constraint anymore, but that the lack of human resources for health is deplored as the single most serious obstacle for implementing the national treatment plans. Yet, none of the countries has developed an urgently required comprehensive human resource strategy. This may also need increased donor attention and resources.

Keywords

HIV, AIDS, human resources, health workers, Southern Africa, antiretroviral treatment, Sub-Saharan Africa, donors

Introduction

Approaching Malawi's capital Lilongwe on the road from Blantyre, its second main city, the traffic is getting denser. Small shops line the road, little wooden shacks with signposts advertising their business. Small groups of people stroll from one shop to the next – a scene familiar to anyone who has ever travelled through the African countryside? What makes this scene gruesomely special is that almost all of the shops deal exclusively in the production and sale of coffins (figure 1). We get out of the car to visit some of the small workshops and talk with their owners who say that “there is a lot of dying these days - business is going well”. Grieving families are walking from shop to shop, warily comparing prices. Still, the price of a coffin is often only a small part of the total cost of a funeral, and funerals there are many these days. Malawi, as the rest of Southern Africa, is ravaged by AIDS.

Figure 1: **One of the many coffin workshops near Lilongwe, Malawi**

Background

Travelling through Malawi, Mozambique, Swaziland and South Africa, we can see that AIDS is a visible concern in all four countries. Mass prevention campaigns have left their marks wherever we go, from billboards at roadsides, over condom promotion posters in all public health facilities to mural paintings in the inner cities (figure 2). The effect of these campaigns, however, is difficult to evaluate and reducing the infection rates remains a major challenge.¹

Figure 2: **Mural painting about AIDS in Mozambique**

The adult HIV prevalence in the four countries is among the highest in the world, ranging from an aggregate fourteen percent in Mozambique, over fifteen percent in Malawi, twenty percent in South Africa to a staggering thirty-eight percent in Swaziland.² In 2003, an estimated eight million people were living with HIV/AIDS in the four countries (Table 1). The numbers are overwhelming, yet they can only describe the quantitative dimension of the epidemic, the reality behind the figures is one of individual human suffering and whole societies torn apart by AIDS.

Table 1: **HIV prevalence and the need for ART in South Africa, Malawi, Mozambique and Swaziland**

	South Africa	Malawi	Mozambique	Swaziland
Total population*	43,600,000	11,200,000	18,000,000	1,029,000
Mean adult HIV sero-prevalence†	25%	15%	14%	38%
Total number of HIV+ people	5,300,000‡	900,000§	1,400,000§	200,000§
Estimated number of people in need of ART	400,000§	170,000§	270,000§	20,000§

ART=antiretroviral treatment. *WHO 2003; †UNAIDS, AIDS epidemic update 2003; ‡South African Department of Health, HIV Sero-Sentinel Survey 2002; §National HIV/AIDS treatment plans of Malawi, Mozambique, Swaziland and South Africa. None of the plans provides detailed explanations regarding the calculation of these figures.

While part of the epidemic's impact is already visible, the long-term impacts will be slower to show. Christine Kamwendo, the director of the Malawian Social Action Fund, which is funding NGOs and grassroots organisations to empower local communities, describes AIDS as a disaster affecting the

entire society: “Funerals are for days interrupting all productive activities in the villages. The social fabric of communities and families is being overstretched by the number of AIDS orphans, it is very serious.” In Swaziland, child-headed households are proliferating and in 2003 the country was reckoned to have 60,000 orphans in a population of just over one million. Derek Von Wissel, the director of the National Emergency Response Council for HIV/AIDS, expects this figure to double by 2010, when an almost unimaginable ten to fifteen per cent of the population will consist of orphaned children. How to deal with this impact is a daunting challenge for society. Increasing illness and death due to AIDS is also feared to have a devastating impact on agricultural production in Southern Africa, where a majority of the population is relying on subsistence farming. Already, food consumption is being reduced in many places and nutritious crops are being replaced by less labour intensive, starchy root crops. It is feared that falling supplies and shifts to lower quality foods may lead to chronic food insecurity and higher levels of malnutrition.³

Financing the response to HIV/AIDS

In recent years, the global response to AIDS has entered a new phase. The *Global Fund to Fight AIDS, malaria and TB* started to operate in January 2002 and has by April 2004 disbursed almost US\$ 150 million for HIV/AIDS.⁴ The World Bank is committing large amounts of funds through its *Multi-Country HIV/AIDS Programme for Africa* (MAP) and private foundations, such as the *Bill and Melinda Gates Foundation*, and the *Clinton Foundation* are contributing to the increased funding for HIV/AIDS. The United States *President’s Emergency Plan for AIDS Relief* (PEPFAR) from January 2003 intends to spend US\$ 15 billion for the fight against AIDS over five years. Several of the other major donor countries have committed substantial amounts of funds globally and, above all, in the countries with the highest HIV/AIDS burden in Southern Africa.

