

FACT SHEET

TB in the mining sector in southern Africa



Mining is a significant economic activity in most southern African countries and some of the highest rates of TB in the world occur among mineworkers in these countries.

Elevated TB rates among mineworkers and in mining areas

Where data for the mineworkers and mining areas exists, the rate of TB is dramatically higher in these groups than in the general population of the corresponding country.

Here are some estimates that illustrate the pattern:

	National incidence (New cases in one year)	TB sector incidence (New cases in one year)
Botswana	385/100 000	438 – 520/100 000 people in selected mining districts
Lesotho	852/100 000	No data available
Malawi	227/100 000	No data available
Mozambique	554/100 000	No data available
Namibia	627/ 100 000	1 000 – 1 380/100 000 people living in mining regions
South Africa	834/100 000	1 200 – 3 000/100 000 mineworkers
Swaziland	733/100 000	Prevalence (all cases, new and existing) of about 5 000/100 000 mineworkers
Tanzania	327/100 000	No data available
Zambia	406/100 000	600 – 2 294/100 000 people living in mining districts
Zimbabwe	603/100 000	No data available

Source: Epidemiological data on TB, MDR-TB, silicosis and HIV among miners and ex-miners, PHRU, 2017.

In order to address this concerning situation, heads of state of the Southern African Development Community (SADC) adopted the SADC Declaration on TB in the Mining Sector. The TB in the Mining Sector Southern Africa Programme (TIMS) was initiated in 2015/6 in order to help countries achieve the objectives set out in the declaration.

A serious treatment gap in southern Africa

TB is a curable disease and, in 2015, an estimated 82% of **reported** TB cases were cured in the 10 countries constituting the TIMS programme (WHO Global TB Report 2016). These countries are: Botswana, Lesotho, Namibia, Malawi, Mozambique, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

However, there is a significant **treatment gap**: it is estimated that only 56% of **all** new cases of TB that occurred in these countries during 2015 were treated (WHO Global TB Report 2015). The treatment gap is the main reason for the estimated quarter of a million TB-related deaths across the 10 countries.

Reasons for high TB rates among mineworkers

Mineworkers are more susceptible to TB for three major reasons:

- HIV rates are particularly high among mineworkers in most (but not all) of the 10 countries served by TIMS. Untreated HIV results in a severely depleted immune system which in turn heightens the risk of acquiring TB.
- Silicosis is common among mineworkers. This is an incurable lung disease caused by inhaling silica dust which is produced during the crushing, blasting and drilling of certain types of rock. This sharp, invisible dust not only causes scars and lumps in lung tissue, but also compromises the immune system in a way that allows TB disease to take hold.

- Mineworkers often live and work in conditions that allow TB to spread among them. TB is transmitted when a person with active TB emits small infected particles of moisture when coughing, sneezing, laughing and someone close by inhales these particles. Crowded, poorly ventilated spaces are environments that increase the risk of transmission. These conditions often exist in underground mining and the living quarters of many mineworkers.

	HIV prevalence in general population	HIV prevalence in the mining sector
Botswana	18.5%	24% among mineworkers
Lesotho	10.6% in Butha-Buthe	14% among mineworkers in Butha-Buthe
Malawi	9.1%	4% - 7% among mineworkers
Mozambique	10.5% (15 – 49 years)	15% - 42% among mineworkers migrating to SA for work
Namibia	16%	20% - 25% in mine labour-sending area (Caprivi) and mining areas (Kavango & Erongo)
South Africa	19.2% (among adults)	24% among mineworkers
Swaziland	29% (among adults)	20% among mineworkers
Tanzania	4.5% (among adults)	8.9% among mineworkers
Zambia	12.7%	7% - 18% among mineworkers and in mining districts
Zimbabwe	15.25 (adults only)	No data available

Source: Epidemiological data on TB, MDR-TB, silicosis and HIV among miners and ex-miners, PHRU, 2017.

Impact on families and mining communities

Since TB is spread among those with close interpersonal contact, family members of mineworkers are also at higher risk of becoming infected and there is an additional impact on communities where large numbers of mineworkers reside. This risk extends to communities that supply large numbers of migrant workers to the mines, since these workers return home periodically.

Treatment is key to reducing transmission

The spread of TB can be reduced by early diagnosis, prompt initiation of treatment, and correct and complete treatment. A few weeks after treatment has begun, the person with TB is no longer able to infect others.

However, access to healthcare services varies considerably for mineworkers and their families.

Mining operations are extremely varied in southern Africa, ranging from sophisticated formal mining conducted by large corporations, at the one end of the spectrum, to informal artisanal mining using rudimentary equipment at the other end. Workers at large formal mines are likely to have access to company health services, while workers on artisanal mines would depend on public health facilities which may be located a long distance from the mines. In many mining areas, therefore, lack of facilities for treatment aggravates the situation and drives the spiral of the TB epidemic in the mining sector.



The TB in the Mining Sector Southern Africa Programme (TIMS) supports the SADC Declaration on TB in the Mining Sector