A TB snapshot: Characteristics of M. tuberculosis Genotype Clusters in Harris County, TX, US

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ABSTRACT

BACKGROUND

We investigated large clusters of more than 15 cases in Harris County (HC) and consistently one of the counties having the highest tuberculosis (TB) rates in the US between 2009 and 2015. A cluster was defined as a group of cases with the same genotype occurring in a jurisdiction and finite time. Chi-square test was used to test for an association between the 5 genotype clusters in Harris County, TX.

RESULTS

Maps were made using ArcGIS 10.4 software (ESRI, Redlands, CA). Count by population density for each zip code was calculated using (count/(population density)).

CONCLUSIONS

• In HC, 1637 of 2251 (72.7%) TB cases were genotyped and assigned a GENType between 2009 and 2015.
• The analyzed genotype clusters represent 14.2% (233/1637) of all genotyped TB cases.
• Being male (p < 0.001), homelessness (p < 0.001), excessive alcohol use (p = 0.002), and US birth (p = 0.004) were significantly associated with the 5 GENTypes.
• No characteristic was significantly associated with any of the 5 GENTypes.
• No MDR or XDR cases were found among 5 GENTypes analyzed.

REFERENCES