



TB IN THE MINING SECTOR

Background

TB (Tuberculosis) caused 9.6 million people to fall ill in 2014, and killed 1.5 million people.¹ Infection control of TB, particularly among vulnerable populations, remains a public health challenge. Mine workers are exposed to a multitude of factors that compound their risk of TB infection. These risk factors include working conditions (prolonged exposure to silica dust, poor ventilation), exposure to occupational hazards, socio-economic factors (cramped and unsanitary living conditions, limited access to health services), and their disease

TB and silicosis have long been recognized as occupational diseases. The risk of a person with silicosis developing TB is 2.8 to 3.9 times higher compared to healthy control groups. Early TB detection, timely enrollment in treatment, prompt diagnosis, and treatment and care of HIV/TB co-infection remains a challenge.

The Southern African region is rich in minerals and has a thriving mining sector, drawing miners from all over the region. Recent research estimates that 3-7% of miners are becoming ill with TB each year. To address the issue of TB in the mining communities of Southern Africa, policies, procedures, and partnerships need to better serve mining communities.

Objectives

In 2015, USAID TB CARE II project began an initiative to address TB in miners in the Southern African Region. The overall objective is to improve detection and management of TB and other co-morbidities among mine workers and their families. This would also help to control the spread of TB and reduce new incidences of TB. The specific objectives of this initiative include:

- Building stakeholder coalitions for management of TB and MDR-TB

- Strengthening capacity for diagnosis and management of TB and MDR-TB
- Scaling up interventions in target countries

Implementation

TB CARE II seeks to bring technical expertise in the management of TB among miners in developing countries. The project will specifically focus on policy support and coordination to strengthen regional initiatives to improve diagnosis and management of TB among miners and the mining community. The project focuses on:

- Improving partnerships and collaboration
- Improving leadership and management
- Developing providers' capacity for standardized management of TB and MDR-TB patients
- Supporting early detection and treatment of TB
- Improving treatment adherence
- Printing and distributing tools and materials about TB awareness
- Monitoring, evaluation and dissemination

Project Achievements in 2016

Regional

- A TB and silicosis training guide outline was created to encourage the development of a training to teach clinicians to become trainers for TB and silicosis courses.

Lesotho

- The **ENGAGE TB** (guidelines to integrate community-based TB activities into the work of partner organizations) implementation manual was finalized and approved by the Ministry of Health and disseminated.

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- The project procured medical equipment and trained occupational doctors on Spirometer testing.

South Africa

- Rapid assessments were conducted in 16 mines to explore TB awareness and management practices. Educational materials on the magnitude of TB were distributed to 300 miners. Eight new TB screening tools were introduced and 1,005 adults were screened for TB. 128 miners were cross screened for TB, HIV, blood pressure, and glucose.
- TB CARE II is a member of the Masoyise iTB, a national TB and HIV steering committee hosted by the Chamber of Mines in collaboration with Department of Mineral Resources and Department of Health, and works to identify priority interventions to address TB in the mining sector.
- The project supported the national commemoration of World TB Day in two mining communities, by screening 7,961 people for TB, of whom 781 were symptomatic and referred for further investigations. 59 people were diagnosed with TB and were initiated on treatment. In a peri-mining community, 68.3% of participants screened were diagnosed with TB. This translates to a prevalence of 4,938 cases per 100,000 population, almost 12 times higher than the rate in primary health care facilities serving the same area, which highlights the large numbers of undetected TB cases.

Zimbabwe

- Convened a workshop in collaboration with the National TB Program to develop the first national strategic plan on TB in mining communities.

Swaziland

- Held a meeting with the Regional TB Coordinator and DR-TB doctors to communicate approval of the provision of occupational lung health services and to solicit support in the integration of TB in the Mines Project into Regional TB Activities.

The **USAID TB CARE II** project, which began in 2010, implements activities in 15 countries. The project, led by University Research Co., LLC (URC), aims to provide global leadership and support to national TB programs and other in-country partners to decrease TB rates through the implementation of new technologies, the integration of TB and HIV diagnosis and treatment, better programmatic management of drug resistant TB, and through health systems strengthening.

Next Steps

Regional

- Finalize TB and silicosis training package
- Conduct regional training-of-trainers course on TB and silicosis for participants from supported countries
- Develop training course on leadership and management for health care workers focused on occupational risk reduction and TB control in mines.

Lesotho

- Convene sensitization meetings on the ENGAGE TB guidelines
- Conduct pilot training on TB and silicosis for clinicians for clinicians to identify the optimal model for building professional competencies for effective TB control in mines.
- Support participation of clinicians at regional training on TB and silicosis in the mines

South Africa

- Support development of partnerships between provincial departments of health and mines
- Support TB screening and testing for miners, with linkage to care

Zimbabwe

- Finalize the national strategy on TB in the mines
- Support treatment adherence and contact tracing for TB patients
- Conduct pilot training on TB and silicosis for clinicians

Swaziland

- Develop job aids and procedures for healthcare workers to provide standardized TB/MDR-TB treatment for miners and ex-miners
- Conduct regional trainings of healthcare workers to provide comprehensive health services to miners and ex-miners
- Develop directory of facilities that provide TB and MDR-TB services and comprehensive lung health services to miners and ex-miners
- Work with partner organizations to implement TB screening amongst miners
- Print and distribute relevant guidelines, job aids and educational materials to TB miners.

1. *2015 Global Tuberculosis Report* (Rep.). (2015). Retrieved July 13, 2016, from World Health Organization website: http://apps.who.int/iris/bitstream/10665/191102/1/9789241565059_eng.pdf