

Providing Nurse driven, community supported HIV/AIDS treatment in primary care in rural Lesotho

Lessons Learned and Future Challenges 2009-2010









Médecins Sans Frontières Building 20-303A&B Waverly Business Park Wyecroft Road Mowbray Cape Town 7925 SOUTH AFRICA

Tel: +27 21 448 1058 or +27 21 448 3101

Fax: +2721 448 3128

Email: MSFOCB-capetown@brussels.msf.org

www.msf.org.za

Published June 2010

Cover photo: Nurse James at St Barnabas Clinic part of the Selibeng sa Tsepo HIV/TB programme. Photo by MSF. Design/artwork: Designs4development, www.d4d.co.za



## Contents

Summary	2
ART: Antiretroviral programme outcomes and retention strategies	4
Improving the quality of ART care: Implementing a Tenofovir-based first line and early initiation	7
TB/HIV integration: Implementing the one stop service	11
PMTCT: Implementing a state of the art protocol	14
Maintaining Quality: Use of a TB/HIV supervision tool in primary health care	17
Preparing for exit: Implementation of a handover strategy	19
Lessons learned and future challenges	20
Annex 1	22
Acknowledgements	24
Pafarancas	25

### Summary

Lesotho, a small mountainous country, surrounded by South Africa, faces some of the biggest health challenges in Southern Africa. The country is ranked 156 out of 182 nations on the Human development index (1). Lesotho has the third highest HIV prevalence at 23.2 % in 2008 (after Swaziland and Botswana) (2) and is the poorest of the three. At the beginning of 2009 an estimated 119,000 people were in clinical need of ART and by December 2009 a national ART coverage was estimated to be 52% (3).

In addition to the burden of HIV, Lesotho has the fifth highest incidence of TB in the world (640/100,000 per year) (4) and a co-infection rate of 76% nationally (3). With ongoing migration between Lesotho and Southern Africa the reality of increasing M/XDR TB incidence has had to be addressed by the government and health partners.

The government of Lesotho declared HIV/AIDS a national emergency in 2000 and launched a comprehensive response. Initially, treatment was made available at a few hospitals but this centralized delivery model rapidly became overwhelmed. In 2006 an agreement was made with MSF to test the feasibility of decentralising ART provision to primary care level with initiation of ART by nurses – a key policy decision in a country with a dire shortage of human resources.

MSF and the MOHSW launched its joint pilot programme to provide HIV/AIDS care and treatment at primary care level in January 2006. The programme, named Selibeng sa Tsepo or "Wellspring of hope", was launched in what was formerly known as Scott Health service area, a rural health zone now straddling between Maseru and Mafeteng districts. The programme included fourteen primary health care clinics (six in Maseru and eight in Mafeteng) and the outpatient department at Scott Hospital, serving a total population of just over 200,000 people. At the start of the programme it was estimated that approximately 30,000 people were living with HIV and with the current eligibility criteria for ART 9,000 are in need of ART. All fifteen sites were capacitated to provide a comprehensive package of HIV/TB services including HIV testing and counselling, ART and TB treatment for adults and children, follow up and monitoring of HIV and TB patients and prevention of mother- to- child transmission (PMTCT). On the job clinical mentorship, systematic clinic supervision and monitoring and evaluation of activities were provided by MSF and

remain a major part of the organization's role. Thanks in part to the encouraging outcomes from this programme, ART provision was expanded to other primary care sites in the country. By March 2010, 88% of primary health care sites in the country (190 sites) are providing ART (3).

Overcoming the challenges of implementing HIV/TB services in this rural, mountainous context has made a considerable impact. By March 2010 in the Selibeng sa Tsepo programme a total of 57,420 people have been tested for HIV, 15,346 people have been enrolled in chronic care and over 6491 people (6% children <14 years) have been initiated on ART. The number of paediatric ART initiations has risen throughout the years reflecting the ongoing training and clinical mentorship provided in this challenging area. Overall, ART outcomes are satisfactory with 83% of adults and 90% of children remaining on ART after 12 months. For those pregnant women receiving PMTCT transmission has been reduced to less than 5% and by implementing a one-stop service, HIV/TB co-infected patients have been able to easily access treatment for both these illnesses leading to better outcomes.

At the end of 2008 a decision was made to extend MSF's programme duration to allow for a thorough preparation with local partners to ensure continued services after MSF's exit. In late 2008 an exit strategy was developed and subsequently implemented. Through close collaboration with local partners MSF was able to exit the six clinics in Maseru district in December 2009. The remaining eight Mafeteng clinics and Scott OPD will follow in June 2010.

But many challenges still remain. How do we still encourage people to keep testing? How do we improve initiation rates and adherence to ART for less symptomatic patients? How can we get mother-to-child prevention strategies to women who are not currently accessing ANC? Can a true one-stop HIV/TB service be maintained for co-infected patients? To ensure what has already been achieved is sustained, how is clinical supervision to be organised for primary care services that are now providing both HIV and TB care?

The following report gives an overview of the services provided and outcomes in the Selibeng sa Tsepo programme (January 2009- March 2010) and outlines lessons learned and key challenges for the future provision of HIV/TB services in Lesotho.





## ART: ANTIRETROVIRAL PROGRAMME OUTCOMES AND RETENTION STRATEGIES

The establishment of a robust monitoring and evaluation system has been key to the successful management of the programme. Feedback of outcomes to individual clinics has allowed us to identify weaknesses and be able to direct resources and clinical mentorship accordingly. This has been done using national registers, monthly reporting systems and a cohort analysis tool.

During 2009 1732 patients were initiated on ART. With an initiation threshold of < 350 cells/mm³ the estimated yearly enrolment target is approximately 2,375 inclusions/year, giving an estimated 73% coverage for the programme in 2009 compared to a national coverage of 52% (3).

