

Key Points: Tuberculosis & Multidrug-resistant Tuberculosis

THE CHALLENGE

TB, an infectious bacterial disease which most commonly affects the lungs, is transmitted from person to person through the air. It is curable and preventable, and can be treated with a six-month course of antibiotics. About one-third of the world's population has latent TB, meaning they don't have symptoms and are not contagious – but latent TB could develop into active TB. The disease has been around for millennia as traces of TB have been found in Egyptian mummies. Important progress has been made since the Millennium Development Goals were set in 2000, but the disease continues to pose a threat, being a leading cause of death worldwide.

TB now ranks alongside HIV as a leading cause of death worldwide.

- In 2014, TB killed 1.5 million people (including 400,000 HIV-positive people) and HIV killed 1.2 million people (including 400,000 million with TB).ⁱ
- Worldwide, 9.6 million people are estimated to have fallen ill with TB in 2014.ⁱⁱ

One-third of TB cases are missed – not diagnosed, not treated or not reported.

- Only six million cases of TB were reported in 2014, out of a global estimate of 9.6 million cases.ⁱⁱⁱ
- Only a quarter of the 480,000 cases of multidrug-resistant estimated in 2014 were detected and reported.^{iv}

Multidrug-resistant is growing, increasing the cost, complexity and length of the treatment.

- Multidrug-resistant tuberculosis accounts for 3.3 percent of new TB cases and 20 percent of previously treated cases globally.^v
- In 2014, an estimated 190,000 people died of multidrug-resistant TB.^{vi}
- TB treatment costs range from US\$100-500 per patient in countries with a high burden of TB. The cost per patient treated for multidrug-resistant TB ranges from US\$5,000 to US\$10,000.^{vii}
- Around 9.7 percent of multidrug-resistant TB cases are extensively drug resistant and have minimal treatment options. Extensively drug-resistant TB has been reported by 105 countries.^{viii}

TB is a disease closely associated with poverty and poor living conditions with 95 percent of cases and deaths occurring in low- and middle-income countries.

- Eighty percent of TB cases occur in 22 high-burden countries in Africa, Southeast Asia and the Western Pacific.^{ix}
- Of the 9.6 million new TB cases in 2014, 58 percent were in Southeast Asia and Western Pacific.^x

TB/HIV co-infection is a growing problem. HIV is the strongest risk factor for people living with TB, and TB a leading cause of death for people living with HIV.^{xi}

- Over the past three decades, HIV has fuelled the number of TB cases worldwide. People living with HIV are 29 times more likely to develop TB than those who are HIV-negative.^{xii}
- All HIV-positive TB cases are eligible for antiretroviral treatment; however, of the 1.2 million people living with HIV that developed TB in 2014, only one-third received antiretroviral treatment.^{xiii}
- TB is a leading cause of death of HIV-positive people: in 2015, one in three HIV deaths was due to TB.^{xiv}

THE OPPORTUNITY

There have been major advances in the fight against TB since 1990, with most progress having been done since 2000 when the Millennium Development Goals were set. Mortality rates have fallen by 47 percent, and effective diagnosis and treatment have saved an estimated 43 million lives between 2000 and 2014.^{xv}

TB cases and deaths have been fallen yearly since 2000, thanks to effective diagnosis and treatment.

- The Millennium Development Goal target to halt and reverse TB incidence has been achieved in 16 of the 22 high-burden countries that account for 80 percent of TB cases. Globally, TB incidence is now 18 percent lower than the level of 2000.
- The number of deaths from TB declined 29 percent between 2000 and 2014 in countries where the Global Fund invests. The number of deaths from TB in 2014 would have been more than three times higher in the absence of interventions.^{xvi}
- Global Fund-supported programs detected and treated 13.2 million smear-positive TB cases. This is a 60 percent increase compared with 2010.

More TB patients were tested for drug resistance in 2014 than ever before.

- Worldwide, 58 percent of previously treated patients and 12 percent of new cases were tested, up from 17 percent and 8.5 percent respectively in 2013.^{xvii}
- The number of people being treated for multidrug-resistant TB has increased nearly four-fold since 2010, reaching 210,000.
- The Global Fund provides the majority of financing for multidrug-resistant TB and has supported treatment for 210,000 cases since 2002.

