HELP WANTED

Confronting the health care worker crisis to expand access to HIV/AIDS treatment:

MSF experience in southern Africa







Médecins Sans Frontières

Orion Building 3rd Floor 49 Jorissen Street Braamfontein 2017 South Africa office@joburg.msf.org

Médecins Sans Frontières

rue Dupré 94 1090 Brussels Belgium aau@brussels.msf.org

www.msf.org

Published Johannesburg, May 2007.

Cover photo: Julie Rémy

Design/artwork: Twenty³ Crows Ltd

Graphs by CoDe, Jenny 8 del Corte Hirschfeld

CONTENTS

	Page
1. Introduction	2
2. Country profiles: treatment access and human resource	4
constraints	
Malawi: despite new types of health workers, demand still outstrips supply	4
Mozambique: plans to train more staff, but few immediate solutions	6
South Africa: unequal distribution of health workers	8
Lesotho: nurse-based treatmentbut not enough nurses	10
3. Coping with health worker shortages: lessons and limits	12
Hiring supplemental staff	12
Task-shifting: increasing capacity while maintaining quality	13
Creating new capacity	14
4. Retaining health workers: the basics	16
Increasing salaries and benefits	16
Better working and living conditions	16
Other retention measures	16
5. Patients without providers: emergency response needed	19
References	20



Lusikisiki, South Africa

1 Introduction

"I have been working as a nurse since 1971 and in my opinion what we are seeing now is a chronic emergency. There are too many patients for too few nurses and the pressure is too much. So the nurses are leaving for greener pastures. They go where they can find better conditions. I have worked in numerous hospitals and they are all suffering. Look at this ward here, look at all these patients! Tonight there will be one nurse to look after them all. What kind of nursing is this? How can we give patients the care they need? If you want to solve the problem you need to increase salaries. You need more nurses. And you need more appropriate training and incentives. Otherwise nothing will change."

- Christina Chinji, Nurse and Health Education Co-ordinator, Thyolo, MSF Malawi

Médecins Sans Frontières (MSF) began providing antiretroviral therapy (ART) in 2000 and has today reached over 80,000 people in more than 30 countries. However, efforts to further increase access to treatment and maintain and improve quality of care are coming up against a wall due to the severe shortage of health workers. This is contributing to unnecessary illness and death.

The impact of the human resource crisis is witnessed by MSF across southern Africa, the epicentre of the AIDS pandemic. Health workers are overwhelmed, overworked, and exhausted.

In Thyolo district in Malawi, a single medical assistant can see up to 200 patients per day. In Mavalane district in Mozambique, patients are forced to wait for up to two months to start treatment because of the lack of doctors and nurse clinicians; many have died during the wait. In Lusikisiki, South Africa, utilisation of clinic services almost doubled in two years while the number of professional nurses remained constant. In Scott Hospital Health Service Area in Lesotho, over half of professional nursing posts at health centres are vacant while the HIV-associated workload is increasing sharply.



Thyolo, Malawi

In all these cases the need for access to ART, as well as other health needs, is outstripping human resource capacity. Further progress will not be possible unless certain national and international barriers are overcome. These include:

- Inadequate salaries and poor working conditions, which lead to 'brain drain,' attrition, and an inability to attract new health workers
- National policy barriers that block the possibility to shift tasks to lower level health staff
- Lack of adequate national and international resources committed to address the health care worker crisis
- Lack of donor funding for recurrent human resource costs, particularly salaries, due to concerns about "sustainability" and other constraints
- Limits on spending from ministries of finance and international finance institutions, which can hinder governments' ability to invest adequately in the health

HIV/AIDS has not only created extraordinary demands for health care in areas where health systems are already weak and overwhelmed, but is also decimating the health workforce. In Lesotho, Mozambique, and Malawi, death is the leading cause of health worker attrition, with a significant proportion being HIV-related.

Many countries in sub-Saharan Africa are implementing ambitious plans to roll out AIDS treatment and ART coverage has increased significantly: between 2003 and the end of 2006, the number of people on ART in sub-Saharan Africa increased from 100,000 to 1.3 million. But still today, more than 70% of those estimated to need treatment in sub-Saharan Africa are not getting it.1

The shortage of health care workers is widely recognised as a major barrier to reaching those who still urgently need ART. 2,3,4 However, emergency measures have not followed the many expressions of concern about the need to stem the health care worker crisis.

International pressure was effective in bringing down antiretroviral (ARV) drug prices dramatically and jump-starting HIV/AIDS treatment programmes when many still believed it

Number of health care providers per 100,000 inhabitants^[]

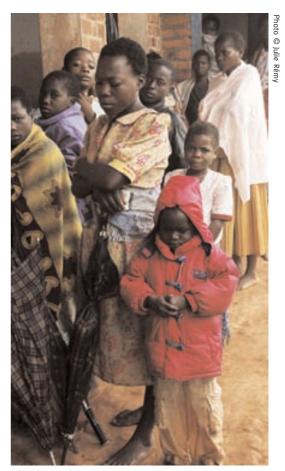
Country	Number of doctors per 100,000 inhabitants	Number of nurses per 100,000 inhabitants	Number of health providers per 100,000 inhabitants
Lesotho	5	62.6	68.16
Malawi	2	56.4	58
Mozambique	2.6	20	34
South Africa	74.3	393	468
USA	247	901	1,147
UK	222	1,170	1,552
WHO minimum standard	20	100	228

would not be feasible to provide ART in resource-limited settings. This pressure is still needed to make sure people with HIV/AIDS in developing countries will have access to both newer, improved first-line ARVs and second-line ARVs. Access to drugs is a necessary condition, but will not be enough to save millions of lives at risk unless priority is also given to ensure the necessary personnel to provide treatment.

This report focuses on the impact of human resource shortages witnessed by MSF teams in four southern African countries - Lesotho, Malawi, Mozambique, and South Africa. While the focus is largely on nurses in rural areas, it should be acknowledged that health staff is lacking across the spectrum - from doctors to laboratory technicians to pharmacists - at all levels of care.

The report also describes how MSF teams and local partners are trying to overcome staff shortages to reduce waiting times and increase access to care.

The experiences described in this report illustrate the need for an effective emergency response at the national and international level. Without fundamental change, the perspectives for expanding access to ART and improving quality of care are bleak. And the cost of inaction is clear: hundreds of thousands of people with HIV/AIDS will die unnecessarily because there will not be the necessary personnel to provide the life-saving care and treatment they need.



Thyolo, Malawi

[[]i] Data sources: population: World Development Indicators database, April 2007; no. workers and standards: WHO World Health Report 2006.2 Health providers defined as doctors, nurses, midwives (WHO).

