

HTH Team



It is time to end tuberculosis

Rationale

Tuberculosis (TB) is a communicable disease and a major cause of morbidity and mortality worldwide. Until the onset of the coronavirus (COVID-19) pandemic, TB was the leading cause of death from a single infectious agent, surpassing HIV/AIDS. TB mostly affects adults in their most productive years. However, all age groups are at risk. Over 80% of TB cases and deaths are in low- and middle-income countries. Monitoring and evaluation are essential to measure the burden of TB and to track progress in controlling the epidemic. This fact sheet provides an updated assessment of the TB epidemic and the progress of the response in the World Health Organization African Region, in the context of global targets and strategies.

Key messages

In the WHO African Region:

- The impact of COVID-19-related disruptions on the reported number of people newly diagnosed with TB was limited. There was a relatively small decrease (−2.3%) from 2019 to 2020 and an increase in 2021.
- In 2021, an estimated 2.5 million people (95% confidence interval (CI), 2.2–2.8 million) were infected with TB: 1.3 million men (aged 15 years and over), 0.8 million women (aged 15 years and over) and 0.3 million children (aged 0–14 years).
- The TB incidence per 100 000 population fell by 22%, from 270 in 2015 to 212 in 2021 (target: 20% reduction by 2020).
- In 2020, the TB treatment success rate was 86% of those who started treatment. It was about 83% in 2015.
- In 2021, about 501 000 people died of TB (95% CI, 436 000–571 000), including 136 000 people with HIV.
- In 2021, the Global Plan to End TB, 2018–2022 estimated that US\$ 3.9 billion would be required to achieve the targets, but only US\$ 0.957 billion was mobilized for TB prevention, diagnosis and treatment.

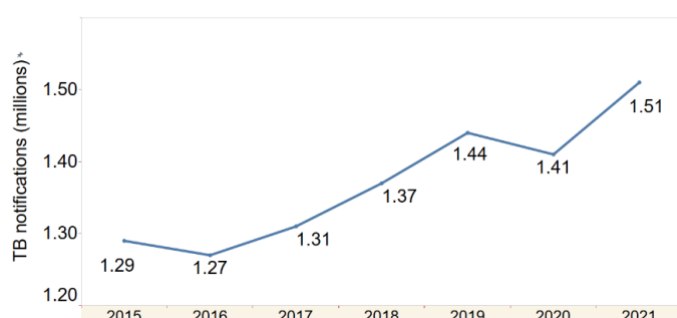
1. COVID-19 and TB

The COVID-19 pandemic has had an enormous impact on the provision of, and access to, essential TB services; the number of people diagnosed with TB and notified as TB cases through national disease surveillance systems; and the TB disease burden (incidence and mortality).

Case notification of people newly diagnosed with TB

One of the most widely available indicators that can be used to assess the impact of COVID-19-related disruptions on essential TB services at global, regional and country levels is the number of notifications of people diagnosed with TB. This indicator reflects impacts on access to diagnosis and treatment on both the supply side (e.g., capacity to continue to provide services) and the demand side (e.g., ability to seek care in the context of lockdowns and associated restrictions on movement, concerns about the risks of visiting health care facilities during a pandemic, and stigma associated with similarities in symptoms related to both TB and COVID-19).

Figure 1: Trends in case notification of people newly diagnosed with TB in the African Region, 2015–2021
(source: WHO)



- In the African Region, COVID-19 has had little impact on the number of people diagnosed and officially notified with TB.
- The number of people newly diagnosed with TB and those reported to national governments fell from 1.44 million in 2019 to 1.41 million in 2020. There was an increase to 1.51 million in 2021. However, these variations depend on the country (Figure 1).
- In several countries, notifications in both 2020 and 2021 were higher than in 2019, with Nigeria being the most striking example.
- Angola and Lesotho experienced a negative impact in 2020 and a further decline in 2021.
- Congo, Sierra Leone and Uganda experienced a negative impact in 2020 and a recovery to 2019 levels or beyond in 2021.
- Central African Republic, Democratic Republic of the Congo, Mozambique, Nigeria, United Republic of Tanzania and Zambia saw increases in notifications in 2020 and 2021.

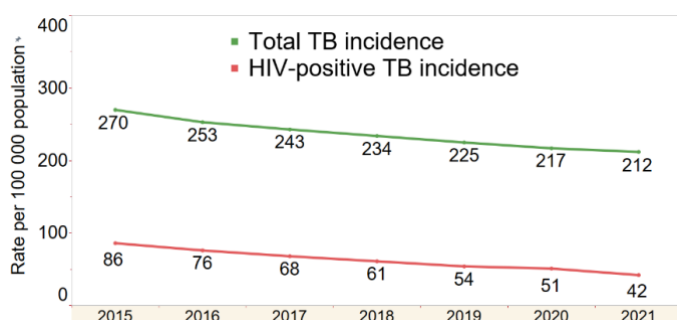
2. TB disease burden

The TB disease burden has focused on incidence, mortality and drug resistance.

