

## Surveillance for Large Outbreaks of Tuberculosis — United States, 2014

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**Date:** Tuesday, April 21, 2015  
**Time:** 11:20 am/et  
**Location:** Ravinia Ballroom

**Summary:** Unrecognized contacts of tuberculosis (TB) patients can cause U.S. TB outbreaks to persist for years. Introduction of a novel, national surveillance system using genotyping data to identify new large outbreaks found six probable outbreaks, including three that had not been previously reported to CDC.

### Abstract:

**Background:** Tuberculosis (TB) outbreaks continue to challenge control efforts in the United States. Outbreaks of TB persist within and across public health jurisdictions for years when epidemiologic linkages among patients and their contacts are unrecognized, delaying appropriate interventions to interrupt transmission. We established surveillance to find large TB outbreaks and initiate public health action sooner.

**Methods:** During April–October 2014, we searched the national TB registry for clusters of  $\geq 10$  culture-confirmed TB cases with matching genotypes reported within a 3-year period. Among these genotypically related clusters, we considered those with  $\geq 5$  epidemiologically linked patients (linkage confirmed by health department investigation) to be large outbreaks. We analyzed data routinely reported to the registry to describe epidemiologic and clinical risk factors of TB patients in the outbreaks.

**Results:** We found 9 TB clusters in 8 states, 2 of these clusters were already recognized by public health officials in their jurisdictions. Although investigations are ongoing for the 2 clusters, health departments investigated 7 clusters and classified 6 as large outbreaks. Of these 6, 3 involved multiple jurisdictions. In these large outbreaks, TB patients experienced homelessness (1 outbreak), used substances such as illicit drugs or alcohol (1 outbreak), or both experienced homelessness and used substances (3 outbreaks). Antimicrobial resistant M. tuberculosis circulated in one large outbreak.

**Conclusions:** This analysis of surveillance data revealed 6 large TB outbreaks that were previously unrecognized nationally. Prompt TB outbreak detection and public health response might require interjurisdictional coordination. Interventions that are designed specifically for homeless and substance-using patients are needed to respond effectively to TB outbreaks affecting these populations.