From 2008 patients were initiated earlier with <350 CD4 cells/mm³. In 2009 fewer patients were tested than in 2008 but proportionately more were enrolled in chronic care and on ART, showing some improvement in pre-ART retention through strengthened counselling. In addition, positivity rates fell from 40% of those tested in 2006 to 21% in 2009 reflecting the overall larger numbers and less sick individuals presenting to the clinic (Fig 1).

The percentage of patients being initiated with a CD4 <50 cells/mm³ also decreased significantly from 24% in 2006 to 14% in 2009, an indication that people are testing and accessing care at an earlier stage of their illness. ART enrolment will however continue to be dependent on reaching people for testing and ongoing investment in community based testing strategies will be needed to move towards ART coverage targets.

Outcomes are highly satisfactory, with 83% and 76% of adults and 90% and 85% of children remaining in care at 12 and 24 months respectively. This compares favourably with a systematic review of HIV cohorts from 13 countries in sub- Saharan Africa that reported lower retention rates at 12 months (75% v 83%) and 24 months (61.6% v 76%) (5). These retention rates are achieved thanks to four main strategies of the programme. Provision of free care, decentralisation (taking the treatment to the patient), task shifting responsibilities to lower cadres and the implementation of a comprehensive adherence, community-support and defaulter tracing strategy.

Fig 1: HIV testing 2006-2009 with positivity rates

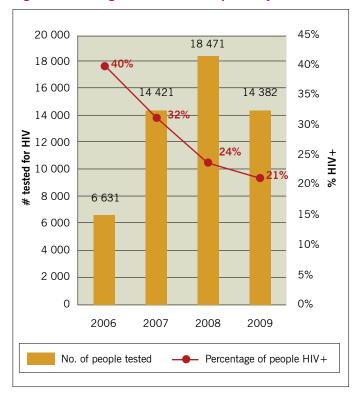
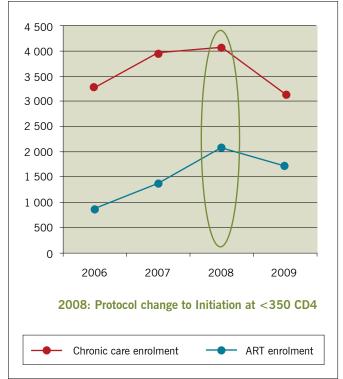


Fig 2: Enrolment in chronic care and ART 2006-2009



#### The role of the HIV/TB lay counsellors

Acknowledging the increased workload for the nurses by introducing HIV/TB care at primary health care level MSF and Scott Hospital launched an initiative to recruit "lay counsellors" in 2006. These are people from the community, many of whom are living with HIV/AIDS themselves. Trained by MSF and supervised directly by the nurse in charge of the clinic, the lay counsellors are facility-based, have clear job descriptions and are compensated for their work. Their key tasks are to perform HIV testing and counselling, ART/TB preparation counselling, follow up ART/TB adherence counselling, use of the patient appointment diary and defaulter tracking book, running of support groups for adults as well as children and assisting the nurses in daily tasks such as health talks, weighing and filing.

The work of the HIV/TB lay counsellors at facility level to support the nurses and act as a link between clinic and community has been integral to the success of the programme. Ensuring their ongoing employment in the clinics has also been a major objective of the exit strategy. Without their presence it is highly unlikely that the current volume of patients being seen or the quality of the work could be maintained.

#### Support groups and community involvement

In 2009 new initiatives put in place were support groups for children, specific male groups and defaulter campaigns. A support group is a collective of openly HIV-positive people who meet weekly at the clinics, and is coordinated by lay counsellors. Support groups provide an opportunity for information to be shared but also for exchange of experience. To reach people who were not accessing care pitsos (community gatherings) were held involving the local chief and other local community actors. These gatherings are aimed at reducing stigma, encouraging people to test and to raise awareness about HIV, TB and PMTCT.

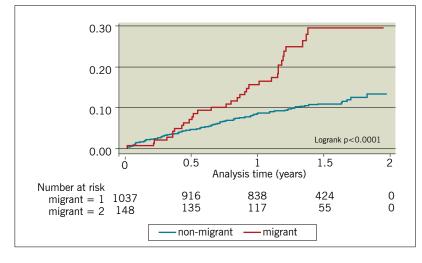
#### **Defaulter tracing strategy**

During early 2009 an analysis of defaulting among both adult and paediatric ART patients and women receiving PMTCT highlighted the need for improvement in defaulter tracing. A diary appointment system was in place, but the categories of patients included only those on ART. This was expanded to include all ART patients, all HIV positive children both Pre-ART and ART, all TB patients and all PMTCT patients whether on ART or AZT alone. A letter system for tracing was used and coordinated by the lay counsellors, whereby letters were sent to the patient, their treatment supporter

and to the local chief if the patient missed their scheduled appointment. With the consent of the patient it was agreed to also involve a named community health worker. A defaulter-tracing book was implemented to enable careful follow up, to ensure correct use of the diary, timely sending of the letters and documentation of the outcome of tracing. Through these strategies the success of tracing and reasons for default were identified. Loss to follow-up at 12 months reduced from 7.1% to 6.2% between the 2007 and 2008 cohorts.

An analysis of the defaulter-tracing book showed that the median time taken for letters to be sent after a patient defaulted was three days. For those patients that returned the median time before

Fig 3: Cumulative hazard of defaulting in the migrant v non migrant population



return was 7 days. Normally a three- day buffer is provided to patients. Only 20% of patients returned in less than 4 days meaning the remaining 80% would have had to stop ART without tail protection. Reasons for defaulting were varied and included transport costs, not being allowed time off from the work place and feeling healthier and therefore no longer feeling the need to continue treatment. The most common reason, given by almost a third of defaulters (31%), was that they were migrant workers.

### SUCCESSFUL RETENTION STRATEGIES

- Robust monitoring and evaluation with clinic based targets
- Data to be fed back to clinical staff so that services can be improved
- Strong adherence preparation by trained counsellors
- Rapid tracing system for defaulters (letters, messages, texts) and systematic defaulter follow up to aid programme management
- Strong community support; regular support groups for both adults and children; forums for men; involvement of community health workers in defaulter tracing and outreach activities (pitsos)

## CHALLENGES: PROVIDING CARE FOR MIGRANT WORKERS

Lesotho has a long history of both internal and external migration. Approximately half a million Basotho work in South Africa, the majority in the mines. Traditionally a male phenomena the number of women migrating for work (principally as domestic workers) has risen substantially in recent years (6).