Country profiles: treatment access and human resource constraints

Malawi

Despite new types of health workers, demand still outstrips supply

"I walked 7 km to get here today. Look at this queue – this is going to take me hours. There's not enough medical staff. The government needs to bring us more doctors, nurses and clinical officers to come and work here."

- Aloysio, 32, patient in Thyolo, Malawi

Malawi is a mostly rural country where more than 65% of the population lives below the poverty line.

MSF HIV/AIDS treatment programmes

MSF supports HIV/AIDS care in Thyolo district (population 575,000) a rural area in the south of Malawi, in two hospitals and 17 health centres. ART is almost entirely managed by clinical officers and nurses, with support from hundreds of community volunteers, many of whom are people living with HIV/AIDS. By the end of 2006, 7,216 patients had started ART across all facilities in Thyolo, with 5,727 (79%) still in care, constituting a near doubling from the previous year. Approximately 11,500 people were estimated to need ART in 2006.

Severe staff shortages in Thyolo cause a constant 'replacement' scramble and absences due to illness, family commitments, or trainings put a heavy strain on remaining staff. Fatigue and burn-out are common, as existing staff often do double shifts or forego holidays to replace colleagues.

MSF has another project in neighbouring Chiradzulu district (population 280,000), where ART was first provided in 2001 at the district hospital. Since 2002 mobile teams have been deployed to rural clinics every two weeks to provide ART and follow-up for stable patients. Since the programme's inception, 10,353 people have been initiated on ART, 6,710 of whom (64%) are still in care. MSF is currently training Ministry of Health nurses to manage stable patients, hiring additional staff for clinics to help with non-HIV workload, and piloting further decentralisation through the deployment of community-based lay workers. These are primarily people on ART who dispense ARVs to stable patients in villages. [iii]

Staff shortages are similarly severe in Chiradzulu and are worsening by the day. For example, in 2006, there were 50 nurses working at the district hospital; this year, that number has dropped to 28.



Population: 13 million^[ii]
Life expectancy: 39.7 years
Adult HIV prevalence: 14.1%

No. of people with HIV/AIDS: 940,000 No. of people in need of ART: 170,000 No. of people initiated on ART: 85,000

Treatment deficit: 85,000

Proportion of national budget spent on health: 9.1%

National human resource situation

About half of the 165 medical doctors working in Malawi are in central hospitals in urban areas, leaving severe shortages in rural areas, where nurses are also lacking. The vacancy rate for nurses in rural areas is 60%.

To compensate for the lack of doctors, Malawi relies on clinical officers and medical assistants. However, due to shortages across the spectrum of health staff, the government has created a new cadre, health surveillance assistants (HSAs), who receive 10 weeks of training and are responsible for multiple tasks including: immunisation, dispensing of essential drugs, and, more recently, HIV testing and counselling. HSAs could potentially dispense ARVs but national policy is ambiguous about whether this is permitted. Adding additional tasks to HSAs may be difficult considering the allocation of one HSA per 1,000 inhabitants did not take HIV-related tasks into account and nowhere near this number of HSAs are in place: only half of the 580 HSA posts in Thyolo and even fewer of the posts in Chiradzulu are filled.

The lack of health workers partly results from people leaving for 'greener pastures,' taking higher-paying jobs in the private sector or overseas. There is also an internal 'brain drain' from the public sector to non-governmental organizations (NGOs) and other private non-profit employers, such as the Christian Health Association of Malawi. The current basic salary of a public sector nurse remains low, at roughly 12,000 kwachas per month (\$US 87), forcing many to supplement their income with other jobs or additional shifts.

[ii] Country profile data sources: World Development Indicators database, April 2007 (population); UNDP Human Development Report, 2006 (life expectancy); UNAIDS AIDS Epidemic Update, 2006 (adult HIV prevalence and no. of people with HIV/AIDS); national ministries of health and/or UNAIDS/WHO Global HIV/AIDS Online Database (no. of people in need of ART and initiated on ART); WHO World Health Report, 2006 (proportion of national budget spent on health).

[iii] "Stable patients" are defined as adults (excluding pregnant women) on first-line ART for at least one year with a recent CD4 count, and no complications or adherence problems.

Malawi's Emergency Human Resources Plan: a ray of hope?

"There are so many patients here to see. The number is about 75 to 100 patients per day. Sometimes people wait for hours to be attended to. Yesterday I was alone on duty without even any medical assistant to help me. Sometimes I have to do both day and night shifts in the same day! We need at least five more nurses here."

- Loveness Makeyi, 35, Nurse/Midwife, Khonjeni Clinic, Malawi

In June 2004, a six-year "Emergency Human Resources Plan" (EHRP) was launched by the government of Malawi, some elements of which had been implemented as early as 2002.

Political mobilisation of a wide range of actors - particularly the UK Department for International Development and the Global Fund to Fight AIDS, TB and Malaria - emboldened the government to request financial support for several measures to address the human resource shortages. These include: funds for increasing salaries for 11 categories of health workers, repatriation of professionals that had left the country, recruitment of retired workers, incentives for rural posts such as improvements in staff housing, and strengthening of training capacity. As a stop-gap measure, it also includes funding for recruitment of foreign doctors and nurse-trainers.

This plan is significant because it is the first time that donors have provided substantial, pooled funding for a national effort to address the crisis in human resources for health. The taboo against strengthening human resources through support for salaries and other recurrent costs - on the grounds that such support will not be "sustainable" - has been broken.⁶ Another reason the EHRP is significant is that the government reached a special agreement with the International Monetary Fund (IMF) and other institutions to increase salaries. This health exception allowed salary increases for health workers without requiring changes for the entire civil service wage bill.

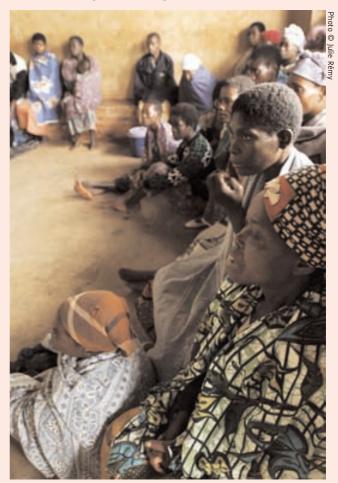
Although progress has been slow, there are indications that some elements of the plan are beginning to stimulate change. For example, the programme has slowed migration abroad, from 86 health workers in 2005 to 30 in 2006. While it is not possible to tie specific strategies to results, a series of measures have started to stem the tide, including improved salaries, benefits, and working conditions, and increased access to training. In addition, the UK government signed a code of conduct in which

it agreed to stop recruiting in countries with critical health care crises, although this is not always respected by private agencies.

