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## Nurse-driven, community-supported HIV/AIDS treatment at the primary health care level in rural Lesotho

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SELIBENG<sup>sa</sup>  
HIV/AIDS programme TSEPO



**Nurse-driven, community-supported  
HIV/AIDS treatment at the primary  
health care level in rural Lesotho**

**2006-2008 programme report**



## Acknowledgements

The MSF-supported programme in Scott – SELIBENG SA TŠEPO – would not have achieved the numerous successes outlined in this report without the tireless work and commitment of health centre nurses, HIV/TB lay counsellors, as well as nurses, doctors, laboratory, pharmacy, administrative, and management staff at Scott Hospital. In particular, Dr Lipontso Makakole, Medical Superintendent of Scott Hospital, has provided strong stewardship from the very beginning.

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Most importantly, the programme's successes are the result of the courage and spirit of people with HIV/AIDS themselves, who have been living examples of the benefits of treatment, and who have motivated their family members, friends, and neighbours to test for HIV, seek care and treatment early, and live openly with HIV/AIDS.



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Cover photo: Majoalane Ramokhele, a HIV/TB lay counsellor and client of Selibeng sa Tsepo at Kolo Health Centre. Photo by Melissa Visser/Designs4development

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# Summary

Lesotho has the third highest HIV prevalence in the world. An estimated 270,000 people are living with HIV/AIDS in the country, and 18,000 people die annually of AIDS-related complications.

In January 2006, Doctors Without Borders/ Médecins Sans Frontières (MSF) and the Ministry of Health and Social Welfare (MOHSW) launched a joint pilot programme to provide HIV/AIDS care and treatment, including antiretroviral therapy (ART), at the primary health care level in Scott Hospital Health Service Area (HSA). Scott HSA is a rural health zone straddling Maseru and Mafeteng districts with a population of 200,000, which has been historically managed by the Christian Health Association of Lesotho (CHAL). Approximately 30,000 people are estimated to be living with HIV/AIDS in the catchment area. The number of people currently in need of ART is estimated at 9,000.

Because of the saturation of existing hospital-based ART sites in the country at the time, severe human resource shortages, and geographic and financial barriers to accessing health care for patients, the goal from the outset was to decentralise all HIV care and treatment services rapidly to the health centre level, thereby bringing care and treatment as close as possible to those in need, and ensuring free essential HIV care. The programme, which was given the name SELIBENG SA TŠEPO (“Wellspring of Hope”) by the community, was the first in Lesotho to achieve full decentralisation of HIV care and treatment throughout an entire health service area (one district hospital, 14 health centres).

Several important innovations were launched during the last three years. At the programme level, nurses were trained and empowered to assume high levels of clinical responsibility for HIV care, including ART, for adults and children before such “task-shifting” was widely accepted in the country and HIV/TB lay counsellors (primarily people living with HIV/AIDS) were recruited and trained to reinforce clinic capacity and provide essential support in the delivery of HIV and TB services, particularly treatment adherence. Clinical innovations included early piloting of new national ART guidelines that raise the threshold of initiation to less than 350 cells/mm<sup>3</sup> and include tenofovir disoproxil fumarate (TDF) in first-line therapy. In addition, a state-of-the-

art protocol for the prevention of mother-to-child transmission (PMTCT) and HIV DNA polymerase chain reaction (PCR) testing for early infant diagnosis were introduced. Finally, given that up to 90% of tuberculosis (TB) patients are co-infected with HIV, and that TB is the leading cause of illness and death among people with HIV/AIDS in the programme, improvements in diagnosis of all forms of TB and integration of HIV and TB services have been high priorities.

This nurse-driven, community-supported model of care has proven to be successful in delivering quality HIV/AIDS and TB services integrated into existing primary health care structures for a population living in remote, rural areas. In the last three years nearly 40,000 people have been tested for HIV, 11,000 people have been enrolled in HIV care (5% children), and over 4,000 people have been initiated on ART (6.5% children). Outcomes for the first two years are highly satisfactory with 86% of adults and 93% of children remaining in care after 12 months on ART. In addition, HIV transmission from mother to child has been reduced to less than 5% for pregnant women who received PMTCT. Finally, TB outcomes have improved, with treatment success rates at 78% in 2008.

Given the country’s severe resource constraints, the aim of the MSF-supported programme in Scott was to develop a model that was replicable and sustainable in the long term while meeting ambitious early targets for ART enrolment. The first phase of the programme, designed for three years, has now come to a close and the project has entered a handover phase, during which time MSF will gradually transfer all responsibilities to the MOHSW and other local partners.



Patients outside St  
Rodrique Health Centre

## Introduction

Lesotho is a small, mountainous, and extremely poor country, ranking 138 out of 177 nations on the Human Development Index.<sup>1</sup> Over half of Lesotho's 1.8 million inhabitants live below the poverty line.<sup>2</sup>

The country is completely landlocked by South Africa and relies heavily on remittances from miners employed in South Africa, which by some estimates account for almost 60% of Lesotho's gross domestic product.<sup>3</sup> One in every three male wage earners work in South Africa, and this dependence on migrant labour – a life characterised by unsafe and unhealthy working conditions,<sup>4</sup> overcrowded living quarters, long periods away from family and community, and easy access to commercial sex work<sup>5,6</sup> – is driving the country's high HIV prevalence and tuberculosis (TB) incidence.

Lesotho has the third highest HIV prevalence in the world (after Swaziland and Botswana), at 23.2% among adults age 15-49<sup>7</sup>, and is the poorest of the three. An estimated 270,000 people are living with HIV/AIDS in the country, and between 80,000 and 85,000 of these are in clinical need of antiretroviral therapy (ART).<sup>8</sup> HIV/AIDS is having a devastating impact on all aspects of Basotho society, including health, education, agriculture, and general

economic development. It is the leading cause of mortality, accounting for 56% of deaths among children under five<sup>9</sup>, and is responsible for a more than 20-year drop in life expectancy over the last two decades – to as low as 36 years according to recent statistics.<sup>10</sup> Approximately 18,000 people die annually of AIDS-related complications, representing 1% of the entire population.<sup>11</sup>

The majority of AIDS-related deaths are due to TB. Lesotho has the fourth highest TB incidence in the world (635 per 100,000 per year<sup>12</sup>), and an alarming TB/HIV co-infection rate of up to 90%. The high co-infection rate, the historically weak TB programme, and the presence of multi- and extensively drug resistant (M/XDR) TB in every province in neighbouring South Africa has created conditions for a dire drug-resistant (DR) TB problem in Lesotho.

The government of Lesotho has shown strong commitment to addressing HIV/AIDS and TB. A national HIV/AIDS strategic plan was approved in 1999 and HIV/AIDS was declared a national emergency in 2000. Lesotho's response to its HIV/AIDS emergency has been comprehensive and in the past several years the MOHSW has adopted a decentralised strategy focusing on

provision of testing, care, and treatment, including ART, at primary health care facilities. However, this response has been severely limited by major resource constraints, in particular a dire shortage of professional health workers (Panel 1).

In mid-2005, when MSF carried out its initial assessment, ART was only available in 15 sites across the country, covering around 3,000 people (with a further 2,500 people accessing treatment through the private sector). ART provision was at that time largely dependent on doctors prescribing at the hospital level. This, together with the high cost of user fees meant that most people, particularly those living in remote, rural areas, were excluded from accessing care.

In January 2006, MSF and the MOHSW launched a joint pilot programme to provide HIV/AIDS care and treatment at the primary health care level. The programme was launched in what was formerly called Scott Hospital Health Service Area (HSA), a rural health zone straddling Maseru and Mafeteng districts with a catchment population of approximately 200,000. At the start of the programme approximately 30,000 people were estimated to be living with HIV/AIDS in Scott HSA (henceforth referred to as Scott catchment area), and approximately 5,000 of these were considered to be in urgent clinical need of ART.<sup>i</sup> Today,

according to new eligibility criteria,<sup>ii</sup> the number of people in need of ART is estimated to be 9,000.

