



PHOTO: SAMY RAKOTONIAINA

# The Challenge of **TUBERCULOSIS**

**The number of new TB cases has been declining** steadily worldwide in recent years. However, the burden remains high among low-income and marginalized populations. With the combined threats of HIV, diabetes, and other chronic diseases, as well as the spread of multidrug-resistant TB (MDR-TB), the challenges of the disease are overwhelming national health systems.

## **TB is preventable, diagnosable, and curable**

We can end TB if governments, donors, the private sector, affected communities, and civil society work together to fund and execute an accelerated response to end the TB epidemic. MSH develops innovative strategies to bring diagnostic, preventive, and treatment services to high-risk populations—for example, contacts; children; displaced persons; and those living with HIV, diabetes, or other diseases. We consistently apply evidence-informed knowledge and technical expertise to highly complex environments and fragile states where TB services are most desperately needed.

*Management Sciences for Health (MSH) works with international, national, and local partners to strengthen the capacity of health systems, national TB programs, and health managers to prevent the spread of TB and improve the lives of those affected by it. Better health system performance begins with inspired and inspiring leadership; sound management; and consistent, transparent governance. With more than 15 years of TB leadership, our approach strengthens health systems—building skills and sustainability, strengthening laboratory systems, ensuring continuous availability of medicines and supplies, integrating TB into HIV and other health services, and bolstering local leadership and management.*

**msh.org**

MANAGEMENT SCIENCES FOR HEALTH

200 Rivers Edge Drive  
Medford, MA 02155, USA

tel: 617.250.9500 e-mail: communications@msh.org

Per the World Health Organization's  
*Global Tuberculosis Report 2019*:

**7 million**  
people received record levels  
of lifesaving treatment;

**3 million**  
still missed out in 2018.

**1.5 million**  
people died from TB in 2018.

*TB is the #1  
killer worldwide*  
due to a single infectious  
agent, surpassing HIV and  
AIDS deaths.

An estimated **10 million**  
people fell ill with TB in 2018.

People living with HIV are  
**15 times more**  
likely to develop TB disease  
than people without HIV.

*About* **0.5 million**  
people fell ill with drug-  
resistant TB.

*Only* **1 in 3**  
people accessed treatment.

*In 2018, 1 in 2*  
children with TB missed  
out on access to quality TB care,  
risking serious illness and death.

*Only* **1 in 4**  
of children under 5 years of age  
who were eligible for TB  
preventive treatment received  
it in 2018.

*Nearly* **50%**  
of people with HIV-associated  
TB did not receive care in 2018.



Stronger health systems. Greater health impact.

## QuanTB: Helping TB programs ensure uninterrupted access to TB medicines

TB treatment is complex, as is ensuring that the right medicines are available without interruption. To promote a systems strengthening approach to managing TB medicines, the USAID-funded **Systems for Improved Access to Pharmaceuticals and Services (SIAPS)** Program, implemented by MSH, developed QuanTB—an electronic forecasting, quantification, supply planning, and monitoring system made available as a free downloadable tool. Available in six languages, QuanTB has been downloaded more than 3,000 times, adopted by at least 50 countries, and successfully tested for use in HIV and AIDS and maternal and child health care programs.

QuanTB version 4.2 and its user guide are available for download to anyone tasked with medicines management: <https://www.msh.org/resources/quantb>

### Active pharmacovigilance for TB patient safety

New TB medicines and complex, lengthy regimens need safety monitoring under real-life conditions and over time. WHO has a policy and guideline on active drug safety monitoring and management (aDSM) for timely detection, assessment, understanding, and prevention of medicines-related adverse events. MSH developed related guidance and PViMS, a web-based application that enables aDSM in low- and middle-income countries. It analyzes data to identify and report adverse reactions. A number of countries have adopted PViMS, including Georgia, Swaziland, and the Philippines, where it serves as the national pharmacovigilance platform.

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For more information about our tuberculosis work, please contact [communications@msh.org](mailto:communications@msh.org).

## MSH'S LEADERSHIP IN TB

For almost 50 years, MSH has worked in more than 150 countries to strengthen health systems in collaboration with public, private, and local partners. We engage communities in improving the management systems and leadership skills essential for controlling TB—and increasing political support for effective global TB programs and initiatives. We develop innovative strategies to bring diagnostic, preventive, and treatment services to high-risk populations—including children, displaced persons, and those living with HIV and other diseases—in complex environments and fragile states.

