

In the rural setting of KwaZulu-Natal, South Africa, where extreme weather and mountainous terrain often makes roads impassable, the journey to a diagnosis of TB and its appropriate treatment can be long and difficult. A new TB/HIV Care Association project funded by TB REACH is making mobile phones and the latest diagnostic technology available to community health workers and lab technicians in this region to dramatically change this situation.

Pholela Community Health Centre (CHC) is a two hour drive from the nearest laboratory. Previously, this meant that getting the results from a sputum sample sent to the laboratory for TB diagnosis took a long time. Diagnosis of drug-resistant TB could take up to 8 weeks. In KwaZulu-Natal, the level of drug resistant TB is high; 8% of all TB cases are rifampicin resistant. Rapid diagnosis and efficient implementation of treatment is critical to patient health and to that of the community.

To address this issue, a GeneXpert machine able to diagnose TB and drug-resistant TB in less than two hours has been placed in the Pholela CHC - one of three GeneXpert machines placed throughout the Sisonke District with funding from TB REACH.

Another of the project's innovations is to put mobile phone technology into the hands of TB/HIV Care's community health workers. The cell phones link patients with community health workers, clinics and laboratories. Community health workers visit

communities to screen for symptoms of TB, entering data on their mobile phones. A record is created for anyone with symptoms and a community health facilitator at the nearest clinic receives a text alert that a client needs a TB test. The community health worker collects sputum from the client at their home and the sputum is sent to the local lab for testing by the GeneXpert or, in the case of the Pholela CHC, tested on site. The results are sent back, again via text, and the community health worker contacts the patient to ensure that they return to the facility to start treatment if positive for TB.

This chain of care means a significant reduction in the time between a patient with symptoms being detected and subsequently started on treatment for TB. Previously, 90% of patients at Pholela CHC took more than five days to be put on treatment after arriving at the clinic. Now, 89% of patients are put on treatment within 5 five days of their symptoms being detected. In the last three months, 78% of patients have been started on treatment within 2 days. With high rates of HIV and MDR-TB these days means lifesaving treatment can begin.

Through the innovative use of new technologies and the efforts of community health workers, this TB/HIV Care project is vastly improving the accessibility of health services and the speed of diagnosis in the Sisonke District.



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TB/HIV Care Association

South Africa

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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