

New roots for rural health: Challenging unequal access in South Africa



High rates of mobility, precarious working conditions, and long distances from health facilities mean that farm workers often fall outside of medical coverage zones. In Musina, South Africa's northernmost agricultural area, along the Zimbabwe border, the international medical humanitarian organization Médecins Sans Frontières / Doctors Without Borders (MSF) challenged this neglect through the development of an adapted approach that came to be known as the Musina Model of Care. Mobile clinics provided:

- Comprehensive primary health care
- Decentralized HIV and tuberculosis treatment
- Reproductive health
- Immunization services
- Support for survivors of sexual violence.

In 2013, these new roots for rural health gradually became the responsibility of the Limpopo Province Department of Health, as part of a planned hand-over. This report outlines why the quality and comprehensiveness of such mobile services must be sustained and expanded across other rural areas of southern Africa.

The Musina Model of Care

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Informal border crossing of Limpopo River which divides Zimbabwe and South Africa

Introduction

In an increasingly urbanised world, the shift in health care service delivery toward fixed and ever larger medical centres has concentrated resources. This makes perfect sense for secondary and tertiary levels of care involving advanced diagnostics, complex surgery, cutting edge technologies, and specialist staff. Primary Health Care (PHC) and simple first contact services hold the promise in South Africa of being accessible to everyone, no matter where they live and work. The national pledge of universal coverage includes treatment for chronic diseases such as HIV and TB.

From 2007 through 2008 the international medical organisation Médecins Sans Frontières / Doctors Without Borders (MSF) established a humanitarian emergency response in the northeast border region of Musina, in Limpopo province. Political violence and economic

collapse in Zimbabwe was pushing unprecedented numbers of asylum seekers and migrants into South Africa, where they were often met with xenophobia and social exclusion.

From 2009 through 2010, the organization's focus shifted to a belt of farms in Vhembe District, along the Limpopo River which divides the two countries. There, counselling and testing revealed an HIV prevalence of 25 percent among farm workers, far higher than the district average of 14 percentⁱ, and the national prevalence of 17.8 percent amongst South African adults. Three quarters of farm workers who should've been on HIV treatment were missing out. Something had to be done to bring treatment out to these distant agricultural enclaves which employed an estimated 10,000 migrants.

"It was tragic. We were burying two or three workers every week because of AIDS. Everything changed for the better when the clinics started coming. Now, our workforce is healthy. They're raising their families. To be honest, we're all worried it won't continue after MSF leaves. We can't go backward."

– Farm manager

MSF has pioneered the delivery of HIV care in resource-poor settings since 1999 with its project in Khayelitsha, South Africa. The Musina project allowed the medical organisation to explore solutions for marginalised migrant farm workers. In July of 2012 at the 19th International AIDS Society conference, MSF presented a report: *Providing antiretroviral therapy for mobile populations: Lesson learned from a cross border ARV programme in Musina, South Africa*ⁱⁱ. The report outlined the elements of the Musina Model of Care strategy, including tools and approaches that catered to the needs of highly mobile populations in need of chronic care, for HIV and TB in particular. The programme's main virtues – improved health outcomes and affordability – are worth continuing, scaling up, and passing on.

"Simple, low-cost measures allowed MSF to save many lives. Applying these lessons is now just a matter of wanting to do it and not accepting the unacceptable."

– Dr. Gilles Van Cutsem, Medical Coordinator,
MSF South Africa and Lesotho

By August of 2013, the Musina project was in the final stages of a year-long planned handover of its medical activities to the Department of Health in Limpopo Province. The public sector mobile teams on the ground embraced their new responsibilities, and the learning opportunities and mentorship that MSF provided. **The transition is nonetheless fragile.**

Executive summary

The Musina Model of Care is a proven strategy for agricultural workers based on distant farms, with the added element of being sensitive to the health needs of migrants. This integrated mobile approach provided core minimum services, including antiretroviral therapy (ART). By focusing on ten farm outreach points selected from a catchment area of 60 farms, MSF is handing over a programme to the Limpopo Province Department of Health (LPDoH) with a priority on quality of the service, not full coverage – which is the provincial and national government’s responsibility.

The South African government’s motivation to provide mobile primary health care services to rural communities is expressed in a long-term strategy called the Primary Health Care Re-engineering. The legacy of this Musina project, from a medical standpoint, is that it confidently demonstrated that it’s possible to successfully treat highly mobile cross-border and internal migrants living with HIV.