In the 2008 cohort 12% of those patients initiated on ART were migrant workers (2% contract workers, 5% miners and 5% female domestic workers). Of all patients lost to follow up in the 2008 ART cohort 24% were migrant workers. While treatment outcomes are similar to the general clinic population, defaulting is much higher. The risk of defaulting at one year was more than six times greater for migrant workers compared to the general clinic population (Fig 3). This is clearly a vulnerable group. In particular, many of the female domestic workers who work "off the record" feel unable to disclose to their employer hence making it even more difficult to travel on a monthly basis to get drugs. Treating a migrant population is a very real challenge and demands specifically tailored interventions to ensure this group of patients remain in care.

## STRATEGIES TO CONSIDER IN TREATING A MIGRANT POPULATION

- Minimum 3 month drug supply
- Comprehensive patient held record
- Adapt clinic times- evenings, weekends and holidays
- Border clinics
- Better communication and linkages to ART/TB centres in South Africa
- Giving tail protection to migrant workers (in case of need to interrupt treatment)
- Challenge for M & E: How to monitor the many patients stopping and then re-entering the cohort



# IMPROVING THE QUALITY OF ART CARE: IMPLEMENTING A TENOFOVIR-BASED FIRST LINE AND EARLY INITIATION

## Changing to Tenofovir: Challenges to implementation and early outcomes

In mid 2007 Lesotho updated its National ART guidelines to include a tenofovir (TDF) based first line regimen. TDF has been shown to be as efficacious as other NRTIs and provides additional advantages of being less toxic than other common drugs and it is available as a once-daily regimen, which improves patient adherence. As one of the first countries in Sub-Saharan Africa to make this change and with the new WHO 2009 recommendations pushing surrounding governments to move in the same direction there are many important lessons to learn from the implementation process. Figure 4 shows the percentage of initiations on TDF throughout 2008-2009. As can be seen, there was a gradual

increase, implying that a change in protocol takes time and requires ongoing clinical mentorship and support. Interviews with nurses indicated that changing prescribing patterns took time as they had grown familiar with D4T and AZT, and initially felt nervous about the chances of patients developing renal failure and the calculation of creatinine clearance, which initially appeared very complicated. Care needs to be taken when introducing TDF, which is actually one of the safest NRTIS, to be realistic about the chance of seeing severe renal failure and simpler ways of calculating the Crcl should be developed (e.g. use of visual calculation charts or central calculation by the laboratory).

Analysis of the 2008 cohort of patients initiated on TDF showed that 92% were excluded correctly according to protocol. At baseline 16% of those otherwise eligible for TDF had a CrCl <50ml/min.

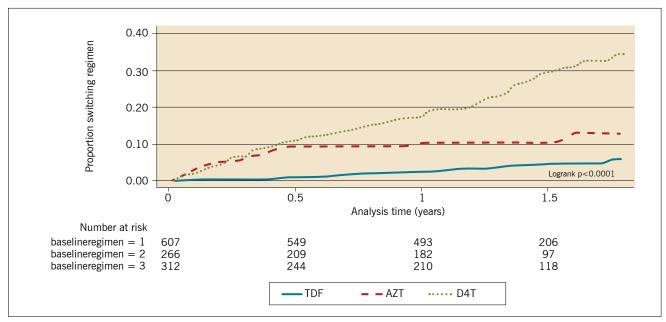
Age was the biggest risk factor for having abnormal base line renal function and for the development of toxicity. Within the group analyzed there were no episodes of severe renal toxicity and no deaths. Almost a third (30%) of patients who developed toxicity were switched appropriately but reassuringly of those not switched 74% had their renal function return to normal. In an analysis comparing outcomes of those on TDF v AZT v D4T after controlling for confounding we found that TDF was significantly associated with reduced mortality compared to AZT (aHR 1.90, CI95% 1.06 – 3.40,

p=0.03) or D4T (aHR 1.67, CI95% 1.02-2.74, p=0.04). There was no statistically significant difference in loss-to-follow up between groups; however, the number of regimen substitutions differed substantially (Fig 5): the hazard for switching was 2.44 times higher for AZT compared to TDF (95%CI 1.30-4.57) and 5.77 times higher for D4T (95% CI 3.53-9.43) compared to TDF. In essence it appears that TDF is the preferred first-line as it is safe and feasible to implement in a rural, nurse led programme, is less toxic and leads to better outcomes..

Fig 4: Percentage of all ART initiations on TDF 2008-2009



Fig 5: Cumulative hazard of switching from baseline drug regimen

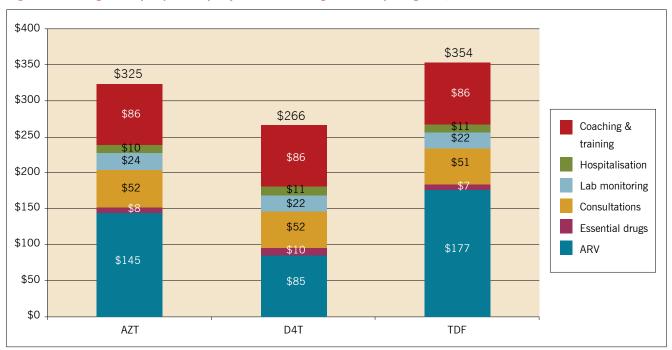


#### Implementing TDF: At what cost?

When looking only at the price of the ART, the current cost of TDF is almost double that of D4T. However, if the total cost of giving treatment to an ART patient is taken into account (including treatment of opportunistic infections (Ols), side-effects, laboratory costs and hospitalisations) and quality of life assessed (death, lost to follow up and experience of side- effects) the cost differential is significantly reduced. Given the forecast 30% cost reduction of TDF by 2011 due to new synthesis techniques and an expected increase in demand following the new WHO recommendations, TDF could become the most cost-effective first-line choice.