Given the human resource shortages in the country and the difficulties for people in remote areas to access care, the objective of the programme from the outset was to establish a decentralised model of ART delivery led by nurses at the primary care level. Mindful of the country's resource constraints MSF developed a model that aimed to be replicable and sustainable in the long term while meeting ambitious early targets for ART enrolment. At the time, the approach represented a significant departure from current practice in the country, but was readily accepted and rapidly replicated.

As a pre-condition for launching the programme, MSF negotiated an agreement with the MOHSW and the Christian Health Association of Lesotho (CHAL, which manages nearly half of the health facilities in the country) that all essential HIV-related care and treatment would be free for patients in the programme despite the fact that costly patient fees were still being charged at the time. A costing study was carried out to document the cost of comprehensive HIV/AIDS care and treatment in Scott catchment area to facilitate eventual transfer of responsibility of programme costs to the MOHSW once user fees were eliminated.<sup>14,15</sup> (Panel 2)

## Panel 1. Lesotho's human resource crisis

According to the World Health Organization (WHO), there are just five doctors and 62 nurses per 100,000 inhabitants in Lesotho (neighbouring South Africa has 74 doctors and 393 nurses per 100,000 inhabitants).<sup>13</sup> Eighty per cent of doctors in Lesotho are visiting foreigners, mainly from other parts of Africa and awaiting certification to practice in South Africa. In its 2007-2008 annual report issued in February 2008, the MOHSW reported that only two of the 171 health centres in the country had the minimum staffing required. 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. An Emergency Human Resources Plan was developed in late 2007 with a focus on scaling-up capacity of training institutions using external funds from donors such as the US Millennium Challenge Corporation; recruiting 200 nurses from within Lesotho and outside the country (particularly Kenya) to reinforce capacity to manage ART at the health centre level; and providing rural and other allowances to retain health workers. The MOHSW also carried out a salary review, which found that salaries were up to 30% below equivalent positions in the region. In 2008, several additional steps were taken by the MOHSW to address the human resource crisis, including formal embracing of "task-shifting" at national level (notably nurse-based HIV care at primary health care level) and the utilisation of lay health workers (community and facility-based) for non-clinical support tasks. Funding was also requested from the Global Fund to Fight AIDS, Tuberculosis and Malaria to support salary increases for all health staff and funding for lay counsellors. However, much more is needed to achieve anywhere near universal access to ART in Lesotho. Scott catchment area alone will need to recruit another 38 nurses, nine lab staff and nine pharmacy staff to achieve the goal of universal ART coverage by 2011.<sup>14</sup>

i All HIV-positive individuals in Stage IV of HIV disease and/or with a CD4 count <200 cells/mm<sup>3</sup>.

ii All HIV-positive individuals in Stage III or IV of HIV disease and/or with a CD4 count <350 cells/mm<sup>3</sup>.

## Panel 2. Introducing free care for people with HIV/AIDS

When MSF started working in Lesotho in 2006, the government already assumed a number of important costs associated with HIV/AIDS care, primarily ARVs and professional staff salaries. However, patients had to pay for other costs such as lab investigations, consultation fees, and drugs to treat opportunistic infections. The total cost of HIV care, including ART, averaged around 1000 Maloti (\$US 100) per patient per year. This cost is considerable in a country where those affected by HIV may earn less than \$US10 per month.<sup>3</sup> Given the considerable evidence that cost barriers are a major obstacle to accessing and adhering to ART,<sup>16</sup> MSF advocated for the elimination of user fees at primary health care level, and in the meantime subsidised all essential HIV-related services, including commodities, radiology, equipment, and hospitalisation fees, in Scott catchment area. In January 2008, the MOHSW abolished all user fees at the primary health care level and lowered the fees for other district-level services. However, the costs that remain, including hospitalisation for HIV-positive patients not on ART and chest x-rays, still pose barriers to accessing care, including diagnosis of TB. A costing study conducted by MSF, the University of Cape Town Health Economics Unit, the Health Planning and Statistics Department of the MOHSW, and Scott Hospital estimated that the government will require at least a doubling in financial support by 2011 (from 500 million to 1.1 billion Maloti) to ensure universal access to ART. Domestic and international funding for Lesotho's ART programme – as well as major increases in human resource capacity to cope with increased demand for health services and workload for nurses – clearly have to increase.<sup>14</sup>

Despite numerous constraints and challenges, the programme has made a considerable impact in the last three years: nearly 40,000 people have been tested for HIV, 11,000 people have been enrolled in HIV care, and over 4,000 people have been initiated on ART, with 86% of adults and 93% of children remaining in care after 12 months on ART. HIV transmission from mother to child has been reduced to less than 5% for pregnant women who were enrolled in the PMTCT programme.<sup>iii</sup> Improvements in diagnosis of all forms of TB have

been made and “one-stop” integrated services have been established for patients co-infected with TB and HIV.

This report provides an overview of services and outcomes during the first three years of the project (January 2006-December 2008), followed by a detailed description of the main components of successful decentralisation of care and treatment, and an analysis of key challenges and priorities for the future.



*Patients, HIV/TB lay counsellors, and nurses at Matelile Health Centre*

*Photo by Motlatsi Rammoneng*

iii Data is for those PMTCT clients who received ART for their own health or short-course AZT and NVP and for whom an HIV DNA PCR result is available.



Opening march, attended by 1,000 people on ART, at the one-year anniversary of the programme in Morija

Photo by Motlatsi Rammoneng

# Programme services and outcomes

The decentralised model of care developed in Scott catchment area covers one 102-bed district hospital and 14 rural health centres: nine in Mafeteng district and five in Maseru district. Each clinic offers a full range of HIV/AIDS services, including HIV testing and counseling (HTC), prevention of mother-to-child transmission (PMTCT) services, integrated TB and HIV care, and antiretroviral therapy (ART) for adults and children.

Mothibe Relebohile, a HIV/TB lay counsellor at Scott Hospital OPD, counsels patient



Photo by Melissa Visser

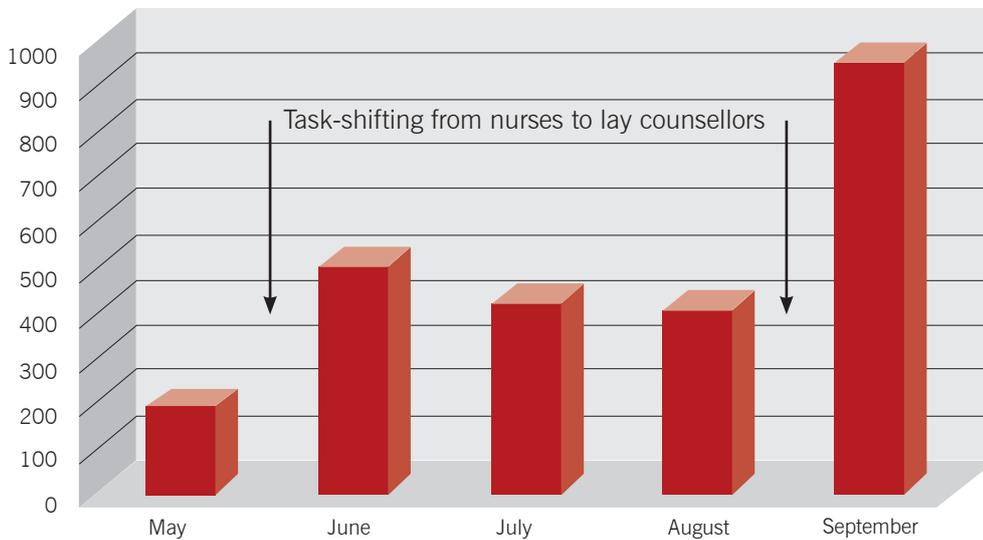
## HIV testing and counseling

Since 2004, Lesotho has undertaken a major effort to roll out country-wide HTC through a national 'Know Your Status' campaign. Between 2004 and 2007 over 300,000 people received an HIV test, and coverage of those tested increased from 2.7% to 17.2% (all age groups). As of January 2008, 163 health facilities were providing HTC services in Lesotho.<sup>17</sup>