The strategy requires the adoption of a few simple practices to address the mobility of seasonal workers, who may come and go from the agricultural zone four or five times a year, as our experience has shown. These include:

- Use of patient-held medical records
- Maps showing where to access medication at the patient’s destination
- Provision of a three month buffer stock of medication when they travel
- Enquiries about travel plans at every mobile clinic visit
- Adherence counselling specifically tailored to migrant workers.

MSF’s comprehensive mobile clinics provided decentralized HIV and TB care, in addition to reproductive health and immunization services, and support for survivors of sexual violence. The model of care made use of adapted strategies to increase access to care, including task-shifting from specialized medical staff to Community Health Workers, with decentralized and integrated services. This approach improved access to health services leading to a sharp increase in the number of people initiated on HIV and TB treatment, thus proving the need for decentralized integrated services.

This model has been gradually handed over to the Limpopo Department of Health. MSF’s withdrawal is a necessary step in order for the government to take full ownership, with the support of other development focussed civil society organizations. It’s essential that the quality and comprehensiveness of the services be sustained.

Rural farm workers and access to health

Mobile clinics create the opportunity for healthcare to reach many people unable to access treatment, especially on rural farms, as the Musina project demonstrated.

These patients are considered, on two levels, as “key populations” for HIV – groups that are at highest risk of contracting the virus while having the greatest barriers in accessing health care. This report focuses on their specific vulnerability as farm workers; however the project first developed with the aim of addressing their vulnerability as migrants who are mobile. There are an estimated 2 to 3.5 million

Zimbabweans living in South Africa, and the farms in Limpopo employ tens of thousands of them. They are a mix of seasonal migrant workers and asylum seekers, whose involuntary mobility is primarily motivated by poverty. Official South African health policy seeks to reduce the marginalisation of migrants, whether documented or not, yet struggles to make them a priority in the delivery of health care. Numerous factors exacerbate their real or perceived exclusion, from xenophobia against foreign nationals to the usual stigma associated with HIV.

“When MSF first started to work in the farms, less than a quarter of the patients in need of treatment for HIV were accessing it. I wouldn't call that fair access, especially if you compare this to urban areas where you'll find a clinic within 5 kilometres. The reality is that many people in South Africa still don't have good access to health care because there is no clinic close to where they live. This is the case of many farm workers in Musina and Limpopo.”

– Dr. Gilles Van Cutsem, Medical Coordinator,
MSF South Africa and Lesotho

Farm labourers generally earn the national minimum wage of R105 for a day shift of nine hours – sometimes less if they're working illegally in the country. They live on the farm's compound, with distances of up to 50 kilometres along bumpy dirt roads, to reach the nearest fixed health facilities in Musina town. Unable to afford their own cars, the costs and risks of travelling to the nearest clinic are considerable. Criminal banditry along the border is a major deterrent for hitching a ride, or trekking through the bush trails for those who cannot afford the R110 return fare for a minibus taxi. Another dissuading factor is the cost of taking unpaid leave from the fields to travel the long distance for health care.

Seasonal farm labourers, whether South African or foreign nationals, frequently move around in search for work. These unstable working conditions exacerbate the disruptions in their access to public services. Health providers must therefore adapt to provide comprehensive primary health care, and chronic HIV and TB services. There's a much higher risk of losing track of patients who travel from region to region for work. The prospect of interrupting their treatment plans increases with each long-term absence from their main antiretroviral provider.

Seasonal farm workers who are highly mobile tend to lack medical documentation to help a caregiver follow up on diagnosis and tests. They may be initiated on different treatment regimens depending on where they seek medical assistance, and continuity of that regimen may not be possible in another country.

The Musina Context

In Musina, South Africa, more than a third of the population of 57,000, lives and works on some 60 farms. The border region between Musina and Beitbridge, Zimbabwe, sees thousands crossing weekly, back and forth. As a consequence, Musina harbours a mixed migration population that places added strain on public services in an already troubled Vhembe District. Musina municipality has one district hospital, three clinics, and one health post – all based a long distance from the farms. It has two understaffed mobile teams to cover the town (schools, outreach sites) and, more recently, the rural areas.

Limpopo province faces particular challenges in the delivery of health care for its population of 5.4 millionⁱⁱⁱ. For a start the Department of Health, among other government departments, was taken over in 2011 by national administration following a series of spending scandals and political in-fighting. This meant that decisions on issues such as hiring, appointments and budgets were now the domain of a nebulous bureaucracy whose main contribution on the ground was neglect.

