FIND
Diagnosis for all

TUBERCULOSIS

Tuberculosis (TB) is the world's leading cause of death from an infectious disease, killing 1.25 million people in 2023. TB is preventable and - even more importantly - it is curable. Every year, 31% of people with tuberculosis (TB) are not diagnosed or notified to health systems – resulting in millions of preventable deaths.

Half of all TB cases may be asymptomatic, meaning individuals do not typically present to clinics for diagnosis and care, and without treatment continue to further infect members in their households and community.

In 2023,
10.8 million
people fell ill with TB.

An estimated
400,000 people
developed multidrug-resistant or rifampicin-resistant TB (MDR/RR-TB).

Only
44% of people
received the appropriate test and treatment for MDR-TB.

ENABLING UNIVERSAL ACCESS TO TB DIAGNOSTICS

Taking advantage of new and existing technologies, FIND is working to develop solutions that increase the availability of diagnostic tools for TB and improve access. FIND works with partners to meet the needs of key groups and populations (such as children and people living with HIV), and to support the expansion of diagnostic testing to make it available everywhere that people seek care.

FIND is working with partners to strengthen TB testing at every level of the healthcare system. This work focuses on:

Enabling universal access to TB diagnostics with tools that work in community and primary healthcare settings and use samples that are easy and convenient for all people to provide, including:

- **Multi-pathogen point-of-care molecular tests**
- **Swab and urine-based testing**
- **Person-centred delivery models**
- **Integrated testing**

Preserving drugs and treatment regimens by testing response to critical drugs, directing people affected by TB to effective treatments, and safeguarding against antimicrobial resistance through:

- **New drug-resistance tests**
- **Next-generation sequencing (NGS)**
- **Capacity building and infrastructure upgrades**
- **Diagnostic network optimization (DNO)**

Interrupting disease transmission and drive the development and uptake of tests and digital tools that promote community screening and early detection of TB in all its forms using:

- **Imaging and computer-assisted detection (CAD)**
- **Simpler tools for TB infection**
- **AI and digital diagnostic support**
- **Active case-finding strategies**

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HOW FIND SUPPORTS NATIONAL EFFORTS TO STOP TB

Improving TB diagnosis in children.

New molecular stool-based tests have the power to transform diagnostic testing for TB in children. With product development and evaluation supported by FIND, WHO formally recommended their use in 2021. Nine countries have since adopted stool-based testing, with FIND providing technical assistance to others looking to take advantage of this important new test. In India, molecular testing has been enabled for nearly 95,000 children under evaluation for TB between 2014 and 2018, with 89% of those diagnosed linked to treatment.

Expanding community-based testing

In a study of over 4,000 people, the TB-CAPT consortium demonstrated that placing battery-operated molecular diagnostic tests in primary healthcare centres in **Tanzania** and **Mozambique** improved case detection rates and demonstrated that a same-day test-and-treat strategy is feasible for TB. The approach was implemented in a low- resource setting and was shown to be feasible, practical, cost-effective and widely acceptable to patients and healthcare workers alike.

Joint Effort for Elimination of TB in India

Launched in 2018, this project is the largest private-sector health engagement initiative for TB ever to be carried out in **India**. It demonstrated how strategic screening and targeted treatment can accelerate India's journey toward eliminating TB. As an implementing partner, FIND helped notify over 200,000 people with TB in 3 years and more than 80% of notified patients had successful TB treatment outcomes. The second phase of work provides preventative TB treatment to household contacts of people with pulmonary TB in five Indian states. Over a period of three years (2021-2024), more than 400,000 contacts were screened, with more than 200,000 people starting preventative treatment. Of those eligible for outcomes, approximately 88% completed preventive treatment.

Informing policies to harness new technologies

Targeted next-generation sequencing (tNGS) can cut the detection and profiling of drug-resistant TB from months to days. FIND supported the development and updates to the WHO mutations catalogue to identify DR-TB and inform innovative advances from new Dx developers. Further, advances in artificial intelligence (AI) can expand TB screening services by supporting chest X-ray reading to address the global shortage of radiologists. FIND has been certified by WHO as a validating platform, whereby FIND carries out extensive testing of TB diagnosis apps to ensure that the proposed software is accurate, reliable, and able to be used in all settings, particularly in LMICs. To date, 8 TB detection apps have been reviewed and certified by FIND.

FIND'S IMPACT IN NUMBERS

35
new diagnostic tools

17
countries with optimized TB diagnostic networks

6
WHO recommendations supported

More than
4.2 million
people tested for TB (all forms) in FIND-supported laboratories in India

More than
200,000
drug-resistant TB cases notified in India

The 2030 goal of ending TB remains ambitious, but the roadmap to get there is clear and diagnostic testing is a critical element to stop transmission and save lives.

About FIND

Established in 2003, FIND is a global nonprofit dedicated to ensuring equitable access to diagnostics, based in Geneva, Switzerland, but also has regional offices in India, Kenya, South Africa, and Viet Nam.

We connect countries and communities, funders, decision-makers, healthcare providers and developers to spur diagnostic innovation and make testing an integral part of sustainable, resilient health systems.

For more than 20 years, FIND has been at the forefront of revolutionizing diagnostics, particularly in the realm of infectious diseases, bringing lower-cost, quality diagnosis to those who need it as an essential component of universal health care while also leading efforts in pandemic preparedness, and driving access to essential tools as a recognized thought leader.