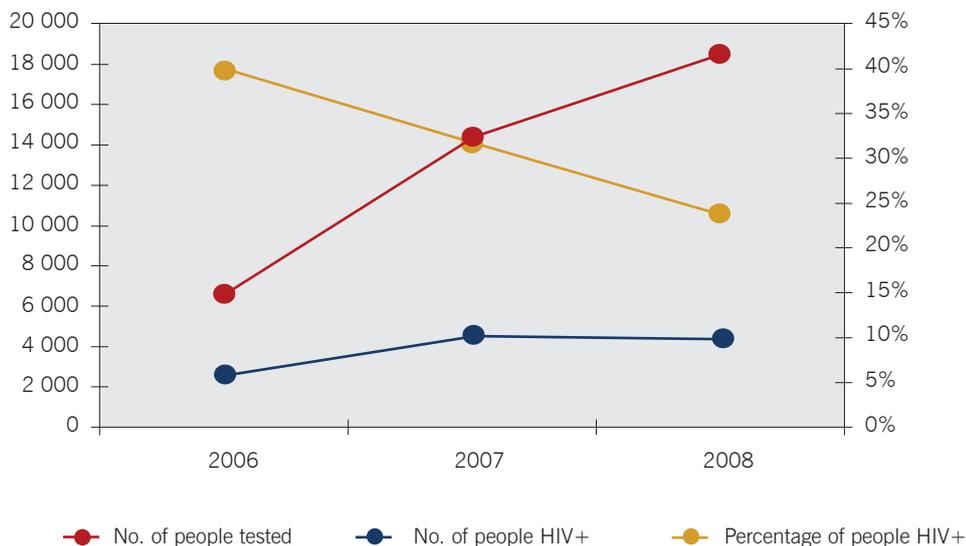
In 2005, prior to the introduction of the MSF-supported HIV/AIDS programme in Scott catchment area around 1,000 people had been tested for HIV. During preliminary clinic assessments conducted by MSF in January 2006, nurses reported regular shortages of test kits and lack of uptake of HTC due to stigma, denial, lack of understanding of HIV, and the absence of an incentive to test given the non-availability of ART.

During the first six months of the programme testing increased six-fold. This rapid increase was attributable largely to four factors: a more reliable supply of test kits; the establishment of dedicated HTC services at all health centres (expanding entry points for testing); task-shifting of HTC from nurses

**Figure 1: HIV testing at clinics and outpatient department in Scott catchment area (May-September 2006)**



**Figure 2: Number tested for HIV and proportion HIV-positive, 2006-2008**



to lay counsellors; and a more proactive approach to testing, including routine offering of testing to high-risk groups such as TB suspects and patients, pregnant women, and chronically ill patients. The two major peaks seen in Figure 1 above - from 100 tests per month in January 2006 to 500 per month in June and 1000 per month in September - were a direct result of the introduction of lay counsellors at the hospital and clinics (Figure 1). As of

December 2008, a cumulative total of 39,523 HIV tests were carried out; of these, more than one-third (11,625) were positive. The proportion of people testing positive has declined dramatically from an average of 40% in 2006 to an average of 24% in 2008, indicating a move from selective testing of symptomatic patients to more general population testing, and signaling that awareness at community level has increased considerably (Figure 2).

## PMTCT and early infant diagnosis

Prior to 2006, prevention of mother-to-child transmission (PMTCT) services were available in only two sites in Scott catchment area and the national protocol was single-dose nevirapine (NVP). Uptake of testing among antenatal care (ANC) clients was low (48% at the Scott Hospital ANC) and of those who tested HIV-positive 70% received single-dose NVP. Over the course of the programme, the situation has improved considerably. In 2008, according to the Scott Hospital ANC register, there were 767 new ANC clients during the year,<sup>iv</sup> 631 of whom (93%) accepted an HIV test. Of those who tested positive or who knew their status before attending ANC (249 or 32%) a total of 190 (76%) received highly active antiretroviral therapy (HAART) for their own health or a “minimum package” for PMTCT.<sup>v</sup>

As part of ensuring availability of a comprehensive package of HIV services, MSF piloted a dual/triple therapy PMTCT programme in 2006, two years before the strengthened regimen was adopted by the MOHSW in 2008. In April 2006, MSF and Scott joined with the MOHSW and the Clinton HIV/AIDS Initiative to pilot HIV DNA PCR testing for early diagnosis of infants with HIV in all clinics and in Scott Hospital.

Between April 2006 and December 2008, 717 HIV-exposed infants were PCR tested. An analysis of PCR results according to PMTCT intervention shows how a combination of a strengthened PMTCT regimen and the availability of ART in all peripheral clinics has been highly effective at reducing infant infections (Table 1).

In this analysis, 64% of the PCR results were from health centres and 36% were from Scott Hospital Baby Clinic. All results were first-time PCRs; data are not available for the follow-up PCR tests six weeks after weaning for those who were breastfeeding (however, 60% of those on HAART and 57% of those on the AZT/NVP regimen were documented to have been formula-feeding at time of PCR).

Just over one-quarter of pregnant women in the analysis (181 out of 717) were given ART, as indicated, for their own health (median start date: 28 weeks gestation). Among this group, 97% of infants tested HIV-negative. A further 299 pregnant women were given short-course AZT/NVP (median start date: 28 weeks gestation). Among this group, 95% of infants tested negative. An additional 25 were “late presenters” and received ARVs only at onset of labour. Of these, 84% of infants were HIV-negative. Positive diagnosis was highest in those

**Table 1: Analysis of PCR result according to PMTCT intervention (2006-2008)**

PMTCT Intervention	PCRs (n)	HIV +	
		n	%
HAART (at 28 weeks)	181	6	3%
AZT (at 28 weeks)*	299	15	5%
PMTCT at labour**	25	4	16%
PMTCT at birth***	12	3	25%
No PMTCT	133	37	28%
Incomplete information	67	8	12%
Total	717	73	100

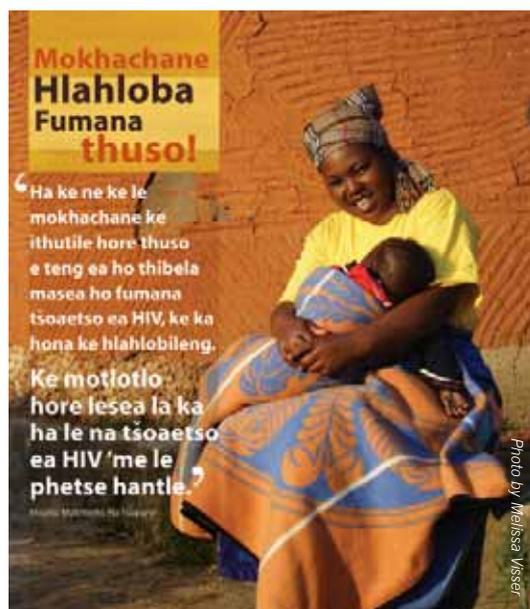
\* Plus or minus single-dose NVP and AZT 600mg intra-partum, tail protection for the mother and NVP and AZT syrups for the baby

\*\* Single-dose NVP plus or minus AZT 600 mg intra-partum, tail protection for the mother and NVP and AZT syrups for the baby

\*\*\* NVP+AZT syrup x 4 weeks

iv Not including those seen at the Adolescent Health Corner.

v Minimum package includes a one-month supply AZT 300mg BD, NVP 200mg stat, AZT 300mg/3TC 150mg (two tablets given at onset of labour), one AZT 300mg/3TC 150mg should labour continue >12 hours, AZT 300mg/3TC 150mg BD for 7 days, for the mother's tail protection, NVP syrup 0.6ml in capped syringe, and one bottle AZT syrup 1.2 ml to be give BD for 7 or 28 days for the baby.



Poster with Mojela 'Matebello, a PMTCT client at Masemouse Health Centre, whose baby was born HIV-negative

children whose mothers did not present during pregnancy and received no PMTCT intervention ( $n=133$ ; 37 HIV-positive).

