

Epidemiology of Tuberculosis in Michigan 2023

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MDHHS Tuberculosis Epidemiologist



Disclosure

I have no professional or financial conflicts of interest to disclose.

Objectives

Identify trends Michigan TB epidemiology that have contributed to the number of TB cases in 2023

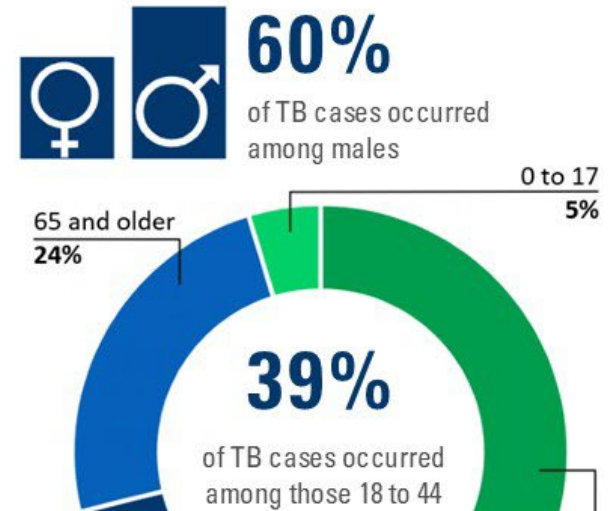
Identify important risk-factors that have contributed to the number of TB cases in 2023

TUBERCULOSIS

IN MICHIGAN, 2023



DEMOGRAPHIC CHARACTERISTICS



149 | TB cases verified in Michigan in 2023

1.5 | TB cases per 100,000 MI residents in 2023

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COUNTRY OF BIRTH

Born in the United States (U.S.) 29%



38

Countries of birth represented among patients with TB disease

MOST COMMON COUNTRIES OF BIRTH



DRUG RESISTANCE

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Patients diagnosed in 2023 who had Isoniazid mono-resistance

INCENTIVES AND ENABLERS

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Unique Incentive or Enabler Requests



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Reason for Request



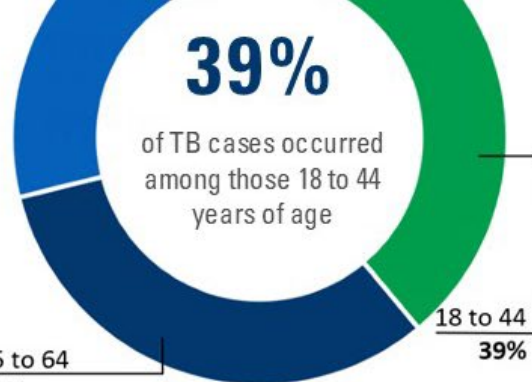
67

Active TB Cases Assisted



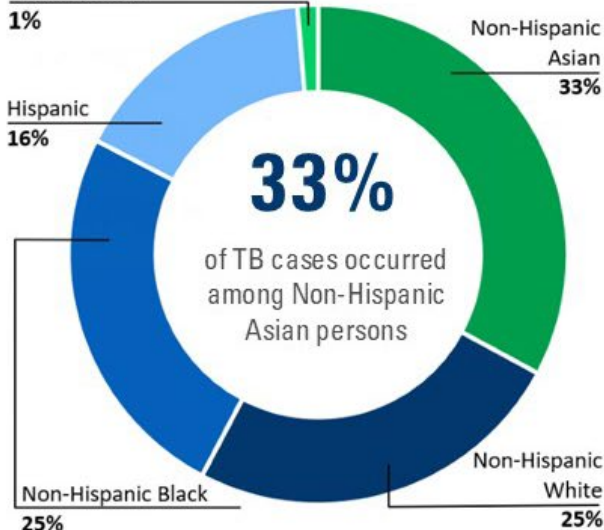
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Completed TB Cases



Native Hawaiian or Other Pacific Islander

1%



Non-Hispanic Black

25%

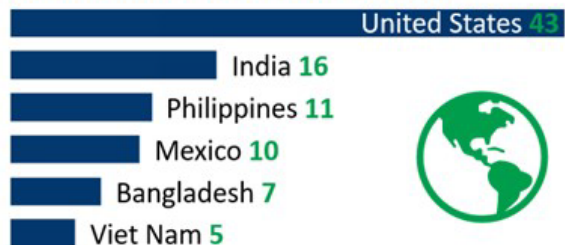
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\$71K Total Dollars Spent



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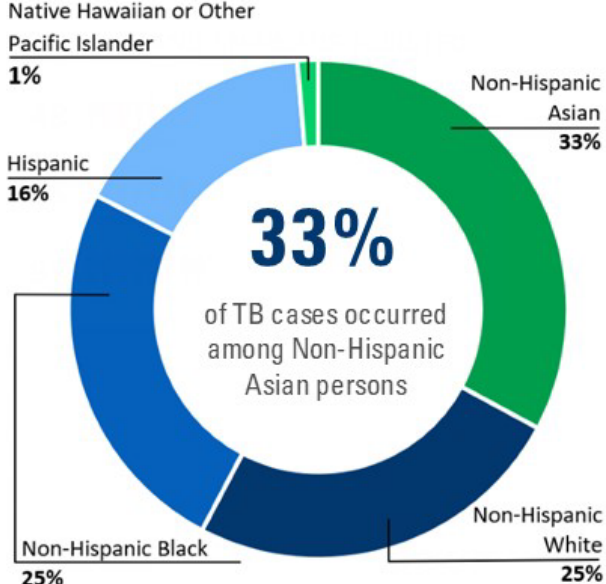


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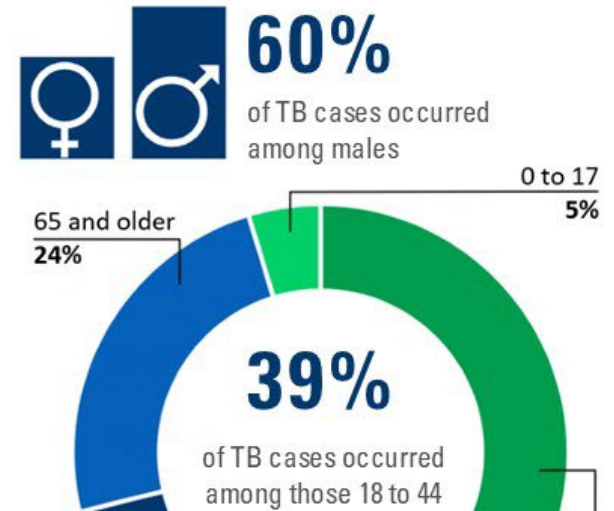
72% Of patients diagnosed in 2023 reported with a pulmonary site of disease

