

Natural Disasters and Weak Health Systems Force Innovative Approaches to Delivering Tuberculosis Treatment and Care.

Studies:

Abstract Effective TB case-finding with routine systematic cough screening in general outpatient, inpatient, HIV clinical services in Haiti, 2012-2015

In a study conducted by the US Centers for Disease Control and Prevention (CDC), researchers investigated the potential benefit of systematic cough screening for all patients appearing in TB diagnostic and treatment facilities, inpatient and outpatient clinics, and HIV clinics after the 2010 earthquake in Haiti. Results showed persistently high rates of new TB cases after the earthquake, and that systematically screening all patients for presence of cough was an effective way to diagnose TB. From 2012-2015, over 215,000 patients from 110 health facilities were screened for cough. Of those, 89% underwent sputum smear microscopy for acid-fast bacilli, a basic laboratory technique where a technician examines a sample of sputum through a microscope and looks for the presence of TB bacteria. Of the patients tested using this method, 15% tested positive for the presence of TB bacteria. TB rates in Haiti are the highest in the Western hemisphere, with 200 new infections per 100,000 persons/year. The authors recommend strengthening and expanding systematic TB screenings using presence of cough as a measure to determine if a patient should be screened for TB.

Abstract Community tracing system performance for people affected by Tuberculosis during Ebola epidemic in Conakry, Guinea

The most recent Ebola epidemic generated mistrust in the healthcare system. Researchers examined how mistrust towards the medical community beginning with the Ebola epidemic translated into people withdrawing from TB treatment in Guinea. The study shows community tracing of patients, where TB patients were contacted by phone and home visits, were largely effective in maintaining contact with patients. When patients withdrew from TB treatment, it was mostly due to social factors—burials, school, work, and social obligations—not mistrust of the health system. Community health workers traced 1,254 people (24% of whom were also living with HIV) under TB treatment from 25 health facilities and identified those that missed at least one treatment. The results showed that 78% were properly traced, including 21% who died and 79% who restarted treatment. For 66% of those who missed an appointment, the reasons of absence were: social reasons (56%), travel (20%), health staff availability (17%), refusal (4%), and access 3%. The study was conducted by the Damien Foundation, the Ministry of Health of the country of Guinea, and Gamal Abdel Nasser University, Guinea.

Abstract Prolonged delay to diagnosis despite availability of free health care services. A study of 76, 486 tuberculosis patients in Yunnan, China

In a study conducted by University of Singapore, Swee Hock School of Public Health, researchers found that on average, patients in Yunnan, China experience delays in TB diagnosis lasting a median average of 57 days, based on their analysis of electronic records of 76,486 adults diagnosed with smear-positive pulmonary tuberculosis between 2006 and 2013 in all 129 China Centre for Disease Control (CDC) diagnostic units covering Yunnan province. The delay in diagnosis and treatment allows ongoing transmission of the disease. Delay in treatment initiation was highest among women, those aged 15- 24, farmers, and non-

residents or specific ethnic groups. The results demonstrate that diagnosis of infectious smear-positive tuberculosis patients occur even when the entire population is covered by free health services and case-detection targets are being met.

Abstract Towards Zero Anti-TB Drugs Stock-Out: Focusing on System Strengthening Brought a Difference in two regions of Ethiopia

Researchers assessed the impact of implementing a comprehensive pharmaceutical logistics system on drug stock-outs in two regions of Ethiopia. Previously, frequent stock-outs of medicines led to interruptions in TB treatment and the development of drug resistance. After implementing a pharmaceutical logistics system known as IPLS, drug stock-outs decreased by 89.1% between December 2011 and September 2015 compared with baseline in the two regions studied. 3,424 health care workers were trained to operate the IPLS during that period. The study was conducted by HEAL TB supported by the US Agency for International Development, Ethiopia's Oromia Regional Health Bureau and Amhara Regional Health Bureau, and Management Sciences for Health.