

# GLOBAL TUBERCULOSIS REPORT 2019



**58 million lives saved  
between 2000 and 2018**

TB deaths fell by 38%  
in the same period



**1.5 MILLION  
TB DEATHS**

INCLUDING 251 000  
TB DEATHS AMONG  
PEOPLE WITH HIV

**TB is the top  
infectious killer worldwide**

TB is also the leading cause of  
deaths among people with HIV  
and a major cause of antimicrobial  
resistance related deaths



**Drug resistant TB remains  
a public health crisis with gaps  
in detection and treatment**

Only 1 in 3 needing treatment  
were enrolled on it



**US\$ 3.3  
BILLION  
GAP**

**Funding shortfall for  
TB implementation**

Gap of over  
US\$ 1.2 billion per year  
for TB research

## TB SITUATION AND RESPONSE

- Tuberculosis (TB) is contagious and airborne.
- TB was one of the top 10 causes of death worldwide in 2018. It is also the leading killer of people with HIV and a major cause of deaths related to antimicrobial resistance.

### THE BURDEN

- In 2018, there were an estimated 10 (9.0–11.1) million new (incident) TB cases worldwide, of which 5.7 million were men, 3.2 million were women and 1.1 million were children. People living with HIV accounted for 9% of the total.
- Eight countries accounted for 66% of the new cases: India, China, Indonesia, the Philippines, Pakistan, Nigeria, Bangladesh, and South Africa.
- In 2018, 1.5 (1.4–1.6) million people died from TB, including 251 000 (223 000–281 000) people with HIV.
- Globally, the TB mortality rate fell by 42% between 2000 and 2018.
- The severity of national epidemics varies widely among countries. In 2018, there were fewer than 10 new cases per 100 000 population in most high-income countries, 150 - 400 in most of the 30 high TB burden countries, and above 500 in a few countries including Mozambique, the Philippines and South Africa.

### TB CARE AND PREVENTION

- TB treatment saved 58 (53–64) million lives globally between 2000 and 2018.
- In 2018, 7 million new TB cases were notified to national authorities and reported to WHO. This reflects a gap of 3 million between incident and notified cases. Ten countries accounted for about 80% of the gap, with India, Nigeria, Indonesia and the Philippines accounting for more than half of the total.
- The global treatment success rate for people newly diagnosed with TB was 85% in 2017.

### DRUG-RESISTANT TB

- Globally in 2018, 484 000 (417 000–556 000) people developed TB that was resistant to o rifampicin-resistant (RR-TB), the most effective first-line drug, and of these, 78% had multidrug-resistant TB (MDR-TB).
- 187 000 cases of MDR/RR-TB were detected and notified in 2018. Of these, a total of 156 000 were enrolled and started on treatment with a second-line regimen.
- Treatment success rate at 56%, remains low globally.
- Among cases of MDR-TB in 2018, 6.2% were estimated to have extensively drug-resistant TB (XDR-TB).

### ADDRESSING THE CO-EPIDEMICS OF TB AND HIV

- In 2018, there were 477 000 reported cases of TB among people living with HIV, of whom 86% were on antiretroviral therapy.
- Most of the gaps in detection and treatment were in the WHO African Region, where the burden of HIV-associated TB is highest.

## TB PREVENTIVE TREATMENT

- WHO recommends preventive treatment for people living with HIV and all contacts living in households with TB.
- A total of 748 000 people who were newly enrolled in HIV care were started on TB preventive treatment in 2018 (only 49% of people newly enrolled in HIV care).
- In addition, the number of children aged under 5 years who were started on TB preventive treatment reached 349 000 in 2018 – a four-fold increase from 2015 but much less than the 4 million estimated to be eligible.

## UPTAKE OF DIAGNOSTICS, NEW DRUGS AND REGIMENS

- The WHO-recommended rapid diagnostic test (WRD) for detection of TB and rifampicin resistance currently available is the Xpert MTB/RIF<sup>®</sup> assay. Of the 48 countries in at least one of the lists of high burden countries, 37 had adopted national algorithms positioning the WRD as the initial diagnostic test for all people suspected of having pulmonary TB by the end of 2018.
- By the end of 2018, 90 countries reported having imported or started using bedaquiline, and 57 countries had used delamanid.

## RESEARCH AND DEVELOPMENT

- A small number of technologies emerged in 2018–2019 and several have not demonstrated adequate performance in field evaluation studies. There is still no single rapid, accurate and robust TB diagnostic test suitable for use at the point of care.
- Fourteen vaccine candidates are in clinical trials: three in Phase I, eight in Phase II and three in Phase III. They include candidates to prevent the development of latent TB infection and TB disease, and candidates to help improve the outcomes of treatment for TB disease.
- There are 23 drugs and several combination treatment regimens in clinical trials.
- Funding for TB research and development has increased and reached a peak of US\$ 772 million in 2017. However, this is only 39% of the estimated requirement of US\$ 2 billion per year.

## UNIVERSAL HEALTH COVERAGE AND SOCIAL PROTECTION

- All of the 30 high TB burden countries need to increase service coverage and reduce levels of catastrophic expenditures to reach Universal Health Coverage, consistent with findings from surveys of costs faced by TB patients and their households.
- The Global TB Report features a TB-SDG monitoring framework that focuses attention on 14 indicators that are associated with TB incidence. Monitoring of these indicators can be used to identify key influences on the TB epidemic at national level and inform the multisectoral actions required to end it.
- Many new cases of TB are attributable to undernourishment, HIV infection, smoking, diabetes and alcohol use.

## TB FINANCING

- The funding required for a full response to the global TB epidemic in low- and middle-income countries is estimated at US\$ 10.1 billion in 2019, excluding research and development.
- US\$ 6.8 billion was available for TB prevention, diagnosis and treatment in 2018, leaving a funding gap of almost US\$ 3.3 billion.
- 87% of the funding available in 2019 is from domestic sources. However, this global aggregate figure is strongly influenced by BRICS countries.
- International donor funding accounts for 38% of the funding available in the 25 high TB burden countries outside BRICS and 49% of funding available in low-income countries.
- International donor funding led by the Global Fund and US Government remains critical, especially in these countries.
- For research and development, at least an extra US\$ 1.2 billion per year is needed to accelerate the development of new tools.

The **WHO GLOBAL TB PROGRAMME** together with WHO regional and country offices: develops policies, strategies and standards; supports the efforts of WHO Member States; measures progress towards TB targets and assesses national programme performance, financing and impact; promotes research; and facilitates partnerships, advocacy and communication. More information: [www.who.int/tb](http://www.who.int/tb)



REQUIRED IN 2019  
**US\$ 10.1 BILLION**  
FOR TB DIAGNOSIS  
AND CARE

US\$ 6.8 BILLION AVAILABLE IN 2019

OF WHICH  
**US\$ 5.9 BILLION**  
DOMESTIC  
FINANCING

AND  
**US\$ 0.9 BILLION**  
INTERNATIONAL  
FINANCING

**GAP OF  
US\$ 3.3  
BILLION**



**US\$ 2 BILLION**  
REQUIRED PER YEAR FOR  
TB RESEARCH

**US\$ 1.2 BILLION**  
FUNDING GAP