With the financial resources for HIV/AIDS thus increased and the prices of antiretroviral drugs recently dropped to US\$ 140 per patient per year, the debate about the cost-effectiveness of antiretroviral treatment versus prevention has subsided.^{5,6-8} Today it is widely acknowledged that a comprehensive response to HIV/AIDS is required in which access to antiretroviral treatment is to be dealt with as a global health emergency. In December 2003, WHO launched its ‘3 by 5’ Initiative, aiming at having 3 million people on antiretroviral treatment by the end of 2005.⁹ While South Africa plans to rely mainly on its own resources for the nationwide scaling-up of antiretroviral treatment, for Swaziland and particularly for Malawi and Mozambique the increased donor commitments have for the first time financially put within reach the treatment of large numbers of HIV positive people with antiretroviral drugs. Spurred on by the prospect of sufficient financial resources, the governments of all four countries have prepared large-scale AIDS treatment plans in line with the WHO ‘3 by 5’ Initiative. Yet, there is a huge gap between the numbers of people who are currently receiving antiretroviral treatment and those aimed at in the national plans. Within less than two years, a more than fifty-fold increase is planned in South Africa, with seven-fold and twenty-fold increases in Swaziland and Malawi, respectively (table 2). These national treatment plans would appear ambitious for most of the world’s health systems, yet they are to be realised in countries whose health systems are already suffering from severe constraints. However, all policy makers we interviewed in the four countries no longer regard financial resources as the main obstacle for scaling-up antiretroviral treatment in the short term. Instead, they see the lack of health workers as the single biggest constraint. Tackling the issue of human resources for health is of paramount importance not only for achieving the ‘3 by 5’ goal but also for the survival of these countries’ health systems in times of AIDS.

Table 2: Population on antiretroviral treatment by the end of 2003 and national plans for scaling-up ART

	South Africa	Malawi	Mozambique	Swaziland
People on ART in the public and NGO sector in 2003 (estimates)	< 3500*	< 4000†	< 2000‡	Ca. 1.500§
People on ART plans for 2004/05	190,000¶ (April 05)	80,000 (end 05)¶	4000 (end 04)¶	10,000 (end 05)¶
People on ART plans for 2008/09	1,400,000¶ (April 09)	n/a	130,000¶ (end 08)	n/a

ART=antiretroviral treatment. * Treatment Action Campaign, Newsletter from 16 March 2004; †Malawi Ministry of Health and Population; ‡calculated from figures provided by Médecins Sans Frontières, and Sant’ Egidio; §Swaziland Ministry of Health and Social Welfare; ¶National HIV/AIDS treatment plans of Malawi, Mozambique, Swaziland and South Africa.

The human resource reality

About thirty minutes drive south of Blantyre we arrive at the rural district hospital of Thyolo. We are welcomed by Roger Teck, the head of a *Médecins Sans Frontières* (MSF) mission that is running an HIV/AIDS project in the district. On our visit the hospital is overcrowded with patients, lying both in beds and on the floor (figure 3). MSF reckons that in Thyolo district around 50,000 people are HIV positive and currently around 8,000 people are in need of antiretroviral treatment; less than 400 are receiving it. The Malawian staff is eager to show us their hospital, we must see the reality: “The situation is very difficult, we have so many patients, but we are so few to do all the work, it is very exhausting.” AIDS has enormously increased the need and demand for care, and over eighty percent of admissions to the medical ward are for HIV/AIDS related conditions. Not only the hospital care for AIDS patients is overburdening the understaffed facilities, but also the antiretroviral treatment projects we visit are very labour-intensive. Pre- and post-test counselling, appointments with a medical doctor for every patient requiring antiretroviral treatment and regular individual follow-up appointments with nurses involve a high number of qualified staff working to the limits of their capacity. Staff shortages are dramatic in most public sector facilities of all four countries. In Thyolo, MSF reckons that sixty per cent of posts in the district’s public health facilities are vacant. In South Africa, we are told that 29,000 positions in the public health sector are currently unfilled while the national AIDS treatment plan speaks of creating 12,000 new posts.¹⁰ The doctor : population ratio in Mozambique is given at 1 : 30,000, and in Malawi the Ministry of Health and Population gives a figure of 1 : 100,000.¹¹ In 1998 the WHO estimated the number of doctors in Swaziland at 15 per 100,000 population.¹²