Figure 6: Average cost per patient per year for each regimen comparing TDF, AZT, and D4T



#### INTERVIEW NURSE MAGERARD MOCHESANE; ST PETER CLAVER CLINIC

"Before patients were on Tenofovir, patients were struggling, complaining of peripheral neuropathy especially those who were first on TB drugs. On D4T, patients were getting large fat deposits on their body, changing them. Men seemed to grow breasts even. This made them feel self-conscious. It is more acceptable now because they can take pills at night at home in private, where family alone knows their status. Before [on other treatments] they had to take them twice a day and sometimes while at work. I like giving patients TDF because it is taken only once per day. Patients adhere more on treatment now."

#### Moving to initiation at CD4 <350

There is clear evidence that early initiation decreases morbidity and mortality (7) (8). The initial implications of increasing the initiation threshold from 200 to 350 is of course to increase the demand for ART. In the first two years following the policy change an additional 32% of stage 1 and 2 patients with a CD4 between 200-350 cells/mm<sup>3</sup> were initiated. Although the workload regarding ART initiation increases, by treating patients earlier and reducing the number of severe OI events that are encouraged to occur when the CD4 has dropped below 200 significantly simplifies patient management. Many of the OIs are not treatable at primary care level by nurses and sick patients are often unable to access secondary level care due to distance and cost of transport. In addition TB, the biggest cause of morbidity and mortality in HIV co-infected patients, occurs less commonly

at higher CD4s. In an analysis of the 2008 cohort 60% of patients diagnosed with TB pre ART had a CD4<200. Overall, we see that the mortality risk among those initiating at CD4 between 200 and 350 cells/mm³ is 68% lower than among those initiating <200 cells/mm³ (Fig 7).

In addition patients initiating at CD4>200 were 27% less likely to develop an incident morbidity, 63% less likely to be hospitalized, and 38% less likely to be lost to follow-up compared with those with a CD4 < 200.

Rather than overwhelming the health care services, increasing the initiation threshold has been supportive of simplified patient care at clinic level. As the nurse in charge at St Peter's clinic pointed out, "More of the people are still healthy when they initiate now. It is easier for them to pick up faster, to get on ARVs. Before they had to delay ARVs in order to treat TB or other opportunistic infections."

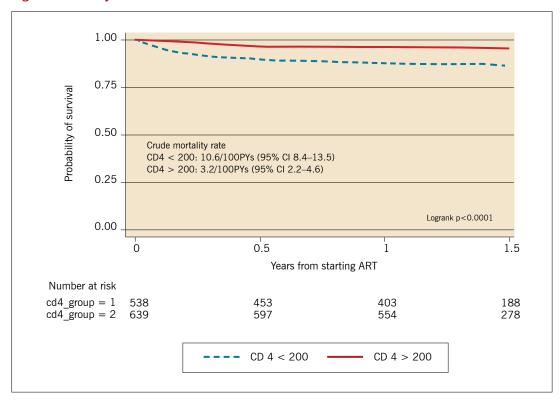


Fig 7: Probability of survival for ART initiation CD4 <200 v CD4 >200



## TB/HIV INTEGRATION: IMPLEMENTING THE ONE STOP SERVICE

#### **Barriers to diagnosis**

All smear negative patients (23% of the 2009 cohort) and many extra-pulmonary TB cases (25% of the 2009 cohort) by definition need a diagnostic CXR. The cost of transport in addition to the cost of a CXR and hospital consultation fee is a major barrier to patients reaching a diagnosis. MSF has up until today supplemented this fee amounting to a cost of 500 Maloti (\$70)/100,000 population/month. Despite lobbying with donors the X-ray is still not considered a standard part of the TB diagnosis and hence is not free. In addition, before a diagnosis of TB is made hospital admission is not free, again proving a barrier to the most needy. MSF hopes this issue will be addressed as it is an urgent need.

#### **Integration not collaboration**

From the beginning of the programme a "one stop service" approach was implemented at the primary care sites and Scott OPD avoiding the commonly seen dilemma of how to refer or "collaborate" between a separate ART and TB service. Training of all nurses in TB initiation and monitoring was carried out in addition to the use of ART. This enabled co-infected patients to be seen at the same time, by the same clinician under the same roof. Hence (unless smear negative and requiring a chest X-ray) the patients do not have to pay costly transport fees to the hospital simply to be initiated and registered at the TB clinic. At hospital level the same approach was applied meaning patients did not need to be referred across services or

Fig 8: Indicators of TB/HIV integration 2007-2009

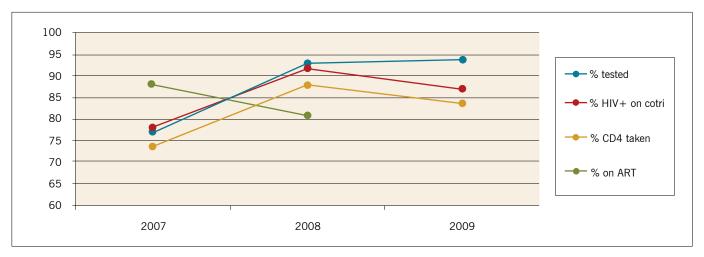


Fig 9: Proportion of smear-positive, smear-negative and smear not available cases 2006-2009

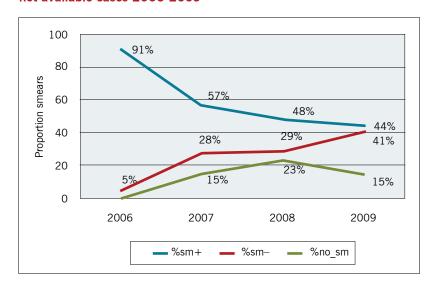
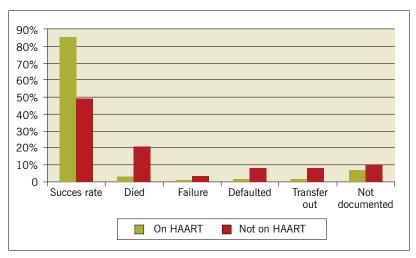