Because the ground was prepared to have ART available in each clinic, it was possible to offer PMTCT at health centre level, not only at Scott Hospital; two-thirds of pregnant women and infants in the above analysis received services at their clinic and there was no difference between clients attending clinics and those attending Scott Hospital. These results are very encouraging and point to the urgent need to offer robust ARV regimens to all HIV-positive pregnant women at primary care level in order to prevent infant infections.

In line with these findings, the national PMTCT Technical Advisory Committee established new PMTCT guidelines that included the following innovations: design of a "minimum package" to give to all pregnant women on their first ANC visit, together with intensive counselling, provision of HAART to all women with CD4 counts less than 350 cells/mm<sup>3</sup> (short-course AZT/NVP for those with CD4 counts above 350 cells/mm<sup>3</sup>), and early infant diagnosis by DNA PCR for all children at six weeks. Guidelines were further revised at the end of 2008 to include immediate ART for all PCR-positive children under 12 months,<sup>18</sup> with PCRs repeated six weeks after cessation of breastfeeding.

The most significant challenges to the PMTCT programme are that most pregnant women visit

a health centre to attend ANC only once, that at least half of women in Lesotho give birth at home, and that avoiding mixed feeding during the first six months is complex in a rural setting.<sup>vi</sup>

It is hoped that the minimum package described above will allow HIV-positive pregnant women to self-administer PMTCT medication at home. Most women will return to the health centre six weeks post-delivery to vaccinate their child, and this provides an opportunity for early infant diagnosis. Counselling for PMTCT clients will be intensified in 2009 to improve uptake, adherence, and follow-up of PMTCT.

## TB/HIV and drug-resistant TB

As in the rest of Lesotho, TB continues to be the leading cause of morbidity and mortality among HIV-positive people in Scott catchment area. A rapid appraisal of the TB programme in Scott catchment area carried out by MSF and Scott Hospital in 2006 identified a number of weaknesses in TB care: defaulter and mortality rates were high and treatment success rates were low; HIV and TB services were largely provided separately; and reliable culture and drug susceptibility testing were not available.<sup>19</sup>

Given that 80-90% of TB patients are co-infected with HIV in the catchment area, integration of HIV and TB services was considered a high priority, and a number of urgent actions were taken. These included routine offering of HTC to all TB patients, systematic TB screening for all HIV-positive patients, provision of both HIV and TB care at the health centres (previously TB patients were referred to the hospital for initiation of TB therapy), and cotrimoxazole prophylaxis and vitamin B6 provision to all TB patients. To support these activities, lay counsellors were trained to provide TB education (on topics such as TB transmission, TB treatment, and how to produce quality sputum) and adherence counselling (a TB treatment adherence counselling strategy was introduced in the second half of 2008).

A comparison of outcomes between 2005 and 2008 shows a positive evolution. While the mortality rate remains unchanged (at around 15%), the defaulter rate has dropped considerably to just over 5% in Quarter 1 of 2008 and the treatment success rate has increased to nearly 78% in Quarter 1 of 2008.

vi In 2006, MSF introduced and subsidised formula milk for women who chose to exclusively formula feed. In 2009, this policy will be discontinued, in line with national policy, except for orphans and for infants whose mothers are too ill to breastfeed.



Mosala Masinyale, a MDR-TB patient at Matsieng Health Centre, taking his medication

One of the major challenges to reducing TB-related mortality lies in the early diagnosis of TB, particularly smear-negative, extrapulmonary TB, and drug-resistant (DR) TB. A mortality review done between July and October 2007<sup>vii</sup> (n=263 for pre-ART deaths and n=159 for ART deaths) found that 71.5% of deaths among HIV-positive people not yet on ART were due to TB. Among those already receiving ART, 53.3% of deaths within the first three months and 40% of deaths thereafter were estimated to be due to TB.

MSF developed a smear-negative diagnostic algorithm for use by nurses in rural health centres. In a preliminary study of the algorithm, 39 HIV-infected adults were assessed by four nurses using the algorithm. Twenty-three (23) patients

(59%) had negative smears or dry cough but were initiated on TB treatment on the basis of x-ray or elevated C-reactive protein (CRP) in the presence of progressive TB symptoms. TB treatment was initiated in these patients roughly two weeks after diagnosis. The study demonstrated that HIV-infected adults with smear-negative TB can be successfully initiated on TB treatment by nursing staff with doctor support. The algorithm assisted nurses in differentiating those most likely to have smear-negative TB from other TB suspects using clinical and radiological criteria, plus CRP.<sup>20</sup>

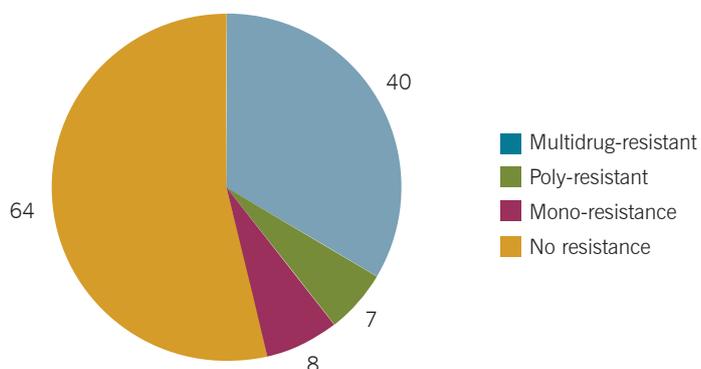
Improving diagnosis of all forms of TB continues to be a major priority in order to reduce morbidity and mortality. Other methods to improve laboratory diagnosis of TB have been considered and fluorescence microscopy was introduced in the Scott Hospital Laboratory in the end of 2008.

Efforts to improve diagnosis and management of DR-TB were launched in early 2007. An interim system for accessing reliable culture and drug susceptibility testing (DST) in South Africa was established at the end of 2006 with the National Health Laboratory Service in Bloemfontein. Since then, capacity for culture and DST at the Central Laboratory at Queen Elizabeth II National Referral Hospital in Maseru has been reinforced, and steps are underway to transfer testing of samples from Scott catchment area to this lab.

As of the end of December 2008, 119 samples were found to be culture positive. Among these, 40 (34%) were multi-drug resistant strains, seven (6%) showed poly-resistance, and eight (7%) were mono-resistant (see Figure 3). Nine (8%) were mycobacteria other than TB. All MDR-TB patients are referred to Botsabelo Hospital in Maseru.

Finally, significant attention has been paid to improving TB infection control, including the establishment of an Infection Control Committee at Scott Hospital, and the introduction of “low-tech” improvements in environmental, administrative, and personal protection measures at the hospital and health centre level. These measures include maximising natural ventilation and light; screening and separating coughing (smear-positive) patients from non-coughing patients, to the extent possible; educating patients on “cough etiquette” and providing N95 respiratory masks to staff.

**Figure 3: Results of culture sampling for drug-resistant TB (December 2006-December 2008)**



vii Retrospective individual folder review of all RIP files identified by clinic staff at 14 health centres and Scott Hospital OPD of both people enrolled in the programme but not yet initiated on ART (pre-ART) and those already initiated on ART, stratified into early deaths (< 3 months on ART) and late deaths (> 3 months on ART). Transfers-in to the programme were included in the analysis.

Infection control forms part of a broader package of staff protection measures that include the provision of isoniazid prophylaxis to all HIV-positive staff, as well as confidential HIV care and treatment services for health staff, and Hepatitis B vaccination for all health staff.

## Antiretroviral therapy

There are an estimated 30,000 people living with HIV/AIDS in Scott catchment area, 9,000 of whom are in clinical need of ART.