National output of nurses went up from 296 in 2002 to 475 in 2005. Intake for doctors in training went from 16 in 2002 to 53 in 2005. Salaries increased by an average of 30%, but since the starting salary was so low, health workers do not consider this change to be adequate.

Although the Malawi initiative is promising, it has not been without problems. Disagreement between the government and the Global Fund on how to channel funds has stalled Fund disbursements. Furthermore, despite some progress, national plans and funding opportunities are not being clearly communicated in districts. In practice this has meant that local managers are sometimes not aware of, or do not know how to access, some elements of the programme and so are not able to take advantage of it. For example, although money has been allocated for housing in Thyolo, no staff houses have been built or renovated. In addition, retired nurses who have been attracted to return to the workforce are having trouble getting contracts and payment due to administrative delays.

Unless these issues are addressed, it is unlikely that the goal of putting another 85,000 people on ART by the end of 2008 will be met.



Thyolo, Malawi

Mozambique

Plans to train more staff, but few immediate solutions

"The number of health staff is very limited for the huge number of patients. When I'm receiving patients I see that some of them have been waiting for 6 hours in the queue."

- Bata Miguel, 45, Health Technician, Health Centre Primeiro de Maio, Maputo, Mozambique

Mozambique is a largely rural country still recovering from a 17-year civil war that ended in 1992 and has left an extremely weak health care system and over one million people displaced.

MSF HIV/AIDS treatment programmes

In 2001, MSF opened HIV/AIDS programmes in Tete town and Moatize (Tete Province) and Mavalane district (Maputo Province), and in 2002 in Angonia (Tete Province). Additional MSF ART projects are in Chamanculo district (Maputo Province) and Lichanga (Niassa Province).

In Tete province, an estimated 36,000 people are in need of ART. MSF supports nine health centres and three hospital-based clinics, providing ART for 2,878 people. In Mavalane district, MSF supports four health centres and one HIV clinic, covering a population of about 300,000. Seventeen thousand people are estimated to be in need of ART in Mavalane district, but by the end of 2006 less than half were receiving it.

In Tete town, only one in four health centres has the number of medical technicians (similar to clinical officers) allocated and three-quarters have only nurses and nurse assistants. In 2006, because of doctor shortages the Ministry of Health changed the rules to allow medical technicians to prescribe ART. However, due to the lack of medical technicians, this is creating new bottlenecks. The task of prescribing ART needs to be shifted to nurses, but at present they are not allowed to do so. In the short-term, to overcome this problem, a MSF mobile team comes once a week to initiate patients on treatment, but this strategy cannot keep up with the number of patients who need treatment.

In the HIV clinic in Mavalane district (Maputo City) each clinical staff member conducts 30-40 consultations per day. With ever increasing numbers of patients on ART, the clinic has reached a saturation point. This saturation particularly affects the initiation of new patients, which requires higher cadres of staff according to existing rules. In 2006 there was a 30% decrease in ART inclusion rates, from 1,374 in 2005 to 954 in 2006.

In addition, MSF currently supports two day hospitals and five health centres in Chamanculo district, providing ART for a total of 3,808 people out of a total of 6,300 estimated to be in need.

In Lichinga district, MSF currently supports one day hospital and four health centres, and is supporting decentralisation activities in three other districts (Nago, Mandinha, Mecanhodas).



Population: 20 million Life expectancy: 41.6 years Adult HIV prevalence: 16.1%

No. of people with HIV/AIDS: 1.8 million No. of people in need of ART: 280,000 No. of people initiated on ART: 44,100

Treatment deficit: 235,900

Proportion of national budget spent on health: 10.1%

Wage bill ceilings and other restrictive measures force rationing of healthcare staff

Most low-income countries determine their budgets in collaboration with the International Monetary Fund (IMF). The IMF encourages countries to set limits on public spending, and these limits are based on domestic resources rather than on need. A ceiling is also set for the total wage bill, which includes all salaries for the public sector. Therefore, even if donors were willing to finance human resource costs, such as increased salaries or new health care worker posts, countries may be prevented from using such funds because of IMF-supported spending limits.

Although, in theory, the wage bill cap differs by country, for most countries in sub-Saharan Africa it is set between 7.5% and 8.5% of gross domestic product. The result is that health care posts are limited and salaries are restricted. For example, in 2002 in Mozambique, the caps on wage bills meant many new workers could not be hired: graduating nurses from Tete Nursing School waited up to four years before being employed by government. With encouragement from the Ministry of Health, MSF hired and trained recent graduates until the government was able to employ them. International organisations, donors, and the IMF itself have recognised the negative consequences of these caps, but little has been done to change them. [V].19,20,21



Patients queueing at Tete Day Hospital, Mozambique

National human resource situation

Approximately half of the 608 medical doctors active in Mozambique work in Maputo, leaving the health structures in rural areas struggling to find doctors. Understaffed facilities are overwhelmed, health workers are under pressure, and patients end up in long waiting queues. Poor staff salaries lead to lack of motivation, short working hours, and frequent absences. The main cause of health worker attrition is death, mostly attributable to HIV/AIDS, with official figures indicating about 200 deaths annually.7

The national objective for 2007 is to provide a total of 95,000 people with ART, but the lack of human resources is recognised as the major hurdle to realising the government's plans. The Ministry of Health has calculated that the following additional staff would be necessary to scale up ART: 130 medical doctors, 125 "tecnicos de medicina" or mid-level workers, 380 nurses, 200 nurse-aides, as well as 90 pharmacy and 29 lab personnel. The government has taken a number of steps to mitigate the human resources crisis. An Accelerated Plan for Additional Training was announced at the end of May 2006 that focuses on pre-service training of 2,425 nurses, medical officers, and laboratory and pharmacy personnel by 2010. [vi] The Faculty of Medicine in Maputo plans to graduate 100 doctors every year starting in 2007, but there are concerns about the feasibility of this plan.

However, at the present time the national government is unable to hire new graduates on a timely basis and immediate bottlenecks created by "scope of practice" restrictions are not being addressed adequately. There is some fear that in the absence of solutions to overcome human resource shortages, the strong push for scale up, which is in general a positive trend, will create more pressure on clinicians and may have unintended negative consequences in terms of quality of care.

