TUBERCULOSIS IN NEW YORK CITY, 2015

NEW YORK CITY BUREAU OF TUBERCULOSIS CONTROL ANNUAL SUMMARY

New York City Department of Health and Mental Hygiene
Bureau of Tuberculosis Control
1. Rates are based on decennial Census data.
TUBERCULOSIS RATES\textsuperscript{1} BY AGE, NEW YORK CITY, 2006-2015

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1. Rates are based on NYC DOHMH population estimates, modified from U.S. Census Bureau interpolated intercensal population estimates, 2000-2014. Updated October 2015.
TUBERCULOSIS CASES AND RATES¹
BY SEX, NEW YORK CITY, 2006-2015

1. Rates are based on NYC DOHMH population estimates, modified from U.S. Census Bureau interpolated intercensal population estimates, 2000-2014. Updated October 2015.
TUBERCULOSIS CASES AND RATES
BY BIRTH IN THE U.S., NEW YORK CITY, 1992-2015

1. Rates prior to 2000 are based on 1990 U.S. Census data. Rates for 2000-2005 are based on 2000 U.S. Census data. Rates after 2005 are based on 1-year American Community Survey data for the given year or the most recent available data.
3. Excludes cases with unknown country of birth.
1. Rates are based on 1-year American Community Survey Public Use Microdata Sample data for the given year or the most recent available data.
TUBERCULOSIS CASES AND RATES\textsuperscript{1} BY COUNTRY OF BIRTH,\textsuperscript{2,3} NEW YORK CITY, 2015

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**New York City TB rate (per 100,000)**
- 1.7 to 10.0
- 40.1 to 300.0
- 10.1 to 20.0
- Rate not available
- 20.1 to 40.0
- No NYC TB cases

**Top 10 Countries of Birth by TB Burden and Incidence in NYC,\textsuperscript{1} 2015**

<table>
<thead>
<tr>
<th>Country of Birth</th>
<th>Cases</th>
<th>NYC Rate per 100,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>China\textsuperscript{4}</td>
<td>131</td>
<td>324</td>
</tr>
<tr>
<td>United States\textsuperscript{4}</td>
<td>104</td>
<td>124</td>
</tr>
<tr>
<td>Mexico</td>
<td>36</td>
<td>114</td>
</tr>
<tr>
<td>Philippines</td>
<td>28</td>
<td>109</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>26</td>
<td>83</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>24</td>
<td>82</td>
</tr>
<tr>
<td>Ecuador</td>
<td>22</td>
<td>78</td>
</tr>
<tr>
<td>Haiti</td>
<td>22</td>
<td>63</td>
</tr>
<tr>
<td>India</td>
<td>22</td>
<td>53</td>
</tr>
<tr>
<td>Guyana</td>
<td>17</td>
<td>32</td>
</tr>
</tbody>
</table>

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1. Rates are based on initial American Indian/Alaska Native case counts, prior year rates, and age-specific data.
2. One case had unknown country of birth.
3. Cases that occurred while visiting China, Hong Kong, Taiwan and Vietnam.
4. Data includes cases born outside the U.S. and U.S. territories.
<table>
<thead>
<tr>
<th>Country of Birth</th>
<th># Cases</th>
<th>Country of Birth</th>
<th>NYC Rate (per 100,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>131</td>
<td>Sudan</td>
<td>324</td>
</tr>
<tr>
<td>United States</td>
<td>104</td>
<td>Nepal</td>
<td>124</td>
</tr>
<tr>
<td>Mexico</td>
<td>36</td>
<td>Cameroon</td>
<td>114</td>
</tr>
<tr>
<td>Philippines</td>
<td>28</td>
<td>Saudi Arabia</td>
<td>109</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>26</td>
<td>Bolivia</td>
<td>83</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>24</td>
<td>Burma</td>
<td>82</td>
</tr>
<tr>
<td>Ecuador</td>
<td>22</td>
<td>Indonesia</td>
<td>78</td>
</tr>
<tr>
<td>Haiti</td>
<td>22</td>
<td>Thailand</td>
<td>63</td>
</tr>
<tr>
<td>India</td>
<td>22</td>
<td>Sierra Leone</td>
<td>53</td>
</tr>
<tr>
<td>Guyana</td>
<td>17</td>
<td>Bosnia and Herzegovina</td>
<td>52</td>
</tr>
</tbody>
</table>

