



# TIMS

TB IN THE MINING SECTOR IN SOUTHERN AFRICA

## WOMEN EMPOWERMENT IN THE TB RESPONSES IN THE MINING SECTOR IN SOUTHERN AFRICA



## BACKGROUND

Mining is a demanding physical activity, which historically has been conducted with very little mechanization and has traditionally been a male activity. However, of recently women participating in mining activities has significantly increased. Women have primarily been involved in crashing, sluicing, washing, panning, sieving, sorting, mercury-gold amalgamation, amalgam decomposition and, on rare occasions, actual mining. Women are also active in the provision of goods (e.g., food and drink vending, sales of artisanal equipment such as sieves, and credit for mobile phones) and services (e.g., transporting dirt, ores, ore particles and water; cleaning; laundry; sex; nightclub entertainment; and trading). Though not often acknowledged, the role of women in mining is significant, as they make up around 30 percent of the total workforce<sup>1</sup>. Women miners are actively contributing to the national economy while improving their family's standard of living and the conditions in their villages. While Mining contributes significantly to the southern African region, health and safety concerns in the mining industry continue to compromise men and women miners and their communities' wellbeing. Miners are at high risk of Tuberculosis (TB) because of HIV infection and silicosis, exacerbated by working conditions and living environments.

## WHAT IS TB AND SILICOSIS?

TB is a communicable disease that is a major cause of ill health, one of the top 10 causes of death worldwide and the leading cause of death from a single infectious agent (ranking above HIV/AIDS). It is caused by the bacillus *Mycobacterium tuberculosis*, which is spread when people who are sick with TB expel bacteria into the air; for example, by coughing or sneezing. It typically affects the lungs (pulmonary TB) but can also affect other sites (extrapulmonary TB). With timely diagnosis and treatment with first-line antibiotics for 6 months, most people who develop TB can be cured and onward transmission of infection curtailed.

Silicosis on the other hand is a pneumoconiosis caused by exposure to crystalline silica characterised by the replacement of healthy lung tissue with nodules of fibrosis, mainly in the upper lobes of the lungs<sup>2</sup>. It is a progressive and irreversible condition; the most severe form of the disease is termed progressive massive fibrosis. Those affected may, however, show no signs or have no symptoms of disease. Chest radiographs are the best diagnostic tool for the living, although cases might be missed using this method; autopsy diagnosis is the most reliable indicator. Silica dust exposure is also associated with chronic obstructive pulmonary disease, lung cancer, and immune-related diseases. Silica dust exposure occurs mostly in mining and mining related occupations, e.g. milling, quarrying, tunnelling and excavation; but workers in the agricultural and construction sectors are also at risk of exposure. Silicosis is diagnosed most frequently in gold miners.

1 <https://www.iisd.org/sites/default/files/publications/igf-women-asm-challenges-opportunities-participation.pdf>  
2 TB, HIV and Silicosis in Miners; Epidemiological Data on Tuberculosis, Multi-Drug Resistant TB, Silicosis and HIV among Miners and Ex-Miners in southern Africa, PHRU.

# STATUS OF THE TB EPIDEMIC AND SILICOSIS

## TB

TB remains a major global health concern, accounting for 1.6 million deaths in 2017. Globally, an estimated 10 million people fell ill with TB in 2018 a number that has been relatively stable in recent years<sup>3</sup>. There were an estimated 1.2 million TB deaths among HIV-negative people in 2018 (a 27% reduction from 1.7 million in 2000), and an additional 251 000 deaths among HIV positive people (a 60% reduction from 620 000 in 2000). TB affects people of both sexes in all age groups but the highest-burden is in men (aged ≥15 years), who accounted for 57% of all TB cases in 2018. By comparison, women accounted for 32% and children (aged <15 years) for 11%.

Geographically, most TB cases in 2018 were South-East Asia (44%), Africa (24%) and the Western Pacific (18%), with smaller percentages in the Eastern Mediterranean (8%), the Americas (3%) and Europe (3%). Globally, the average rate of decline in the TB incidence rate was 1.6% per year in the period 2000–2018, and 2.0% between 2017 and 2018. The global reduction in the total number of TB deaths between 2015 and 2018 was 11%. Incidence and deaths are falling relatively fast in Africa (4.1% and 5.6%, respectively, per year), with cumulative reductions of 12% for incidence and 16% for deaths between 2015 and 2018. Seven high TB burden countries are on track to achieve the 2020 milestones for considerably short of the End TB Strategy milestone of a 20% reduction between 2015 and 2020 for both incidence and deaths: Kenya, Lesotho, Myanmar, the Russian Federation, South Africa, Tanzania, and Zimbabwe. High mortality rates are caused by, among others, late diagnosis, low adherence to TB treatment, and co-infection with HIV, which further weakens and compromises TB patients' immune systems.