Figure 3: An overcrowded medical ward in Thyolo hospital, Malawi

The human reality behind these numbers are health workers caught in a vicious circle, in which they themselves are victims of the epidemic in a number of ways. Five- to six-fold increases in health worker illness and death rates have been reported for Malawi, and the number of deaths among nurses represents forty percent of the average annual output of nurses from training.¹³ Yet, even health workers often do not seek care, and MSF staff from project sites in several countries shared their experiences of health workers who would rather die than disclose their HIV status to a colleague. As a consequence of this high attrition, a decreasing number of staff

has to cope with ever higher work loads, and the remaining health workers' fear of infection with HIV in unsafe care situations contributes to the growing emotional and physical stress and job dissatisfaction.

In such a situation, it is not surprising that many health workers decide to leave their countries of origin. Anton, our young black taxi driver from a township near Cape Town, confides "next week my wife, who is a nurse, will leave South Africa and go to work in England. This is better than staying here, for here nursing is not only an exhausting but also a dangerous job, there is much violence in the hospitals and you are always working in fear of catching AIDS". South African statistics report that over 82,000 health workers left the country between 1989 and 1997. Thirty-one percent of the National Health Service workforce in the United Kingdom are from overseas, and around six percent are of South African origin.¹⁴

As a result of the international brain drain, South Africa itself has to recruit health workers from elsewhere. A recent study has shown that only one quarter of rural doctors were South African nationals with most of the remainder coming from other African countries, such as Zambia, Zimbabwe and Congo.¹³

Yet, the brain drain is not only an international phenomenon, but the country-level human resource indicators conceal the internal mobility of health workers. Medical personnel are moving from public to private sectors, rural to urban areas and primary to tertiary facilities within countries. In South Africa the doctor : population ratio in the Western Cape is four times higher than in some of the rural provinces. In 1999, seventy-three percent of general practitioners were estimated to be working in the private sector, despite the fact that this sector catered for less than twenty percent of the population.¹⁵

Tackling the human resource crisis

In Thyolo, where only forty percent of posts in the public health sector are filled, MSF has recruited extra staff, thus adding another twenty percent to the health workforce. Still, this number is not sufficient to cope with the normal workload, let alone with the extra HIV/AIDS-related burden. MSF acknowledges that "we can only do this because we are a pilot project, for scaling-up antiretroviral treatment, solutions for the human resource crisis must be found at the national level". The recruitment logic of pilot projects reaches its limits when applied to scaling-up treatment, which requires different measures to overcome the human resource bottleneck. The pilot projects have provided very valuable lessons, such as having shown that treating HIV positive people with antiretroviral drugs in resource-limited settings is feasible, and that adherence to treatment is no worse, or even better, than in the countries in the North. Furthermore, in Thyolo which does not have one Malawian doctor for a population of 490,000, we could admire the quality of an antiretroviral treatment programme managed largely by very professional nurses and clinical officers. Still, the overall shortage of health workers in all categories of the public health systems means that even if national programmes rely mainly on paramedical staff, they will just lack the people for scaling-up antiretroviral treatment.

In our interviews with national policy makers, human resources always surfaced as a major concern, and we learned of many ideas and initiatives how to tackle this most important bottleneck. Thus, in Mozambique the Ministry of Health is planning to increase substantially the output of medical schools and training institutions for paramedical staff. But, as Avertino Barreto, the Deputy Director of Health in Maputo points out, "this is a long-term measure and in the short term we will have to resort to intermediate solutions such as importing medical doctors from Cuba". In Malawi, where most nursing schools are running well below capacity and many missionary nursing schools have completely closed, measures have been taken to raise the standards of secondary schools in order to produce more entrants for medical and nursing programmes. A previous decision to upgrade nursing training was revoked because it had proved to lead to a lower intake of students.¹³ It is also being considered to reactivate and provide short-course training for former community health workers.

In South Africa, many call for a change of the type and orientation of training in order to increase its relevance to health needs in the country instead of focussing primarily on European style