1. Rates are based on 2014 American Community Survey Public Use Microdata Sample data.
2. One case had unknown country of birth.
3. China includes individuals born in mainland China, Hong Kong, Taiwan and Macau.
Tuberculosis Rates by United Hospital Fund Neighborhood, New York City, 2015

Rate per 100,000
- Below national rate (1.1 to 3.0)
- Below citywide rate (3.1 to 7.2)
- Above citywide rate (7.3 to 23.1)

1. Rates are based on NYC Health Department population estimates, modified from U.S. Census Bureau interpolated intercensal population estimates, 2000-2014. Updated October 2015.
TUBERCULOSIS RATES\(^2\) BY UNITED HOSPITAL FUND NEIGHBORHOOD AND AREA-BASED POVERTY,\(^3\)
NEW YORK CITY, 2015

Area-based poverty\(^3\):
- Very high (30 to 100%)
- High (20 to <30%)
- Medium (10 to <20%)
- Low (Less than 10%)
- Not applicable

1. Parentheses indicate the number of TB cases residing in each area at time of TB diagnosis.
2. Rates are based on NYC Health Department population estimates, modified from U.S. Census Bureau interpolated intercensal population estimates, 2000-2014. Updated October 2015.
3. Area-based poverty level is based on 2010-2014 American Community Survey data on the proportion of ZIP code residents living below the federal poverty level.

Citywide rate (7.1 per 100,000)
National rate (3.0 per 100,000)
Healthy People 2020 goal (1.0 per 100,000)
TUBERCULOSIS CASES BY DISEASE SITE, NEW YORK CITY, 2015 (N=577)

Disease site\(^1\) among tuberculosis cases with any extrapulmonary disease, New York City, 2015 (n=197)

<table>
<thead>
<tr>
<th>Disease site</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any extrapulmonary</td>
<td>197</td>
<td>-</td>
</tr>
<tr>
<td>Lymphatic</td>
<td>82</td>
<td>42</td>
</tr>
<tr>
<td>Pleural</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>Bone/joint</td>
<td>24</td>
<td>12</td>
</tr>
<tr>
<td>Meningeal</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Genitourinary</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Peritoneal</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Laryngeal</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>30</td>
<td>15</td>
</tr>
</tbody>
</table>

1. Categories are not mutually exclusive.
HUMAN IMMUNODEFICIENCY VIRUS (HIV) INFECTION AMONG TUBERCULOSIS CASES BY BIRTH IN THE UNITED STATES,¹,² NEW YORK CITY, 2006-2015

NUMBER AND PROPORTION OF CULTURE-CONFIRMED TUBERCULOSIS (TB) CASES AMONG ALL TB CASES, NEW YORK CITY, 2006-2015
MULTIDRUG RESISTANCE\(^1\) AMONG TUBERCULOSIS CASES, NEW YORK CITY, 1992-2015

![Graph showing the number of Multidrug-resistant TB (MDR TB) and Extensively drug-resistant TB (XDR TB) cases from 1992 to 2015.]

**INSET:** MDR\(^1\) and XDR\(^2\) TB, New York City, 2006-2015

1. Multidrug-resistant (MDR) TB is defined as resistance to at least isoniazid and rifampin.
2. Extensively drug-resistant (XDR) TB is defined as resistance to at least isoniazid and rifampin plus a fluoroquinolone and a second-line injectable anti-TB medication.
TREATMENT OUTCOMES FOR TUBERCULOSIS CASES COUNTED IN 2014\(^1\) WHO WERE ELIGIBLE TO COMPLETE TREATMENT WITHIN 365 DAYS,\(^2\) NEW YORK CITY (N=582)

![Pie chart showing treatment outcomes](chart.png)