## SILICOSIS

Silicosis is a progressive and irreversible condition and because it has a latency period of up to years it may develop even after people are no longer exposed to silica dust, or have retired from working in the environment where they were exposed. Few epidemiological studies have been published on the prevalence of silicosis in southern Africa mainly in South Africa, Botswana and Lesotho. Even so, existing evidence in South Africa show that silicosis prevalence increased from 14% in 1993 to 52% in 2004. <sup>4</sup>Botswana and Lesotho all reported high proportions of silicosis prevalence between 24.6% and 31% for the period between 1997 and 2009.

Exposure to silica dust and silicosis itself are both associated with TB. There is an increased lifelong risk for TB even if exposure to silica dust ceases. That association contributes to high rates of TB in areas with poor TB and silica exposure control. Even in the absence of HIV, silicosis is a risk factor for TB. Together, HIV, silicosis and exposure to silica dust have a multiplier effect on the development of TB. The HIV epidemic, however, together with inadequately controlled silica dust exposure, may result into an increased TB epidemic in the mines.

3 WHO Global Tuberculosis report 2019

4 TB, HIV and Silicosis in Miners; Epidemiological Data on Tuberculosis, Multi-Drug Resistant TB, Silicosis and HIV among Miners and Ex-Miners in southern Africa, PHRU.

## THE PROBLEM: WHY WOMEN IN TB RESPONSE?

Despite progress made globally in tackling TB, Southern Africa has some of the highest rates of TB incidence in the world, with nine countries recording more than 300 cases per 100,000 and TB/HIV co-infection rates exceeding 70 percent in countries such as Swaziland, Lesotho, and South Africa<sup>5</sup>. In 2018, an estimated 3.2 million women fell ill with TB globally<sup>6</sup>. TB is among the top six killer diseases of adult women aged 15–49 years. Close to half a million women died from TB in 2018, including some 95,000 deaths among women with HIV. Of the 219,000 HIV-related TB deaths among adults (age ≥15) globally in 2018, 43% were among women. About 90% of these HIV-associated TB deaths among women were in Africa.

Furthermore, mining which is a major source of economic growth in most of the countries in Southern Africa, and a major contributor to the intra-regional movement of labour has been associated with high TB incidence accounting for 33 percent of all new TB cases in the region<sup>7</sup>. The high burden of TB in the region is compounded by the high HIV/AIDS burden and intra-regional movement of people for labour and other economic activities facilitating the cross-border movement of the disease.

While significantly more men than women contract TB and die from it, TB can have particularly severe consequences for women, especially during their reproductive years and during pregnancy. Given the high numbers of women living with HIV in the region, it is clear that they are the largest group at a threat to develop active TB and more likely drug resistance. Even with the availability of TB drugs, women's socio-cultural and economic status and gender roles, including child-bearing and being household caregivers, and TB and HIV stigma, puts women at high risk of both TB and HIV. Across settings, women spend twice as much time than men on housework and family care, and according to the World Health Organization (WHO), 70% of the health workforce in developing countries are women<sup>8</sup>. TB may be more prevalent among men, but for every man, there is likely a woman delivering his diagnosis and treatment, and a wife or mother to take care of him and his children.

For many women in the region, the costs required to access health care services for TB diagnostics and treatment are usually out of reach due to poverty and undermined socio-cultural and economic positions. Gender barriers and negative norms inhibit women's decision-making ability when it comes to their health; they are not free to decide when, where and how to access health services. In the traditional African family hierarchy, the wife needs approval from a husband to get help for a sick child or herself. If the wife acts on her own or decided to sell something to afford health services for herself, she can be beaten or even face divorce.

5 WHO Global Tuberculosis report 2018

6 WHO Global Tuberculosis report 2019

7 <https://www.nepad.org/news/tb-and-health-systems-support-southern-africa>

8 [http://www.stoptb.org/assets/documents/global/awards/tbreach/W7\\_Gender\\_Empowerment.pdf](http://www.stoptb.org/assets/documents/global/awards/tbreach/W7_Gender_Empowerment.pdf)

Moreover, the social stigma associated with a TB diagnosis and its association with HIV forces both men and women to delay testing for the disease. In some cases, when men in marital relationships test positive for TB, they are likely to withhold the information, thereby increasing vulnerability to spread the disease to both their partner and children.

TB in women does not only affect their own health, but also the welfare of their children, families, and communities. Whole families suffer when a mother or wife becomes sick or, worse, dies from TB. And of course, when the children or family members do get sick, it is mostly women who care for them. Women are caregivers for their family members, and when their spouses, brothers, uncles who are breadwinners fall sick, it means they have to take care of them and also continue with the means of providing for the family. Not only does this make these women more vulnerable to infection if they are not already infected, but it also takes them away from other activities, such as employment or businesses, that they rely on for income. While TB is the number one cause of death for men, it is important to note that the TB disease can have particularly severe consequences for women, especially during their productive and reproductive years.

