What is it?
Tuberculosis, or TB, is an infectious bacterial disease that most commonly affects the lungs. The symptoms of active TB of the lung are coughing, sometimes with sputum or blood, chest pains, weakness, weight loss, fever and night sweats. Tuberculosis is treatable with a six-month course of antibiotics. If left untreated a patient can die. TB is a disease of poverty, which, because of insufficient treatment, has emerged in new, virulent strains.

Where is it?
Over the last two decades TB resurfaced worldwide, along with TB co-infections with HIV/AIDS and drug resistant TB. There are 22 countries with a “high-burden” of TB, which means they have 80% of the world’s cases. These include large nations such as China, Russia, and India. Today there are an estimated 9 million new cases of TB a year, 10 to 15 percent of whom are children.
“TDR has played a pivotal role in improving evidence-based TB diagnosis, especially in optimizing smear microscopy services that are widely used around the world. TDR’s work also informed and supported a concerted global action against inaccurate and suboptimal TB serological tests that are widely abused in countries with poor regulation.”

MADHUKAR PAI, CO-CHAIR OF THE STOP TB PARTNERSHIP’S NEW DIAGNOSTICS WORKING GROUP, AND CHAIR OF THE TASK FORCE OF THE TB RESEARCH MOVEMENT.

What TDR is doing

- TDR is working with international partners to improve the diagnostic services for TB in local health centers in poor countries.
- We are working to address the dangerously neglected issue of TB in children, who account for an estimated 10 to 15 percent of new cases. Most diagnostic tests are not designed for children and often miss the disease.
- TDR and an international array of research institutions have spent more than six years of work evaluating commercial serology tests for TB, which are sold in scores of developing countries. The tests were found to do more harm than good.
- Conducting the TB-HAART trial, an innovative TDR project, in collaboration with ministries of health of four African countries, assessing how best to treat HIV-infected TB patients. There is currently scant evidence on how to care for co-infected patients in developing countries.
- Running trials on a new drug that could dramatically shorten the length of TB treatment. Currently, medications must be taken for a full six months, and lack of compliance remains a pressing problem. The gatifloxacin-containing regimen being tested by TDR is one of the most advanced shorter TB treatment regimens in development, decreasing the time to take the medication by two months.

Impact

- Through both its research and its leadership role in the TB community, TDR was a driving force behind the WHO endorsement of new TB diagnostic tools.
- TDR’s work on improved diagnostic services, including smear microscopy, will help millions of people to access TB treatment. Work on childhood TB will help close a dangerous gap in existing TB diagnostic tools, which are not designed to catch the infection in children.
- The TB-HAART trial could significantly improve the care of the more than one million people infected with both HIV and TB.
- Based on TDR’s findings, WHO will issue a warning against the use of serology tests for tuberculosis in high-burden countries.
- The gatifloxacin trials hold promise to hasten treatment and thereby cut back on the emerging threats of MDR and XDR TB.

Your support makes a difference

The annual funding required for TDR’s work on tuberculosis is US$ 4 million. Your contribution to TDR is one of the most cost-effective investments you can make in health. Research for health provides solutions and builds sustainable capacity to break the vicious cycle where poverty breeds ill health and ill health perpetuates poverty. Our research has provided not only effective, low cost treatments and preventive measures that have saved many lives, but has also supported developing country researchers and institutions so that they can prioritize and lead the research efforts to address their own problems.

TO SUPPORT THE WORK OF TDR, PLEASE CONTACT:
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