The Global Fund and funding for human resources

Starting in 2002, the Global Fund to Fight AIDS, TB, and Malaria has become one of the main funders of AIDS care and treatment, including ARVs and drugs for opportunistic infections. Since then, the Global Fund has progressively increased its support for health worker-related funding requests, but remains restrictive and requires proof of sustainability after the grant period. The Global Fund Board of Directors is to decide upon its role in "health systems strengthening" in late 2007, including what types of human resource interventions it will fund. Without clear and increased support, the Global Fund will tie the hands of countries that may have nowhere else to turn for human resource funding, including recurrent costs such as salaries.

South Africa

Unequal distribution of health workers

"I am still trying to work with passion, but the conditions are demoralising. The workload increases by the day. On top of that, since 2003, there are two vacant posts for professional nurses in this clinic. If it was not because I am motivated, nearly a militant supporting the ARV roll out, I would have left long ago."

- Mpumelelo Mantangana, 48, Professional Nurse, Ubuntu TB/HIV Clinic, Khayelitsha, South Africa

South Africa is classified as a middle-income country but has a vast disparity in wealth and access to health care, a lasting legacy of apartheid. As elsewhere in sub-Saharan Africa, tuberculosis is the leading killer of people with HIV/AIDS in South Africa, and this has been aggravated by the proliferation of multi-drug resistant (MDR) and extensively drug-resistant (XDR) TB, further straining an already overburdened and understaffed health system.⁹

MSF HIV/AIDS treatment programmes

Since 2000, MSF has been working in Khayelitsha, a poor periurban township on the outskirts of Cape Town (see panel). Antenatal HIV prevalence in Khayelitsha is approximately 30%, nearly double the provincial average of 17.5%.

In December 2002, MSF started a second project in South Africa in Lusikisiki sub-district (population 150,000) in Eastern Cape Province. Lusikisiki is serviced by one hospital and 12 clinics and is one of the poorest and most densely populated rural areas of South Africa. Less than half the population live in formal housing and up to 80% live below the poverty line. The number of doctors in Lusikisiki is 14 times below the national level; in 2005 37% of nursing posts in the Eastern Cape were vacant.

The implementation of HIV care at the primary care level allowed a rapid scale-up of treatment. This was accomplished through task-shifting to nurses, community mobilisation, and the use of lay workers (especially people living with HIV/AIDS) and community volunteers. By October 2006, 2,200 people were receiving ART. Clinical outcomes were good, with 81% of patients initiated at health centres remaining in care at 12 months. To Following a gradual handover over a period of 18 months, MSF transferred full responsibility for the programme in Lusikisiki to provincial health authorities in October 2006.

National human resource situation

South Africa's private sector employs half of the country's nurses and two-thirds of the doctors. The shortage of nurses in the public sector has grown substantially worse between 2000 and 2005. For example, the number of enrolled nurses has dropped from 60 per 100,000 to 52 per 100,000 and the number of professional nurses has dropped from 120 per 100,000 to 109 per 100,000.

One of the objectives of South Africa's new National Strategic Plan on HIV/AIDS for 2007-2011 is to offer care and treatment to 80% of all people in need. An alarming 35,000 people in



Population: 46.9 million Life expectancy: 47 years Adult HIV prevalence: 18.8%

No. of people with HIV/AIDS: 5.5 million No. of people in need of ART: 1 million No. of people initiated on ART: 265,000¹¹

Treatment deficit: 735,000

Proportion of national budget spent on health: 10.2%

need of ART are presently on waiting lists according to the Department of Health and an estimated one million people are in need of ART. 12

The National Strategic Plan predicts that by 2011 most people in need of ART will receive their treatment from nurses in primary care clinics rather than doctors in hospitals. However, the Department of Health's Human Resources for Health Plan, which was developed in isolation from the National Strategic Plan, does not take into account HIV/AIDS. Neither increased demand nor the direct impact of HIV/AIDS on the workforce is considered.¹³

Although overall supply of health care workers in South Africa is not an acute problem, unequal distribution between the private and public sectors and between urban and rural areas - due to low salaries and poor working conditions - combines with the overwhelming need for treatment to create a crisis.



Lusikisiki, South Africa

Photo: © Francesco Zizola

Overwhelming need meets limited capacity in Khayelitsha



"The international community says it wants to achieve universal access, and in Khayelitsha we were coming close, but at a certain point things started to collapse. We are absolutely saturated, and even with all of MSF's means, we have come back to waiting lists, and it feels again like we are losing the battle. For those guys sitting in offices far away from the epidemic our message is that you will be held responsible if you are not reactive or flexible enough to find solutions to the staff shortages."

- Dr Eric Goemaere, Head of Mission, MSF South Africa

Since 2000, MSF has been supporting provincial and city clinics in Khayelitsha (population 500,000), a poor township on the outskirts of Cape Town in Western Cape province, South Africa. Since 2001, 7,262 adults and children have been initiated on treatment and 5,848 (81%) remain in care.

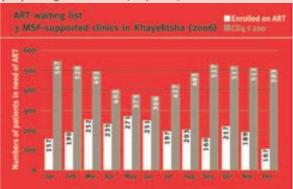
However, the clinics are saturated. In the graph below, the bars for each month represent the people initiated on ART at three clinics versus the number of people presenting at the clinics in need of ART. The difference between the two bars represents the number of people who remained on waiting lists and therefore without treatment. This clearly shows that the demand for treatment is far greater than can be handled by the existing staff.

Between May and December 2006, monthly ART initiation dropped from more than 270 - approximately 60% of estimated new need per month - to just over 100.

To address the crushing burden on large clinics and to reverse the trend of decreasing new patient initiations, efforts are underway to further decentralise care to community clinics where nurses and community groups will play a more prominent role in treatment and patient support.

But solutions to the staffing problem do not seem imminent. According to Western Cape authorities, 466 clinical nurse practitioners (the most skilled category of nurse) are needed for basic health services by 2010, but only 71 (15%) are currently employed.¹⁴ The number of professional nurses must double from 340 currently employed to 689.

Number of people initiated on ART vs. number of people eligible for ART (CD4 <200)



Lesotho

Nurse-based treatment but not enough nurses

"As the only nurse here, I have to do the work of at least four nurses. I take blood samples, sputum, do both ante-natal and post-natal cases, and do curative cares for general patients, baby deliveries, etc. If I have to go somewhere, the clinic remains closed. Most nurses have left for the UK or South Africa. As a matter of fact, if I was younger, I would also have gone by now!"

- Emily Makha, 70, Nursing Sister/Midwife, Kena Health Centre, Lesotho

Lesotho is a small, poor, mountainous country with the third highest HIV prevalence in the world, the fourth highest TB incidence, and a growing problem of MDR-TB.