## Inspiring story from a woman in Tanzania

Hidaya lives in Kahama, a town in Shinyanga region in Tanzania. She is a Community Health Worker (CHW) in Kahama Town through a TB REACH project implemented by a SHIDEPHA+ Kahama a local NGO supported by Stop TB Partnership. Kahama is rich in Gold that attract men and women. Men further go to women- wives, girlfriends, food vendors, hotel owners, sex workers. Hidaya used to sell sex for money and she is not ashamed of her choices – life is not easy near the mines, and any work is work. Hidaya was aware of what TB does to communities like hers – where people live in cramped camps, or rent small, packed houses, work dawn to dusk, and miss meals. She was also aware of how sex workers and other vulnerable members of these communities are the last to get access to health services because of stigma. That is why she started working with sex workers and young women in the mining communities to ensure they get access to TB screening and other health services they may need. Empowerment to Hidaya means being an inspiration to other women in her community and not having to apologize for who you are. She believes women in her region of Tanzania can take on TB if they stand together.

Source: Stop TB Partnership



## WHAT FACTORS ACCOUNT FOR WOMEN VULNERABILITY TO TB?

Efforts to address TB among women should take the following factors into consideration;

<b>LITERACY</b>	<p>In most African setups the boy child is accorded preferential treatment with regards to education than the girl child. As a result, in many Africa settings women are less likely to be literate than men. Therefore, they are less likely to access or understand medical information. TB information has not yet been shared in community-friendly language and this affects women's ability to understand more and as such make informed decisions on TB services for their families.</p>
<b>FAMILY RESPONSIBILITIES</b>	<p>Women wait up to twice as long to seek treatment unlike men experiencing the same symptoms. This may be because they have to stay at home looking after children or are reluctant to use scarce/absence of family resources and in some instances have to get permission from their husbands to access medical services.</p>
<b>PRIVACY</b>	<p>Women may need a companion when going to an appointment or may have to explain where they are going. TB stigma increases the reluctance of women to seek help.</p> <p>Women who attend TB services have also complained about a lack of privacy in health centers when receiving directly observed treatment short-course (DOTS), and women with children may not be able to attend TB services regularly due to a lack of child-care facilities</p>
<b>PREGNANCY, CHILDBIRTH AND HIV</b>	<ul style="list-style-type: none"> <li>• The majority of new HIV infections worldwide are occurring in women, increasing their vulnerability to TB.</li> <li>• Active TB is often undiagnosed in pregnant women, even more so in pregnant women living with HIV since TB symptoms, such as fatigue and loss of appetite, are also common in pregnancy itself.</li> <li>• TB rates are higher in pregnant women living with HIV than in HIV negative pregnant women and leading infectious cause of death during pregnancy and delivery, especially among women living with HIV.</li> <li>• TB in pregnant women living with HIV increases the risk that both mother and child will die by almost 300 per cent.</li> <li>• After birth, TB can easily pass from mother-to-child, particularly during intimate moments like breastfeeding.</li> </ul>
<b>SOCIAL, ECONOMIC AND CULTURAL CIRCUMSTANCES</b>	<p>Very often the differences between vulnerabilities and access to preventative measures and treatment services are determined by the social, economic and cultural circumstances in which men and women live. For example, because poor women cannot afford treatment, they are more likely than men to rely on ineffective traditional remedies.</p> <p>Similarly, the burden of TB stigma falls more heavily on women than men. For example, a woman found to have TB may be divorced by her husband or, if unmarried, may have difficulty in finding a husband. Inadequate or gender-insensitive health care infrastructure has also been found to reduce women's access to TB. For example, it has been observed that women feel uncomfortable producing the mucus needed for the standard diagnostic test for TB, due to gender norms about public behavior.</p>
<b>LONGER WAIT TIMES</b>	<p>Although women are less likely to delay seeking care, once they do access TB services, women generally wait longer than men for diagnosis and treatment due to lack of attention to women patients from health care providers.</p> <p>For example, this might cause women not to do close follow up on their TB results due to financial issues but also getting permission from their husband, unlike men.</p>

## WHAT CAN MINING COMPANIES/ MINE OWNERS DO?

To address the issues of TB in women, mine owners should take leadership in designing and supporting gender-sensitive workplace and community-based TB programs. Furthermore, mining companies should exploit core competencies and campaign on TB-related topics at the workplace and in surrounding communities. This can be done through;