2.1 TB incidence

Estimation of TB incidence during the COVID-19 pandemic is much more difficult than before the pandemic. The main methods used by WHO to estimate TB incidence at country level in the periods 2000–2019 and 2020–2021 are different. Estimates of TB incidence in 2020 and 2021 were based on country-specific dynamic models for 27 countries with the biggest absolute reductions in TB notifications during the COVID-19 pandemic (excluding countries where reductions were consistent with pre-2020 trends), and either region-specific dynamic models or pre-2020 trends for other low- and middle-income countries. Estimates for high-income countries were based on the same methods as those used up to 2019, i.e., notification data with a standard adjustment.

Figure 2: Trends in estimated TB incidence rates
African Region, 2015–2021 (*source*)

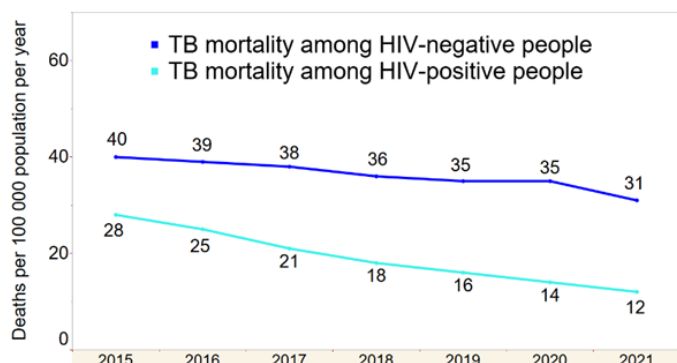


- In 2021, an estimated 2.5 million people (95% CI, 2.2–2.8 million) were infected with tuberculosis (TB): 1.3 million men (aged 15 years and over), 0.8 million women (aged 15 years and over) and 0.3 million children (aged 0–14 years).
- In 2021, an estimated 319 000 cases of TB were diagnosed in the 0–14 years age group. This represents 9% of total new and relapsed TB cases. However, estimated treatment coverage is much lower for children than for adults.

- Treatment coverage for children (aged 0–14 years) is 44%, as compared to 60% for adults.
- A wide gap persists between the estimated number of people with TB and those newly diagnosed, with 1 million people undiagnosed or not officially reported to national authorities in 2021, as compared to 1.1 million in 2019.
- The TB incidence per 100 000 population in the African Region fell by 22%, from 270 in 2015 to 212 in 2021 (target: 20% reduction by 2020); see Figure 2.
- Seven high TB burden countries have reached the first End TB Strategy milestone for incidence: Ethiopia, Kenya,

2.2 TB Mortality

Figure 3: Trends in estimated TB mortality rates,
African Region, 2015–2021 (*source: WHO*)



- In 2021, about 501 000 people died of TB (95% CI, 436 000 – 571 000), including 136 000 people with HIV.
- In 2021, the absolute number of TB deaths fell by 26% compared with the 2015 baseline (target is 35% reduction by 2020).
- The TB mortality rate per 100 000 people is decreasing for both HIV-positive and HIV-negative people. However, the decline was faster among HIV-positive people (58%) than among HIV-negative people (22%) between 2015 and 2021.
- Seven countries: Eswatini, Kenya, Mozambique, South Sudan, Togo, Uganda and Zambia, have reached the 35% reduction of TB deaths from a baseline of 2015.

2.3 Drug-resistant TB

Since 1994, the World Health Organization (WHO) has systematically collected and analysed data on levels of resistance to anti-TB drugs from countries and territories. Until 2020, these data were used to produce estimates of the number of incident cases of rifampicin-resistant or multidrug-resistant TB, defined as resistance to both rifampicin and isoniazid (MDR/RR-TB), and the proportions of TB cases with various combinations of resistance to first-line and second-line drugs, for the latest complete calendar year. In 2022, new methods were developed to produce time series of estimates for the period 2015–2021.

- In 2021, 20 000 out of an estimated 77 000 MDR/RR-TB cases (95% uncertainty interval 55 000 – 99 000) were notified, of which 18 900 started treatments. About 53% of notified MDR/RR-TB cases were from South Africa and Nigeria.
- The treatment success rate for people diagnosed with MDR/RR-TB who started treatment in 2019 was 71% in the African Region, while the global success rate for MDR/RR-TB was 60%.