Fig 10: TB outcomes for TB/HIV co-infected patients according to concurrent ART therapy



run the risk of "getting lost" between two posts. Employing this one stop service has impacted positively on the indicators of TB/HIV integration and on outcomes for the patients (Fig 8). In 2009 94% of TB patients were tested for HIV with an 76% co-infection rate. 87% of those HIV positive received cotrimoxazole prophylaxis and 84% had a CD4 recorded. Over time the proportion of smear negative cases diagnosed increased (Fig 9), after training on the use of a smear negative algorithm, and 81% of all HIV/TB co-infected patients in 2008 were initiated on ART, compared to 24% at national level. Improved TB outcomes were also seen for those who received timely ART (Fig 10). With the new WHO 2009 guidelines pushing for earlier initiation of TB /HIV co-infected patients on ART, effective integration of services should be a priority.

#### X/MDR TB

Improved awareness of the cases needing culture and DST was a priority for the nurses during 2009. In 2009 1008 cases of TB were detected with 10 cases of MDR that were referred to Botsabelo Clinic in Maseru for MDR treatment and ongoing monitoring.

In July 2009 the HAIN test was introduced at Queen II but due to logistical problems and increased work demand this service has since stopped. The average time for receipt of a culture result in the last 6 months has been 3 months. Delays in diagnosis and difficulties in tracing these patients means that a third (33%) are lost or die before treatment can be started. Additional capacity in diagnostic services and further decentralisation of MDR care remains an ongoing challenge.

#### Infection control

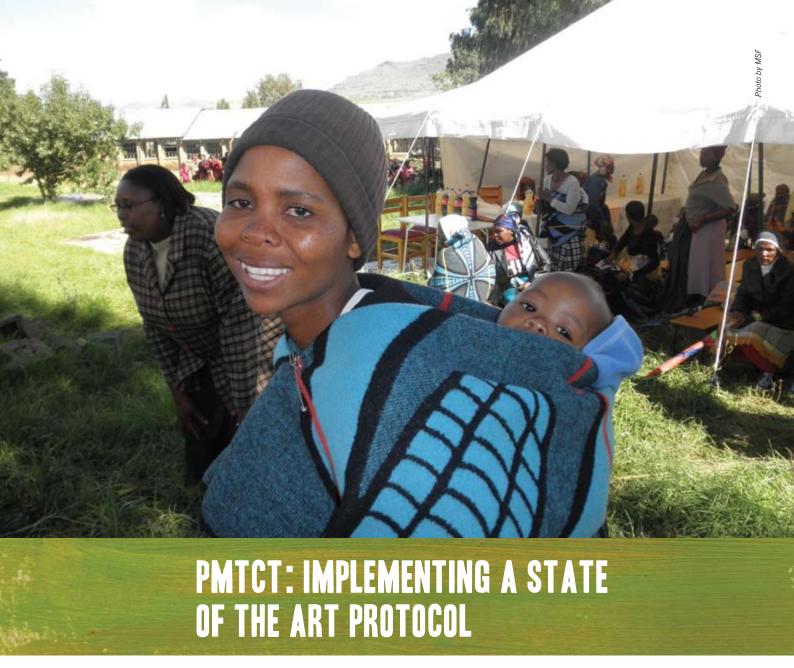
2009 saw the implementation of an infection control policy for each clinic. Use of personal protection (N95 masks) was encouraged, improvements in cough triage as well as cough hygiene education and improved environmental control, through the building of outside waiting areas, ensuring external access to all consultation and counselling rooms and improved ventilation. Ongoing supervision will be needed to ensure the policy is being put into practice and that the flow of patients maximises the expected reduction in infection control.



#### **CHALLENGES**

- Integration of TB and ART programmes at both national and district levels
- Produce national integrated TB/HIV guidelines
- Free diagnosis for all TB suspects including CXR: are there possible donor sources?
- Initiation at PHC level:
   allow trained nurses
   to initiate TB treatment at clinic level and ensure the logistics for drug supply and registration are in place
- ART and TB services to be in same clinic, with one clinician on the same day at both primary and secondary care level
- Ensure all MDR suspects have access to a fast and reliable culture and DST result
- Improve infection control through simple administrative measures; ensure personal
  protection through use of N95 masks and review waiting area arrangements; have a
  clear infection control policy with clear lines of responsibility.





#### Access to PMTCT: Analysing the cascade

From 2006 MSF piloted a dual/triple therapy PMTCT protocol and initiated early infant diagnosis with PCR. In early 2009 lay counsellors received training to strengthen PMTCT and improved defaulter tracing was put in place. In addition, training was carried out to emphasise the use and distribution of the minimum package¹ at first visit. An analysis of outcomes of PCR performed in 2008 showed a transmission rate of 3% and 5% of those receiving HAART or AZT respectively, indicating that for those women accessing the clinics the implementation of a multi drug PMTCT protocol

was having a significant impact. However the question of overall access paints a different picture. Table 1 shows the PMTCT cascade for the latter half of 2008 and first half of 2009 from six clinics in the Selibeng sa Tsepo programme.