TUBERCULOSIS

IN MICHIGAN, 2023

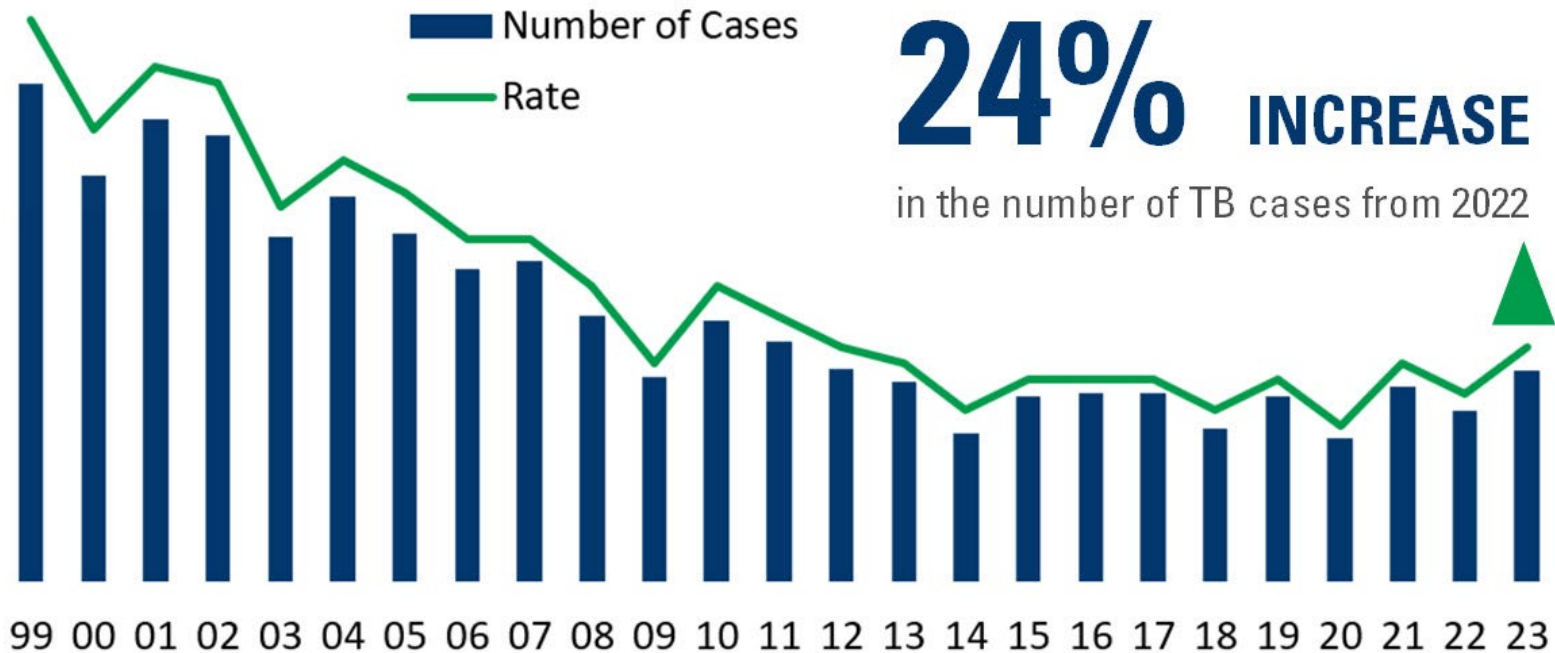


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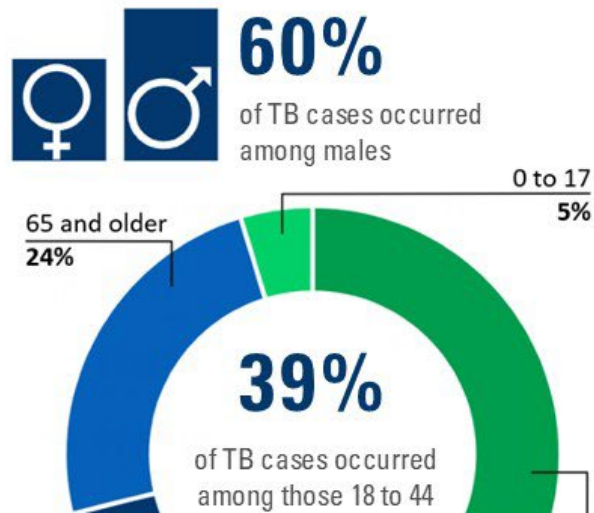
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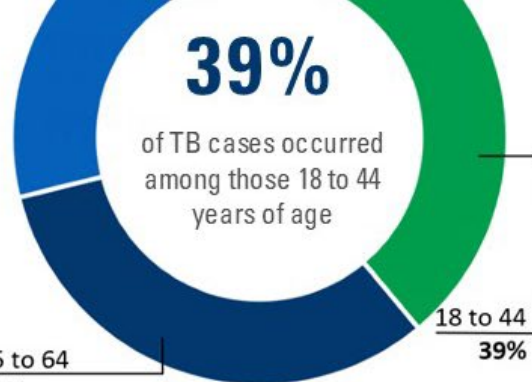
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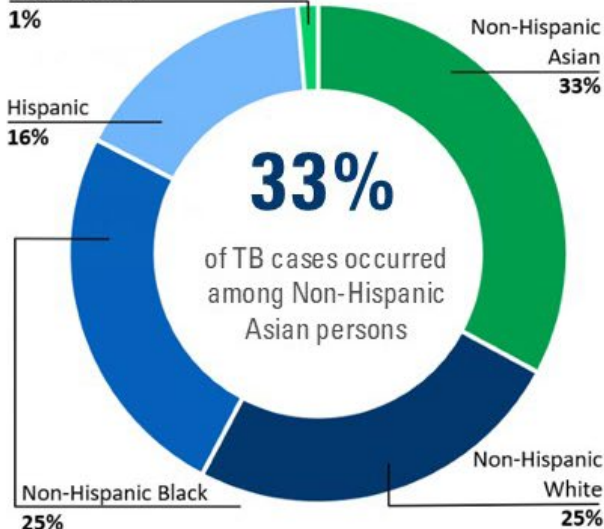
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Patients with TB disease