- Developing comprehensive workplace TB programs including a comprehensive corporate TB policy that include improving working conditions for women, education and training, case management, access to TB information, and stigma reduction among women;
- Engage female employees to take part in prevention and awareness efforts by creating support groups within the mining community;
- Allow communities to access company health facilities and expand workplace program efforts;
- Connect with existing local programs to support their development and utilize alliances to reach community members.
- Integrate gender mainstreaming interventions (especially focusing on women issues) in organizational policies;
- Tap core expertise to address TB among women, whether it is products or skill sets.
- Take a stand against TB in areas of operation, especially if your company advocates female employment.
- Invest in funding opportunities for research and speak out against gender-related barriers.
- Corporate social responsibility around TB activities within the community to show leadership.
- Have women TB champions (women TB survivors)



## WHAT CAN WOMEN IN MINING DO?

Women in Mining have an indispensable role to play in improving equitable access to quality services and in contributing to comprehensive health care. They should be able to;

- Identify and quickly respond to women's needs and concerns;
- Provide a dialogue platform where the affected communities can be informed about TB and conduct TB related discussions. These dialogue platforms can also host guest speakers who will mainly talk about TB
- Community radio/TB spots mainly for women and TB
- Reach and mobilize women – including those who are most vulnerable and affected by TB;
- Effectively manage, deliver and scale up treatment, care, and support services;
- Monitor access to appropriate services and ensure program quality;
- Identify key TB related issues in the mines and advocate for an enabling environment at workplace and programming to reduce human rights and gender-related barriers to accessing TB/health services and working conditions at the place of work.
- Awareness outreach about TB and women's rights on accessing health services and good working environment at work
- Production of TB related materials from national policies and strategies and disseminate to women miners and communities.
- Develop a policy advocacy agenda and engage women to hold discussions with key decision-makers.

## WHAT CAN MEN IN MINING DO?

Men form the bulk of the workforce in the mining sector, however, while they do the actual digging of minerals in the mines, they rely heavily on women to provide sift services such as the provision of food, entertainment, selling basic merchandise and the like. In some cases, women and children are employed to break stones, especially in queries.

It is critical therefore for men to appreciate the role of women in the mines and can take the following steps to support women.

- Encourage women to access early TB diagnosis services;
- Seek early diagnosis for TB and initiate treatment to avoid infecting women who come to the mines for business or those that stay at home to attend to them;
- Provide resources and to not impose unnecessary restrictions for women to visit health care facilities for diagnosis and treatment;





## WHAT CAN GOVERNMENTS, CIVIL SOCIETY AND INTERNATIONAL NGOs DO SUPPORT WOMEN?

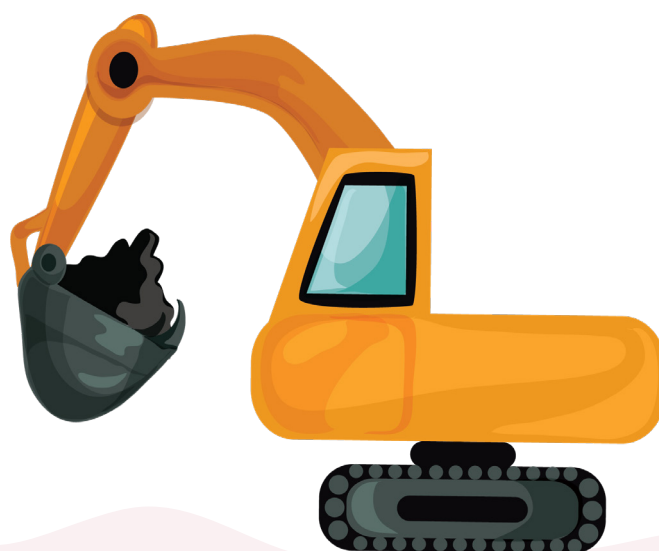
The Global Plan to End TB (2016–2020) targets that include reaching 90% of people with TB, 90% of the most vulnerable, underserved and at-risk populations and achieving a 90% treatment success rate, TB management strategies and programmes need to be mainstreamed with gender considerations at all levels of health service delivery. To achieve the

- Ensure that every woman, child and man are screened for TB during visits to a health care facility.
- Supporting women in their communities to improve treatment adherence and case identification outside of health facilities through empowering women to care for their communities.
- Maternal health provides an opportunity for an entry point into health care services for women and their families. In an effort to improve the health outcomes of both pregnant women and their babies, the government should encourage pregnant women to have at least 8 antenatal care visits. During these visits isoniazid preventive therapy (IPT) should be administered to prevent the development of active TB in especially HIV-infected women.
- Building the capacity of women through continuous training and capacity building efforts on basic TB management including infection prevention, TB symptoms and TB treatment, interpersonal communication and counselling training to ensure that patients understand the importance of treatment adherence and taking responsibility for their health.



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