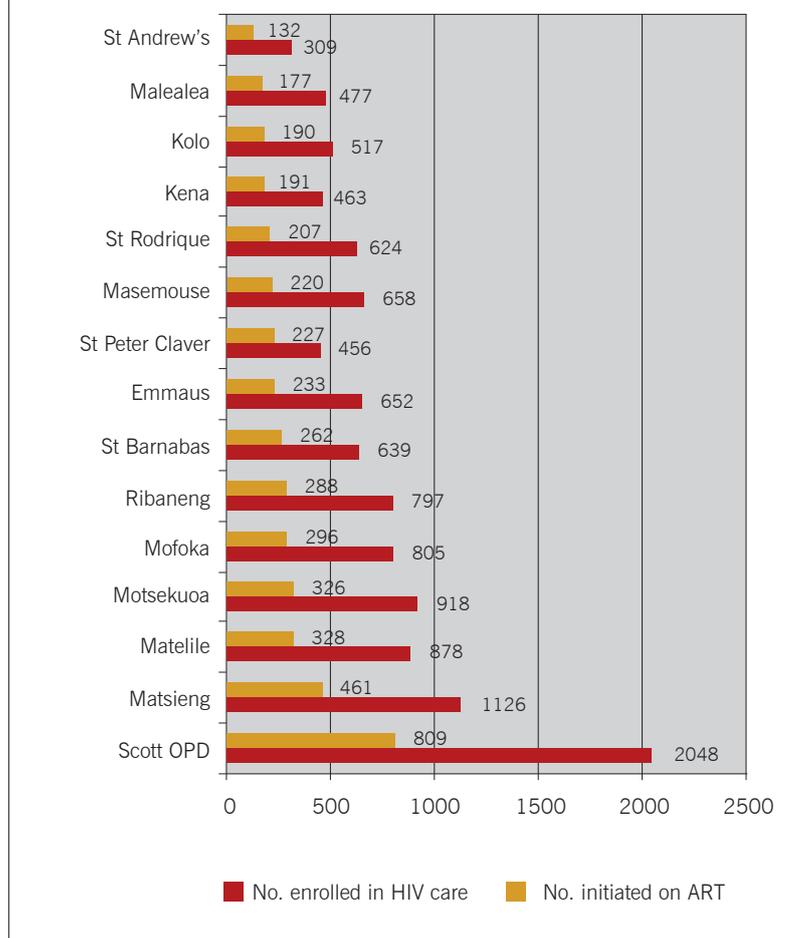
In the programme, ART was introduced at the primary care level from the outset, with the first patient initiated on ART at Kolo health centre in the beginning of March 2006. Since then 11,367 people have been enrolled in HIV care (5% children), 4,347 of whom have been initiated on ART (6.5% children).<sup>viii</sup> Figure 4 shows the number of people enrolled in HIV care and initiated on ART per site in Scott catchment area. This shows that overall, four in five people are initiated at the health centre level, demonstrating the importance of moving ART initiation and management beyond the hospital setting.

## Adult outcomes

Enrolment has increased substantially year to year. The proportion of people arriving sick (with a CD4 less than 50 cells/mm<sup>3</sup>) has decreased from 27% in 2006 to 13% in 2008, an indication that people are seeking treatment earlier.

Outcomes for the first two years are highly satisfactory, and compare favourably with outcomes from other programmes, with 86% of patients still alive and in care at 12 months (Table 2). For the first three quarters of 2006, 80% of patients were remaining in care at 24 months. A systematic review of HIV cohorts from 13 countries in sub-Saharan Africa reported lower retention rates at six months (79% vs 88.8% in Scott catchment area), 12 months (75% vs 86.2%) and 24 months (61.6% vs 80%).<sup>xi</sup> Early mortality (within the first 6 months) is quite low despite nurse-based care in clinics, while the rate of loss to follow-up remains remarkably low at 24 months. Although long-term follow-up data are still limited, this last

**Figure 4: Enrolment in HIV care per site (December 2006-January 2008)**



result, showing that four in five patients are still in care at two years, is particularly encouraging and probably reflects the positive impact of two main programme principles: the decentralisation of services to provide care close to people's homes, and the provision of free care, both of which have been associated with better retention in care.<sup>xxii</sup> <sup>xxiii</sup> <sup>xxiv</sup>

In the second half of 2007, MSF supported the introduction of several new therapeutic innovations in the programme, including piloting the revised national ART guidelines launched at the end of the year.<sup>ix</sup> These guidelines raise the threshold of initiation from CD4 counts less than 200 cells/mm<sup>3</sup> to less than 350 cells/mm<sup>3</sup> and include a number of treatment innovations, including tenofovir disoproxil fumarate (TDF) in first-line therapy.

viii Not including 332 ART patients who were transferred in from other sites in the country (for a total of 4,679 ever on ART in the programme).

ix MSF participated in the definition of the revised national ART guidelines as a member of the Technical Working Group and the guideline drafting team.

**Table 2: Adult ART outcomes at 6 and 12 months**

Baseline	2006		2007		2008		Totals
Yearly enrolment	836		1336		1888		4060
	n	%	n	%	n	%	
CD4 <50	194	27%	240	19%	225	13%	19.7%
<b>At 6 months*</b>							
Died	71	9%	109	8.3%			9.3%
Lost to follow-up	9	1%	53	4.0%			2.3%
Remaining in care	742	90.0%	1146	87.6%			88.8%
<b>At 12 months*</b>							
Died	92	11.3%					11.3%
Lost to follow-up	20	2.5%					2.5%
Remaining in care	702	86.2%					86.2%

\* Cohort data do not include patients transferred out

### **Paediatric outcomes**

One of the major objectives of the programme from the beginning was to make care and treatment for children, including ART, accessible at clinic level. Paediatric HIV care poses a number of challenges for a nurse-led model and its implementation has been supported strongly by doctors and experienced nurse clinicians in the MSF mobile medical teams. Efforts to strengthen the confidence and capacity of clinic nurses have led to an improvement in independent management of paediatric HIV cases by nurses, but this area is recognised as needing ongoing additional support. The main challenges include continuing to build nurse confidence and skills, supporting mothers and care-givers

to accept ART for their children, and pushing for the development of simplified drug regimens and guidelines.

The steady increase in enrolment – a doubling in annual enrollment in two years from 54 in 2006 to 116 in 2008 – reflects an increase in confidence and skill of nurses to initiate treatment in children. Outcomes in children are also highly satisfactory, with the number remaining in care at 12 months (93%) comparing favourably with other cohorts from southern Africa (Rwanda: 95%<sup>25</sup>; Malawi: 72%<sup>26</sup>) and multicentric cohorts (14 countries: 89%).<sup>27</sup> This provides strong evidence that the provision of ART to children by nurses at the primary care level is feasible and effective (Table 3).

**Table 3: Paediatric ART outcomes at 6 and 12 months**

Baseline	2006		2007		2008		Total
Yearly enrolment	54		75		116		245
	n	%	n	%	n	%	
CD4 <50	4	8%	6	8%	11	11%	9%
<b>At 6 Months*</b>							
Died	2	4%	8	11%			7.5%
Lost-to follow up	0	0	0	0			0%
Remaining in care	48	96%	67	89%			92.5%
<b>At 12 Months*</b>							
Died	2	5%					5%
Lost-to follow up	1	2%					2%
Remaining in care	39	93%					93%

\* Cohort data do not include patients transferred out



*Sr Mantsoaki Sekhesa, Scott OPD nurse, discusses treatment with patient*

# Providing ART at the primary health care level: a nurse-driven, community-supported model of care

The rapid rollout of ART in this rural area was made possible by the establishment of a nurse-driven, community-supported model of care.

At the start of the programme in early 2006, ART in Lesotho was available only at the hospital level, and was almost entirely provided by doctors, which were in very short supply. Given the acute shortage of professional health staff in the country, and the fact that many people live in remote rural areas at great distance from a hospital, the core objective of the programme was to demonstrate the feasibility of delivering ART at the primary health care level under the management of nurses. Task-shifting, which was not new in the country, was embraced as a means of optimising the work of existing health staff<sup>28</sup> (see Panel 3), and the community was mobilised as an additional means of supporting health services. The two major innovations introduced in the MSF-supported programme in

Lesotho through this decentralised model of care were the empowerment of all nurses to provide HIV care, including ART, for adults and children, and the engagement of lay counsellors to provide critical support in the delivery of HIV and TB services.