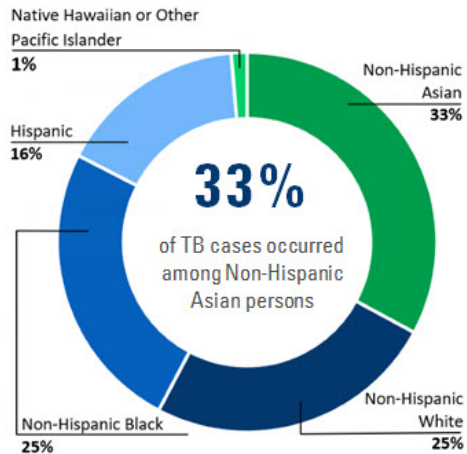
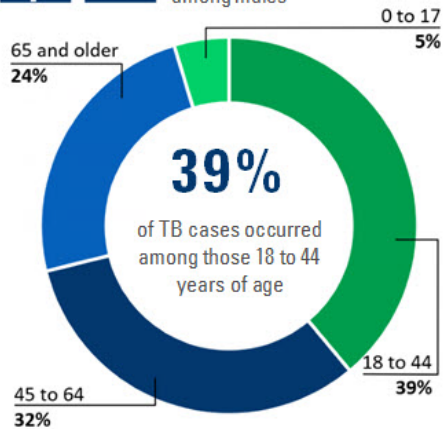
Native Hawaiian or Other Pacific Islander

