

## Tuberculosis (TB) Fact Sheet

*Tuberculosis is the world's second leading cause of death among infectious diseases.*

### WHY TUBERCULOSIS IS AN IMPORTANT PUBLIC HEALTH ISSUE<sup>1</sup>

- TB is the second leading cause of death from an infectious disease worldwide (after HIV).
- An estimated 9 million people fell ill with TB in 2013.
- 1.5 million people died from TB in 2013.
- One third of the world's population lives with a latent infection of *Mycobacterium tuberculosis*, the bacteria that cause TB. People with latent TB infection typically face a 10% lifetime risk of progressing from latent infection to active disease.
- TB can be cured with a regimen of drugs that must be taken for 6 to 8 months.
- Multidrug-resistant TB (MDR-TB) is typically treated for up to 24 months with a larger combination of drugs that have terrible side-effects, including risk of permanent deafness.
- The global fight against TB is under-financed by \$2 billion per year.
- While some advances have been made in research and development of new drugs and diagnostics, in most places around the world TB is still fought using decades-old technology.

### CRITICAL CHALLENGES TO BE ADDRESSED

#### DRUG-RESISTANT TUBERCULOSIS (MDR-TB/XDR-TB)

- Drug-resistance can develop if basic TB control fails at a variety of different stages: for example, when diagnosis and/or treatment is inaccurate, drug supplies are not consistent or the quality of the medicines is poor or patients are not adherent to their treatment.
- In 2013, 480,000 people developed MDR-TB.
- More than half of people with MDR-TB live in India, China and the Russian Federation.
- In the 27 high-burden MDR-TB countries, the number of cases doubled between 2009 and 2011.
- Extensively drug-resistant TB (XDR-TB) has been reported in 100 countries and represents 9% of MDR-TB cases.
- The treatment regimen for MDR-TB/XDR-TB is long and costly, placing a strain on both health systems and patients.

#### TB IN CHILDREN

- An estimated 550,000 children developed TB and 80,000 (HIV-negative) children died from it in 2013.
- Children under age 15 made less than 6% of total TB cases reported by health authorities worldwide in 2013. But this small proportion could be a result of under-reporting. National tuberculosis programmes have historically not given child TB high priority because children are not a major source of infection and diagnosis can be difficult.
- The BCG (Bacillus Calmette-Guérin) vaccine for TB has been in use since 1921. While the vaccine has very limited benefit into adulthood, WHO recommends a BCG vaccination for infants and children up to 2 years old living in TB-endemic countries, because it offers some protection against severe, often fatal forms of TB that affect the brain, spinal cord or blood in young children.
- Dosages have to be adjusted, but children receive the same medicines for TB as adults and tolerate treatment well.
- Preventive therapy for children exposed to TB has been shown to be highly effective in preventing development of disease.

#### TB AND HIV

<sup>1</sup> Data source: World Health Organization. 2014. Global Tuberculosis Control Report 2014. [http://www.who.int/tb/publications/global\\_report/en/](http://www.who.int/tb/publications/global_report/en/)

- TB is the leading cause of death among people with HIV; about one in four AIDS-related deaths in 2010 were attributable to TB.
- Despite the fact that TB is curable and HIV is treatable, 360,000 people died from HIV-associated TB in 2013.
- The two diseases are closely linked because TB is frequently the first opportunistic infection in people living with HIV (PLH).
- Rates of TB-HIV co-infection are highest in sub-Saharan Africa, where 41% of the 1.1 million TB patients who received an HIV test in 2013 were found to be living with HIV.
- Early diagnosis, timely initiation of treatment for both diseases and careful monitoring are essential to treat TB in PLHs and identify HIV infection in people with TB.
- In 2013, 2.9 million people diagnosed with TB had a documented HIV test result, equivalent to 48% of all notified TB cases.
- People with TB who are living with HIV are supposed to receive preventive therapy with cotrimoxazole (CPT). In 2013, 413,000 people living with HIV who had TB were enrolled in CPT, representing 85% of all reported HIV-positive TB patients.

### **TB AND DIABETES**

- Diabetes triples the risk that a person will develop tuberculosis.
- The number of people living with diabetes is rapidly increasing. Diabetes affected 382 million people in 2013 and is projected to increase to 592 million by 2035.
- In addition to increasing the risk of developing TB, diabetes worsens the progression of TB disease and people with diabetes tend to have worse TB treatment outcomes.
- Conversely, having TB can worsen glycaemic control in people with diabetes.
- The upsurge in the incidence of diabetes worldwide threatens to have an impact on TB control and vice versa.
- Strategies are needed for managing people with both diseases, for screening TB patients for diabetes and people with diabetes for TB. Early diagnosis is critical for both diseases.
- For more information see the report *The Looming Co-epidemic of TB-Diabetes: a Call to Action*, produced by The Union and the World Diabetes Foundation.