## **Nurse-initiated and managed antiretroviral therapy**

The dependence on doctors in hospitals to deliver ART severely limited capacity to deliver ART. Building on MSF's previous experience in South Africa in Khayelitsha (Western Cape Province) and Lusikisiki (Eastern Cape Province),<sup>29</sup> nurses were supported to provide HIV care and ART at the clinic level. Unlike South Africa, the regulatory environment in Lesotho was flexible enough to allow all levels of nurses<sup>x</sup> broad clinical and prescribing powers, and this model was easily accepted.

x Nurse clinicians, professional nurse/midwives, and trained nursing assistants.



*MSF doctor explaining the use of a pillbox for the first ART patient initiated in the programme, an 11-year old boy, at Kolo Health Centre*

### **Nurse-oriented training and tools**

To equip nurses with the skills to meet these new responsibilities, intensive pre- and in-service training was provided on management of HIV-related conditions and ART. Overall, more than 150 nurses have been trained (given the high turnover of nursing staff, training must be repeated regularly). This one-week comprehensive training in HIV/AIDS is repeated at least three times a year; this, together with a period of two months of intense clinical mentorship from the MSF mobile team and from more experienced clinic nurses allows a nurse, new to HIV care, to feel confident about the management of OIs and ART use. Targeted trainings have also been provided on specific issues such as laboratory investigations, diagnosis of smear-negative TB, DR-TB, infection control, family planning, INH prophylaxis, PMTCT, and paediatric ART. In addition monthly refresher meetings are held covering a range of topics identified as needing more attention during supervision visits.

A number of nurse-friendly clinical support tools have been developed, including a nurse guideline for HIV management,<sup>30</sup> an algorithm for the diagnosis of smear-negative TB,<sup>20</sup> and standardised protocols and flowcharts for basic clinic procedures.

### **Mobile medical teams**

Each clinic is supported by a member of the MSF mobile medical team – either a doctor or an experienced nurse clinician – who visits on a regular basis to provide clinical mentorship for

nurses, referral support for complicated cases, and assistance with general clinic management. Initially the mobile teams engaged in direct clinical care through weekly visits. As the skills of nurses improved over time the support role shifted to fortnightly visits to provide mentorship for the diagnosis and management of complicated HIV-related conditions, ARV side-effects, and other clinical challenges. The alternate week is used to support TB integration across clinic services, to strengthen integration of PMTCT in ANC services, and to support paediatric ART.

Shortly after the programme was established, nurse-initiation of ART was promoted by the World Health Organization, and has been adopted by a number of countries in the region.<sup>28</sup> Nurse-initiation of ART was incorporated formally into the Lesotho National Treatment Guidelines in 2008.<sup>31</sup>

### **Mobilising new capacity: the role of HIV/TB lay counsellors**

Acknowledging that the ever-increasing need for ART could not be met due to scarcity of nurses and other professional health staff, and based on previous experience in Lusikisiki and other rural ART programmes, MSF and Scott launched an initiative to recruit “lay counsellors” to reinforce capacity to deliver of HIV and TB services. Beginning in March 2006 lay counsellors were recruited from within the community (typically people living openly with HIV/AIDS, village health workers, or peer educators), trained by MSF, and directly supervised by the nurse-in-charge of the clinic with support from a small team of MSF counselling coordinators and treatment literacy educators who visit clinics every two weeks.

In contrast to traditional models of community-based health worker support, these lay counsellors



*MSF doctor conducting a training for nurses*

are facility-based, receive structured training in HIV and TB, have clear task descriptions, and are compensated for their work (receiving 35-60 Maloti per day depending on level of responsibility). As of December 2008, there were a total of 45 facility-based lay counsellors working across the catchment area.

The lay counsellors are the backbone of the programme, providing essential peer support and increasingly acting as lay “case managers” following HIV and TB patients through the continuum of care.

Lay counsellors manage HTC services (including collection of dried blood spots for infant diagnosis in some cases), and provide pre-ART preparatory counselling, ART and TB adherence support, and general clinic support tasks, including identification of patients who are eligible for ART but have not yet been started and ART and TB defaulter identification and tracing. Their roles will further expand in 2009 to provide adherence support for children and for mothers enrolled in the PMTCT programme.

Supporting adherence to life-long ART is the core task of the lay counsellors. Working together with nurses, the lay counsellors help to boost adherence through counselling, material support (for example, use of pillboxes), and psycho-social assistance. One of the challenges they face, and an important barrier to adherence, is that many Basotho move temporarily or semi-permanently to South Africa in search of work. Clinic staff, including counsellors, try to respond to their clients’ needs by detailing HIV clinical history in patient held-records, providing 2-3 month refills and helping the client’s continuity of care by discussing what facilities providing ART are in the area in South Africa to which they are moving.

But counsellors are not only focused on adherence. As the workload and the complexity of lay counsellors’ tasks expanded, several new tools and systems were put into place to support lay counsellors in carrying out their numerous other tasks and provide ongoing quality control. When national guidelines changed to promote the earlier initiation of treatment, different ‘time-to-initiation’ tracks were developed, overseen by the lay counsellors to ensure that the sickest patients and pregnant women were prioritised. At the most overloaded facilities, a ‘triage tool’ will be piloted to



*Sr Mabaeti Makateng, nurse  
at Motsekuoa Health Centre*

allow experienced lay counsellors to provide refills for stable adult patients<sup>xi</sup> and refer to the nurse at the first sign of any complications. This system will require strong oversight, but should help to reduce the workload of nurses so that they can focus on initiating new patients and managing complex clinical problems.

At present, financing for the lay counsellors is subsidised entirely by MSF and administered by Scott Hospital, and all training and supportive supervision is carried out by members of MSF’s treatment literacy and counseling team who visit clinics every two weeks and convene monthly meetings to ensure ongoing refresher trainings and address challenges and obstacles lay counselors face at clinics. A sustainable solution must be found to ensure that the essential support provided by the lay counsellors is formally recognised in Lesotho and that they receive appropriate compensation, training, and supervision over the long term.

## **Engaging the community and empowering PLWHAs**

Considerable efforts have been made to mobilise communities in order to increase awareness and uptake of HIV and TB services and empower people living with HIV/AIDS (PLWHAs). At facility level, treatment literacy is provided routinely for all patients presenting to clinics via health talks and other educational workshops on clinic grounds.

xi Defined as non-pregnant adults on ART for more than 12 months with no new opportunistic infections, ARV side effects, or adherence problems.

Community festival at St  
Rodrique Health Centre



Another important element of community support has been the focus on psychosocial support and empowerment of PLWHAs. In weekly support sessions run by lay counsellors, participants – some newly diagnosed, others on ARVs for several months or years – have helped each other cope with issues around disclosure of HIV status, adherence to ART, and involvement of family members in HIV/AIDS treatment. Lay counsellors and nurses have also organised clinic-based ‘teach-in tents’ on more focused topics, attended by an average of 300 people. Several skills-building, leadership, and drama trainings have also been

Teach-in tent led by nurse at  
Mofoka Health Centre



carried out for support sessions and health centre nurses. Individuals living openly with HIV/AIDS who have received such training (‘Positive Voices’) play a key role in promoting openness about HIV, providing peer support, and radically changing perceptions about HIV in their communities.

To reach people who were not accessing health services, ‘pitsos’ (community gatherings) were organised an average of five times a year in clusters of remote villages, which nurses and area chiefs identified as priority areas for outreach. In addition, clinic gatherings, attended by more than 600-800 people each, were held with the support of local chiefs and councilors. General information materials were developed, the most effective of which were posters featuring ‘Positive Voices’ explaining their personal experience of accessing PMTCT or ART.

Community activities were initially geared toward reducing stigma and denial in some of the most remote parts of Scott catchment area in order to address discrimination and encourage people to come forward for testing, care, and treatment. As awareness about HIV and service availability at clinics increased, community events have shifted toward more specific topics, such as opportunistic infections (in particular TB) and adherence to treatment. In the future, priorities for mobilising village health workers, traditional leaders, and other community members will include PMTCT, testing and treatment for children, and ART and TB defaulter tracing.