<table>
<thead>
<tr>
<th>Treatment outcome(^1)</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed treatment</td>
<td>499</td>
<td>86</td>
</tr>
<tr>
<td>Died prior to initiating or during treatment</td>
<td>51</td>
<td>9</td>
</tr>
<tr>
<td>Moved outside of the U.S.</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Currently on treatment</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Lost to follow-up</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Refused</td>
<td>5</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

1. Treatment outcomes are not reported for the current year to allow sufficient time for follow-up.
MULTIDRUG RESISTANCE\(^1\) AMONG TUBERCULOSIS CASES, NEW YORK CITY, 1992-2015

1. A death is defined as any patient who died prior to or during TB treatment, regardless of the cause of death. This excludes any patient who died after the completion of TB treatment.
EPIDEMIOLOGIC INVESTIGATIONS IN NON-HOUSEHOLD SETTINGS\(^1\) BY SITE TYPE, NUMBER OF EXPOSED CONTACTS AND TRANSMISSION ASSESSMENT, NEW YORK CITY, 2015 (N=48)

1. Excludes health care-associated investigations (n=149). 2. Proportion calculated among investigations where transmission could be assessed. 3. Contacts eligible for testing are defined as contacts without a known history of TB disease or documented positive test for TB infection who were alive subsequent to the diagnosis of the infectious TB case to whom they were exposed.
Epidemiologic investigations in health care settings by site type, New York City, 2015 (N=149)

- Acute care facility: 67%
- Long-term care facility: 9%
- Home health care services: 19%
- Outpatient setting: 5%
CLINICAL POLICIES AND PROTOCOLS


Describes policies, protocols and recommendations for the prevention, treatment and control of TB

POCKET-SIZED REFERENCE GUIDE FOR PROVIDERS

Treatment and monitoring of drug-susceptible pulmonary tuberculosis

Provides concise information about treatment and monitoring for pulmonary TB

EDUCATIONAL POSTER

Provides basic TB information and includes illustrations with captions. Available in English, Spanish, French, Haitian Creole, Hindi, Urdu, Bengali, Tibetan, Tagalog and Chinese.

To request information or posters in hard copy or digital formats, please email tbtraining@health.nyc.gov

PATIENT BROCHURE

Learn About Tuberculosis: What Everyone Should Know

General information in easy-to-read format for all audiences. Available in English, Spanish, Chinese, Korean, French and Haitian Creole

TB EPIQUERY

Data on TB cases reported to the BTBC from 2001 to 2012 are now available on TB EpiQuery. EpiQuery is an interactive, user-friendly system designed to guide users through basic data analyses. Reported TB cases and case rates are available by select demographic and geographic characteristics. On a citywide level, select characteristics that are important to the epidemiology of TB are also available, including country of birth and HIV infection. To access TB EpiQuery, go to: http://nyc.gov/health/epiquery

NYC HEALTH EPI DATA BRIEFS:

Epi Data Briefs are short publications that highlight data findings from varying Health Department programs and projects. For more information and to access recently-published reports, go to: http://www.nyc.gov/html/doh/html/data/epidata.shtml
INFOGRAPHICS AND HARD COPIES OF THE ANNUAL TB SUMMARY ARE AVAILABLE

Please email: tb-epi@health.nyc.gov
NEW YORK CITY HEALTH DEPARTMENT
CHEST CENTERS

THE HEALTH DEPARTMENT PROVIDES AN ARRAY OF TB DIAGNOSTIC SERVICES INCLUDING:
- Testing for latent TB infection using the latest generation blood-based QuantiFERON®-TB Gold test and tuberculin skin tests
- Sputum induction
- Chest radiographs
- Medical evaluation
- Treatment for TB disease and latent TB infection
- Directly Observed Therapy (DOT) services, including video-based DOT

ADDITIONAL CLINICAL SERVICES PROVIDED AT EACH CHEST CENTER INCLUDE:
- Outpatient medical and nursing care
- Phlebotomy services
- Social services referrals
- Human immunodeficiency virus (HIV) education and testing regardless of person’s need for TB care
- TB evaluation for newly arrived immigrants and refugees referred by the Centers for Disease Control and Prevention

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CORONA
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Second Floor
Queens, NY 11372
718-476-7635 or 718-476-7636

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295 Flatbush Avenue Extension,
Fourth Floor
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