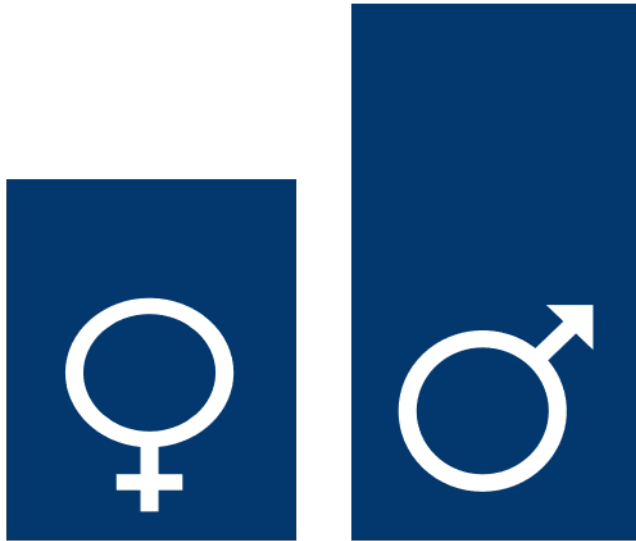
1%



CLINICAL CHARACTERISTICS

DEMOGRAPHIC CHARACTERISTICS

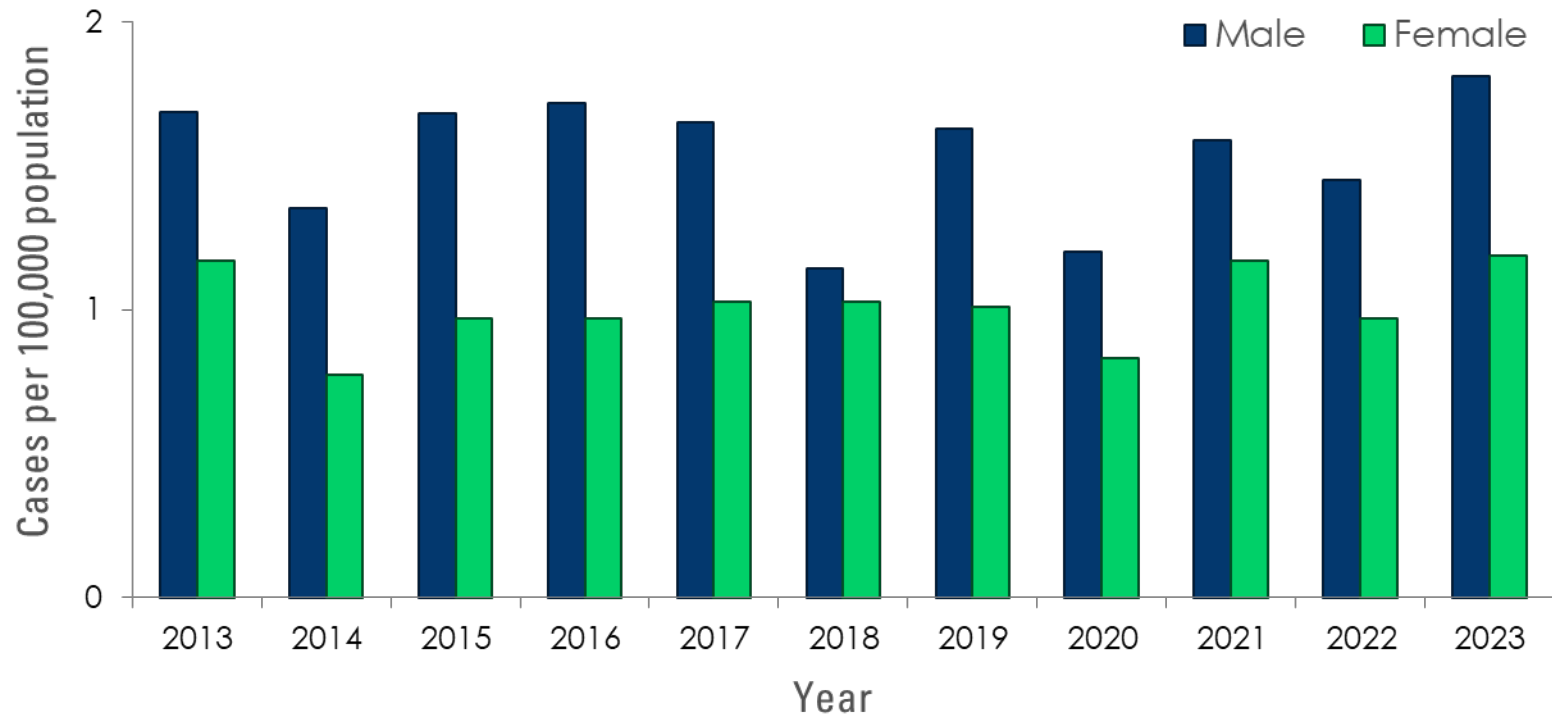




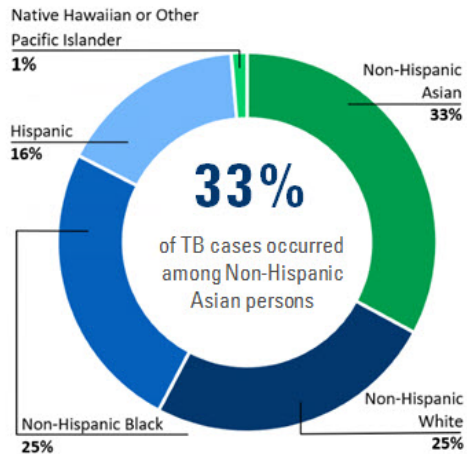
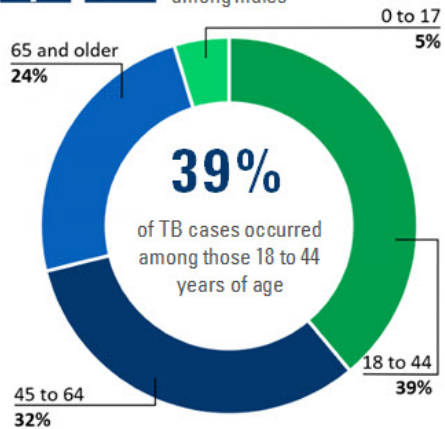
60%