## Panel 3: Allocation of HIV and TB tasks for doctors, nurses, and lay counsellors at primary health care level

Cadre	
District/HSA level	
Public health nurse	<ul style="list-style-type: none"> <li>– Carries out monthly visits to health centres</li> <li>– Conducts quarterly supervision visits</li> <li>– Provides refresher trainings</li> </ul>
Doctor	<ul style="list-style-type: none"> <li>– Provides clinical mentorship at health centres (and OPD) during bi-weekly clinic visits</li> <li>– Provides referral support for complicated cases</li> <li>– Prescribes ART for non-ARV naive patients</li> <li>– Prescribes TB treatment for HIV+ patients with sputum negative and/or EP TB in a patient who is in the first 3 months of ART</li> <li>– Manages patients suspected to have TB IRIS</li> <li>– Makes clinical decision about switching to second-line therapy, as needed</li> <li>– Manages grade 4 side effects</li> <li>– Formally admits patients to hospital and provides inpatient care</li> </ul>
Health centre level	
<b>Nurse clinician</b>  MOHSW minimum staffing: 1 per health centre	<ul style="list-style-type: none"> <li>– Initiates and manages first-line ART for adults and children</li> <li>– Interprets chest x-rays to diagnose smear negative TB using the smear negative algorithm and detects unilateral pleural effusion and miliary patterns (if specifically trained)</li> <li>– Initiates second-line ART in the case of treatment failure, after doctor's approval</li> <li>– Interrupts treatment in the case of severe adverse events and manages treatment substitutions for first-line as needed</li> <li>– All of the below</li> </ul>
<b>Professional nurse</b>  MOHSW minimum staffing: 1 per health centre	<ul style="list-style-type: none"> <li>– Initiates and manages first-line ART for adults and children</li> <li>– Makes a presumptive diagnosis of severe HIV disease in children &lt; 18 months (in the absence of DNA PCR)</li> <li>– Refers patients to hospital</li> <li>– Initiates INH prophylaxis</li> <li>– Initiates TB treatment for patients newly initiated on ART</li> <li>– All of the below</li> </ul>
<b>Trained nurse assistant</b>  MOHSW minimum staffing: 2 per health centre	<ul style="list-style-type: none"> <li>– Initiates and manages first-line ART for adults and children</li> <li>– Stages HIV+ adults and children according to WHO classification and determines clinical need for ART</li> <li>– Manages OIs</li> <li>– Initiates cotrimoxazole as prophylaxis</li> <li>– Initiates short-course AZT prophylaxis for PMTCT</li> <li>– Prepares childrens' caregivers to provide ART</li> <li>– Provides education and counselling on feeding options for HIV+ pregnant women</li> <li>– Identifies DR-TB suspects and orders DST</li> </ul>
<b>HIV/TB lay counsellor (adherence)</b>  Recommended minimum staffing: 1 per health centre	<ul style="list-style-type: none"> <li>– Provides preparatory counselling before patients are initiated on ART</li> <li>– Provides ART and TB treatment adherence counselling</li> <li>– Identifies TB and ART defaulters and mobilises community-based health workers to trace them</li> <li>– Facilitates support groups and provides health talks on pertinent topics (e.g. ANC and PMTCT, HTC, TB, ART)</li> <li>– Counsels pregnant women on PMTCT and testing schedule for infants</li> <li>– Schedules appointments for HIV patients, including: labs, counselling, refills, and clinical exams according to national guidelines</li> <li>– Assists in recording basic information in registers and compiling monthly reports, including pre-ART, ART, HTC, PMTCT, TB suspect, and general TB registers</li> <li>– Manages folders of HIV patients and files/cards of TB patients</li> <li>– All of the below</li> </ul>
<b>HIV/TB lay counsellor (HTC)</b>  Recommended minimum staffing: 1 per health centre	<ul style="list-style-type: none"> <li>– Provides HIV testing and counselling for adults and children via rapid tests</li> <li>– Collects dried blood spots (DBS) for PCR testing of infants, after training</li> <li>– Provides TB and STI screening and refers to nurse accordingly for all HIV+ patients</li> <li>– Weighs patients, carries out basic cough triage and other clinic support tasks</li> <li>– Provides prevention education and commodities</li> <li>– Provides sputum production education, fills out lab specimen request forms, collects and prepares lab samples for transport</li> </ul>
<b>Community-based health worker</b>	<ul style="list-style-type: none"> <li>– Traces TB treatment and ART defaulters</li> <li>– Provides education and encourages uptake of HIV- and TB-related services</li> <li>– Refers symptomatic patients to health centre</li> <li>– Carries out awareness-raising activities</li> </ul>



Patient leaving  
Mofoka Health  
Centre

Photo by Wayne Conradie

# Strengthening the primary health care system to support HIV care

## Improving laboratory services

Significant investments were made during 2006 to integrate all lab investigations necessary for HIV diagnosis, care, treatment and monitoring into the existing Scott Hospital laboratory and strengthen overall lab capacity. MSF installed a CD4 machine, an automated chemistry analyser, a refrigerator and water bath, and provided regular trainings, particularly on the use of new HIV-related assays, as well as management support via a full-time MSF lab advisor. MSF also subsidised the initial employment of two additional lab technicians (not HIV-specific), and these have now been absorbed by Scott Hospital. Scott Hospital Laboratory, which today functions with no additional MSF support (except the cost of some reagents and equipment maintenance), was recognised by the Central Laboratory for being the best district lab in the country in 2008.

To support diagnostic capability at clinic level, a dedicated specimen collection system was introduced to ensure reliable collection of samples and reporting of results across all 14 clinics for

all essential lab tests (not just HIV and TB). The specimen collection vehicle, which visits each clinic once a week to pick up samples and deliver results, has a maximum turn-around time of one week. It is a key foundation for the functioning of decentralised HIV and TB care and treatment services integrated within existing primary health care structures and activities.

MSF also supported the provision of certain key diagnostic tools. All HIV tests were provided by MSF for the first two years (more than 21,000 tests); these are now provided by the MOHSW. MSF continues to support the diagnosis of DR-TB via the National Health Laboratory Services in Bloemfontein, South Africa, due to limited capacity of the national lab, and also supports viral load analysis for patients with suspected virological failure based on clinical or immunological criteria.

## Reinforcing drug supply

When the project began there were no antiretrovirals in Scott Hospital catchment area, and the availability of drugs to treat opportunistic

infections was extremely limited. Steps were taken to ensure adequate supply of these medicines across the hospital and clinics including procuring a buffer stock of ARVs and drugs to treat opportunistic infections; building an extension to the hospital pharmacy to increase storage capacity; subsidising the initial employment of a pharmacy technician (taken over by Scott Hospital in 2008); strengthening drug supply management across the clinics and initiating monthly pharmacy supervision visits; and undertaking basic clinic refurbishment to improve drug storage.

MSF has also supported the rapid introduction of new medicines as soon as they were adopted by the national guidelines, including fixed-dose combinations of TB drugs and paediatric ARVs, tenofovir, and heat-stable lopinavir/ritonavir. The supply of certain essential medicines has remained problematic and MSF continues to play a key role in providing buffer stocks to avoid stock-outs.

## Infrastructural improvements

Significant infrastructure improvements have been required to expand capacity for an increased volume of patients and to provide essential equipment to improve clinic organisation. At Scott Hospital, eight counseling rooms were built or renovated and an extension of the pharmacy was constructed. At clinics, essential minor refurbishments were carried out to improve patient flow, drug storage, and management of patient files.

A project is underway in 2009 to improve infection control, primarily nosocomial TB transmission, across the catchment area. In addition to focusing on administrative and personal protection measures, significant architectural construction and renovation works will be carried out to improve natural light and ventilation and allow for separation of coughing (smear-positive) patients and isolation of DR-TB suspects in the male and female wards, and to create safer waiting and sputum production areas in the lab at Scott Hospital. Renovations, including construction of outdoor waiting areas, are also planned at clinics.

