



Miners enroll for TB testing at TEBA offices in Maseru, Lesotho. Photo: Jake Price

LEVERAGING LABOR RECRUITMENT OFFICES IN LESOTHO AS INNOVATIVE POINTS OF CARE TO REACH AT-RISK MINERS WITH TB/HIV SERVICES

Project Overview

From 2013 to 2015, with funding from the Canadian International Development Agency (through TB Reach), the World Bank (through University Research South Africa), and the Centers for Disease Control and Prevention, ICAP at Columbia University forged a new public-private partnership between Lesotho's Ministry of Health and The Employment Bureau of Africa (TEBA), the primary agency that recruits men in Lesotho to work in South Africa's mines.

The partnership leveraged three high-volume TEBA offices to reach miners and ex-miners—populations with extraordinarily high HIV and tuberculosis (TB) risk—and their families with much-needed, “one-stop” health services. ♦

Background

In 2012, the Southern African Development Community (SADC) issued a declaration that recognized the alarming rates of TB and HIV among miners in the region, and called for urgent action to control this dual epidemic within the mining sector.

Miners are at an exceptionally high risk of acquiring TB due to their working and living conditions and, indeed, TB incidence in South Africa's mines is amongst the highest in the world. In addition, migrant miners are at particularly high risk of acquiring HIV due to the social consequences of long separations from their families. These realities are a key driver of the dual TB/HIV epidemic in Lesotho, as over 30,000 of the country's two million inhabitants are formally employed as migrant laborers in South Africa's mines.

Reaching the population of miners with appropriate health services is complicated by a general reluctance among miners to seek care in South Africa, due to fears that detection of an illness, such as HIV or TB, could negatively impact their employment, as well as the difficulty of accessing care in Lesotho, where public clinics are closed on weekends when miners generally travel home. ♦



MAP | ICAP-supported TEBA clinics in Lesotho



Core Project Approaches

To decrease barriers to care among migrant miners in Lesotho, ICAP helped establish a public-private partnership between Lesotho's Ministry of Health and TEBA, a labor recruitment organization with offices throughout Lesotho. ICAP supported the establishment of TB and HIV services within three high-volume regional TEBA offices—in Maseru, Mafeteng, and Leribe districts—that employ over 20,000 miners. Establishing services within TEBA offices effectively brought services directly to miners, who visit TEBA offices on a regular basis for pre-employment screening and to collect a portion of their pay upon their visits back to Lesotho.

After initiating the project, many of the ex-miners and miners' family members also began to express interest in accessing on-site services, so the decision was made to extend services to these groups as well.

ICAP used the following approaches to maximize the project's health impacts:

1. Developing the Partnership & Project Start-Up

- ICAP led **initial consultation** with TEBA and the National Tuberculosis Control Programme and then supported project start-up.

- To strengthen TEBA's health team, ICAP hired additional staff, provided training, and developed job aids and health information materials.
- To equip TEBA for its role in this project, ICAP **renovated three TEBA offices, procured all medical and non-medical equipment**, and procured and installed GeneXpert machines.
- To support monitoring & evaluation (M&E), **MOH M&E tools and TB drugs were provided** to TEBA points of care and ICAP developed a referral system to the national multidrug-resistant TB program.

2. Establishing One-Stop TB Education, Screening, Diagnosis, and Treatment at TEBA Offices

- ICAP supported the **recruitment and training** of nurses, lab technicians, and care supporters to provide TB services at each TEBA office. To ensure service quality, ICAP provided these staff with regular training, on-site supportive supervision, and mentorship.
- ICAP trained health workers to utilize miners' wait time to provide health talks, implemented an **opt-out approach** to TB screening, and established client flow systems that enabled miners to move seamlessly through the on-site health services. To enable miners to access services during weekend visits home, TEBA clinics provided services Monday through Saturday.
- To facilitate **same-day diagnosis**, GeneXpert machines were installed at each TEBA clinic, providing results in less than two hours and identifying patients with drug-resistant TB.
- All miners diagnosed with TB were offered **same-day treatment initiation** at TEBA clinics, including treatment education and adherence counseling. They were then offered different options to continue treatment either in their home community, back at the mine, or through regular follow-up at the TEBA clinic.
- To maximize **adherence to TB treatment**, ICAP trained TEBA care supporters to send regular text message/SMS medication and appointment reminders to patients and to provide them with community-based adherence support.
- ICAP established a **referral system** to nearby health facilities, allowing TEBA staff to refer TB suspects for further evaluation, as needed, and to **refer cases detected with rifampin-resistant TB** to ensure their enrollment in the national multidrug-resistant TB program. Referrals were also used to ensure further follow-up and treatment support for ex-miners and family members diagnosed with TB at TEBA clinics.