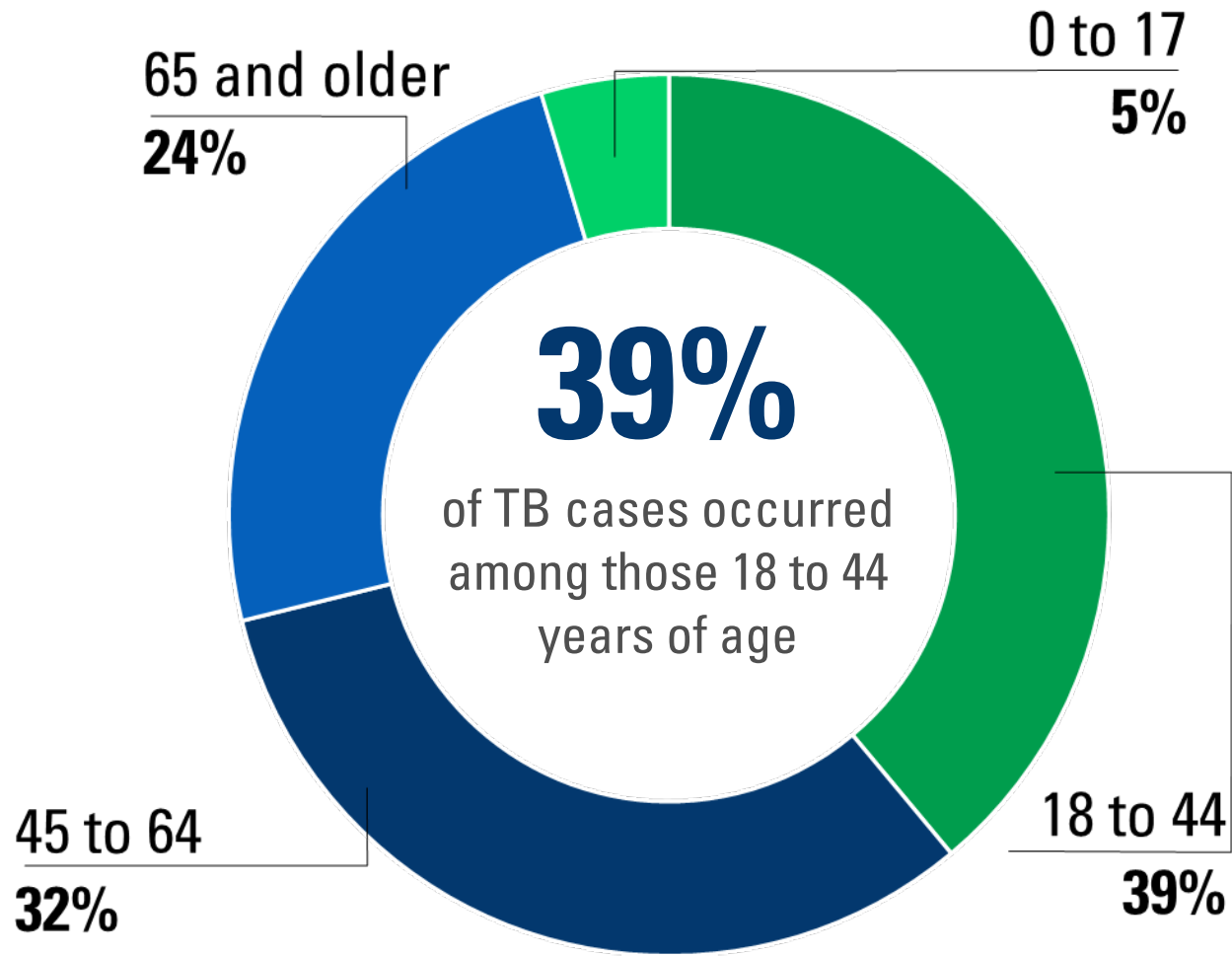
of TB cases occurred
among males

TB Rates by Gender

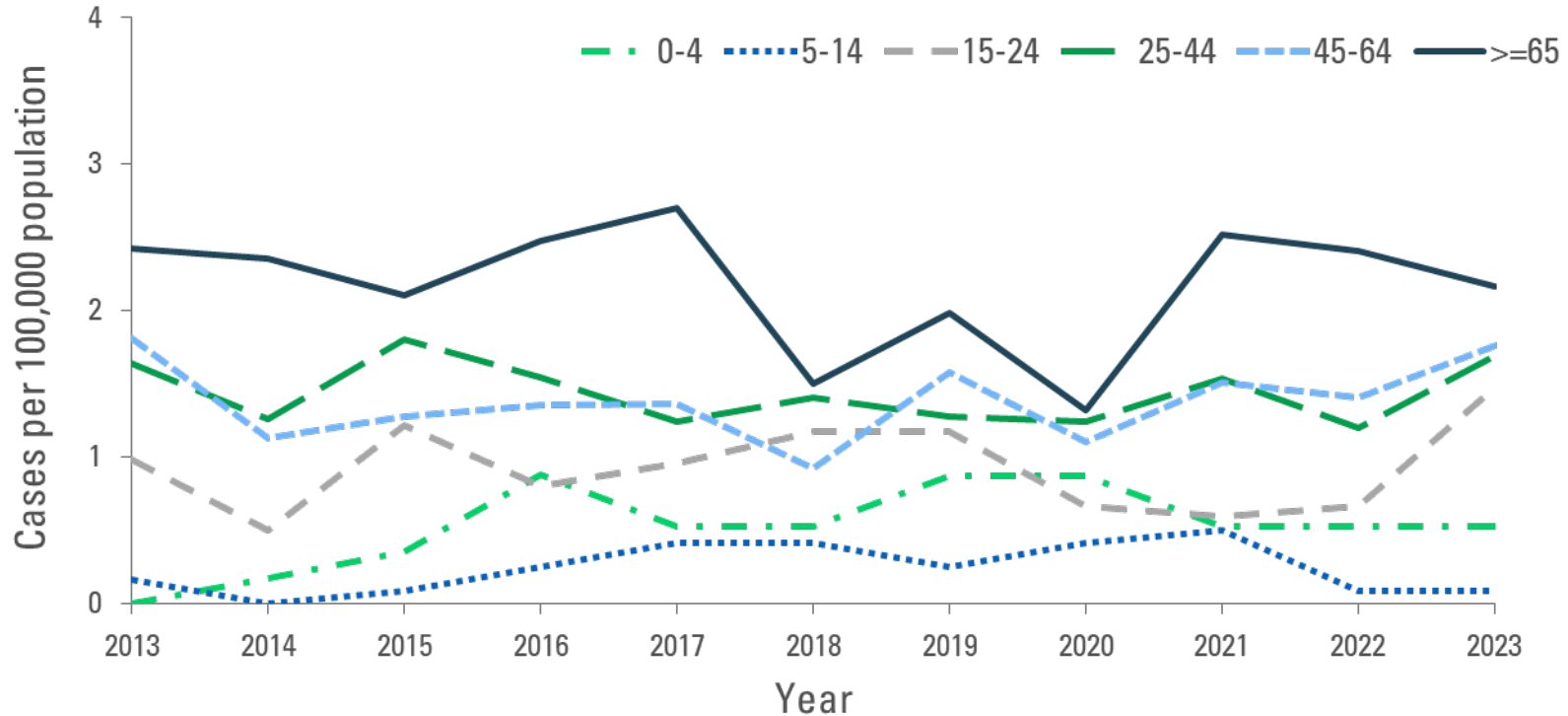


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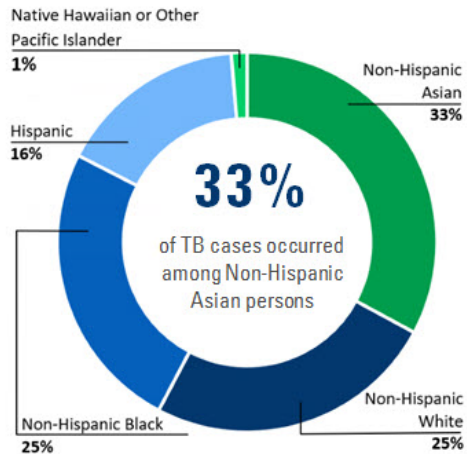
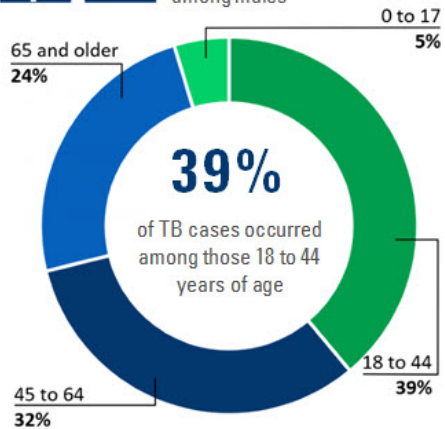




TB Rates by Age Group



DEMOGRAPHIC CHARACTERISTICS



Native Hawaiian or Other
Pacific Islander

1%

Hispanic

16%

Non-Hispanic Asian

33%

33%

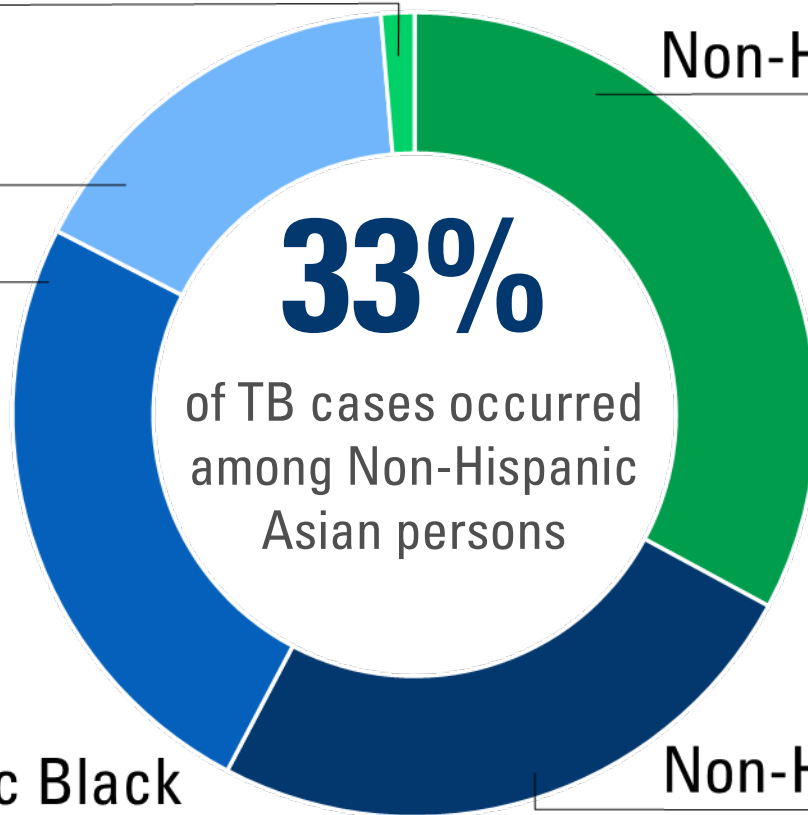
of TB cases occurred
among Non-Hispanic
Asian persons