### **TB AND SMOKING**

- Exposure to tobacco smoke, either active or passive, increases the risk of tuberculosis.
- Smoking tobacco increases the risk that someone who has been successfully treated for TB will develop TB again in the future.
- Tobacco smokers also have a higher risk of death from TB than people who do not smoke tobacco.
- Tobacco smokers with TB put their families at higher risk, not only because they expose them to second-hand smoke, but also because they are more likely to have a cough and therefore transmit TB.

### **WHAT THE UNION IS DOING**

The Union has been at the centre of the global fight against TB since it was founded in 1920. Today it offers technical assistance, conducts research and provides technical and management training to advance TB control efforts around the world. Staff and consultants from its 13 offices work with more than 70 governments and hundreds of NGO partners each year. In addition, The Union's international network includes 15,000 members and subscribers from 152 countries. The Union is widely known for developing the TB control strategy known as DOTS (directly observed treatment, short course), which has been central to the WHO's Stop TB strategy since 1995. Some of The Union's current activities in TB control include:

**TREAT TB (Technology, Research, Education and Technical Assistance for TB):** a 5-year initiative that is conducting field evaluations of diagnostic tools; clinical trials of priority research issues, such as a shorter MDR-TB regimen; and targeted operational research benefitting global, regional and country TB control efforts. Funded by the United State Agency for International Development. [www.treattb.org](http://www.treattb.org)

**PROJECT AXSHYA:** Project Axshya is part of a 5-year USD 199.54 million Global Fund Round 9 TB project. The Union and World Vision International are leading the civil society component 'Project Axshya', involving 374 districts in 23 states of India and reaching some 750 million people by 2015. The focus is on Advocacy, Communication and Social Mobilisation (ACSM) towards universal access to TB care. [www.axshya-theunion.org](http://www.axshya-theunion.org)

**MDR-TB:** The Union provides technical assistance on request to numerous national TB programmes each year, frequently with emphasis on MDR-TB. Technical training in MDR-TB management and related issues is offered for both national and international groups in English, French, Spanish, Portuguese and Chinese. In francophone Africa, The Union is working with several countries to test the efficacy of a shortened MDR-TB regimen. The new Union guide,

*Guidelines for Clinical and Operational Management of MDR-TB*, is being released on World TB Day 2013. [www.theunion.org](http://www.theunion.org) “What We Do” and “Resources”

**Child TB:** The Union is working actively to improve diagnosis and treatment of childhood TB through its Child Lung Health Division and partners such as the Childhood TB Subgroup of the DOTS Expansion Working Group. The Union offers courses in managing child TB, children with TB-HIV and other childhood lung disease. The Union co-authored with WHO the guidelines for treating TB in HIV-infected children, and it also produced a desk guide for diagnosis and management of TB in children. [www.theunion.org](http://www.theunion.org) “What We Do” and “Resources”

**Integrated HIV Care for Tuberculosis Patients Living with HIV/AIDS (IHC) Programme:** Working with national TB and AIDS programmes in sub-Saharan Africa and Asia since 2004, The Union’s has successfully strengthened collaboration and built the capacity of the general health systems to deliver high-quality integrated TB and HIV care. Courses designed to strengthen TB-HIV integrated care are available on request. The Union also offers a free guide: *Implementing Collaborative TB-HIV Activities: a programmatic guide*. [www.theunion.org](http://www.theunion.org) “What We Do” and “Resources”

**TB-Diabetes:** To address the growing number of people with both TB and diabetes, The Union and partners in China and India have carried out pilot projects in bi-directional screening of TB and diabetes patients with results that have supported the importance of scaling-up this approach. In 2011, The Union and WHO published a *Collaborative Framework on the Care and Control of Tuberculosis and Diabetes*. [www.theunion.org](http://www.theunion.org) “What We Do” and “Resources”

**TB and Smoking:** The Union developed an A-B-C approach (Ask, Brief Advice, Cessation Support) to encourage TB patients to quit smoking. This approach has been used successfully in a variety of settings, including a Bangladesh program where 80% of the participating patients had quit smoking by the end of their TB treatment. The approach is detailed in the guide *Smoking Cessation and Smokefree Environments for TB Patients*. [www.theunion.org](http://www.theunion.org) “What We Do” and “Resources”

**Conferences:** The Union World Conference on Lung Health is the largest annual meeting addressing TB and other lung health issues in low- and middle-income countries. Region conferences are also held regularly in The Union’s 7 regions. [www.worldlunghealth.org](http://www.worldlunghealth.org)

**Courses:** The Union offers both technical training in TB and TB-related subjects and management training for TB managers through its International Management Development Programme (IMDP). [www.theunion.org](http://www.theunion.org) “Courses” or [www.imdp-union.org](http://www.imdp-union.org)

**Journals and guides:** The Union publishes 2 peer-reviewed journals, *International Journal of Tuberculosis and Lung Disease* and *Public Health Action*. Both are highly regarded sources of the latest TB research and related issues. In addition, The Union has published more than 30 guides and other training resources on TB. [www.theunion.org](http://www.theunion.org) “Resources” “Journals”

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## SOURCES & LINKS TO MORE INFORMATION

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