HIV testing and counselling is almost universally accepted and following interviews with clients is not felt to be compulsory. The number of women receiving an intervention (HAART or AZT) increased in 2009 from 74% to 82% and 90% of women received a minimum package following the training in early 2009. Starting HAART in pregnancy however was a very common reason for lost to follow up accounting for 23% of all the patients

Minimum package includes for the mother a one month supply AZT 300mg bd, NVP 200mg stat, AZT 300mg/ 3TC 150mg (two tablets given at the start of labour, one should labour continue for more than 12 hours and then a course bd for 7 days) and for the baby one 20ml bottle of NVP syrup 0.6ml to be given within 72 hours of delivery and one bottle AZT syrup 1.2ml to be given bd for 7 or 28 days

Table 1: PMTCT cascade for 6 clinics

	July – Dec 08		Jan – June 09		
	n	%	n	%	
Expected pregnancies <sup>2</sup>	1102		1121		
New ANC attendances	518	47	482	43	
Tested for HIV	501	97	473	98	
Positive HIV	109	22	112	24	
Minimum Package given	84	77	101	90	
Full HAART or AZT given	81	74	92	82	
Baby returned for PCR	25	23	27	24	

lost to follow up from the 2008 cohort. Of those women traced who were lost to follow up at first visit and received a minimum package all reported they had used the drugs at the time of delivery. Giving the minimum package at first visit regardless of gestation has given some concern but seems to have had some impact on PMTCT coverage for those women who did not return to ANC.

However, the greatest challenge remains in improving antenatal attendance. In the time periods analysed 47% and 43% of all pregnant women attended ANC which is much lower than the national figures suggest (71% PMTCT coverage in 2009 (3)). Interviews of women attending under-5 clinics and who had not attended ANC gave cost of transport as the main reason for non attendance. Also fears (sometimes justified), about the fees charged at ANC and for delivery was another reason cited. In contrast to perceived ideas, few gave stigma, or their partner stopping them going as a reason for non- attendance.

#### Mapping antenatal attendance: Cluster strategy to improve antenatal attendance

A mapping of ANC attendance from Matelile clinic showed women coming from a wide distribution in the catchment area. Villages where pitsos (community gatherings) on PMTCT had been held improved attendance and from some villages groups of pregnant women had attended together on the same day. One possible strategy for

improving ANC attendance could be to encourage these "clusters" of pregnant women to gather and to travel together, hence giving each other support. In addition if diagnosed HIV positive, women within the cluster could act as a treatment supporter.

Encouraging women to attend ANC is crucial but service providers should also look at novel ways to improve access. Decentralising PMTCT effectively to health post level and empowerment of Community health care workers and former PMTCT mothers could be two such strategies. With the possible adoption of the new 2009 WHO PMTCT guidelines, ensuring good community support for HIV positive pregnant women will be essential to reduce lost to follow up of women started on HAART and to ensure that the extended infant prophylaxis is given effectively.





#### Tracking from PMTCT to PCR outcome

Seeing a mother through from PMTCT intervention to her baby's PCR result is a difficult task. Only 24% of women brought their babies back for a PCR to the same clinic in the six clinics analysed from the Selibeng sa Tsepo programme. Many women move away from the clinic to deliver their babies. Often PCRs will be performed in one site and the result needed in another. Improving access to the national PCR database either through a phone link to national or district laboratories could avoid the current situation where results are never linked back to the child. An improved data collection tool to link the mother's PMTCT intervention to the PCR outcome could also improve national M & E monitoring systems.

#### **CHALLENGES: IDEAS FOR ACTION**

#### Increasing PMTCT coverage:

- Village cluster strategy with treatment supporter and involvement of former PMTCT clients
- PMTCT at health post level
- Point of care CD4 testing to speed up the decision for the need of HAART or prophylaxis
- Empowering community health workers to give PMTCT
- Ensuring the minimum package is given at the first visit and details are documented in the patient held record

#### Reducing lost to follow up of PMTCT

- Use of appointment diary
- Effective defaulter tracing strategy
- Community health worker involvement
- Establish telephone result line for PCR results from other sites
- Improve linkage in the monitoring and evaluation system between mother's PMTCT intervention and child's PCR outcome



## MAINTAINING QUALITY: USE OF A TB/HIV SUPERVISION TOOL IN PRIMARY HEALTH CARE

#### Using a structured supervision tool

In conjunction with the doctors and PHC team at Scott Hospital a TB/HIV integrated supervision tool was developed. The tool was designed to incorporate both quantitative and qualitative indicators. Topics covered included counselling and education, medical management – OIs and HIV, TB, PMTCT, ART and TB/HIV integration, clinic organisation, occupational health, infection controlas well as supply of drugs and other commodities.

A score was assigned for all indicators so that a total score for each topic could be given and an overall score for each clinic (out of a total of 150). From the beginning of 2009 as part of the handover process MSF and Scott PHC performed the TB/HIV supervision tool quarterly in all of the Maseru clinics. After completing all clinics a meeting was held with the nurses in charge to feedback the scores and to discuss strengths,

weaknesses and how to tackle problem areas. A sense of "competition" was introduced to improve their performance and motivation. The Scott PHC team has subsequently continued to use this tool in the Maseru clinics during the post- handover period.

Over the course of 2009 most clinics improved their score from Q1-Q3, the target being a score of 75% or more. For those who dropped in Q3 clear reasons were highlighted such as nurse turnover and drug shortages particularly at CHAL (Christian Health Association of Lesotho) facilities.

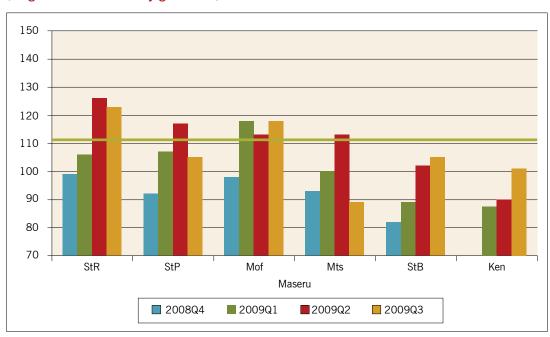
#### The future of PHC supervision

During the workshop "Lessons Learned and Future Challenges" held on April  $16^{\text{th}}$  2010 it became apparant that the delineation of responsibilities between CHAL PHC teams and DHMTs for PHC supervision remains unclear. There was a call for

a national integrated tool to be made available to cover all PHC activities including HIV/TB and PMTCT. This is possible to achieve. The current tool used in the Selibeng Sa Tsepo programme requires 3-4 hours work, is repeatable, recordable

and provides a useful framework for a quarterly assessment visit. It could easily be adapted to the global PHC needs. The certainty is, that without an effective system, quality of care and motivation amongst staff will reduce.

