



# TUBERCULOSIS

## Global Tuberculosis Report 2016



**49 million lives saved between 2000-2015**

TB deaths fell by 22% in the same period



**1.8 MILLION TB DEATHS**  
INCLUDING 0.4 MILLION TB DEATHS AMONG PEOPLE WITH HIV\*

**TB was one of the top ten causes of death worldwide**

TB was responsible for more deaths than HIV and malaria



**MDR-TB crisis with gaps in detection and treatment**

Only 1 in 5 needing MDR-TB treatment were enrolled on it



**US\$ 2 BILLION GAP**

**Funding shortfall for TB implementation**

Gap of over US\$1 billion per year for TB research

**DESPITE PROGRESS AND MILLIONS OF LIVES SAVED, GLOBAL ACTIONS AND INVESTMENTS FALL FAR SHORT OF THOSE NEEDED.**

### TB SITUATION AND RESPONSE

Tuberculosis (TB) is **contagious** and **airborne**. TB was one of the **top 10 causes of death** worldwide in 2015, and was **responsible for more deaths than HIV and malaria**.

#### THE BURDEN

In 2015, there were an estimated **10.4 million** new (incident) **TB cases** worldwide, of which 5.9 million were men, 3.5 million were women and 1 million were children. People living with HIV accounted for 11% of the total.

Six countries accounted for 60% of the new cases: India, Indonesia, China, Nigeria, Pakistan and South Africa.

In 2015, **1.8 million people died from TB\***, including 0.4 million among people with HIV. The total includes 1.1 million men, 0.5 million women and 0.2 million children.

Globally, the number of **TB deaths fell by 22%** between 2000 and 2015.

The **case fatality ratio** (the global proportion of people with TB who die from the disease) varied from under **5%** in a few countries to more than **20%** in most countries in the WHO African Region. This shows considerable inequalities among countries in access to TB diagnosis and treatment that need to be addressed.

\*When an HIV-positive person dies from TB disease, the underlying cause is classified as HIV in the International Classification of Diseases system (ICD-10). #MDR-TB is defined as resistance to rifampicin and isoniazid. WHO recommends that all patients with rifampicin-resistant TB (RR-TB) are treated with a second-line MDR-TB regimen.

### TB CARE AND PREVENTION

TB treatment **saved 49 million lives** globally between 2000 and 2015.

In 2015, **6.1 million** new TB cases were notified to national authorities and reported to WHO. This reflects a **4.3 million gap** between incident and notified cases, with India, Indonesia and Nigeria accounting for almost half of this gap.

Globally, the **treatment success rate** for people newly diagnosed with TB was **83%** in 2014.

#### DRUG-RESISTANT TB

Globally in 2015, there were an estimated **480 000 new cases of multidrug-resistant TB (MDR-TB)** and an additional 100 000 people with rifampicin-resistant TB (RR-TB) who were also newly eligible for MDR-TB treatment.#

A total of **125 000 patients** (20% of those newly eligible for treatment) were **enrolled** and started on **MDR-TB treatment**, an increase of 13% compared to 2015.

Globally, data show an average **cure rate of only 52%** for treated **MDR-TB patients**.

In 2015, an estimated **9.5% of people with MDR-TB had extensively drug resistant TB (XDR-TB)**. XDR-TB patients had a **treatment success rate of 28%** in 2013.

## ADDRESSING THE CO-EPIDEMICS OF TB AND HIV

In 2015, **55%** of TB patients globally had a documented **HIV test result**. In the African region, that has the highest TB/HIV burden, **81%** of TB patients **knew their HIV status**.

Globally, **78% of HIV-positive TB patients** in 2015 were **started on antiretroviral therapy**. Nevertheless, only a third of the 1.2 million people living with HIV estimated to have developed TB in 2015 had been placed on antiretroviral therapy.

## TB PREVENTIVE TREATMENT

A total of **910 000 people** who were newly enrolled in HIV care were **started on TB preventive treatment** in 2015. In addition, **87 000 children** under five (7% of the 1.2 million children eligible) were known to be provided with it.

## UPTAKE OF DIAGNOSTICS, NEW DRUGS AND REGIMENS

By the end of 2015, at least **15 countries** with a high burden of TB, MDR-TB and TB/HIV had **adopted** national algorithms positioning **Xpert MTB/RIF** as the **initial diagnostic test for all people with signs and symptoms of pulmonary TB**.

At least **23 countries** in Africa and Asia have **introduced shorter MDR-TB regimens**, which have achieved high treatment success rates (87–90%) under operational research conditions.

At least **70 countries** had imported or started using **bedaquiline** and **39 countries** had used **delamanid** by the end of 2015 for the treatment of M/XDR-TB patients.

## RESEARCH AND DEVELOPMENT

In 2016, **four new diagnostic tests** were reviewed and recommended by WHO: one for TB and three for MDR-TB. A next-generation cartridge called **Xpert Ultra** and a new diagnostic platform called **GeneXpert Omni** are in development. Assessment of both by WHO is expected in 2017.

**Nine new or repurposed anti-TB drugs** are in advanced phases of clinical development.

**Thirteen vaccine candidates** are in clinical trials, including candidates for prevention of TB infection and candidates for prevention of TB disease in people with latent TB infection.

**New diagnostics, drugs and vaccines** are necessary to **achieve the ambitious targets** set in the **End TB Strategy**.

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)

## UNIVERSAL HEALTH COVERAGE AND SOCIAL PROTECTION

**Government expenditures on health** in 2014 were **less than the WHO benchmark** of at least **6% of gross domestic product (GDP)** in **150 countries**. **Out-of-pocket expenditures exceeded 45%** of total **health expenditures** in **46 countries**, including 11 of the 30 high TB burden countries.

In some of the highest TB burden countries, emerging **national health insurance** and **social protection schemes** need to be **scaled-up** to **reduce medical and other costs for patients**.

## TB FINANCING

The funding required for a full response to the global TB epidemic in low- and middle-income countries is estimated at **US\$ 8.3 billion** in 2016, excluding research and development.

Based on reporting by countries, **US\$ 6.6 billion** was **available** for TB prevention, diagnosis and treatment in 2016, leaving a **funding gap** of almost **US\$ 2 billion**.

Overall, **84%** of the US\$ 6.6 billion available in 2016 is from **domestic sources**.

International donor funding dominates in the group of 25 high-burden countries outside the BRICS countries, accounting for 85% of total funding. **Low-income countries** continue to **rely on international donors** for **more than 90% of their financing**.

For **research and development**, at least an **extra US\$ 1 billion** per year is needed to accelerate the development of new tools.

**8.3 BILLION** US\$ REQUIRED PER YEAR FOR TB IMPLEMENTATION 

**6.6 BILLION** US\$ REPORTED TO BE AVAILABLE IN COUNTRIES FOR THE TB RESPONSE IN 2016

**84%** DOMESTIC FINANCING **16%** INTERNATIONAL DONOR FINANCING

**1.7 BILLION** US\$ FUNDING GAP IN 2016

**>1 BILLION** US\$ FUNDING GAP FOR TB RESEARCH IN 2016