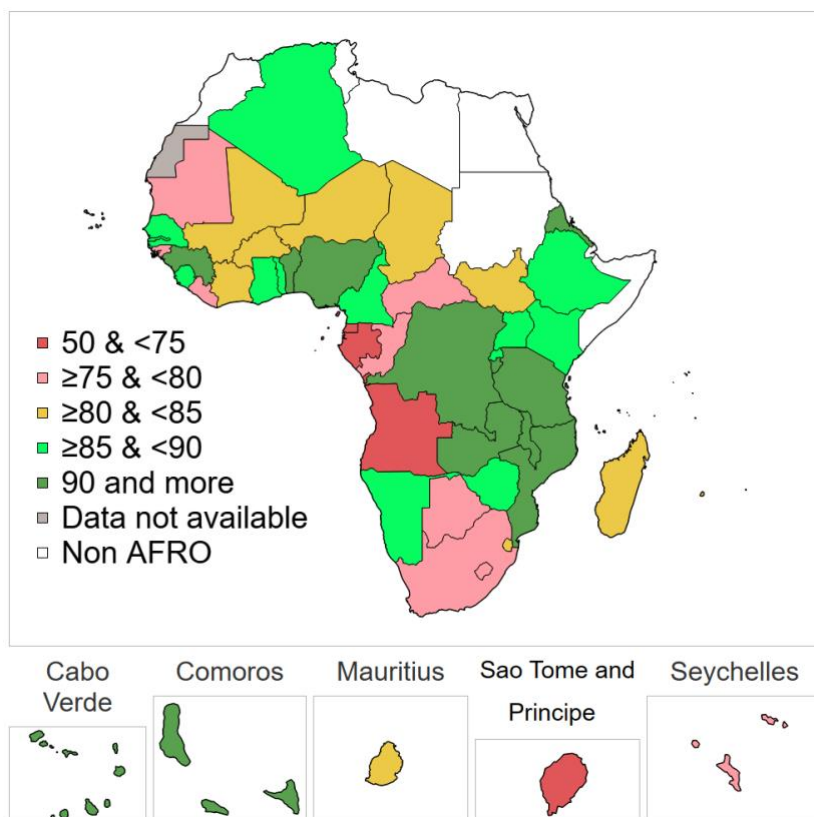
3. TB diagnosis and treatment

An essential step in the pathway of tuberculosis (TB) care is rapid and accurate testing to diagnose TB. In recent years, rapid molecular tests that are highly specific and sensitive have revolutionized the TB diagnostic landscape, in which more traditional microscopy and culture methods had previously been used.

People diagnosed with TB using culture, rapid molecular tests recommended by WHO, lateral flow urine lipoarabinomannan (LF-LAM) assays or sputum smear microscopy are defined as “bacteriologically confirmed” cases of TB. The microbiological detection of TB is critical because it allows people to be correctly diagnosed and started on the most effective treatment regimen as early as possible. People diagnosed with TB in the absence of bacteriological confirmation are classified as “clinically diagnosed” cases of TB. Bacteriological confirmation of TB is necessary to test for resistance to first-line and second-line anti-TB drugs; such testing can be done using rapid molecular tests, phenotypic susceptibility testing or genetic sequencing at reference-level laboratories.

- In 2021, about 89% of reported TB patients in the African Region knew their HIV status, of whom 20% were HIV positive and 93% on antiretroviral therapy.
- The proportion of people diagnosed with TB who were initially tested with a rapid diagnostic test increased from 34% in 2020 to 43% in 2021.
- **In 2020, TB treatment success rate was 86% of those who started TB treatment in the Region. It was about 83% in 2015.**
- In combination, TB treatment and provision of ART to people living with HIV diagnosed are estimated to have averted approximately 16 million deaths between 2000 and 2021 in the Region, including

Figure 4: TB treatment success rate for new TB cases, in the African Region, 2020 (source: WHO)



- Angola (53%), Gabon (63%) and Sao Tome and Principe (74%) had the lowest TB treatment success rate for new TB cases in the African Region in 2020.
- The United Republic of Tanzania (96%), Burundi (95%) and Mozambique (94%) had the highest TB treatment success rates for new TB cases in the African Region in 2020.

