Early and improved case detection of TB through the use of Xpert® MTB/RIF (Xpert) technology in Nepal

The International Organization for Migration (IOM) Nepal has been

implementing a TB REACH Project in collaboration with the National Tuberculosis Program (NTP) since October 2011, through the deployment of ten Xpert machines in primary to tertiary healthcare centers in nine districts. The project covers the entire population of Eastern Development Region and two districts of Central Development Region. The project targets vulnerable, impoverished and hard-to-reach populations such as migrants, people living with HIV, people from hilly regions and those served by periphery level primary health centers.

Currently, IOM Nepal is running ten Xpert machines in ten NTP microscopy laboratories. In addition, IOM provides technical and logistical support to another twelve Xpert centers run by NTP throughout Nepal. Laboratory staff is trained to operate the instruments, calibrate the modules, and perform preventive maintenance. Monthly monitoring visits are conducted to improve the performance and strengthen the referral system. Data quality improvement and sustaining coordination with NTP staff are other aspects of routine monitoring visits.

During the initial period, advocacy, communication and social mobilization activities were conducted to raise awareness about tuberculosis and Xpert technology, with a special focus on hard-to-reach groups. Active specimen referral through messengers is another intervention contributing to an increase in the number of tests conducted and cases detected. Xpert has been found to be a bridge tool, bringing the private health sector into collaboration with NTP for better TB care. Trainings and workshops on Xpert technology are regularly conducted at various levels of health facilities. As a result of regular advocacy and partnership with NTP at various levels, Xpert technology was endorsed as the TB diagnostic tool and a national policy was developed in July 2014. In collaboration with TB REACH, IOM is conducting operational research to compare the additional cases detected using Xpert, smear, and chest X-ray.

As of 31st July 2015, many achievements have been accomplished as outlined below

Admittedly, these achievements come with continuing challenges. One of the main concerns is the high logistical and maintenance cost, raising the issue of the feasibility of sustaining operations in the long-term for NTP policymakers.



Project Achievement as of 31 July 2015

- 39,806 Xpert tests performed.
- 7,215 total MTB positive cases detected.
- **6,480** MTB positive rifampicin (RIF) sensitive cases detected.
- **461** MTB positive RIF resistance cases detected.
- **3,503** tests gave Error, No Result and Invalid
- **30–35** % cases are tested from Private health Institutions.
- **40** periphery health centers referring sputum daily
- 6 Daily messengers for Sputum referral.
- 2 Weekly referral from hilly districts.
- 1 Fortnightly referral from hilly district.
- 1 NGO subgranted to refer from private sectors



Nepal

The International Organization for Migration (IOM)

Stop (B) Partnership





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More than nine and a half million people around the world become ill with tuberculosis (TB) each year. About onethird 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.



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