Global Tuberculosis Report 2021 (who.int)
The Global Burden of TB 2020

<table>
<thead>
<tr>
<th></th>
<th>Estimated number of cases</th>
<th>Estimated number of deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>All forms of TB</td>
<td>9.9 million</td>
<td>1.5 million (15%)*</td>
</tr>
<tr>
<td></td>
<td>10.0 million last year</td>
<td>1.4 million last year (14%)</td>
</tr>
<tr>
<td>HIV-associated TB</td>
<td>787,000 (7.9%)</td>
<td>214,000 (00%)</td>
</tr>
<tr>
<td></td>
<td>820,000 last year (8.2%)</td>
<td>208,000 last year (25%)</td>
</tr>
<tr>
<td>Multidrug-resistant TB</td>
<td>454,020 (4.6%)</td>
<td>190,688 (42%)</td>
</tr>
<tr>
<td>&amp; Rifampin resistance</td>
<td>465,000 last year (4.6%)</td>
<td>182,000 last year (39%)</td>
</tr>
</tbody>
</table>

Source: WHO Global Tuberculosis Report 2021  
* Including deaths attributed to both HIV/TB
The Global Burden of TB 2020

Impact of Covid-19

- Reversed years of progress
- Large drop in diagnosis and reporting
- Increase in TB deaths
- Decline in reported TB incidence
- Reduction of treatment for drug-resistant TB

Source: WHO Global Tuberculosis Report 2021
The Global Burden of TB 2020

Fig.11 Estimated TB incidence in 2020, for countries with at least 100,000 incident case

The eight countries that rank first to eighth in terms of numbers of cases, and that accounted for two thirds of global cases in 2020, are labelled.

Source: WHO Global Tuberculosis Report 2020
The Global Burden of TB 2020

Fig. 13 Estimated TB incidence rates, 2020

Source: WHO Global Tuberculosis Report 2021
The Global Burden of TB 2020

Fig. 2.1.6 Estimated HIV prevalence in new and relapse TB cases, 2020

Source: WHO Global Tuberculosis Report 2021
The Global Burden of TB 2019

FIG. 4.30
Percentage of new TB cases with MDR/RR-TB³

Source: WHO Global Tuberculosis Report 2020 (not reported in 2021 Report)
The Global Burden of TB 2019

FIG. 4.31
Percentage of previously treated TB cases with MDR/RR-TB

Source: WHO Global Tuberculosis Report 2020 (not reported in 2021 Report)
The Global Burden of TB 2019

Fig. 4.32
Estimated incidence of MDR/RR-TB\(^a\) in 2019, for countries with at least 1000 incident cases

Source: WHO Global Tuberculosis Report 2020 (not reported in 2021 Report)
The Global Burden of TB 2020

Fig. 3.2.3 Percentage of new and relapse pulmonary TB cases with bacteriological confirmation, 2020

Source: WHO Global Tuberculosis Report 2021
The Global Burden of TB 2020

Fig. 3.1.7 Percentage of extrapulmonary cases among new and relapse TB cases, 2020

Source: WHO Global Tuberculosis Report 2021
TB in the United States
TB Cases and Incidence Rates, United States, 1993–2020

Number of cases

Year


Incidence rate

Cases per 100,000 persons

Number of cases

10,000 15,000 20,000 25,000


0 5,000 10,000
U.S. TB EPIDEMIOLOGY
TB Case Rates, United States, 2020

DC, District of Columbia; NYC, New York City (excluded from New York state)
U.S. TB EPIDEMIOLOGY
TB Cases, United States, 2020

DC, District of Columbia; NYC, New York City (excluded from New York state)
TB Cases and Incidence Rates by Origin of Birth, United States, 1993–2020
TB Incidence Rates* and Percentages by Origin of Birth, United States, 2020
(N=7,145)

Non-U.S.–born
(Rate: 11.7 per 100,000)

U.S.-born
(Rate: 0.7 per 100,000)

72%
28%

*Cases per 100,000 persons
Percentage of TB Cases Among Non-U.S.–born Persons by Years Since Initial Arrival in the United States at Diagnosis, 2020 (N=5,127)

- <5 years: 28%
- 5–9 years: 13%
- 10–14 years: 9%
- 15–19 years: 7%
- 20–24 years: 8%
- 25–29 years: 6%
- 30–34 years: 6%
- 35–39 years: 4%
- ≥40 years: 9%
- Unknown/Mis...: 11%
Top Countries of Birth Among Non-U.S.-born Persons with TB, United States, 2020 (N=5,127)