MSF HIV/AIDS treatment programme

MSF began providing HIV/AIDS care and treatment in Lesotho in January 2006, supporting government and Christian Health Association of Lesotho facilities in Scott Hospital Health Service Area through the district hospital and 14 rural primary health care clinics. There are an estimated 35,000 people living with HIV/AIDS in Scott Hospital HSA; of these approximately 5,000 are in urgent clinical need of ART.



Population: 1.8 million Life expectancy: 35.2 years Adult HIV prevalence: 23.2%

No. of people with HIV/AIDS: 270,000 No. of people in need of ART: 57,000 No. of people initiated on ART: 17,700

Treatment deficit: 39,300

Proportion of national budget spent on health: 9.5%



Kena, Lesotho

In order to reach more people MSF helped to decentralise HIV care and treatment to the clinic level, where nurses are responsible for running services. Nearly all the nurses in the Health Service Area have been trained to diagnose and manage HIV-related conditions and initiate ART. MSF has also trained community members, primarily people living with HIV/AIDS, to work as lay counsellors providing HIV testing and adherence support. In just over one year, the project has provided ART for 1,393 people.

There are only four doctors working for Scott Hospital - less than two per 100,000 people. As of May 2007, not a single one of the 14 health centres has the minimum staffing complement, and the number of nurses has decreased in the past year. In 2006, more than 25 nurses left the Health Service Area for other jobs and as of May 2007, 54% of professional nursing posts at health centres were vacant. This left trained nursing assistants, who receive just two years of training, to carry much of the burden of clinical work.

Largely due to HIV, those nurses that remain face a sharp increase in workload, which is projected to increase dramatically in the coming years, further increasing the shortfall of nurses (see graph). [vii] 15

National human resource situation

The human resource crisis in Lesotho is critical. Countrywide there are just 89 doctors, and 80% of these are foreigners from other African countries, most of whom are awaiting certification in South Africa where they can get higher paying jobs. 16 The shortage of doctors makes lower cadres such as nurses even more valuable in the provision of care, but they are also in short supply: from 1994 to 2004 the number of employed nurses fell by 15%. Only six of 171 health centres in the country have the minimum staffing required.¹⁷

The government of Lesotho recognises health care worker shortages as a major challenge to expanding HIV/AIDS treatment and has taken some steps to respond. The Ministry of Health and Social Welfare acknowledges that ART scale-up will not be possible without allowing nurses to initiate ART and lay workers to carry out key support tasks.

Shortfall of nurses and projected workload (2007-2011) at 7 primary health care facilities in Lesotho Consultations per year 250,000 -24 mg 26 Shortfall of Nurses 200,000 -150,000 -100,000 -50,000 -2010



In addition, the government has established an Emergency Human Resources Task Force, proposed raising pay of health care workers, and launched a plan to recruit 200 nurses from within Lesotho and outside the country (particularly Kenya). But the Task Force has no terms of reference and has yet to be convened, the salary raises are stalled, the nurse initiative has so far identified only a handful of nurses in the country, and the external recruitment plan is yet to be finalised.

Donors and other international actors in Lesotho recognise the human resource problem but, with a few exceptions, do little to address it. For example, the US Millennium Challenge Account is committing an unprecedented \$US 140 million to improve physical infrastructure at health facilities. However, it is estimated that 600 additional health care workers will be needed to staff these new and rehabilitated health structures, and plans to fund or recruit for these posts have not been foreseen.

"When I was a nursing student I had to ask myself why am I going into nursing at all and I even considered leaving the field because I had the feeling I was just learning how to move patients from the consulting room to the mortuaries. Now that the ARVs are here, all that has changed. I feel motivated again that there is hope. Now my only problem is the shortage of staff. We are just two at this clinic."

- Mpeo Kompi, 26, Nursing Sister, Matelile Health Centre, Lesotho

SolutionCoping with health worker shortages: lessons and limits

"In Lesotho there are only 89 of us doctors in the entire country. The whole process of decentralisation of HIV care - taking it down to the people in the clinics - depends on nurses. Many lives have been saved because ARV treatment is in the clinics and nurses are taking over most of the responsibilities."

- Dr Pheello Lethola, Field Doctor, MSF Lesotho

In order to expand access to HIV/AIDS treatment, MSF teams have simplified and decentralised HIV care, particularly in rural areas. Simplification has included use of fixed-dose combinations, reduced reliance on laboratory monitoring, and simplified approaches to care. Decentralisation has meant moving care from hospitals to primary health care clinics and community health outposts. Through decentralisation, access to ART is increased both by reducing bottlenecks in central facilities and bringing care closer to people who need treatment.

National policies (government and professional councils) play a determining role in the extent to which strategies to decentralise care can be implemented. Whether or not a government will allow nurses to initiate and prescribe ARVs, for example, determines the pace of decentralisation and scale-up of ART.

The sections below summarise strategies used by MSF teams and local partners to overcome human resource constraints and describe some of the main barriers and dilemmas faced in the process.

Hiring supplemental staff

In southern Africa, expanding access to ART to ensure "universal access" will be virtually impossible with the existing number of health workers. As an international organisation, MSF is able to bring external resources to address health and humanitarian emergencies. However, MSF is an interim actor, filling gaps and supporting local authorities and organisations to take full responsibility for programmes.

In Thyolo district in Malawi, MSF has been working with the government to reach more than 10,000 people on ART by the end of 2007. To reinforce the Ministry of Health staff, MSF has employed 11 clinical officers, 48 nurses, and three medical assistants in addition to two expatriate doctors, three nurses, and one lab technician.

The hiring of local staff by international NGOs, including MSF, can inadvertently add to human resource shortages, and has to be managed carefully to avoid unfair competition for scarce health care workers. Furthermore, while NGOs can overcome institutional barriers in the short-term because they can hire and pay their own staff, these additional staff cannot always be absorbed into the public sector. This is especially problematic in countries facing "wage bill caps" which limit the number of people that can be employed in the civil service.



Kolo, Lesotho

Task-shifting

Task-shifting means re-allocating tasks between available staff. For example, doctors focus on providing care at hospitals for inpatients and complicated cases as well as supervising clinics via mobile teams rather than handling all clinical management of patients; nurses assess patients to diagnose and treat opportunistic infections and initiate and monitor ART rather than exclusively supporting doctors; while lay workers provide testing and counselling, ART adherence support, and assist with general clinic support.