3. Establishing Community-based Contact Tracing

- ICAP established a **contact tracing system**, whereby TEBA care supporters visited the households of miners who were diagnosed with TB and systematically screened all family members for signs and symptoms of TB, and referred all TB suspects to a health facility for further diagnostic evaluation.



A TEBA care supporter visits the home of a miner to support TB treatment adherence. Photo: Jake Price

- ICAP supported the development of a **mobile phone-based application** to assist TEBA care supporters in their contact tracing work. The same application allows program managers to easily monitor the program in real-time and to assess the condition of enrolled clients at any time.

4. Integrating HIV and Other Health Services at TEBA Offices

- As approximately 75 percent of TB patients in Lesotho are co-infected with HIV, ICAP supported TEBA to expand its services in 2014, training TEBA care supporters to provide **opt-out HIV counseling and testing** to all clients suspected of having TB. This resulted in HIV testing uptake of **83 percent among miners, ex-miners, and family members** suspected of TB.
- With ICAP support, TEBA clinics are in the final stage of being accredited by the Ministry of Health to provide on-site **HIV care and treatment** services directly to miners.
- ICAP supported TEBA sites to initiate the screening of miners for **hypertension and diabetes**. A task group was also formed to explore leveraging TEBA offices to screen miners for occupational health conditions, such as silicosis.

5. Ensuring Integration with Ministry of Health Systems

- The project benefited from the Ministry of Health's involvement and support from the early planning stages. To increase the project's sustainability, the three TEBA clinics were **integrated into the Ministry of Health's system**, receiving medications, supplies, and standardized M&E tools directly from the Ministry, as well as ongoing supervision from district health management teams.

6. Strengthening Cross-Border Referral Systems

- ICAP collaborated with Lesotho's Ministry of Health, TEBA, and several mining companies in South Africa to implement a **bi-national information and referral system** to support continuity in TB diagnosis, treatment, and care among migrant miners.
- Six South African mines that work with TEBA on the TB program and home-based care notified a **cumulative number of 489 miners diagnosed with TB**.
- A total of 489 miners registered for contact tracing and 289 miners were registered for directly observed therapy.