Vhembe District Municipality (VDM) is one of 11 pilot project areas for the roll-out of the National Health Insurance scheme. Its 2013 survey revealed VDM as the worst in the country for primary health care because only 32 percent of its health facilities met minimum standards. VDM had only 29 per cent of medical doctors and 30 per cent of the nurses it was supposed to have – the lowest staffing in the country.

At various times over the course of MSF's planned handover of medical activities to the department of health, government managers were unable to identify who was responsible for removing the structural barriers skilled labour shortages. All they knew is that they had no authority to hire the necessary staff even when vacant positions were thought to be funded and approved. The absence of decisive, responsive and accountable leadership for health delivery will continue to hinder the handover efforts if they're left unaddressed.

Still, Vhembe District's strategic ambitions for health care include provision comprehensive HIV, STI & TB services in farming communities across 20 sites by 2016. The MSF handover has helped give them a head start with ten sites shown on the map below.

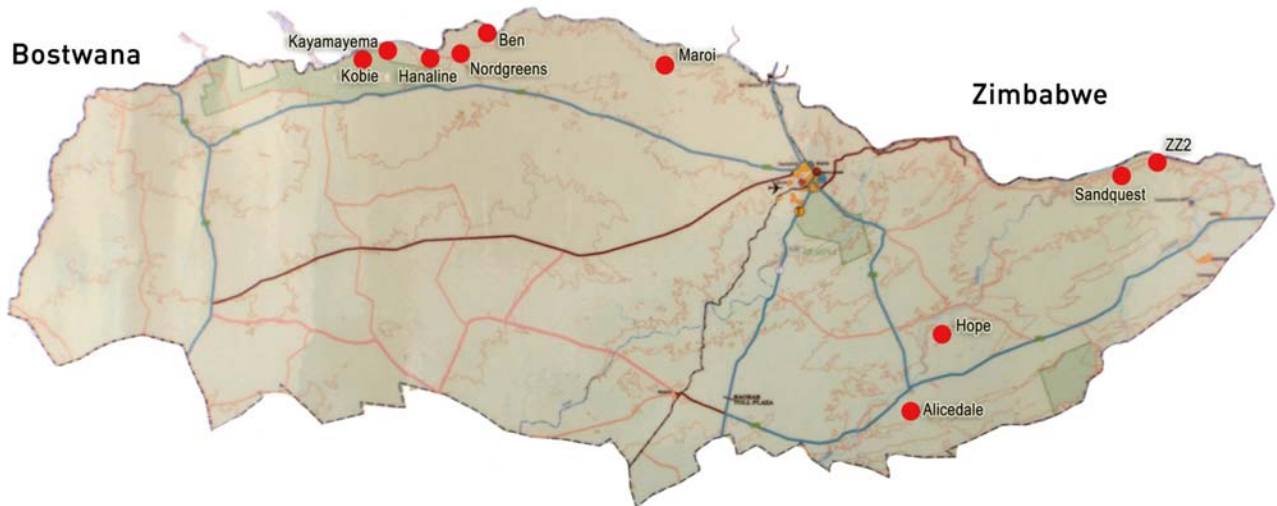


Figure 1: Mobile outreach to ten farms in Vhembe District Municipality, Limpopo Province, South Africa

The Musina Model of Care

In the early stages of the farm project in 2010, 25 percent of workers on the farms were HIV positive, versus 14 percent in the Musina municipal area. Of those eligible for ART and referred to Musina district hospital, only 51 percent were initiated on treatment.

The partnership between MSF and the Limpopo Department of Health initially involved a weekly mobile HIV/TB service serving workers on six farms. This was later expanded to 10 farm sites, welcoming workers from neighbouring farms, and reaching an estimated population of 10,000. When weekly clinics reduced to monthly visits in order to accommodate the scheduling limitations of the government mobile health teams, the patient burden per clinic per day increased, the pace of consultations slowed, and the number of patients initiated on ART also declined.

Patients were provided with a patient-held health record and asked about their travel plans at each visit. If they were returning to Zimbabwe, MSF provided information about ART sites nearby. Those planning to travel for more than two weeks were classified as a temporary transfer out (TTFO) and were given a three month supply of antiretroviral therapy (ART), one week of tail protection (a strategy to prevent resistance if treatment interruption is unavoidable), and a transfer letter. Counselling materials were designed to help patients understand possible changes in regimen and formulation over time.