In Lusikisiki, shifting the task of initiating ART to nurses has been central to achieving high coverage. This approach was considered by some as a radical divergence from accepted norms, but, at the provincial level there was an understanding that decentralisation would have failed without these changes. In April 2006, the Department of Health passed instructions to the clinics insisting that ART initiation must be done by doctors. This resulted in bottlenecks and fewer people being treated every month (see graph). Confronted with this negative trend, the Eastern Cape Department of Health reversed the decision six months later. Now nurse-initiated ART has been recognised at the national level as key to scaling up treatment.²²

Task-shifting is often limited by national policies and those of professional medical or nursing councils; sometimes the issue is more a matter of how policies are interpreted than what they actually allow. In South Africa, for example, nothing in national rules prevents nurses from initiating and prescribing ARVs,²³ but there is a great deal of confusion surrounding this among ARV site managers. In many sites initiating and prescribing ARVs is limited to doctors, creating unnecessary bottlenecks.

There is considerable divergence between countries regarding what tasks can be performed by whom. Governments and relevant professional councils will need to clarify, and in some cases reverse, policies that hinder task-shifting, to ensure that health care workers, managers, and supervisors all receive explicit guidance. Furthermore, task-shifting alone is not enough. Significant increases in responsibility and workload must be accompanied by appropriate salary increases and access to training and career advancement opportunities.

Task-shifting: a delicate balance

Task-shifting has been used by governments and NGOs as a coping mechanism in the face of shortages and unequal distribution of professional health care workers. Results from MSF and other programmes that rely heavily on task-shifting demonstrate satisfactory outcomes for patients.²⁴

Lay counsellors, especially people living with HIV/AIDS, have helped to improve uptake of HIV testing and counselling, ART adherence support, and treatment literacy. Shifting of these and other tasks (from nurses to counsellors) is essential to getting more people on ART sooner. But task-shifting is not a panacea.

People accessing ART often suffer from complicated medical conditions that may require management by skilled nurses or doctors. These can include diagnosis of smear-negative and extra-pulmonary TB, inpatient care of severe opportunistic infections, management of ARV side-effects and drug interactions, and provision of care for specific groups such as children.

Task-shifting for rapid scale-up must be balanced against the need to provide quality care and should not become an alibi for accepting shortages of skilled staff.

Donors are quick to support initiatives involving lay health workers, but often refuse to fund measures to recruit and retain health professionals. Ultimately, chronic shortages of health workers can only be addressed with increased production and retention of health staff, and this requires mobilisation of national and international resources.

Lusikisiki, South Africa

"Last year, my brother took me on a horse to the clinic because I was too sick to walk. Now I am on ARVs and I take my tablets every day. Since September 2006, I have been a lay counsellor. My role here is to give counselling to all HIV-positive people and teach patients about the importance of adherence. My other crucial role is that of being a drug dispenser, especially for ARVs. I think my job is very important and it reduces the heavy workload on the nurses."

- Joseph Ramokoatsi, 35, Lay Counsellor, St Rodrique Health Centre, Lesotho

Creating new capacity

MSF's efforts to scale up HIV/AIDS treatment have relied heavily upon mobilising new categories of health workers, particularly "lay" counsellors and community-based "volunteers." Lay/community workers have become the backbone of most programmes profiled in this report and scale up could not be achieved without them. As such, they must be recognised and compensated properly over the long-term either within the health system or outside of it.

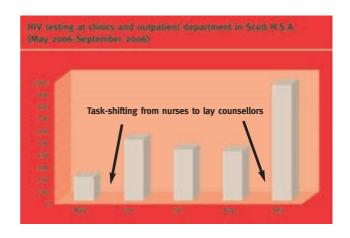
Facility-based lay counsellors

In Lesotho, MSF has trained nearly 40 "HIV/TB lay counsellors" to work at the district hospital and health centres it supports. Lay counsellors provide HIV testing and counselling, ART counselling and adherence support, as well as general clinic support. These counsellors are also being trained to provide TB treatment education and adherence counselling.

The increase from approximately 100 people tested per month to more than 500 in June is a direct result of the introduction of lay counsellors at Scott Hospital and the four busiest clinics. The second increase in September - a doubling of the number of people tested - reflects the introduction of lay counsellors at eight additional clinics (see graph).

At present, financing for the lay counsellors is subsidised by MSF and administered by Scott Hospital, but discussions are underway for the Ministry of Health and Social Welfare to accredit and compensate lay counsellors as a new cadre of the health system. But there are concerns about what salary they will be able to offer and whether new civil service posts can be created.

Photo: © Gideon Mendel



In Mozambique, MSF and other NGOs have advocated for the creation of a polyvalent counsellor/educator to provide HIV and other rapid tests, TB and ART adherence counselling, nutrition and hygiene counselling, and range of other, non-HIV tasks. After lengthy negotiations, the Ministry of Health accepted the concept of a polyvalent counsellor/educator, but has insisted these tasks be done by nurses due to concerns about scope of practice. This defeats the purpose of reducing the workload of professional medical staff.

Community-based workers

In Malawi and elsewhere, community-based workers - whether volunteer or paid - are highly motivated and have come to play an essential role in supporting service delivery and increasing general awareness about HIV prevention and treatment and, importantly, promoting openness about HIV.

In Thyolo, Malawi, community home-based caregivers are volunteers chosen by their village. There are 600 such volunteers working with the programme in Thyolo district alone. In the past several years, their work has been

transformed from providing end-of-life care to assisting community nurses with diagnosis and management of common HIV-related conditions, preparing and supporting people on ART, and tracing defaulters, among other tasks (see table). Clinical outcomes in Thyolo have been shown to be better when community caregivers are involved in the provision of services.²⁵ In Chiradzulu, Malawi, MSF is piloting the use of "community ARV dispensers" to provide ARV refills to stable patients.



Retaining health workers: the basics

"I make 3,000,000 Méticais (\$US 115) a month. With this, I can buy one bag of rice, one bottle of oil, and pay the energy at home. I'm borrowing money from my neighbours because I cannot afford to send my children to school."

- Maria, 44, Paediatric Nurse, Tete Health Center No.2, Mozambique

In all countries profiled in this report, attrition rates are high as health care workers leave for more competitive salaries and better working conditions, in-country, regionally, or abroad. The inability to attract and keep health care workers, particularly nurses, is one of the greatest challenges to sustaining existing programmes and expanding access to HIV/AIDS care and treatment.

Increasing salaries and benefits

It is well known that adequate salaries and benefits are essential to retaining staff, especially as health systems compete for workers in a globalised economy. Almost one in five of all nurses and midwives trained in sub-Saharan Africa are now working in developed countries - mainly the UK, the USA, and Canada.²⁶

In April 2007, MSF carried out a survey²⁷ of 127 health care workers in Lesotho and Malawi in facilities supported by MSF - two-thirds of whom work in rural health centres - to examine general attitudes about work, assess overall job satisfaction, and identify factors affecting retention.