- Mexico, 18%
- Philippines, 12%
- India, 10%
- Vietnam, 8%
- China, 5%
- Guatemala, 3%
- Honduras, 3%
- Other countries, 40%
Top 10 TB Incidence Rates,\(^*\) by Country of Birth,\(^†\)
United States, 2016–2020

<table>
<thead>
<tr>
<th>Country</th>
<th>Incidence Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Republic of the Marshall Islands</td>
<td>164</td>
</tr>
<tr>
<td>Republic of the Congo</td>
<td>121</td>
</tr>
<tr>
<td>Somalia</td>
<td>81</td>
</tr>
<tr>
<td>Myanmar</td>
<td>73</td>
</tr>
<tr>
<td>Bhutan</td>
<td>68</td>
</tr>
<tr>
<td>Nepal</td>
<td>64</td>
</tr>
<tr>
<td>Guinea</td>
<td>64</td>
</tr>
<tr>
<td>Federated States of Micronesia</td>
<td>59</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>52</td>
</tr>
<tr>
<td>Eritrea</td>
<td>45</td>
</tr>
</tbody>
</table>

* Cases per 100,000 persons
† Populations for the countries of birth shown were selected based on their ranked 5-year rate of TB cases by country of birth in the United States.
Percentage of TB Cases Among Non-U.S.–born Persons by Years Since Initial Arrival in the United States at Diagnosis, 2020 (N=5,127)

- <1 year: 10%
- 1–4 years: 18%
- 5–9 years: 13%
- 10–19 years: 16%
- ≥20 years: 32%
- Unknown/Missing: 11%
TB Cases by Race/Ethnicity,* United States, 2011–2020

*All races are non-Hispanic; multiple race indicates two or more races reported for a person but does not include persons of Hispanic or Latino origin.
Percentage of TB Cases by Race/Ethnicity,*
United States, 2020 (N=7,174)†

*All races are non-Hispanic; multiple race indicates two or more races reported for a person but does not include persons of Hispanic or Latino origin.
†Percentages are rounded. Percentages of unknowns/missing are <1% and are not displayed in graph.
TB Cases Among U.S.-born Persons by Race/Ethnicity,* United States, 2011–2020

*All races are non-Hispanic; multiple race indicates two or more races reported for a person but does not include persons of Hispanic or Latino origin.

*All races are non-Hispanic; multiple race indicates two or more races reported for a person but does not include persons of Hispanic or Latino origin.
TB Incidence Rates by Race/Ethnicity,* United States, 2011–2020

*All races are non-Hispanic; multiple race indicates two or more races reported for a person but does not include persons of Hispanic or Latino origin.
Percentage of TB Cases by Origin and Race/Ethnicity, United States, 2020†

Non-U.S.–born persons (N=5,127)

- 48% Asian
- 32% Hispanic/Latino
- 13% Black/African American
- 4% White
- 1% Native Hawaiian/Other Pacific Islander
- 1% American Indian/Alaska Native
- 1% Multiple Race
- 0% Non-Hispanic

U.S.-born persons (N=2,018)

- 5% Asian
- 24% Hispanic/Latino
- 36% Black/African American
- 28% White
- 2% Native Hawaiian/Other Pacific Islander
- 1% American Indian/Alaska Native
- 1% Multiple Race
- 4% Non-Hispanic

* All races are non-Hispanic; multiple race indicates two or more races reported for a person but does not include persons of Hispanic or Latino origin.
† Percentages are rounded. Percentages of unknowns/missing are <1% and are not displayed in graphs.
Percentage of TB Cases by Origin and Race/Ethnicity,*
United States, 2020†

Non-U.S.–born persons§
(N=5,127)

- 48% Hispanic/Latino
- 32% White
- 13% Native Hawaiian/Other Pacific Islander
- 4% Asian
- 1% Black/African American
- 1% Multiple Race
- 1% American Indian/Alaska Native§

U.S.-born persons
(N=2,018)

- 28% Hispanic/Latino
- 24% White
- 22% Black/African American
- 5% American Indian/Alaska Native§
- 4% Native Hawaiian/Other Pacific Islander
- 2% Asian
- 1% Multiple Race
- 1% Other

* All races are non-Hispanic; multiple race indicates two or more races reported for a person but does not include persons of Hispanic or Latino origin.
† Percentages are rounded. Percentages of unknowns/missing are <1% and are not displayed in graphs.
§ American Indian/Alaska Native accounted for no cases among non-U.S.–born persons (not visible).
Percentage of TB Cases by Site of Disease, United States, 2020

Pulmonary Involvement* 79%
Extrapulmonary Only 21%

- Lymphatic: 35%
- Pleural: 16%
- Bone & Joint: 9%
- Peritoneal: 7%
- Genitourinary: 4%
- Meningeal: 4%
- Laryngeal: <1%
- Other: 25%

