

Rising global TB deaths and infections a 'wake-up call'

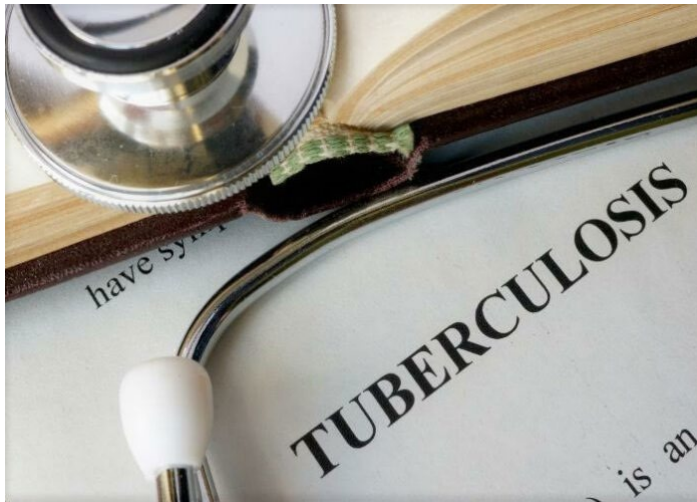


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For the first time in 20 years, there has been an increase in the estimated number of global TB cases and deaths, with some 11m people contracting the disease in 2021 – an increase of 4.5% from 2020 – and around 1.6m people dying of TB since 2020, according to the newly-released **World Health Organisation (WHO) 2022 Global TB** report

The latter figures include 187 000 HIV-positive people, while the burden of drug-resistant TB (DR-TB) also increased by 3% between 2020 and 2021, reports **Health-e News**. And just in South Africa, in 2021, an estimated 304 000 people contracted TB and 56 000 died from the disease, writes Elri Kruger for **Spotlight**.

Professor Kogie Naidoo, deputy director of the **Centre for the AIDS Programme of Research in South Africa (Caprisa)**, said the new WHO estimates should serve as a wake-up call. "We need to pay attention, not just (to) our numbers, but what this means towards ending TB in our lifetime It's a wake-up call for all of us to recognise that we're not going to meet our aspirational goals of a 90% reduction in TB deaths by 2030," she said.

The estimate that 304 000 people got TB in South Africa in 2021 is somewhat lower than might have been expected, based on estimates in previous years. There is, however, significant uncertainty about the true number. The WHO indicates a confidence interval of 207 000 to 421 000. The 304 000 estimate is, however, roughly in line with estimates from **Thembisa TB**, a recently developed

TB version of South Africa's leading HIV model. Of those who fell ill with TB in 2021, the WHO estimates that 163 000 – more than half – were people living with HIV.

Naidoo suggests focusing on the number of new TB cases per 100 000 and notes that this number is coming down. "In 2019, it was 615 per 100 000. In 2020, we had a bit of a wider estimate of between 554 and 562 per 100 000, and now it is 513 per 100 000," she says.

But she cautions against getting too excited too soon. "While I feel optimistic that this is a downward trend, my concern is that we have to keep a close watch on the numbers, given that TB evolves differently from other respiratory infections," she says.

South Africa remains on the WHO's list of high TB burden countries. "The WHO estimated TB incidence signals that South Africa is still in the process of recovering TB services following the devastating impact of COVID-19," says Dr Priashni Subrayen, technical director for TB at the **Aurum Institute**.

"Although gains were made in 2021 compared with 2020, we are still far from achieving the End TB targets and accelerated efforts and funding is required to get us on track." (The End TB Targets are part of the WHO's End TB Strategy.)

Of the WHO's estimates that 56 000 people died of TB in South Africa in 2021, it indicates that 33 000 were living with HIV and 23 000 were not.

For comparison, the Thembisa model estimates that there were around 52 000 HIV-related deaths in SA in 2021. The comparison is not straightforward, given the significant overlap between HIV and TB deaths.

In 2021, the top infectious disease killer in South Africa by some margin was COVID-19. Estimates by the **South African Medical Research Council** (SAMRC) show that there were around 203 000 excess natural deaths in the country in 2021. If 80% of that was caused by COVID-19, then about 162 000 deaths were due to SARS-CoV-2 – much more than TB and HIV combined.

However, it seems plausible that TB will again overtake COVID-19 in 2022.

According to the SAMRC, excess natural deaths for the year are currently at around 48 000, suggesting COVID-19 deaths for 2022 may end up below 50 000. There are no signs we will see a similarly steep drop in TB deaths.

Naidoo says TB mortality figures estimated by the WHO have been stable for the past two years, with no dramatic increase or decrease, which is not a good sign for how well TB programmes are working. "If you're going to be static (in mortality rates), it means the programme is not maturing. That we're actually not making progress, we are on a holding pattern," she says.

“And that whatever evidence is available for addressing mortality hasn’t been implemented, or we’re not aggressive enough in pursuing the sickest patients being admitted to hospital for a diagnosis of TB and to start on anti-TB treatment.”

