

# FIGHTING TUBERCULOSIS



**Tuberculosis is the world's deadliest infectious disease.**

But, despite its massive fatality rate, TB rarely makes headlines.

Every 20 seconds, somewhere in the world, someone dies of TB.

TB causes about 1.3 million deaths each year—that's more deaths than HIV/AIDS and malaria combined.

## What is Tuberculosis?

Many people in wealthy Western countries have no idea what TB is—or consider it a disease of the past, belonging in a history textbook. But the disease that ravaged Europe and North America centuries ago remains a deadly, day-to-day threat in much of the world. Over 80% of TB cases—and fatalities—are in low- and middle-income countries.

**Even though a cure exists, TB continues to kill at unparalleled rates.** TB is an airborne disease that spreads when infected people cough, talk, or even just breathe. The disease typically attacks the lungs but can affect almost any part of the body. Symptoms can be mild at first and resemble those of other conditions, like the common cold, making TB difficult to detect.

### If untreated, TB is often fatal.

Effectively diagnosing, treating, and preventing TB is a social justice issue.

PHOTO: In Peru (where PIH is known as Socios En Salud) and eight other countries, PIH staff work on the frontlines of the global TB crisis, searching for cases in the community, treating diagnosed patients, and preventing TB from spreading. *Photo by William Castro Rodriguez for PIH*

## PIH's Fight Against TB

PIH has battled TB for more than two decades by searching for, treating, and preventing TB—including its more severe, drug-resistant variants, and co-infections of HIV and TB—in some of the poorest and most vulnerable communities in the world.

**Our community-based approach to care has resulted in some of the highest cure rates and lowest treatment default rates ever recorded.**

PIH is a TB leader in 9 countries, with a proven track record and substantial service footprint in underserved and hard to reach areas. In 2023 alone, PIH-supported facilities conducted over 36,000 tests to screen people with suspected TB, provided TB treatment to over 13,000 people, and celebrated 84% of patients successfully completing treatment.



### PIH provides TB care in 9 countries:

Haiti, Kazakhstan, Lesotho, Liberia, Malawi, Mexico, Peru, Rwanda, and Sierra Leone



Photo by Caitlin Kleiboer for PIH

## Search, Treat, Prevent

TB has treatments and even a cure. But the path to a full recovery is challenging. TB requires at least four months of treatment, and can take even longer to treat. The standard regimen includes five drugs, which must be taken together each day. These drugs come with an array of challenging side effects.

TB's airborne nature, common symptoms, and long, arduous treatment regimen make it especially lethal in the places where it is most prevalent: impoverished countries with weak health systems.

Building on our early leadership in tackling a TB outbreak in Carabayllo, Peru, PIH has become a global leader in TB science, program design, and implementation, shaping global and national guidelines and operating specialized care facilities. In the 1990s, PIH cured 75 multidrug-resistant (MDR-TB) patients in Peru, which inspired the World Health Organization (WHO) to revise its protocols and recommendations for the treatment of the disease in impoverished settings.

Diagnosis relies on chest X-rays, skin tests, and blood tests, as well as sputum samples. But after diagnosis, the drugs used to treat TB (especially drug-resistant TB) are often expensive and difficult to access in the countries where they are most needed.

**PIH and passionate activists around the world have had success pressuring pharmaceutical companies to lower costs and dramatically expand access to lifesaving treatments.**

## Working to endTB

Historically, TB treatments lasted up to two years and included painful daily injections and drugs with often devastating side effects. **The endTB project is working to dramatically improve treatment of multidrug-resistant tuberculosis** (MDR-TB) through clinical trials of new drugs and shorter treatment regimens that involve only oral medicine and no daily injections. PIH works in the endTB partnership with Médecins Sans Frontières (Doctors Without Borders), Interactive Research and Development, and financial partner Unitaid.

The group has brought two new drugs—bedaquiline and delamanid—to 17 countries with significant burdens of MDR-TB. These include Kazakhstan, Lesotho, and Peru, where PIH has a strong presence.

The endTB project has provided these new drugs to a multi-country group of 2,600 patients and is implementing clinical trials to identify shorter, less toxic treatment regimens. By proving these treatments work, we hope to dramatically expand access to these new drugs and treatment regimens globally, improving the quality of life for countless patients.



After more than two years of intensive inpatient and outpatient care from PIH-supported Lakka Government Hospital in Sierra Leone, Saio, a 29-year-old widow, was cured of MDR-TB and reunited with her son and two daughters.

### **PIH does whatever it takes to make patients well.**

Sometimes social support includes money for school fees or food to bring home. When Saio struggled to find housing after her seven-month hospital stay, PIH stepped in to help by providing a free, short-term apartment. In Saio's words, "when I came, the nurses, the doctors, and PIH took care of me. [They] talked to me, advised me, and made me take my medicine." *Portrait of Saio by Caitlin Kleiboer for PIH*

## Transforming Diagnostics in Liberia

For years, the Pleebo Health Center laboratory consisted of a single room. In that room, limited medical testing occurred for more than 50,000 Liberians. Although the laboratory was functional, it faced many obstacles.

Specimens had to be taken to PIH-supported J.J. Dossen Memorial Hospital in Harper—about 16 miles away. There were often delays, which meant the samples had to be collected a second time. And, clinicians were unable to test patients on-site for tuberculosis or HIV. The lack of space and limited diagnostic equipment were major challenges for both clinicians and patients.

In 2022, PIH facilitated transformational improvements. Now four rooms, the lab is equipped to test blood, urine, and hemoglobin A; and diagnose tuberculosis and HIV.

With the expanded space, the center is able to hire enough laboratory personnel to quickly assess and identify potential health problems. The optimized space is also newly equipped with machines such as the GeneXpert machine, which is used to diagnose TB. Faster diagnosis means patients no longer have long lab delays holding up their treatments.

## Innovative Solutions to Care Delivery



In **Kazakhstan's** capital of Almaty, PIH and the national health department have collaborated on clinical trials for more than 100 MDR-TB patients, as part of the world's largest TB drug trial.



In **Lesotho's** capital of Maseru, PIH-supported Botšabelo Hospital is the only MDR-TB treatment facility in the country, and the hub of a national TB outreach, education, and care program.



In **Peru**, innovations including TB Movil, a mobile TB clinic on wheels, help PIH teams reach people in neighborhoods in and around Lima for TB screening, testing, and support.

## GIFTS THAT SAVE LIVES

**\$3**

One X-ray screening for an adult or child to help diagnose TB

**\$10**

One lab test to help diagnose TB

**\$40**

One month of food support for a person with TB

**\$150**

A four-month course of treatment for a person with TB

**\$500**

A six-month course of treatment for a person with drug-resistant TB



Lesotho has the highest TB incidence in the world, with an estimated 654 cases per 100,000 for a population around 2 million. Khamokha was devastated to learn he was one of them.

Khamokha worked in a gold mine in South Africa for 29 years. He retired from the mines in August 2022, only to learn he had MDR-TB. He spent 5 months in-patient at PIH-supported Botšabelo Hospital in Lesotho. Today, he is cured of TB and has been able to return home to his wife, Malijo, who works as a self-employed seamstress. Khamokha has returned to work as a farmer, growing vegetables to sell. *Photo by Tsepo Monakali for PIH*