### TB REACH Ethiopia

Under the TB REACH Project, funded by the Stop TB Partnership, MSH is working in partnership with the Amhara Regional Health Bureau to address gaps in private-sector engagement and build the capacity of private health providers in TB service delivery within the densely populated region. The project is being implemented in 7 zones, 56 districts, and 269 health facilities, serving a population of more than 10,000—47% of the regional population. TB REACH interventions include training health care workers on TB case detection, referral to treatment, and reporting; establishing a patient and specimen referral system using **Ethiopia's** postal system; and using an innovative private-public model to network clinics to GeneXpert testing labs, chest X-ray sites, and pathology service providers.

### USAID Medicines, Technologies, and Pharmaceutical Services (MTaPS) Program

Sustainable, equitable access to effective, safe, quality-assured, and affordable treatments requires that countries have a well-functioning national pharmaceutical system. MTaPS supports countries and the international TB community in reaching the global goal of ending TB by improving access to high-quality, patient-centered TB, drug-resistant TB, and TB/HIV services; preventing TB transmission and disease progression; strengthening TB service delivery platforms; and accelerating research and innovation. MTaPS is helping **Bangladesh** and the **Philippines** streamline access to TB medicines and expedite transition to new regimens.

### Challenge TB (CTB)

MSH served as lead implementing partner in the USAID-funded CTB Project in **Afghanistan, Bangladesh, and South Sudan**; supporting partner in **Nigeria** and **Democratic Republic of the Congo (DRC)**; and key partner in **Ethiopia**. CTB pioneered an urban directly observed treatment, short course (DOTS) strategy in Kabul and other five cities and community-based DOTS in 15 provinces in Afghanistan. In Afghanistan, CTB assisted Afghanistan's National TB Program (NTP) in diagnosing and treating more than 156,000 TB patients with a treatment success rate of 89%. Nearly 500 Rifampicin-resistant/MDR-TB patients (those who require treatment with second line treatment regimens) were diagnosed and treated. CTB/Bangladesh was at the forefront of the fight against TB through the Zero TB Cities Initiative and supported the NTP in diagnosing and treating more than 59,000 TB patients. In Ethiopia, CTB assisted the NTP in diagnosing and treating more than 490,000 TB patients, including 2,600 MDR-TB patients, with a treatment success rate of 92%.

### Help Ethiopia Address Low TB Performance (HEAL TB)

From 2011 to 2018, the USAID-funded HEAL TB project, led by MSH, made quality TB services accessible to more than 50 million people in **Ethiopia**—more than half the country's population. The project used innovative, cost-effective strategies to more than double initial targets, working with the Ministry of Health to screen 16 million people for TB at health facilities and diagnose and treat 250,000 TB patients, with a 95% treatment success rate and 91% cure rate. Among TB patients, 94% were tested for HIV in project areas; 90% of those co-infected were started on antiretroviral therapy.

### Track Tuberculosis Activity (TRACK TB)

From 2013 to 2018, the US President's Emergency Plan for AIDS Relief (PEPFAR)- and USAID-funded TRACK TB project in **Uganda**, led by MSH, helped health workers diagnose and treat more than 39,000 Ugandans for TB, with a treatment success rate of 86%, and initiated antiretroviral therapy to 92% of those co-infected with TB and HIV. The project showed how a mixed model of facility-based initiation followed by community-based care can rapidly scale up MDR-TB services without overwhelming the health care system. Thanks to project support, more than 1,500 MDR-TB patients were diagnosed and treated with a success rate of 74%, and 15 hospitals treated MDR-TB patients, up from three at project startup. TRACK TB also created an effective urban DOTS model in Kampala.

### SIAPS

The USAID-funded **SIAPS** program, implemented by MSH, worked in 30 countries in **Africa, Asia, and Eastern Europe** to strengthen pharmaceutical management practices to ensure reliable access to quality TB medicines and effective related services. SIAPS also developed and helped countries adopt key electronic open-source tools for TB, including e-TB Manager, QuanTB, and PViMS. The program provided technical leadership in pharmaceutical management to the StopTB Global Drug-Resistant TB Initiative and WHO as they developed global TB policies and guidelines. SIAPS also helped the Global Drug Facility and WHO improve global pharmaceutical supply management, develop interventions for accelerated uptake of new medicines, and prevent stock-outs and treatment interruptions.