Innovative Public Private NGO Partnership model for increasing case detection among at risk and vulnerable population in Chennai, India

According to the Global TB Report 2014, 24% of the missed tuberculosis (TB) cases globally occurred in India, a country with the highest TB burden. Although contacts of TB patients are at greater risk of being exposed to mycobacterium tuberculosis as compared to the general population, studies have suggested a sub-optimal implementation of the contact-tracing strategy in India.

REACH (Resource Group for Advocacy and Community Health) was established in 1999 in Chennai. REACH works with a range of partners including the Revised National Tuberculosis Control Program (RNTCP), private and public hospitals, and community-based providers. REACH received a TB REACH Wave 4 grant to increase the detection of TB patients through contact-tracing of household contacts (HHCs) of sputum-positive pulmonary TB patients.

The TB REACH initiative was implemented in 21 TB control units in Chennai with an estimated population of 4.8 million. The key interventions in this initiative included: 1) recording the details of HHCs on an electronic database system; 2) generating incentives for symptom and chest X-ray screening among the HHCs; 3) using a Nucleic Acid Amplification Test, Xpert® MTB/RIF (Xpert), as a diagnostic test for HHCs with TB symptoms and/or X-ray abnormalities, and; 4) linking the identified TB patients to RNTCP for treatment initiation.

Upon receiving a weekly list of sputum-positive pulmonary TB patients (index patients), trained field officers meet these index patients and collect complete HHCs details. Screening coupons for the HHCs are issued to the index patients. The patients are educated on contact tracing and chemoprophylaxis. In addition, the patients are counselled on the importance of safe cough hygiene practices using a flipchart. The importance of adherence to anti-TB treatment for a positive treatment outcome is also stressed, as well as that of safe disposal of sputum.

Additionally, and under the supervision of project coordinators, the field officers mobilize the HHCs through phone reminders and home visits designed to encourage them to be screened at nearby private X-ray facilities. HHCs with symptoms of TB and/or X-ray abnormalities are given FalconTM tubes for the collection of sputum samples. The samples are then tested using Xpert and smear microscopy. Those who are found to be Xpert-positive are referred to RNTCP for treatment initiation. The field officers also documented the reasons for loss to follow-up and framed action plans to track those patients who drop out of the program.

As of Sept 2015, REACH had collected the details of 1,817 index patients and screened 3016 HHCs. Of those, 582 presumptive TB patients were identified, among which 22 were found to be Xpert-positive. One HHC was diagnosed as an extra-pulmonary TB patient. One pediatric HHC with an abnormal X-ray finding (failed to produce sputum) was started on treatment after specialist consultation. In total, 24 TB patients were referred to RNTCP to begin antituberculosis treatment. Approximately 135 children have been initiated on isoniazid preventive therapy.

Through this initiative, the challenges involved in mobilizing HHCs for the screening process were explored, and a suitable strategy was designed to overcome these challenges. This intensified contact-tracing approach has been proven effective in early diagnosis and treatment initiation among contacts of TB patients.
More than nine and a half 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 these people 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 identify people who have TB, avert deaths, stop TB from spreading, and halt the development of drug resistant strains.

TB REACH has supported a total of 142 projects in 46 countries. To date, 33 million people have been screened for TB in project areas, of which, 1.7 million have received TB treatment, accounting for 856,000 lives saved. Some projects have seen increases in TB notifications of more than 100%.

Our partners are providing evidence for new case finding approaches and are working with community and policy leaders as well as donors such as The Global Fund to integrate those approaches into national strategies that improve TB case detection.

TB REACH was launched in 2010 thanks to a CAD$ 120 million grant from Global Affairs Canada.

TB REACH acts as a pathfinder, providing fast track funding for innovative projects, monitoring effectiveness and leveraging funding for scale up.