Figure 11: Progression of the TB/HIV supervision tool score in Maseru clinics 2008-2009 (Target score indicated by green line)





#### **WAS SUPERVISION USEFUL?**

Feedback from supervisors and clinic nurses was positive. Knowing their score gave them clear targets and allowed them to see how they performed in comparison with their neighbouring clinics.

#### Some quotes from the nurses

"Having the supervision gave us something to aim for – we could see which things we were doing well and not so well" "We didn't know that we were missing a lot of blood tests – the score showed where we were going wrong"

"It was useful to sit as a team with the lay counsellors and answer some of the questions – not everyone knew the same information"

"Having the feedback meeting was good. I got some good ideas from the other clinics"

"Getting all the other clinics scores made us want to do better"

#### **CHALLENGES & IDEAS FOR ACTION**

- Establishing the role and capacity of DHMT and PHC teams to perform effective PHC supervision
- Collaboration between Family Health, Aids Directorate and National TB Programme to promote effective integrated PHC supervision
- Development of a practical integrated PHC supervision tool at national level



## PREPARING FOR EXIT: IMPLEMENTATION OF A HANDOVER STRATEGY

After the completion of the initial MOU (Jan 2006-Dec 2008) an extension was agreed to ensure a smooth and sustainable handing over of the programme to local partners. In November 2008 a handover strategy was developed in conjunction with local partners for the six clinics falling under Maseru district. In November 2009 a similar process was introduced for the remaining eight clinics in Mafeteng.

Clear objectives were jointly defined, each with specific indicators to be followed on a monthly or quarterly basis. These were:

- Maintaining an acceptable quality of care (measured by initiation rates (adult and child), mortality and loss to follow-up at 12 months on ART, and the TB/HIV supervision tool);
- 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);
- Ensuring an uninterrupted supply of ARVs and essential medicines;
- Maintaining reliable laboratory services and a specimen collection system;
- Guaranteeing a long-term future for the lay counsellors;
- Strengthening programme management capacity (including M&E);

 Ensuring that the cost of care, especially hospitalisation fees and chest x-rays, is free for HIV-positive patients and TB suspects;

Ensuring a clear communication strategy through regular steering committee meetings and feedback to clinical staff responsible in the clinics was essential for the gradual handover of responsibilities. Monthly handover reports were shared to give regular updates of progress made and outstanding challenges. The "handover dashboard" (Annex 1) became a visual tool to portray the achievement of each indicator and also the performance of an individual clinic.

Over the months a number of key challenges were overcome, specimen collection being taken over thanks to Riders for Health, improvements in drug supply and the provision of transport for supervision visits to be carried out.

In December 2009 all six clinics falling under Maseru district were handed over. Since then the Scott PHC supervision team has continued regular monthly visits to the clinics and DHMT has continued to oversee activities. Work with Mafeteng DHMT is ongoing and with the collaboration of other implementing partners a successful handover is hoped for in June 2010. We feel confident that through the targeted work put in place during this handover period that services will be sustainable and high quality HIV and TB care will continue to be provided to the population.



### LESSONS LEARNED AND FUTURE CHALLENGES

There is no doubt that there have been considerable achievements in the provision of HIV and TB care in the Selibeng sa Tsepo programme. For over 6000 people to have benefited from access to ART at primary health care level and for more than three quarters of them to remain on treatment after twenty-four months has shown that it is possible to provide high quality HIV/ TB care at primary health care level with a nurse led model.

Challenges however still remain. Long term adherence, including preventing and identifying treatment failure, and ongoing effective monitoring and evaluation to maintain high quality treatment needs to be guaranteed. Increasing access to ANC and PMTCT is one of the greatest challenges

to improving this vital prevention strategy and continuation of a truly integrated TB/HIV service is needed to maintain the best outcomes for co-infected patients. Finally, and of primary importance, the sustainability of the facility based HIV/TB lay counsellors who, through the model of task shifting, have proven a cornerstone of the programme.

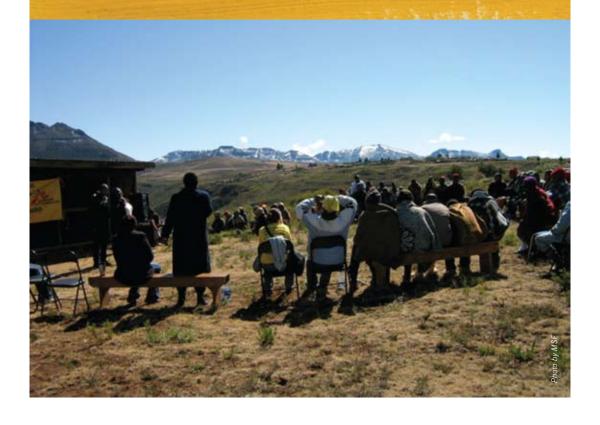
The challenges that Lesotho faces in the provision of HIV/TB care will require the commitment of longterm financial and human resources. This along with strong programme management both at district and national level is essential so that what has been achieved so far in the fight against HIV/TB in Lesotho is not lost.