The MSF survey confirms other research indicating that insufficient remuneration is one of the major reasons for job dissatisfaction. Out of 65 nurses in Lesotho who responded to the survey, 47 (72%) said they were considering leaving their posts and 77% of these said the main factor was the need for more money. Of those who said they were considering leaving to earn more money, 53% had five or more people dependent on their monthly income. [viii]

Low salaries and inadequate benefits also have an indirect impact on patient care. For example, in Mozambique it is common for doctors to leave work mid-day to supplement salaries by working in private practices. In Malawi, participating in workshops is more lucrative than doing clinical work: typically for a five-day training, a nurse could increase her basic monthly salary by 25-40%. Although some workshops and trainings are important, the chase for stipends increases absenteeism and increases the workload for the remaining staff.

Benefits and incentives are also important factors that affect retention. Pensions, medical aid/insurance, hardship/rural allowances, education allowances for children, and transport



Nurse at Thyolo District Hospital

allowances, are some of the ways in which health staff can be encouraged to stay.

However, in most contexts, incentives remain a way to avoid tackling the fundamental problem of low basic salaries, leading to distortions that are difficult to manage. Donors readily support per diems and other incentives but often refuse to finance salary increases due to concerns about "sustainability." This needs to change.

Better working and living conditions

Clinic infrastructure, particularly in rural settings, is often in disrepair and lacking the most basic functions. An assessment done before MSF launched the ART programme in Lusikisiki, South Africa, showed that only one-third of the 12 existing clinics had electricity, and in half of those the supply was erratic. Only 8% had running water or a phone and half lacked nursing accommodations. Given these conditions, it is not surprising that 37% of nursing staff posts in the Eastern Cape were vacant in 2005.10 In the MSF survey in Lesotho and Malawi, poor clinic infrastructure, and lack of equipment were important reasons why nurses considered leaving work. Substandard housing and lack of security at work were also cited as major problems. In Lesotho, a number of nurses who said they were considering leaving their posts indicated that they would consider staying if work and living conditions improved.27

Other retention measures

Management and supervision

Management and supervision play an important role in staff morale, motivation, and job satisfaction. In the context of task-shifting, supervision also plays a particularly important role in maintaining an acceptable level of quality. In a 2005 study of factors affecting retention of health workers in rural health centres in Lesotho, 91% of nursing staff felt that supervisory visits were important for motivation because they provided

opportunities for new information and skills to be transmitted and general encouragement.²⁸ However, half of the respondents said they had not had a supervisory visit from a doctor at all in the previous year, while over a quarter had not received a supervisory visit from a nurse during the same period.

Career advancement and training

Excessive workload and poor pay drive health workers to seek work elsewhere; the lack of any perspective that their situation will change pushes them to do so sooner. Formal training is important but often requires several months or even years "out-of-clinic," which creates more gaps. One recent promising trend is the creation of post-graduate distance learning courses focused on HIV clinical care. These are designed for nurses interested in specialising in HIV and which recognise inservice HIV clinical work, meaning that nurses do not always have to leave their clinics for a classroom to receive academic credit. [ix] So-called "bridging courses" also allow for faster professional advancement. Professional councils must adapt to the need for HIV-specific career advancement opportunities as well as perspectives for moving up the career ladder more quickly, and governments must ensure that there are commensurate increases in salary.

Keeping staff healthy

"Few health staff have had an HIV test and of those that have and are HIV-positive, few are on treatment. This is the internal brain drain in Mozambique."

Dr Hilde Vandelanotte, Field Doctor, MSF Mozambique

In Lesotho, Mozambique, and Malawi, death is the leading cause of health worker attrition, with a significant proportion being HIV-related. Availability of confidential HIV testing, care, and treatment services for health workers is of utmost importance. In collaboration with district health authorities, MSF supported the establishment of a specialised clinic for health staff and their immediate family members in Thyolo district. One unexpected benefit has been a reduction in absenteeism due to easier access to care of ill family members. In addition to HIV/AIDS treatment, safety and infection control in the workplace must be addressed. Because of the high stress health staff are under, mental health support also needs to be improved.



Thvolo, Malawi



Thyolo, Malawi

Patients without providers: emergency response needed

"When we started giving ARVs, we felt an injection of morale because we could now do something to keep our patients alive. But now, where there are so many people infected, we can't cope with the demands."

- Mpumelelo Mantangana, 48, Professional Nurse, Ubuntu TB/HIV Clinic, Khayelitsha, South Africa

Despite a global effort to expand access to HIV/AIDS care and treatment over 8,000 people with HIV/AIDS are still dying every day.

In the projects mentioned in this report, MSF has increased access to ART despite human resource constraints by hiring additional staff, supplementing pay, shifting certain clinical tasks to nurses, and creating new capacity by training lay workers. Health workers are also offered technical and management support as well as professional development opportunities. However, even in MSF programmes where significant external resources are brought in, our ability to scale up, maintain quality, and address specific medical challenges is being stretched to the limit. What can be done at a local level by MSF or other programme implementers is limited in scope and effectiveness.

Fundamental changes in national and international policy and donor practices are urgently needed.

- Emergency retention measures must be developed at the national level to break the cycle of high attrition so that patients can receive the care they need. Improving salaries, working conditions, and incentives particularly to retain and attract workers in rural and underserved areas are critical first steps. For most countries this will require international donor support. Access to treatment for health care workers must also be urgently addressed.
- Scope of practice and other work rules set by professional councils and national governments need to be more flexible so that available staff can take on crucial tasks: in particular, trained nurses need to be able to prescribe ARVs and lay workers need to be allowed to carry out testing and counselling.
- Multilateral and bilateral donor rules must be changed and funds must be mobilised to allow support for recurrent human resource costs, in particular salaries.
- National spending limits must be lifted by ministries of finance and international finance institutions, such as the IMF, to ensure governments can increase salaries, increase the health workforce.

While there is wide acknowledgement of the depth and scope of the human resources crisis, initiatives taken so far have largely focused on piecemeal or insufficient measures. A notable exception is Malawi's national Emergency Human Resources Plan. Donors broke common practice by funding recurrent expenses associated with increasing salaries for most categories of health care workers and creating new posts. This was possible because the government of Malawi negotiated with the IMF for flexible spending limits for health staff.