Treatment coverage

The WHO says that in 2021, TB treatment coverage in South Africa remained sub-optimal at 57% (range 41% to 83%). The WHO defines treatment coverage as notified TB cases divided by estimated new TB cases.

According to the WHO, there were 181 864 notified TB cases in South Africa in 2021. If the estimate of 304 000 TB cases is correct, it means around 122 000 people who fell ill with TB in 2021 were not diagnosed.

Subrayen stresses that based on these estimates, it means that about 43% of TB cases are not being detected, which is an increase on the previous year. “The worsening TB case detection gap, she says, “is indicative of the vast number of untreated TB or missed patients, remaining a priority for the TB programme as they continue to fuel the TB pandemic within communities.”

Naidoo says gaps in the TB treatment cascade need to be closed to improve treatment coverage. She suggests using SMS to notify patients who have been tested for TB when their results are ready, and going to the clinics to get the results. She also suggests focusing on TB testing and treatment among pregnant women.

Higher MDR-TB estimates

The WHO estimates that in 2021, 21 000 people in South Africa fell ill with **Multi Drug-Resistant** or **Rifampicin Resistant TB** (MDR/RR-TB). This number is also relatively uncertain – the confidence interval is 13 000 to 29 000.

The 21 000 estimate is higher than in previous years when the figure was typically around 14 000. It is possible that the change might not reflect an actual uptick in MDR/RR-TB cases, but instead could be due to the WHO changing its methodology for how MDR/RR TB incidence is calculated

Naidoo notes the uptick but also points out that the estimates have been jumping around. “To what extent this uptick is accurate, of course, is a guess... I think that globally, we’ve been seeing an increase in drug-resistant TB. Those are the trends, and South Africa will be no different,” she says.

“Again, what this means is a bit difficult to interpret. But it’s telling us that we’re doing a better job within the programme of enhancing access to diagnostics, identifying patients with DR-TB, offering them services, and so on.”

For Subrayen, the increase in MDR/RR-TB isn't all that surprising given the estimates of how many TB cases go undetected (as highlighted earlier) and that according to the WHO estimates, only 62% of all the notified TB cases in 2021 received a rapid molecular test that allows for DR-TB detection.

"These findings highlight the need for us to strengthen bacteriological confirmation with rapid diagnostics for clinically or X-ray-diagnosed TB patients to avoid missing the appropriate diagnosis of drug-resistant TB. And again, also highlighting the need to increase TB case-finding efforts in general," she says.

The global picture

The WHO estimates that in 2021, about 10.6m people fell ill with TB globally. This is a 4.5% increase from 2020. Of those who fell ill, 6m were men, 3.4m were women, and 1.2m were children.

A concerning trend noted is that globally, between 2020 and 2021, the TB incidence rate increased by 3.6%.

Also in 2021, 1.6m people around the world are estimated to have died of TB, with 1.4m deaths being among people who do not have HIV and 187 000 deaths among those living with HIV. "This represents an increase from best estimates of 1.5m in 2020," the report states.

The way forward

According to Dr Hannah Spencer, an adviser on TB, HIV and Hepatitis at **Doctors Without Borders** (MSF), DR-TB is curable. Shorter, safer and more effective treatments must be scaled up now to save lives.

"In light of these grim statistics, there is an urgent need to optimally use all WHO-recommended tools. There also needs to be an increase in investment to develop new medical tools to treat, diagnose and prevent TB," said Spencer.

She says MSF teams support the scale-up of shorter DR-TB regimens in collaboration with ministries where they work. But it remains devastating for them to see so many people continue to struggle with the longer, older DR-TB treatments.

Making better treatments available

"National treatment programmes and donors should make it their first order of business to make better treatments available. And prices must come down. A complete DR-TB treatment course should cost no more than R8 954,74 per person. Everyone with DR-TB should have access to groundbreaking, newer treatments," she says.

“The report provides important new evidence and makes a strong case for the need to join forces and urgently redouble efforts to get the response back on track to reach targets and save lives,” says Dr Terza Kasaeva, WHO director of the **Global TB Programme**.

According to the report, more positively, TB preventative treatment for people living with HIV has far surpassed the global target of 6m in the period 2018-2022, reaching more than 10m in only four years. India, Nigeria, South Africa, Zambia, Tanzania and Zimbabwe collectively accounted for 82% of those started on preventative treatment in 2021.

“These countries have reached or surpassed the 2020 milestone of a 20% reduction in the incidence rate compared with 2015. Countries are also increasing the uptake of new tools and guidance recommended by WHO. This has resulted in early access to TB prevention and care and better outcomes,” said the WHO report.

The report urges countries to put in place urgent measures to restore access to essential TB services. There must also be increased investments, multi-sectoral action to address the broader determinants that influence TB epidemics. There is also a need for new diagnostics, drugs and vaccines.