

Ever since tuberculosis was found to be curable, early diagnosis and complete treatment have been a focus globally in the struggle to curb the disease. An accurate diagnosis is the basis for timely treatment and its need cannot be over-emphasized in a country like India, which has the world's highest TB burden and sees a TB related death every two minutes.

Project LIGHT(LED Fluorescent Microscopy In Gaining TB Cases in High workload Teaching Hospitals) is an initiative under the Stop TB Partnership-WHO's TB REACH Wave-2 Grants that adds superior technology to already existing efforts aimed at achieving cost-effective and timely diagnosis of TB in India. Implemented by The Union South-East Asia Office, it introduces LED based fluorescent sputum smear microscopy services for improved TB diagnosis in 200 medical colleges across the country. The project works in close coordination with the Government of India's Revised National TB Control Programme (RNTCP) and the National Task Force for the Involvement of Medical Colleges, and links the national programme for TB care and control with India's medical education system.

Project LIGHT activities include the procurement, supply, and maintenance of microscopes and laboratory reagents. The project also provides training and technical support to RNTCP laboratory staff on various aspects of LED fluorescent sputum smear microscopy, and supports development of training modules and quality assurance protocols in line with RNTCP guidelines. Technical support for tracking and registration to minimize the number of patients who are diagnosed positive but not started on treatment is another key activity of the project. In the first year of implementation, microscopes were delivered and installed at 200 medical colleges, and LED FM services were started following the training for laboratory staff and the supply of chemical reagents.



This initiative works to the mutual benefit of all sectors and stakeholders. The project places LED FM at the selected medical college's RNTCP designated microscopy centres with high workloads, building the capacity of their medical, technical and laboratory staff to provide health and TB services to their communities. The enhanced visibility of the TB bacillus under LED FM greatly increases the chances of its rapid detection. This, in turn, enables an accurate diagnosis of TB without further investigations and avoids delays in commencement of treatment.

LIGHT also works with local RNTCP programme staff to ensure that all patients thus diagnosed transfer to TB treatment services. Thus, the technology ultimately translates into beneficial measures for patients on multiple fronts – in terms of health, money and time. The cost-effectiveness of the intervention and its impact on case notification rates at the TB unit and district levels will be evaluated.

Over July to September 2012, LIGHT's innovation for strengthening infrastructure for TB services has led to the detection of an additional 2,023 sputum positive cases at the 200 sites with LEDFM (despite fewer referrals, as compared to the same period in 2011).

India

The Union South-East Asia Office

Improved technology for TB diagnosis

Stop TB Partnership
TB REACH



FINDING AND TREATING PEOPLE WITH TB IN THE WORLD'S POOREST COMMUNITIES

TB REACH

**The first wave of projects
increased case detection
by an average of 26%
compared to
the previous year**

More than nine million people around the world become ill with tuberculosis (TB) each year. About one-third of them fail to get an accurate diagnosis or effective treatment and are more likely to die from this curable disease.

By supporting the many partners working in the field, TB REACH offers a lifeline to people among this missing 3 million by finding and treating people in the poorest, most vulnerable communities in the world. In areas with limited or non-existent TB care, TB REACH supports innovative and effective techniques to find people with TB quickly, avert deaths, stop TB from spreading, and halt the development of drug resistant strains.

- TB REACH was launched in 2010 and will run until 2016, thanks to a CAD\$ 120 million grant from the Canadian International Development Agency.
- TB REACH is committed to getting funds to our partners with a very short turnaround time.
- TB REACH has committed nearly \$50 million to partners working on 75 projects in 36 countries covering a wide range of interventions.
- Preliminary analysis from Wave 1 shows that efforts of partners led to an increase of 26% in TB case detection over an area of 100 million people, while some areas saw increases of more than 100%. The average cost per person covered is US \$0.15.

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