

An introduction to Tuberculosis (TB)

TB VACCINES

Innovation in new TB tools can be slow. The BCG - the only vaccine in use to combat TB - turned **100 years old** in 2021 and doesn't protect against many of the most infectious and deadly forms of TB.



LACK OF FUNDING

One of the biggest reasons for slow innovation in new TB tools is a chronic lack of funding. In 2020, only US \$915 million of the \$2 billion needed was spent on TB research and development.



IN COMPARISON TO COVID-19

\$104 billion was spent on COVID-19 Research & Development in the first 11 months of the pandemic alone. This means that COVID-19 R&D received 113 times more funding than TB in 2020, despite TB killing more people throughout many low- and middle-income countries.



What is TB?

Tuberculosis is a disease which has survived for 70,000 years and still affects over 10 million people each year. It is a contagious bacterial infection spread through inhaling tiny droplets from the coughs or sneezes of an infected person. TB commonly attacks the lungs but can affect any part of the body, from the bloodstream to the brain. Despite being a preventable, detectable and curable disease, in 2020, 1.5 million people died from TB and there were 10 million new cases diagnosed, as well as many more cases which remain undetected.

Why is TB important?

A dangerous combination of complex treatment methods, lack of an effective vaccine and a historic and chronic lack of political will and investment means that, despite how long it has been in existence, TB remains one of the most deadly infectious diseases – second only to COVID-19 – and killed more people in 2020 than HIV and malaria combined.

The fight to end TB is also made more challenging by new strains of TB, known as drug-resistant or multidrug-resistant TB (DR-TB or MDR-TB), which resistant to existing courses of treatment. Lengthy and complex drug regimens mean many TB patients are unable to complete their course of treatment, so their bodies develop resistance against one or more of the most effective TB drugs. Drug resistant TB is also infectious; around 4% of people being diagnosed with TB for the first time are already resistant to treatment. Drug- and multi-drug resistant TB are forms of antimicrobial resistance which is a growing challenge globally and a possible source of future pandemics.

HIV AND TB

People living with HIV are approximately **18 times** more likely to develop active TB disease than people without HIV.

In the WHO African Region, where the burden of HIV-associated TB is highest **85% of TB patients** had a documented HIV test result

WITHOUT TREATMENT

45% of HIV-negative people with TB will die.

Nearly 100% of HIV-positive people with TB will die.



CASE STUDY

Zolelwa Sifumba is a medical doctor from Durban, South Africa. She contracted multi-drug resistant tuberculosis as a result of occupational exposure during her studies as a medical student.

After struggling through a very trying 18-month treatment process and finally beating it, Zolelwa has been a **strong voice** in the global fight against tuberculosis ever since.

She shares her story on both national and international platforms to help educate, raise awareness, and also give hope to others showing that tuberculosis can be beaten.

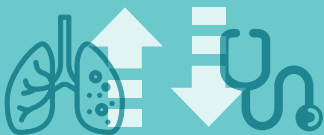
Zolelwa featured in a recent documentary called **UnMasked: We All Breathe**, which shines a light on the challenges faced by those undergoing treatment for MDR-TB.

ZOLELWA SPEAKING SOUTH AFRICA'S 5TH ANNUAL TB CONFERENCE, 2018.
© Still from UnMasked: We All Breathe

KEY FACTS



TB is a disease of poverty with 95% of cases and deaths in low- and middle- income countries.



2020 saw the number of people who died from TB rising for the first time in a decade, and a drop in the number of people diagnosed with TB - likely meaning an increase in the number of TB cases going undetected and untreated.



Funding gap
Global TB expenditure in 2020 was less than half (41%) of the global target, back to 2016 levels.

The fight to end TB

- 01 Two thirds of TB essential services** were still facing disruption a year into the COVID-19 pandemic. **ACTION's global survey** on the impact of COVID-19 on TB found a negative impact on the number of people seeking and receiving TB care. It is predicted that there'll be **an additional 6.3 million cases** of TB during 2020–2025 and a further 1.4 million TB deaths, due to lockdowns and inaccessible health care. COVID **set the world back 12 years** in the global fight against TB.
- 02 To regain progress on the fight to End TB, and get closer to end the TB epidemic by 2030 as set out in Sustainable Development Goal 3.3, we need:**
 - Investment in research and development (R&D) for new TB vaccines, drugs and diagnostics
 - Increased funding for TB through sustained support to the Global Fund, which currently provides over 70% of all TB funding globally.
 - Prioritisation of TB within the global antimicrobial resistance agenda.
 - Accountability to ensure that national, international and global commitments made to end TB are met is vital in the fight to end TB.
 - Greater political will and public interest, and people like you to campaign to #EndTB. The COVID-19 pandemic has demonstrated how much can be done when politicians and the public are interested. We must see this same level of commitment to ending TB.