tertiary hospital skills. Lilian Dudley, from the Health Systems Trust in South Africa, tells us that “in South Africa the medical students are still predominantly urban whites and enrolment fees may be one of the barriers for black people from poorer rural backgrounds”. Recently, the minister of health has announced a new training programme for medical assistants, expected to enrol more than a hundred students from rural districts when it is piloted next year. In order to make better use of the skills mix of existing staff, South Africa’s plan for scaling-up antiretroviral treatment relies mainly on nurses instead of doctors. Von Wissel in Swaziland, says that “with this epidemic we have to keep our minds open for new ideas and keep looking for innovative ways of dealing with it”. One such way is the Swazi strategy of including both public and private health sector medical doctors in the national AIDS plan. In all four countries people tell us not only about measures to increase the production of health workers but also about retention measures to keep them in rural areas, in the public sector or in the country. In Mozambique and South Africa, for example, medical graduates are obliged to do some time of community service before being allowed to register in an urban centre. The South African government is experimenting with a variety of incentives schemes, distance learning possibilities and support for spouses and families in rural areas. Private healthcare organisations, too, are losing staff to abroad and some have designed programmes and incentives for their nursing workforce such as performance-based pay and long service rewards.¹⁶ Yet, international brain drain is a problem that cannot be tackled with retention measures alone, and in June 2001, the health ministers of the *Southern African Development Community* (SADC) issued a statement urging the industrialised countries to refrain from active recruitment of staff in developing countries.¹⁷ However, Eric Goemaere, the MSF head of mission in South Africa voices his frustration that “despite the UK’s Code of Conduct on International Recruitment private agencies continue to recruit viciously throughout South Africa”.

Present measures are falling short

Will what is being done and what is being proposed to tackle the human resource crisis be sufficient to turn the tide? Our observations in the health facilities and our interviews with people from all levels of the health systems in the four countries make us doubt this. We did not come across a truly comprehensive national human resource strategy, even though the lack of health workers is acknowledged everywhere as the most seriously lacking resource for realising the national AIDS plans.

Increasing the production of health workers is very important. Still, more innovative thinking may be required in order to produce staff in a short time, yet with a long-term commitment and as resistant as possible to the brain drain. The production of new professional cadres will require further deliberation. While the mobilisation of former community health workers warrants caution based on previous poor experiences,¹⁸ the production of less highly trained nurses or clinical officers could be worth further exploration. Particularly since many clinical officers are already used to taking the responsibility of doctors in rural environments where there has never been any medical doctor. Yet, as has been seen in Uganda and Zimbabwe, creating lower trained professional cadres may meet with resistance from professional associations who regard this as a threat to their professionalism and international competitiveness.¹⁹

Pilot projects, such as in Thyolo, show to what extent antiretroviral programmes can be entrusted to clinical officers and nurses. Additional ways of optimising the use of staff in the currently very labour intensive antiretroviral treatment programmes would be worth investigating. How could less qualified staff be usefully employed to free doctors’ time? One path to be explored could be to tap the pool of literate and educated HIV-positive people, such as teachers, who are already receiving antiretroviral treatment. With their personal experience, they could possibly be employed on many more levels of an HIV/AIDS programme than is currently the case. Their official recognition and employment could additionally have a beneficial effect on the widespread stigma of HIV-positive people.

A focus on health workers would further need to acknowledge that, to be able to care for AIDS patients, they themselves must be protected from AIDS. Targeted provision of antiretroviral treatment to health workers may be problematic from an equity point of view, yet might be

unavoidable if the ambitious national scaling-up plans are to be realised. Improvements of pay and conditions of service, allowing for flexible work schemes for HIV infected staff, may help to keep more health workers in the job.

Last but not least, improving the conditions for health workers requires a review of donor strategies. All donors should recognise the human resource crisis and accept that a large share of the budget is dedicated to it. Donors should rethink their traditional focus on in-service staff training towards investment in initial training and the improvement of human resource systems. The Global Fund budget's flexibility and many donors' move towards sector wide approaches and budget support could widen the scope for addressing major systemic issues and providing salary support. Yet, in many countries, fiscal constraints currently limit such strategies, often influenced by the public sector reforms advocated by the World Bank and the International Monetary Fund. One has to question the justification of strict public sector spending ceilings in countries hard-hit by AIDS. Their revision could enable governments to invest on a larger scale in human resources for health and make full use of the additional grants from initiatives like the Global Fund.²⁰

In hospitals in South Africa, Malawi, Mozambique and Swaziland, we have met and talked with health workers, exhausted from their daily confrontation with the suffering and death from AIDS. It is for these remaining carers and their millions of patients that the international donor community must find solutions for the human resource crisis rather today than tomorrow.

In the words of Peter Piot, executive director of UNAIDS, "we must rewrite the rules (...) not simply do *more*, or do it *better*. I now believe we have to act *differently* as well. An exceptional threat demands exceptional actions"²¹

Conflict of interest statement

No conflicts of interest

Authors' contributions

Katharina Kober and Wim Van Damme travelled together to Malawi, Mozambique, Swaziland and South Africa. All interviews and site visits were jointly conducted. Katharina Kober wrote the reportage. Wim Van Damme reviewed the various draft stages of the reportage. Both are responsible for the final editing.

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