Non-Hispanic Black

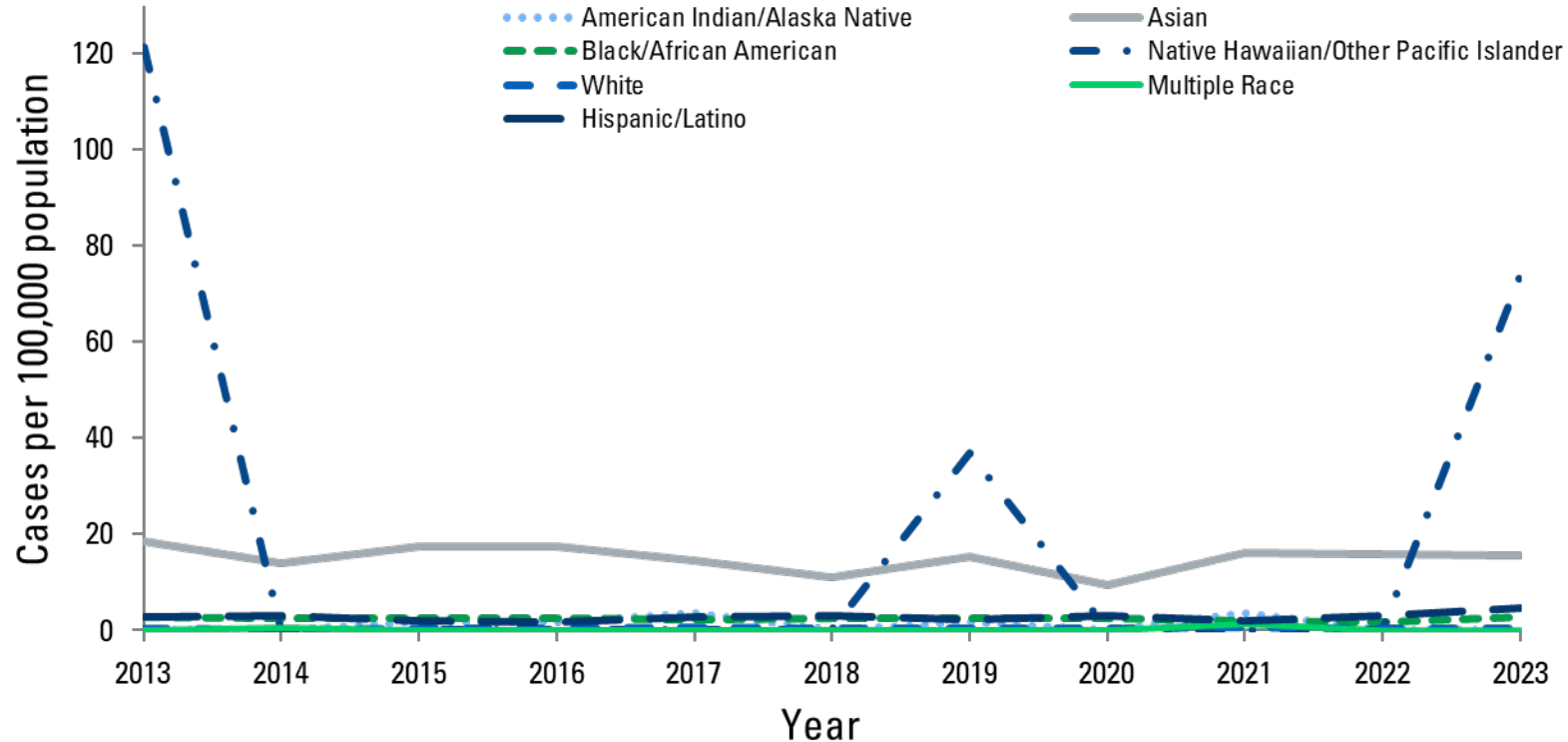
25%

Non-Hispanic White

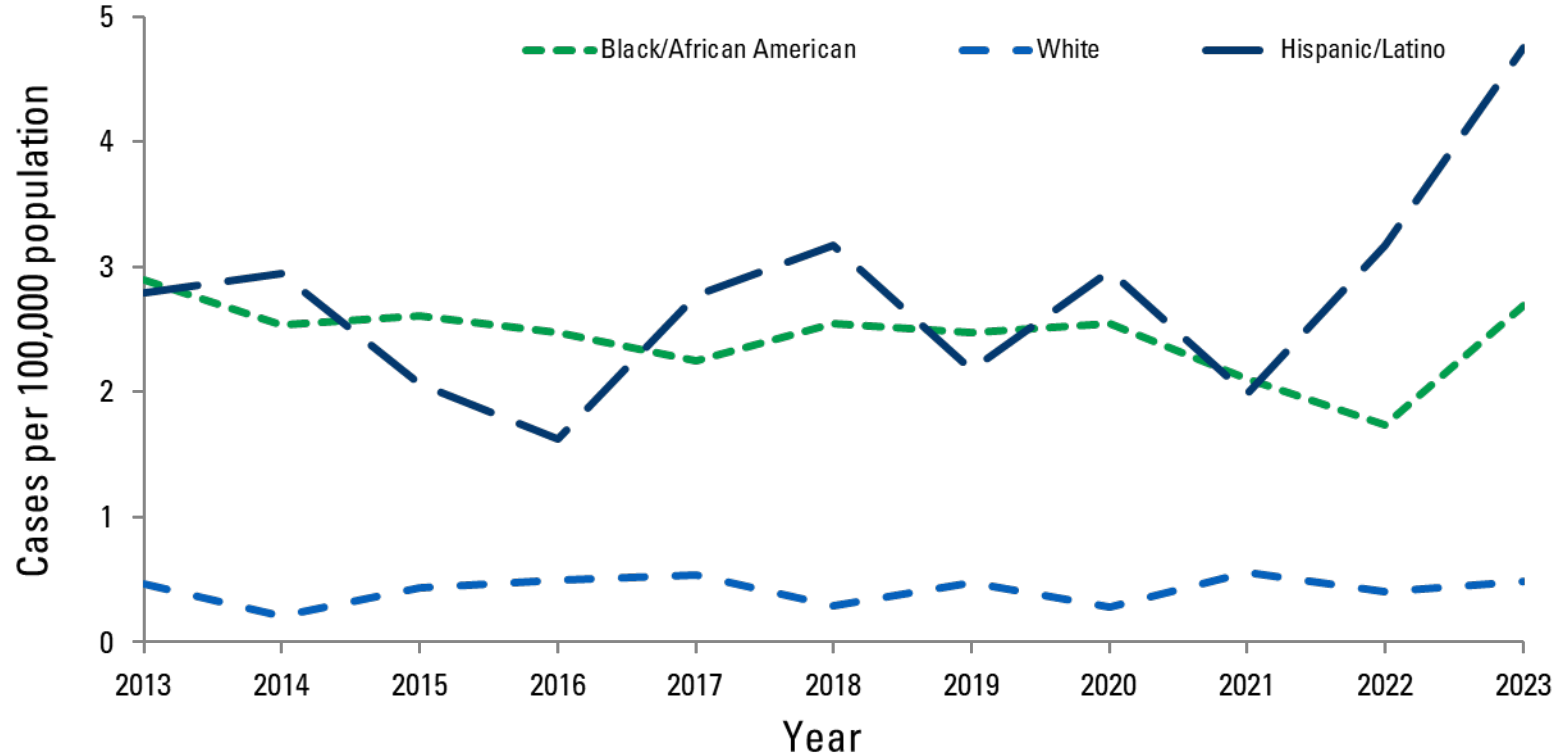
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TB Rates by Race and Ethnicity