4. TB prevention

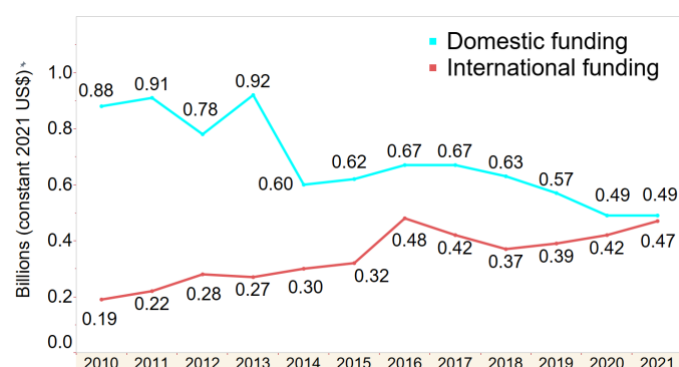
Preventing tuberculosis infection and stopping progression from infection to disease are critical to reduce TB incidence to the levels envisaged by the End TB Strategy. The main health care interventions to achieve this reduction are TB preventive treatment, which the World Health Organization (WHO) recommends for people living with HIV, household contacts of people with TB and other risk groups; TB infection prevention and control; and vaccination of children with the bacille Calmette-Guérin (BCG) vaccine. Addressing broader determinants that influence TB epidemics can also help to prevent TB infection and disease.

- In the African Region, the percentage of household contacts of TB cases under five years of age on TB preventive treatment (TPT) was 38% in 2020 and 40% in 2021.
- TB preventive treatment for people living with HIV was 61% in 2021, in the African Region.
- Six countries (Nigeria, South Africa, Uganda, United Republic of Tanzania, Zambia and Zimbabwe) each reported initiating over 200 000 people with HIV on TB preventive treatment in 2021.

5. Financing for TB

Progress in reducing the burden of tuberculosis disease requires adequate funding sustained over many years. The World Health Organization (WHO) began annual monitoring of funding for TB prevention, diagnostic and treatment services, based on data reported by national TB programmes (NTPs) in annual rounds of global TB data collection, in 2002). Recognizing that not all international donor funding for TB is captured in the data reported to WHO, each year WHO complements its analysis of data reported by NTPs with an assessment of international donor funding for TB using donor reports to the Organization for Economic Cooperation and Development. Since 2005, funding for TB research has been monitored by the Treatment Action Group, with findings published in an annual report.

Figure 5: Spending on TB prevention, diagnostic and treatment services from domestic sources and international donors, in the African Region, 2010-2021 (source: WHO)



- In 2021, in the African Region, the Global Plan to End TB 2018-2022 estimated USD 3.9 billion would be required to achieve the targets but only USD 0.957 billion were mobilized for TB prevention, diagnosis and treatment.
- In the Region, domestic funding represented about 51% of total funding for TB (49% from international funding) in 2021. From 2016, domestic funding has been reduced year after year.
- The main source is the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund).
- The United States Government is the largest contributor of funding to the Global Fund and is also the largest bilateral donor; overall, it contributes close to 50% of international donor funding for TB.

6. End TB strategy

Vision and goal

The vision of the End TB Strategy is “a world free of TB”, also expressed as “zero deaths, disease and suffering due to TB”. All countries could use this vision in national strategies and plans, without need for adaptation.

Global indicators, targets and milestones

The SDG and End TB Strategy targets seek reductions in the burden of disease caused by TB, measured as TB incidence (new cases per 100 000 population per year), the number of TB deaths and the percentage of TB patients and their households that face catastrophic costs. The political declaration reaffirmed these targets while also setting new targets for access to TB treatment, access to TB preventive treatment and increased financing.

In addition to targets for 2030, the End TB Strategy defines 2020 and 2025 milestones for reductions in TB incidence and the number of TB deaths. The 2020 milestones are a 20% reduction in TB incidence and a 35% reduction in the number of TB deaths, compared with 2015 levels.

The three high-level indicators of the End TB Strategy – reductions in TB deaths, reductions in the TB incidence and elimination of catastrophic costs—are relevant to all countries. However, targets and milestones for these indicators can be adapted by countries to reflect such factors as different starting points, the main drivers of local epidemics, national policy and strategy related to universal health coverage (UHC) and social protection and planned interventions. Countries should set their own national targets, guided by the global level of ambition but taking into account national circumstances.

In addition, research and innovation must be intensified to bolster the availability and wide use of new tools, including pre- and post-exposure vaccines; point-of-care diagnostic tests for infection and disease and shorter treatment regimens for TB disease and infection. There is also a need for new tools for the diagnosis and treatment of TB-associated impairment and disability and to test efficient models for the optimal integration of social protection and TB care services.

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Sources

Data are from WHO: [The Global Health Observatory](#) and [integrated African Health Observatory](#).

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