HIV prevalence in Musina municipality was 32.4% in 2009. By 2011 it was 17.1% whereas the provincial average in Limpopo was 21.1 %.

“I really appreciate what they were doing. When MSF arrived on the farm, people were very sick. Now people are well, and working.”

– SN, female farm worker, aged 42

The components of the **Musina Model of Care** developed for this area are:

- Nurse-driven services reaching multiple treatment sites
- Full-time Community Health Workers on each farm
- Patient-held health records
- Anticipation of travel
- Buffer supplies and transfer letters to those relocating
- Migrant-adapted counselling
- Adapted monitoring for Temporary Transfer Out (TTFO)
- Point-of-Care (POC) CD4 testing machines

Who does what on a clinic day?

Professional Nurses:

- Comprehensive primary health care
- HIV/TB care
- Antenatal care, prevention of mother-to-child transmission
- Antiretroviral treatment initiations

Enrolled Nurses/Assistants

- Vaccinations and family planning
- Dispensing
- HIV counselling and testing
- Point-of-care CD4 testing
- Counselling

Community Health Workers:

- Drug refill pre-packs
- Support groups



Full-time Community Health Workers were recruited from among farm workers, and continue to live on the farms. They perform HIV testing, make home visits to check on newly initiated HIV patients, and pay special attention to those with adherence problems. Their counselling focuses on HIV/AIDS, tuberculosis, and drug-resistant tuberculosis. They assist with health promotion awareness and prevention activities, stimulate the running of support groups, organize tracing for defaulter patients, identify and refer survivors of Sexual and Gender-Based Violence. They were trained in accordance with national government guidelines because they should eventually be absorbed as part of the public sector's PHC Re-engineering strategy, which MSF fully supports. Community Health Workers are the vital link between the farm community and the mobile PHC nurses.

Outcomes

Retention in care was the most impressive achievement of the project considering the frequent mobility of farm workers. From November 2010 to December 2012, 481 patients (78.4 percent) remained in care 12 months after treatment initiation with 203 (33.1 percent) being recorded as Temporary Transfer Out (TFO) at least once. After a first TFO, 186 (91.63 percent) returned to care. Retention in care for South African patients was 94 percent versus 72 percent for non-South Africans.

These results are comparable to those seen in well functioning programmes delivered in other parts of South Africa, and are remarkable because they show that even among highly mobile populations ART programmes can function well.

South Africa has 5.7 million people living with HIV, the highest of any country in the world. The estimated adult prevalence is 17.8%.

During MSF's assessment phase in 2008, HIV test positivity rates were as high as 25 percent on the ten farms in Vhembe District that became the hubs for MSF mobile efforts. MSF implemented weekly clinics that provided a full package of treatment, and promoted sustained awareness and testing efforts through campaigns and the full-time employment of Community Health Workers.

This approach has reduced positivity rates. MSF's HIV testing on ten farms in the same region in 2013 showed a positivity rate less than 7 percent, with rates that were sometimes as low as 3 per cent on some farms. By comparison, the positivity rate in Vhembe District was 16.9 percent in 2012, and 14.6 percent in 2013.

In November 2011, MSF medical outreach teams started using point-of-care (POC) CD4 testing, which facilitated same-day initiation of ART on the farms. This was a critical improvement at a time when other initiatives were also strengthening, such as protocols for decentralized initiation on treatment. Prior to this POC testing, all samples were sent to a central laboratory in Musina, increasing the turn-around-time for receiving results. Challenges included transportation, laboratory delays, and patients moving away before receiving their results. If the mobile clinic only returned one month later, all of this downtime translated into losses with clinical impacts on patients' health. On average, it used to take 143 days to initiate treatment; once the POC machines were introduced and other systems strengthened, initiation time plummeted to just 14 days.

The majority of patients retained their patient-held clinical record throughout follow up, allowing the records of transferred out patients to be updated and preventing the re-registration of patients when they returned to care.