*Any pulmonary involvement which includes cases that are pulmonary only and both pulmonary and extrapulmonary. Patients may have more than one disease site but are counted in mutually exclusive categories for surveillance purposes.
Cases and Percentages of MDR TB by History of TB, United States, 1993–2020

*Based on initial isolates from persons with no prior history of TB; multidrug-resistant TB (MDR TB) is defined as resistance to at least isoniazid and rifampin.
Percentage of Selected Risk Factors Among Persons with TB by Origin of Birth, United States, 2020

- Diabetes mellitus
- Non-HIV immunosuppression
- Contact with infectious TB

- Total
- U.S.-born
- Non-U.S.-born
Five States with the Highest Percentages of TB Cases Diagnosed Among Correctional Facility Residents Aged ≥15 Years, United States, 2020

- Idaho: 20%
- New Hampshire: 8%
- Arizona: 17%
- New Mexico: 11%
- Texas: 8%

*Correctional facilities include federal prisons, state prisons, local jails, juvenile correctional facilities, other correctional facilities, or unknown type.
TB in Wisconsin
Reported TB Cases Wisconsin, 1982–2020
Average TB Incidence rates by Regions in Wisconsin 2011-2020

- Western Region: 0.47
- Northern Region: 0.55
- Northeast Region: 0.56
- Southern Region: 0.81
- Southeast Region: 1.35
Number of TB Cases in U.S.-born vs. Foreign-born Persons, Wisconsin, 2005–2020
Percentage of Non-U.S.–Born TB Cases by Time in Wisconsin at Diagnosis, 2011-2020

- <1 year: 18.7%
- 1-4 years: 19.0%
- 5-9 years: 16.4%
- 10-19 years: 20.1%
- ≥20 years: 25.8%
Reported TB Cases by Origin and Race/Ethnicity Wisconsin, 2011–2020

Non-U.S.—Born persons

- 64% Asian
- 23% Hispanic Latino
- 9% Black
- 4% White
- 0% American Indian

U.S.—Born persons

- 10% Asian
- 16% Hispanic Latino
- 27% Black
- 43% White
- 4% American Indian
TB Case Rates by Race/Ethnicity, Wisconsin, 2005–2020

- Mexico: 20%
- Laos/Thailand: 18%
- India: 12%
- Myanmar: 7%
- China: 6%
- Philippines: 5%
- West Africa: 4%
- Somalia: 3%
- Europe: 2%
- Others: 23%
TB rates for Top 10 Countries of Birth Wisconsin, 2010–2019

- Myanmar: 59.9
- Somalia: 52.9
- West Africa: 36.4
- India: 29.9
- Philippines: 27.8
- Hmong: 19.2
- Pakistan: 16.7
- China: 13.8
- Vietnam: 12.8
- Mexico: 9.8
U.S. TB Cases by Site of Disease
Wisconsin, 2011–2020

- Pulmonary Involvement (79%)
- Extrapulmonary Only (21%)

### Extrapulmonary Sites

- Pleura: 24%
- Lymphatic: 16%
- Ocular: 18%
- Central Nervous System: 13%
- Other: 29%
Foreign—Born TB Cases by Site of Disease
Wisconsin, 2011–2020

- Pulmonary Involvement 70%
- Extrapulmonary Only 30%

<table>
<thead>
<tr>
<th>Site</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Lymphatic</td>
<td>45%</td>
</tr>
<tr>
<td>Pleura</td>
<td>15%</td>
</tr>
<tr>
<td>Bone &amp; Joint</td>
<td>6%</td>
</tr>
<tr>
<td>Peritoneal</td>
<td>4%</td>
</tr>
<tr>
<td>Kidney</td>
<td>6%</td>
</tr>
<tr>
<td>Spine</td>
<td>11%</td>
</tr>
<tr>
<td>Other</td>
<td>13%</td>
</tr>
</tbody>
</table>
Number of TB Cases by Case Verification Criteria Wisconsin, 2005–2020

- Positive Smear
- Positive Culture
- Clinical Case
Reported TB Cases by Risk Factor, Wisconsin, 2005–2020

Most Common Risk Factors Reported Among TB patients

- Contact to infectious TB: 10%
- Diabetes Mellitus: 6%
- HIV infection: 4%
- Non-HIV immunosuppression: 5%

Comparison of Selected Risk Factors by Origin of Birth

- U.S.-Born
- Non-U.S.-Born

- Contact to infectious TB: 18% U.S.-Born, 5% Non-U.S.-Born
- Diabetes Mellitus: 5% U.S.-Born, 5% Non-U.S.-Born
- Non-HIV immunosuppression: 8% U.S.-Born, 4% Non-U.S.-Born