Active Case Finding in Urban Slums and Internally Displaced Person Camps to Increase Tuberculosis Case Detection in Haiti

Haiti has the highest incidence of tuberculosis (TB) in the Americas, almost ten times the incidence for the overall region. In January of 2010, Haiti sustained a devastating earthquake with total damages estimated at 7.8 billion USD and leaving over 1.5 million homeless. Nearly four years later, approximately 279,000 people remained internally displaced in tent camps.1 Most residents of internally-displaced persons camps have now been moved to their neighboring slums, where the crowded conditions facilitate ongoing TB transmission.

For the past 30 years, Haiti’s Ministry of Health and the Haitian Group for the Study of Kaposi’s Sarcoma and Opportunistic Infections (GHESKIO), a Haitian non-governmental organization, have worked in close collaboration to provide high quality, evidence-based care for patients with HIV, TB, and related infections. GHESKIO is the Caribbean’s highest volume TB clinic, and has the only biosafety level 3 laboratory in the country. Along with the National TB Program (NTP), GHESIO was awarded Wave 4 TB REACH funding to conduct active case-finding for TB in vulnerable, urban slum communities in the aftermath of the earthquake.

Socio-economic conditions in the slums of Port-au-Prince are among the worst in the Americas. Many residents live in crowded conditions with poor sanitation on less than $1 US per day. Most residents have limited access to education, and also lack access to many basic utility and medical services. Patients are generally tested for TB only if they present to a medical center with TB symptoms; thus, many cases of active TB likely go undiagnosed. Through Haiti’s TB REACH program, GHESKIO and the NTP implemented a program of household-level active case-finding for TB. Community health workers (CHW) went door-to-door to identify patients with cough of greater than two weeks in duration and referred them to a TB clinic for testing with sputum microscopy, Xpert, and chest radiograph. Furthermore, in order to identify high-risk TB areas within the urban communities screened, CHWs were trained to use smart phones to record coordinates of the households they visited and whether household members reported cough.

Through Haiti’s TB REACH program, 80 CHWs screened over 100,000 individuals for cough in eight Port-au-Prince slums through active case finding efforts. More than 6,000 people with presumed TB were referred for TB evaluation at GHESKIO and the NTP and 1,170 patients were diagnosed with TB—nearly half of GHESKIO’s annual case notification. In addition, the TB REACH program expanded the use of Xpert testing as a systematic diagnostic test for all presumed TB in GHESKIO’s HIV voluntary counseling and testing units. Over 9,600 Xpert tests were performed in total, through active case-finding and the expansion of Xpert testing, of which approximately 1,800 cases have been confirmed as bacteriologically-positive TB. Furthermore, Xpert testing has led to the diagnosis of 71 culture-confirmed MDR-TB cases. All patients who had rifampin-resistance detected by Xpert received culture with first and second-line drug susceptibility testing, and those with MDR-TB received treatment in GHESKIO’s Green Light Committee approved MDR-TB program.

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.