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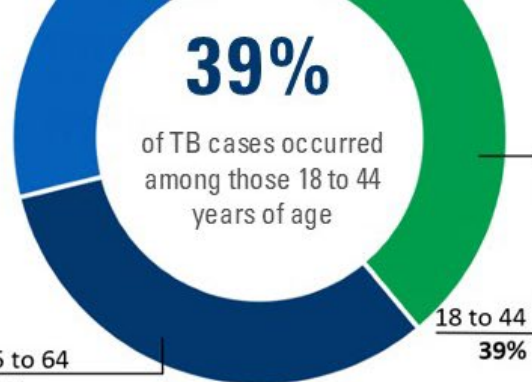


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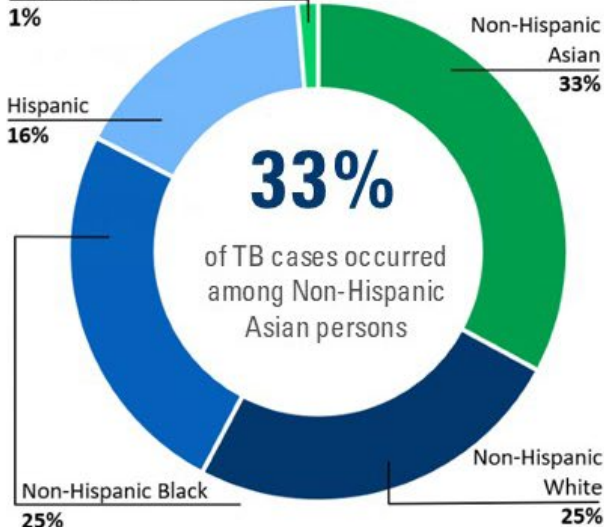


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Native Hawaiian or Other Pacific Islander

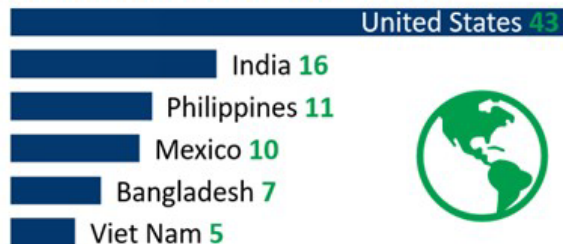
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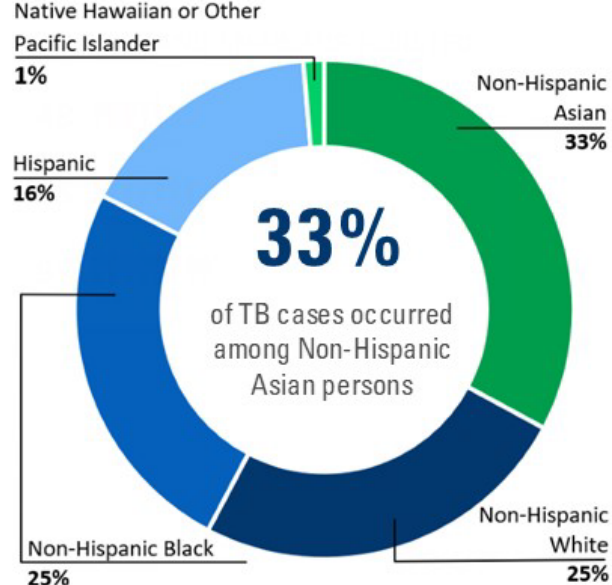


