Tuberculosis - Massachusetts

In 2016, 190 cases (incidence rate 2.8 per 100,000 residents) tuberculosis (TB) disease were reported to, and verified by, the Massachusetts Department of Public Health. The Massachusetts case rate remains similar to the United States national case rate (2.9 per 100,000 residents).† With diligent case management strategies and a renewed focus on high priority contacts to TB disease cases, this is the fifth year that the TB case count has decreased in Massachusetts; an overall decrease of approximately 12% since 2012.

In the last five years, a majority of active TB disease has been reported in non-US born persons above the age of twenty-five. State and local efforts to focus on high risk populations and treat those with TB infection will be key to advance TB elimination efforts in Massachusetts.

Race/Ethnicity

Racial/ethnic minorities are disproportionately affected by TB; 83% of active TB disease in 2016 was diagnosed in members of minority groups. The TB case rate in 2016 was 18.6 per 100,000 among Asian non-Hispanic residents, 11.7 among black non-Hispanic residents, and 6.2 among Hispanic residents; compared with 0.63 among white non-Hispanic residents. Compared with white residents, the relative risk of being diagnosed with TB in 2016 was approximately 29.7 times higher among Asian (95% CI 19.5-45.07), 18.7 times higher among black (95% CI 12.1-29.0), and 9.9 times higher among Hispanic residents (95% CI 6.2-15.8).

Higher Risk Groups

Non-U.S. Born (persons born outside the United States and territories): Among 190 cases of TB in 2016, 166 (87%) were reported in non-U.S. born persons. 84 (51%) cases were born in one of eight countries: India (15, 8%), Vietnam (15, 8%), Haiti (13, 7%), China (10, 5%), Dominican Republic (10, 5%), El Salvador (7, 4%), Nepal (7, 4%), and Pakistan (7, 4%). The remaining 82 cases (49%) occurred in persons born in 42 additional countries.

Children <15 Years of Age: In 2016, eight cases of TB were diagnosed in children under 15 years of age (4% of cases, incidence rate <1 per 100,000 children <15 years old). Six of the eight children (75%) were born in the U.S.

Incarcerated in Prison/Jail: In 2016, one case of TB (<1%) was diagnosed in an inmate of a correctional facility.

Homeless: Of the 190 cases of TB reported in 2016, six (3%) were in persons experiencing homelessness within the previous year. Five (83%) were non-U.S. born individuals.

HIV Co-infected (preliminary): Ten persons (5%) diagnosed with TB in 2016 were known to be co-infected with human immunodeficiency virus (HIV).

Drug Resistance

In 2016, 130 (68%) of the 190 TB cases were bacteriologically confirmed by positive culture for Mycobacterium tuberculosis and had isolates available for drug susceptibility testing. Resistance testing was successfully completed on 126 (97%) isolates.

Resistance to one or more anti-TB drugs was detected in 27 (21%) cases. Resistance to isoniazid (INH), either alone or in combination with other agents, was seen in 12% of 126 cases. With MDR-TB increasing worldwide, MDR-TB in Massachusetts is carefully monitored and remains a priority of the TB program.

Note: All incidence rates are per 100,000 population and were calculated using 2010 U.S. Census unless otherwise noted.
For additional information, please visit our web page: http://www.mass.gov/dph/cdc/tb
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