It is inconsistent and incomprehensible for donors to provide funds for life-long ART and the building of new clinics, but refuse support for health care worker salaries on grounds that the latter is unsustainable. Funding commodities, particularly ARVs, was an essential step for donors to take, and with a great deal of international pressure this has had a catalytic effect, stimulating governments to set ambitious goals for ART scale-up and expanded treatment access. But people living with HIV/AIDS do not only need drugs and clinics; they need trained, motivated health care workers to diagnose, monitor, and treat them.

Five years ago, providing ART to people in sub-Saharan Africa was a contentious issue, with many believing it was too complicated and costly. The refusal to accept that people with HIV/AIDS in the developing world would die because the drugs were too expensive forced a sea change in attitude and policy. The human resource crisis calls for a similar refusal to accept the status quo. The lack of health staff is a deadly impediment to expanding and sustaining antiretroviral treatment and must be confronted as an emergency for the millions of people with HIV/AIDS still waiting for treatment.

"The nurses at our clinics are overwhelmed by the number of patients. As a result, there is a risk that quality of care can be compromised. Consultation time is too short, and sick patients with complicated infections, especially TB, may not be diagnosed or treated properly. When nurses suffer, patients suffer."

- Dr Peter Saranchuk, Medical Co-ordinator, MSF Lesotho

References

- 1. World Health Organisation. Towards universal access: scaling up priority HIV/AIDS interventions in the health sector Progress Report. WHO, UNICEF, UNAIDS, Geneva, April 2007.
- 2. World Health Organisation, The World Health Report 2006: Working Together for Health. Geneva: 2006.
- 3. Joint Learning Initiative, Human Resources for Health: Overcoming the Crisis. Harvard, Boston, 2004.
- 4. Physicians for Human Rights, An Action Plan to Prevent Brain Drain: Building Equitable Health Systems in Africa. Washington, July 2004.
- 5. Human resources and financing for the health sector in Malawi. Africa Human Development, World Bank, August 2004.
- 6. Ooms G, Van Damme W, Temmerman M. Medicines without doctors: Why the Global Fund must fund salaries of health workers to expand AIDS treatment. PLoS Med 2007. 4;4:606-8.
- 7. Impact of HIV/AIDS epidemic on health sector personnel and problems related to ART management. Ministry of Health, national STI/HIV/AIDS control programme, Maputo, 2005.
- 8. International Treatment Preparedness Coalition (ITPC). Missing the Target #3. November 2006
- 9. Goemaere E, Ford N, Berman D, McDermid C, Cohen R. XDR-TB in South Africa: Detention Is Not the Priority. PLoS Medicine 2007. 4;4:163-4.
- 10. Médecins Sans Frontières, Nelson Mandela Foundation, Eastern Cape Provincial Department of Health. Achieving and sustaining universal access to antiretrovirals in rural areas: The primary health care approach to HIV services in Lusikisiki. MSF, Cape Town Eastern Cape, October 2006.
- 11. McIntyre D, Muirhead D, Gilson L, Govender V, Mbatsha S, Goudge J, Wadee H, Ntutela P. Geographic patterns of deprivation and health inequities in South Africa: Informing public resource allocation strategies. Health Economics Unit and Centre for Health Policy, Cape Town, August 2000.
- 12. Thom A. South Africa: No ARVs in Graaff-Reinet. Healthe, Cape Town, 9 May 2007.
- 13. AIDS Law Project, National Education, Health and Allied Workers Union, and Treatment Action Campaign. Submission to the South African Human Rights Commission enquiry into access to health care services, 17 April 2007.
- 14. Western Cape Department of Health. Comprehensive Service Plan for the implementation of health care 2010. Draft for consultation, Cape Town, September 2006.
- 15. Cleary S, Jouquet G, Cohen R, Tshehlo R, Makakole L. Ensuring Access to Free HIV/AIDS Care and Treatment in Lesotho: A Cost Analysis of the Decentralised HIV/AIDS Programme in Scott Hospital Health Service Area. University of Cape Town Health Economics Unit, MSF, Ministry of Health & Social Welfare, Scott Hospital HSA, 2007.
- 16. Schwabe C, McGrath E, Lerotholi K. Lesotho human resources consultancy: health sector human resources needs assessment. Silver Spring, MD, Medical Care Development International, 2004.
- 17. Ministry of Health and Social Welfare Annual Joint Review Report: 2006/07 Fiscal Year, Maseru, 2007.
- 18. Calmy A, Klement E, Teck R, Berman D, Pécoul B, Ferradini L, Ford N. Simplifying and adapting antiretroviral treatment in resource-poor settings: a necessary step to scaling up. AIDS 2004. 18: 2353-60.
- 19. President Fellows Lecture: Peter Piot, UNAIDS. World Bank, Washington, November 2003.

- 20. High Level Forum on Health MDGs, Addressing Africa's Health Workforce Crisis: An avenue for action. Abuja, December 2004.
- 21. Evaluation of the IMF and Aid to sub-Saharan Africa, IMF Independent Evaluation Office, March 2007.
- 22. Department of Health. HIV and AIDS and STI Strategic plan for South Africa, 2007-2011. Pretoria, 2007.
- 23. Dardar M. Nurses Prescribing ARVs, Médecins Sans Frontières & Nelson Mandela Foundation, A Dialogue on ART Models of Care in Resource-Limited Settings, Maropeng, South Africa, September 2006.
- 24. Ford N, Reuter H, Bedelu M, Schneider H, Reuter H. Sustainability of long-term treatment in a rural district: the Lusikisiki model of decentralized HIV/AIDS care. Southern African J HIV Med, December 2006. 17-20.
- 25. Zachariah R, Teck R, Buhendwa L, Fitzgerald M, Labana S, Chinji C, Humblet P, Harries A. Community support is associated with better antiretroviral treatment outcomes in a resource-limited rural district in Malawi. Transactions of the Royal Society of Tropical Medicine and Hygiene 2007. 101: 79-84.
- 26. Lanata C. Human resources in developing countries. Lancet 2007. 369:1238-1239.
- 27. Survey of health care worker attitudes and perceptions in MSF-supported HIV programmes in Malawi and Lesotho, March-April 2007.
- 28. Vujicic M, Zurn P, Diallo K, Adams O, Dal Poz MR. The role of wages in the migration of health care professionals from developing countries, Human Resources for Health 2004, 2:3.
- 29. Identifying factors associated with the retention of health workers in Christian Health Association of Lesotho health centres, Makakole L, Faculty of Health Sciences, University of Pretoria, August 2005.



Médecins Sans Frontières

Orion Building 3rd Floor 49 Jorissen Street Braamfontein 2017 South Africa office@joburg.msf.org

Médecins Sans Frontières

rue Dupré 94 1090 Brussels Belgium aau@brussels.msf.org

www.msf.org