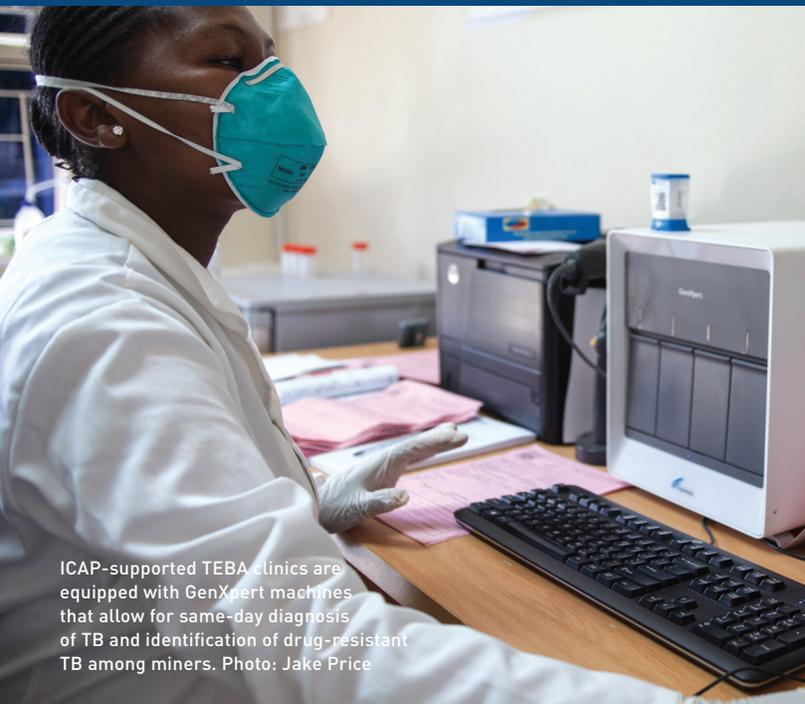
Key Achievements

As a result of this project, the following was accomplished (see table below):

- A total of 182,776 miners, ex-miners, and family members were screened for TB.
- Of all those screened, 378 were diagnosed with TB, including 23 with rifampicin-resistant TB.
- Of those diagnosed with TB, 80 percent were initiated on TB treatment, (83 percent of miners, 85 percent of ex-miners, and 75 percent of family members).
- Of those initiated on TB treatment between March and August 2014, 80 percent were treated successfully (73 percent of miners, 81 percent of ex-miners, and 88 percent of family members).

TABLE | Patients Reached with TB Services, July 2013 - February 2015

Population	# Identified as TB Suspects	# of Suspects Examined for TB	# Diagnosed with TB	# Initiated on Treatment at TEBA Office
Miners	3,070	2,743	132	110
Ex-Miners	2,356	2,052	114	97
Family Members Visiting TEBA Office	2,682	2,201	132	97
Total	8,108	6,996	378	304



ICAP-supported TEBA clinics are equipped with GenXpert machines that allow for same-day diagnosis of TB and identification of drug-resistant TB among miners. Photo: Jake Price

- A total of 132 households of miners diagnosed with TB were visited for contact tracing.
- HIV testing was integrated in TB screening services with HIV testing rates among TB suspects and TB cases of 80 percent and higher.

Impact and Lessons Learned

This project demonstrated the feasibility of an innovative model of care utilizing recruitment offices to reach at-risk migrant miners with health services tailored to their specific needs. Although the project was originally designed to target miners only, there was unanticipated demand for on-site TB diagnostic services from ex-miners and family members. In fact, approximately two-thirds of the case notifications that resulted from this project were among ex-miners and family members.

Improving access to TB services for these populations not only serves to improve their health outcomes directly, but also prevents ongoing TB transmission within their households and communities.

Other lessons learned during project implementation include:

- **The importance of task-shifting** to maximize human resources: TEBA care supporters were trained to offer health education, organize clinic flow, and conduct TB screening, sputum collection, and contact tracing, services that are traditionally provided by nurses.

- Providing **same-day TB diagnosis and treatment initiation**, and ensuring the quality and confidentiality of services, is paramount to the model's success.
- It is crucial that on-site health staff continue to receive **ongoing supervision and clinical mentorship**, ideally from district health management teams.

The Way Forward

This project was the first to translate the 2012 SADC declaration on TB/HIV in the mining sector into action. Going forward, effectively reaching vulnerable, high-risk miners throughout the region will require increased, broader cooperation across sectors. Widespread acceptance of this project by the Ministry of Health, TEBA, and local communities suggests that this model could be replicated in other geographic locations, perhaps leveraging TEBA offices throughout the region, and to improve health outcomes among other migrant worker populations.

Recruitment offices are also an ideal platform for providing other relevant health services, such as occupational health and HIV prevention, care, and treatment services. As many migrant miners regularly cross international borders, it is critical that cross-border communication and patient-tracking systems continue to be strengthened so that miners' health care can be effectively coordinated between all relevant health systems.

ABOUT ICAP

ICAP was founded in 2003 at Columbia University's Mailman School of Public Health. Now a global leader in HIV and health systems strengthening, ICAP provides technical assistance and implementation support to governments and non-governmental organizations in more than 21 countries. ICAP has supported work at more than 3,380 health facilities around the world. More than 2.3 million people have received HIV care through ICAP-supported programs and over 1.4 million have begun antiretroviral therapy. ♦

Online at ICAP.columbia.edu

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