#### **LESSONS LEARNED**

- 1. Decentralisation of ART to PHC level with task shifting and strong community involvement improves access and retention in care
- 2. Effective monitoring and evaluation with feedback to the clinics is essential to the provision of high quality care
- 3. Implementing the new WHO protocols (TDF and early initiation) is feasible, safe and highly beneficial to patients and health services
- 4. TB/HIV integration is possible at PHC and hospital levels through implementing the one stop service
- 5. Implementing a multi-drug PMTCT protocol is feasible with expected reduction in transmission rates
- 6. Effective supervision is essential to maintain quality of care within a facility

#### **FUTURE CHALLENGES**

- 1. Keeping patients on treatment long term with a focus on those at most risk of defaulting (migrant workers and pregnant women)
- 2. Developing national tools for ART cohort analysis and for standardised PHC supervision to enable effective feedback to clinicians to improve quality of care
- 3. Ensuring TB treatment can be initiated at PHC level and full TB/HIV integration achieved
- 4. Developing novel models of care to improve access to PMTCT: use of health posts and involvement of community health workers





### Annex 1

#### Handover dashboard Maseru clinics March 2010

 $\odot$  = achieved;  $\odot$  = almost there;  $\odot$  = not achieved

Strategic objective	Operational objectives	Indicators	Matsieng	Mofoka	St Barnabas	St Peter	St Rodrigue	Kena
By December 2009, our partners are providing integrated quality comprehensive HIV/AIDS care independent of MSF support in 6 clinics in Maseru district	Outcomes	ART initiation	<u></u>	<u></u>	8	<u></u>	<u></u>	<u></u>
		Children ART init.	<u></u>	8	•	8	©	<u></u>
		RIP & LTFU	<b>©</b>	8	8	$\odot$	<u></u>	$\odot$
		Supervision score	<b>③</b>	<u></u>	•	<u>•</u>	•	<u></u>
	HR	Nurses motivated and trained		$\odot$		<u></u>		
		Clinical mentorship	<u></u>	<u></u>	8	$\odot$	©	<u></u>
	Drug supply	ARV	<u></u>	<u></u>	$\odot$	$\odot$	$\odot$	$\odot$
		OI drugs	$\odot$	<u></u>	$\odot$	$\odot$	$\odot$	$\odot$
	Lab services	Cost	$\odot$	<u></u>	$\odot$	$\odot$	$\odot$	$\odot$
Programme management  Hospital services		Specimen collection	<u></u>	<u></u>	<u> </u>	<u> </u>	<u> </u>	<u></u>
	Counsellors	Salaries + trainings	<b>:</b>	<u></u>	8		8	<u></u>
		Motivated and trained	<u></u>	<u>•</u>	•	<u>•</u>	©	<u></u>
	manage-	DHMT supervision	<u></u>	$\odot$	$\odot$		$\odot$	
		Xray and In- patient Fees	<b>③</b>	8	8	8	8	<b>③</b>
	Construction	Achievement		<u></u>	<u></u>	$\odot$	<u></u>	$\odot$

#### **Progression of indicators Maseru clinics**

 $\odot =$  achieved;  $\odot =$  almost there;  $\odot =$  not achieved

Realised	☺	$\odot$	$\odot$
January 2009	24%	17%	59%
February 2009	23%	41%	36%
March 2009	35%	33%	32%
April 2009	45%	25%	30%
May 2009	54%	23%	24%
June 2009	46%	27%	26%
July 2009	42%	29%	29%
August 2009	42%	29%	29%
September 2009	44%	28%	28%
October 2009	40%	34%	26%
January 2010	57%	21%	21%
March 2010	56%	21%	22%

#### **Progression of indicators Mafeteng clinics**

 $\odot =$  achieved;  $\odot =$  almost there;  $\odot =$  not achieved

Realised	$\odot$	<u> </u>	8
February 2009	37%	21%	41%
June 2009	31%	17%	52%
July 2009	37%	15%	48%
August 2009	34%	22%	44%
September 2009	42%	18%	39%
October 2009	45%	15%	40%
November 2009	0%	0%	0%
December 2009	40%	21%	39%
January 2010	45%	27%	28%
March10	56%	17%	27%

23 —



### **Acknowledgements**

The success of the Selibeng sa Tsepo programme would not have been possible without the tireless support of the nurses in the clinics, HIV/TB lay counsellors, doctors, laboratory staff, pharmacy staff and the management of Scott Hospital. In particular we would like to thank Dr Lipontso Makakole, the medical superintendant of Scott Hospital, for her enthusiasm and support over the years.

We would like to thank the MOHSW for their support and collaboration in helping provide the quality HIV/TB care to the people of Lesotho which has been our major goal.

To CHAL for their support to ensure that care is delivered to the communities they are supporting through their health facilities.

For all the MSF staff that have passed through the doors of MSF Morija and who have made their contribution to the direction and outcomes of the programme.

Most importantly of course to all the people who are living with HIV/AIDS and who through their courageous spirit have demonstrated how it is possible to support others and live full and active lives.

Thank you

The MSF Team

#### References

- UNDP. Human Development Report Lesotho. [Online] 2009. [Cited: 27 May 2010.] http://hdrstats.undp.org/en/countries/country\_fact\_sheets/ cty\_fs\_LSO.html.
- 2. UNAIDS. AIDS Epidemic Update. [Online] 2009. [Cited: 27 May 2010.] http://data.unaids.org/pub/Report/2009/JC1700\_Epi\_Update\_2009\_en.pdf.
- 3. Lesotho, MOHSW. Annual Joint Review Report. 2009/10.
- 4. WHO. WHO Global Tuberculosis Report. [Online] 2009. [Cited: 27 May 2010.]
- 5. Patient Retention in Antiretroviral Therapy Programs in Sub-Saharan Africa: A Systematic Review. Rosen S, Fox M, Gill C. 10, s.l.: Plos Medicine, 2007, Vol. 4. 1691-1701.
- 6. Migration, International Organisation for. Country Assessment on HIV prevention Needs of Migrants and Mobile Populations. 2010.
- 7. A randomized Clinical trial of Early Versus Standard Antiretroviral Therapy for HIV-Infected Patients with a CD4 T Cell Count of 200-350 Cells/m. (CIPRAHT001)I. Severe P, Pape J, Fitzgerald D et al. San Francisco: s.n., 2009 49th Interscience Conference on Antimicrobial agents and Chemotherapy. Abstract H-1230c.
- 8. Major clinical outcomes in antiretroviral therapy(ART) naive participants and in those not receiving ART at baseline in the SMART study. Emery S, Neuhaus JA, Phillips AN, Babiker A, Cohen CJ, GatellJM, etal. 197 (8), s.l.: J Infect Dis, 2008, Vol. Apr 15. 1133-44.