The Numbers

- The mobile clinic teams see up to 180 PHC patients a day.
- HIV consultations can reach 110 per day.
- In June 2013, 581 patients were on HIV treatment, of which 18 were children, and 21 were on second-line treatment.
- MSF medical teams have done more than 72,000 consultations since 2008.
- Between 2009 and June 2013, they conducted almost 18,000 HIV counselling and testing sessions.
- Through sustained efforts, the HIV test positivity rate of 25 percent in 2009 has plunged to 6 percent in 2013.
- 481 HIV patients (78 percent) remained in care 12 months after treatment initiation with 203 (33 percent) being recorded as TTFO at least once.
- After a first TTFO, 186 (92 percent) returned to care. Retention in care for South African patients was 94 percent versus 72 percent for non-South Africans.
- Of all the patients ever started on treatment, 18 percent of patients formally transferred out to another ART site outside the catchment area, and only 14 (2 percent) are known to have died.
- Over the course of the project, almost 1,100 people were diagnosed with HIV and put on HIV care. Of these, 978 were adults and 91 were children.
- From November 2010 to December 2012, the Musina mobile outreach teams provided 423 primary health care consultations per month. The majority of these consultations were for gastroenteritis, childhood immunizations and antenatal care.
- As of May 2013, 614 adults and 33 children were started on ART. Of these, 576 (89 percent) were Zimbabwean, 70 (11 percent) South African and 1 was from another African country.

Recommendations

The MSF approach offers the government of South Africa the results of a test-run of one of more challenging aspects of its PHC Re-engineering strategy for health delivery. The work ahead is exciting, and demands a commitment to offering equal access to health care for rural farm workers, regardless of where they are.

1. To overcome the desperate shortage of nurses in Vhembe District will require more proactive recruitment for the mobile PHC teams, and fast-tracked professional accreditation of nurses working in South Africa but who were trained in Zimbabwe.
2. A key tenet of the strategy has been the meaningful engagement of Community Health Workers as an integral support to a team of mobile health professionals. The government must allocate the resources to integrate these staff-members into their payroll if this model is to succeed over the long term.
3. Limpopo government policy must catch up to science and champion the use of POC CD4 machines for mobile PHC clinics on farms.
4. In order to limit the risks of treatment ruptures, the Department of Health drug supplies must be well managed to allow rural and mobile HIV patients to receive a three month buffer stock before they transfer out.
5. NGOs working in the region must address the capacity weaknesses within the entire public sector, and robustly advocate for the government to improve its service delivery at all levels.
6. Quality of care will require persistence in order to harmonize data collection, usage of patient-held health records, treatment protocols, cross-border referrals, and continuity of care packages for rural populations.
7. If all of the recommendations above are undertaken, it will be possible to scale up the Musina Model of Care across the country in order to ensure that *all* farm workers enjoy equal access to care, not just the lucky few in Vhembe District.

Conclusion

The chasm between the intentions of the South African health system to provide fair access for all – and the reality for most farm workers who live more than 50 kilometres from the nearest clinic – can be bridged through interventions like the one developed in Musina, Limpopo. MSF intervened in the Musina area to address a gap in access to health care for a vulnerable population, and to demonstrate how this could be resolved. Now that this has been done, it is the responsibility of the government to provide equal access to health care to its population “and all who live in it,” to cite Section 27 of the South African Constitution.

“The South African Department of Health assured us that it has the capacity to successfully take over this programme, and signed an agreement specifying how this would happen. MSF has been working with the Department for more than a year to ensure the transition happens as smoothly as possible.”

– Andrew Mews, MSF Head of Mission

In light of high rates of mobility and precarious working conditions of seasonal farm workers, adapted models are needed to provide comprehensive primary health care, chronic HIV and TB services, and reproductive health to underserved populations.

The successful handover of the Musina project requires strong partners to carry on with

providing a continuous mobile comprehensive PHC package to mobile migrant farm labourers in the Musina area. It is essential that the quality and comprehensiveness of the services be sustained. The motivating rationale for this Model of Care to be replicated elsewhere in underserved rural environments should be nothing short of a national ambition.

MSF has worked in South Africa since 1999, and continues to pioneer in approaches to the provision of HIV care. The Musina project ran from 2007 through 2013. Ten mobile clinics to farms, in addition to other mobile and outreach activities in the community, targeted vulnerable forced migrants and asylum seekers. The project handover was implemented over the course of 12 months, in partnership with the Limpopo Province Department of Health and other non-governmental organizations.

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Above all, we thank the farm workers who entrusted MSF with their medical needs. We wish you continued good health.

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ⁱ Source: Limpopo Province Department of Health

ⁱⁱ http://www.msfaaccess.org/sites/default/files/MSF_assets/HIV_AIDS/Docs/AIDS_report_ARTformobilepops_ENG_2012.pdf

ⁱⁱⁱ Source: Statistics South Africa, Census 2011

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