## Strengthening programme monitoring and supervision

Mobile medical teams have supported improved data recording by promoting the use of MOHSW registers and patient cards (for HIV, TB, ANC, etc.), and ensuring that monthly HTC, HIV care,



*Lab technician at Scott Hospital examining sputum*

and ART reports are made. To assess programme performance, a simplified cohort monitoring tool was developed using restricted indicators that could be collected from the MOHSW ART register rather than having to take data from individual patient files. This simplified system not only produces quarterly outcomes for reporting purposes, but more importantly, empowers nurses with feedback about the ART services they are providing so they can address weaknesses and make necessary improvements to enhance quality of care.

Individual clinics are assessed via a quarterly TB/HIV clinic supervision tool which measures both process and outcome indicators in order to get a snapshot of overall clinic performance and focus supervisors and clinic staff on specific challenges in the coming quarter. The tool includes a knowledge assessment for the nurses on clinical management of HIV and TB, an analysis of drug supply management, and an evaluation of counselling and education activities, occupational health and infection control measures, and key indicators linked to ART, TB, and PMTCT services. These quarterly assessments are carried out jointly by MSF, Scott Hospital, and, as of early 2009, relevant district health management teams.

Patients queuing  
outside St Rodrique  
Health Centre



Photo by Alessandra Vilas Boas/MSF

## Challenges for handover

As an emergency medical humanitarian organisation, MSF sees its role in supporting HIV/ TB care and treatment in Lesotho as helping to kick-start a dynamic, provide an infusion of necessary technical and financial resources, and introduce novel approaches to care and treatment as well as therapeutic innovations that can be taken up and replicated at national level. The initial project was designed for three years and intended to balance the achievement of a rapid clinical impact through ambitious enrolment of patients on ART with realistic resource investments, such that the public services would be able to guarantee uninterrupted continuity of services.

MSF attempted to realise this goal by, for example, utilising and supporting as much as possible local resources, avoiding substitution where possible, providing non-financial incentives to help motivate existing MOHSW and CHAL nursing staff, and investing in lab and pharmacy capacity at Scott Hospital rather than building parallel systems. The most important challenge has been ensuring strong programme management capacity that will continue once MSF phases out.

MSF has decided to extend its presence for two more years and to launch a second phase of the

project primarily focused on intensifying the transfer of responsibility for the programme to local health authorities and partners. This is due partly to the administrative process now underway in Lesotho to decentralise to local government, coupled with related health sector reforms, which have divided



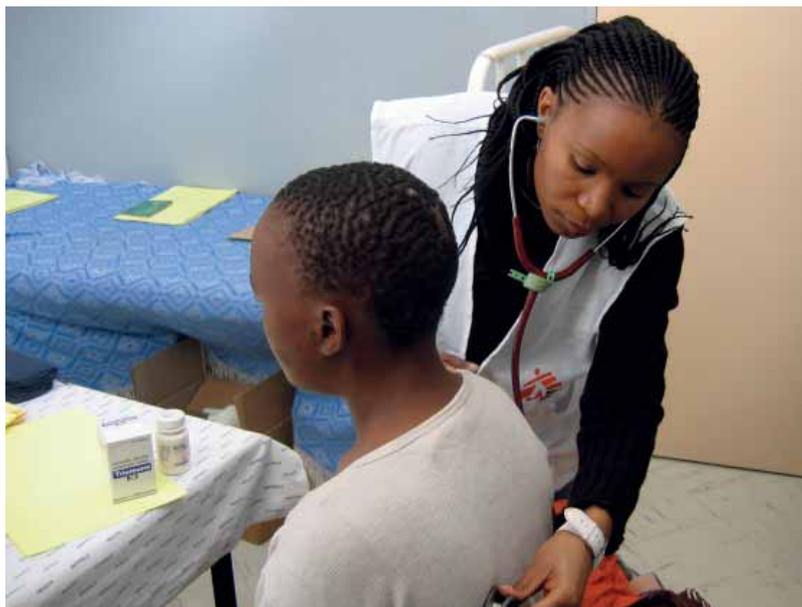
Sr Makalaele Mabuse, a trained nurse assistant at St Barnabas Health Centre, initiating ART for a patient

the former catchment area of Scott Hospital Health Service Area into two districts with different management structures. In each district there is a district health management team (DHMT), which is responsible for supervising primary health care. In Maseru district, the Scott Hospital PHC team is part of the DHMT and has been formally delegated responsibility for continuing PHC supervision in the five clinics formerly in Scott Hospital HSA. The future management of PHC in Mafeteng is less clear. Therefore, a two-track process for handing over the MSF-supported programme has been established, with a faster track for the five clinics in Maseru district (by late 2009) and a slower track for the nine clinics in Mafeteng district, plus Scott Hospital (by late 2010).

MSF, together with the Maseru DHMT, Scott Hospital, and other partners have together defined the strategic objective of ensuring quality comprehensive HIV/AIDS care in the clinics in the long-term independent of MSF. To make this possible, seven operational objectives have been defined, each tied to specific measurable indicators, and meetings are held on a monthly basis with all stakeholders to discuss progress on achieving these targets and developing clear action plans for the next month. The key objectives are as follows:

- Maintaining an acceptable quality of care (measured, for example, by mortality and loss to follow-up at 12 months on ART);
- Ensuring minimum necessary staffing levels, ongoing training, and clinical mentorship (essential to maintain quality of care, especially for complicated cases, and ensure competence of nurses despite very high turnover);
- Assuring an uninterrupted supply of essential HIV medicines, including ARVs;
- Maintaining reliable lab services and a specimen collection system;
- Guaranteeing a long-term future for the lay counsellors;
- Ensuring that the cost of care, especially hospitalisation fees and chest x-rays, is free for HIV-positive patients and TB suspects.

While progress is being made with many of the operational objectives, several key inputs currently provided by MSF are far from ready for handover. Capacity for regular clinical mentorship, clinic supervision, and programme management for HIV and TB services – carried out today almost entirely



*MSF doctor and patient at Kena Health Centre*

by MSF – needs to be strengthened as a matter of urgency. A reliable drug supply of essential HIV medicines needs to be guaranteed; ordering systems have to be strengthened; and budgetary problems have to be solved to ensure that there is no longer a need for MSF to fill the gaps when there are stock-outs.

Finally, the lay counsellors are essential for mitigating human resource shortages and supporting delivery of HIV and TB care and treatment. While their critical role is recognised by clinic staff, programme managers, the MOHSW, and all implementing partners, there is currently no clear guarantee that they will continue to be supported after MSF's departure. Discussions are underway with the MOHSW and other implementing partners to launch an initiative that will ensure funding, training, and supportive supervision for lay counsellors over the long-term.

# Conclusions

The MSF-supported programme in Scott catchment area provides further evidence that HIV care and treatment can be provided effectively at the primary care level, to the benefit of primary health care services. It also validates several critical areas for task-shifting that are being piloted in many countries in southern Africa and beyond, including nurse-driven ART for adults and children, and lay counsellor-supported testing, adherence, and case management. In addition to rapidly increasing coverage of ART and related services, the programme has managed to incorporate some of the latest national and international guidelines for PMTCT and ART that support important improvements in quality of care.

However, a number of critical clinical and programmatic challenges need to be addressed urgently. Clinical challenges include continuing enrolment rates for ART care to keep up with ever-increasing needs without compromising on quality of care; increasing nurse confidence and skills for paediatric care; promoting community-based PMTCT; and continuing to improve diagnosis and management of TB, including smear-negative, extrapulmonary, and DR-TB.

At the programme level, key challenges include maintaining an acceptable quality of care, especially during the handover phase; ensuring



*Women at a community gathering near Matelile Health Centre*

minimum necessary staffing levels, ongoing training, and clinical mentorship; assuring an uninterrupted supply of essential HIV medicines, including ARVs; and boosting programme management capacity. Special attention needs to be paid to finding a solution that will guarantee the long-term future of the lay counsellors, as they are essential for long-term programme success.

The SELIBENG SA TŠEPO HIV/AIDS programme has made considerable progress in the past three years. It has the potential to continue expanding HIV/AIDS care and treatment services to the thousands of people who still need access – and to ensure continuity of quality care for those already receiving it – but it will only succeed if sufficient human and financial resources are secured and if the clinical and programme management challenges outlined above are addressed.

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