The number of people dying from HIV-associated TB decreased 32 percent since 2004, with 570,000 cases in 2004 and 390,000 in 2014.

- Countries with high TB/HIV co-infection rates now submit a single funding proposal to the Global Fund for joint TB/HIV programming – instead of running separate programs for HIV and TB. This better focuses resources, expands services and improves efficiency.
- To date, the Global Fund has invested about US\$210 million in joint TB/HIV activities from 2002 and 2015.
- Coverage of co-trimoxazole preventive therapy (CPT) among HIV-positive TB patients increased to 87 percent globally and 89 percent in Africa in 2014.^{xviii} CPT is known to substantially reduce mortality in HIV-positive TB patients and it should be initiated as soon as possible. Through Global Fund-supported programs, 850,000 people in India have received CPT therapy, as well as 330,000 in South Africa and 170,000 in Uganda.

Financing for TB has more than doubled since 2006 with the overall funding coming from domestic resources. However, this is still short of the global need.

- Globally, funding for TB prevention, diagnosis and treatment reached US\$6.6 billion in 2015, up from US\$6.2 billion in 2014 and more than double the level of 2006 (US\$3.2 billion). Overall, 87 percent (US\$5.8 billion) of the funds available is from domestic sources.^{xix}
- Funding required for a full response to the global TB epidemic in low- and middle-income countries is estimated at US\$8 billion per year in 2015, excluding research and development.
- The Global Fund is the major international source of funding for TB between 2002 and 2015, having invested more than US\$4.8 billion in TB programs in more than 100 countries.

COUNTRY EXAMPLE: BANGLADESH

While TB remains one of Bangladesh's biggest public health challenges, the country has made significant gains against the disease through successful diagnosis and treatment. Fully directly observed treatment, short-course (DOTS) has been available nationally since 2006. Global Fund grants have primarily focused on scaling up detection and treatment as well as joint TB/HIV activities. With more than US\$143 million invested since 2004, more than 577,000 infections have been averted and more than 308,000 lives have been saved. However, TB is still claiming 80,000 lives a year in Bangladesh. The Global Fund will continue to support TB programs in the country with an additional investment of US\$90 million in the 2014-2016 period. For example, because TB is generally transmitted in crowded and poorly ventilated spaces, residents of Chittagong's Tigerpass Railway slum are at high risk of falling ill with TB. With Global Fund support, the government of Bangladesh is working in partnership with civil society organizations to provide thousands of poor residents with treatment and care for TB.

Additional Resources

- Global Fund Results Report 2015 -- <http://bit.ly/1iIaGkK>

ⁱ WHO: http://www.who.int/tb/publications/global_report/en/

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^{vi} WHO: http://www.who.int/tb/publications/global_report/en/

^{vii} WHO: http://www.who.int/tb/publications/global_report/en/

^{viii} WHO: http://www.who.int/tb/publications/global_report/en/

^{ix} Stop TB Partnership <http://www.stoptb.org/countries/tbdata.asp>

^x WHO: http://www.who.int/tb/publications/global_report/en/

^{xi} CDC: <http://www.cdc.gov/tb/topic/tbhivcoinfection/default.htm>

^{xii} WHO: http://www.who.int/tb/challenges/hiv/tbhiv_factsheet_2014.pdf

^{xiii} WHO: http://www.who.int/tb/publications/global_report/gtbr2015_executive_summary.pdf?ua=1

^{xiv} WHO: <http://www.who.int/mediacentre/factsheets/fs104/en/>

^{xv} WHO: http://www.who.int/tb/publications/global_report/en/

^{xvi} Global Fund Results Report 2015

http://www.theglobalfund.org/documents/publications/annual_reports/Corporate_2015ResultsReport_Report_en/

^{xvii} WHO: http://www.who.int/tb/publications/global_report/en/

^{xviii} WHO: http://apps.who.int/iris/bitstream/10665/191102/1/9789241565059_eng.pdf?ua=1

^{xix} WHO: http://www.who.int/tb/publications/global_report/en/