The International Organization for Migration (IOM) Nepal, in collaboration with the National TB Programme (NTP), is implementing a TB REACH Project to improve case detection of TB by increasing the sensitivity and specificity of laboratory testing through the use of GeneXpert instruments.

The target population of the project is that of the entire Eastern Development Region and two districts in the Central Development Region, in particular impoverished, vulnerable and hard to reach populations, including, but not limited to, residents of hilly and mountain districts, labor migrants and people living with HIV. A communications campaign targets residents in the hill and mountain districts through the most popular and widely available media – radio, health education materials and through community health workers informed about new diagnostic methods available in the region.

Additionally, the use of GeneXpert technology has been initiated in the nine NTP microscopy centres. A system has been established to transport SS-samples from outlying laboratories to GeneXpert centres. Sputum smear negative individuals with chest X-rays suggestive of TB are tested using the Xpert/Rif algorithm. Additionally, individuals who have a high risk of MDR TB or who are HIV positive with a high suspicion of TB are also referred to the Xpert diagnostic centres for testing. Patients diagnosed using the Xpert test are registered for DOTS treatment at the same centre since all microscopy centres are DOTS centres as well. Rifampicin resistant cases are confirmed with conventional DST.

The project became fully operational as of January 2012. By the end of September 2012 it had achieved many goals. A total of 5,300 tests had been performed, detecting 914 additional MTB cases (877 Rif- and 44 Rif+ cases). Many cases among smear negative samples, which would have gone undetected without the intervention of GeneXpert technology, have been diagnosed as positive. This technology has the additional value of enabling confirmation of diagnosis and implementation of treatment on the same day, reducing the cost of travelling to TB patients and of unnecessary time spent away from home.

Laboratory staff and NTP officials are being trained in the use of GeneXpert technology and recording and reporting.

There is growing interest and enthusiasm about this technology in the country. This is reflected in the types of question the health workers are asking during the training and workshops. At the beginning of the project implementation they were asking about “the result reliability”; later, discussion started on how to manage the additional cases detected by GeneXpert; and these days the question is how to make the technology use sustainable, as the benefit is so obvious.

IOM Nepal plans to negotiate with TB REACH for the continuation of the project to year 2 and also plans to expand the GeneXpert technology in other parts of Nepal.

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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.