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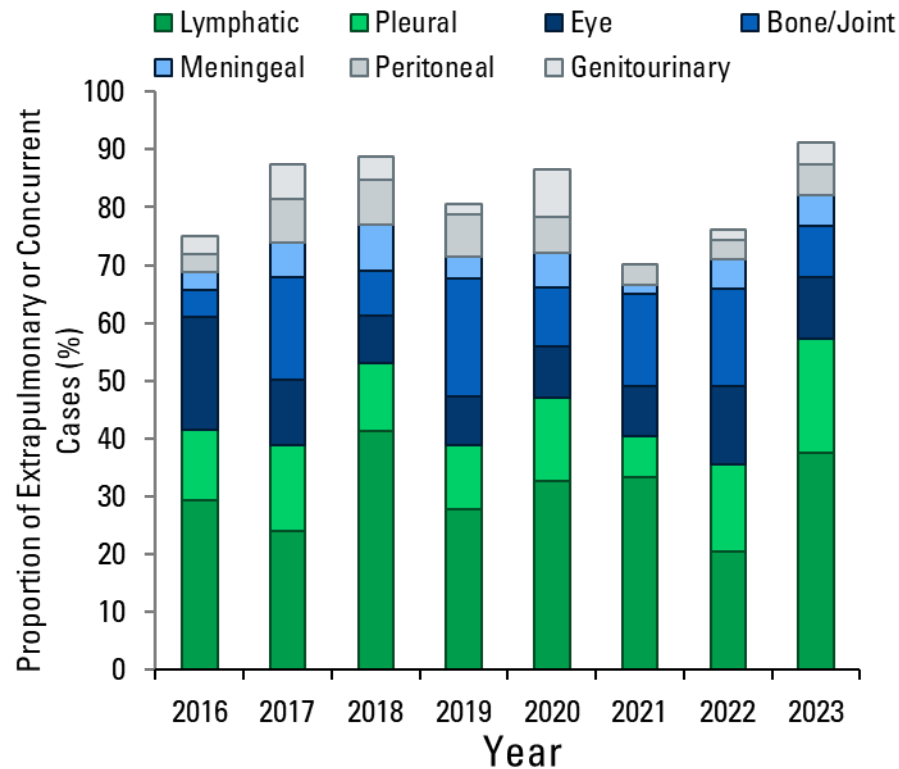
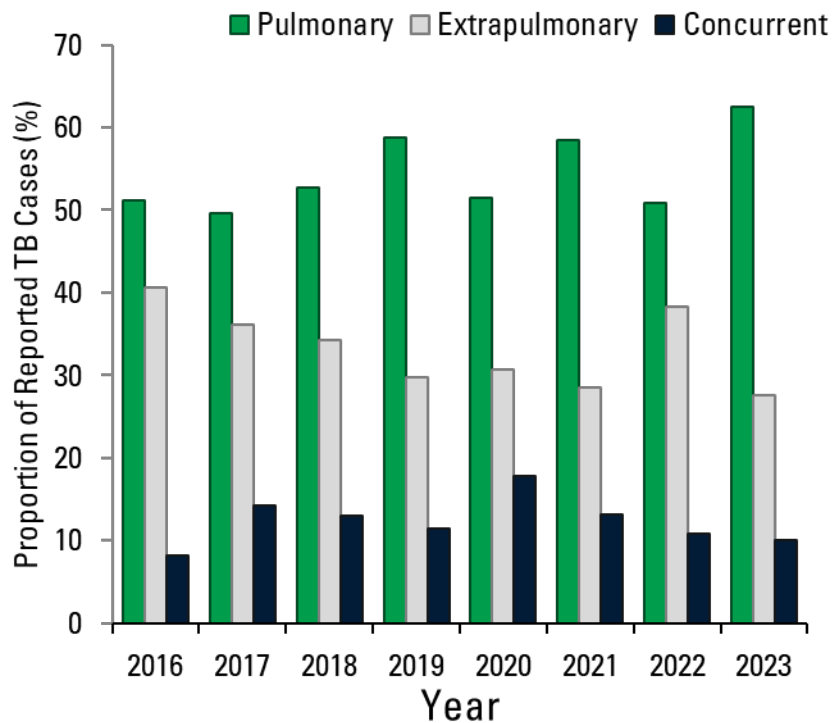
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Tuberculosis Cases by Site of Disease

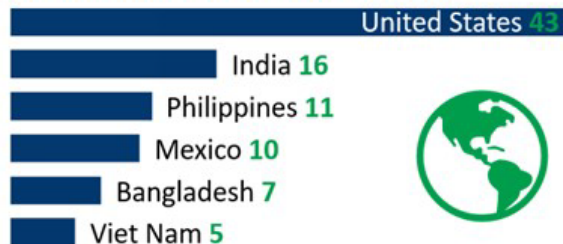


TB From Bone Allograft

- 2 cases (1%) received bone graft product contaminated with *M. tuberculosis*
- The 1st had a positive culture that matched the investigation cluster and was the 2nd case in the nation to be identified
- The 2nd met the TB clinical case definition
- Both started on standard TB treatment
- The 1st patient passed away
- The 2nd patient completed treatment

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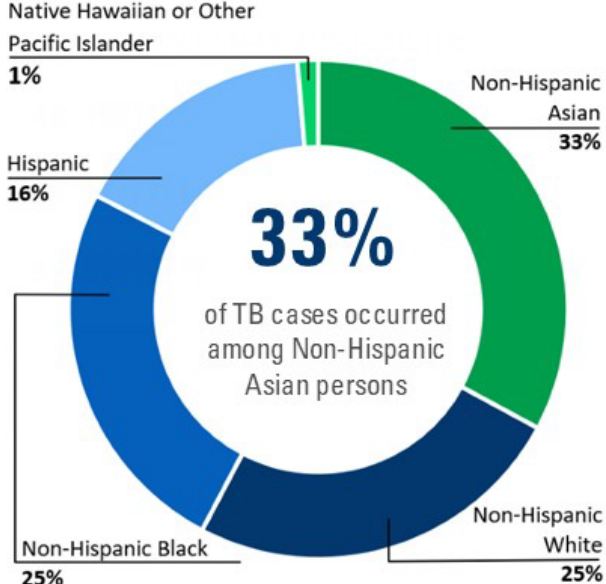


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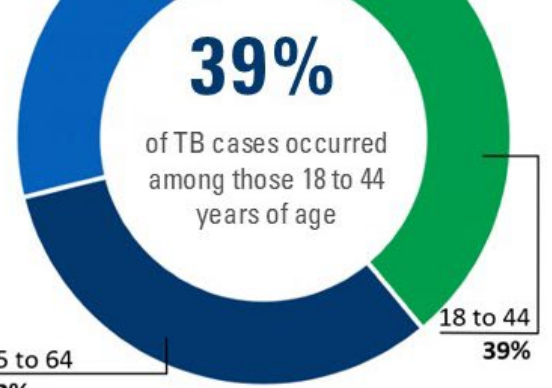
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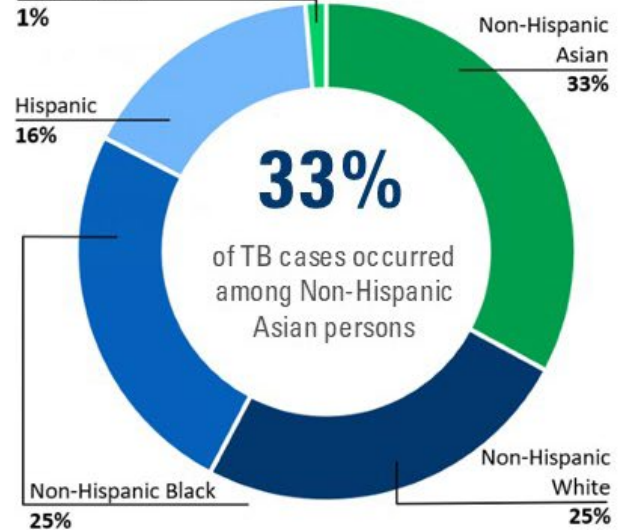


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Patients with TB disease



Native Hawaiian or Other Pacific Islander 1%



CLINICAL CHARACTERISTICS

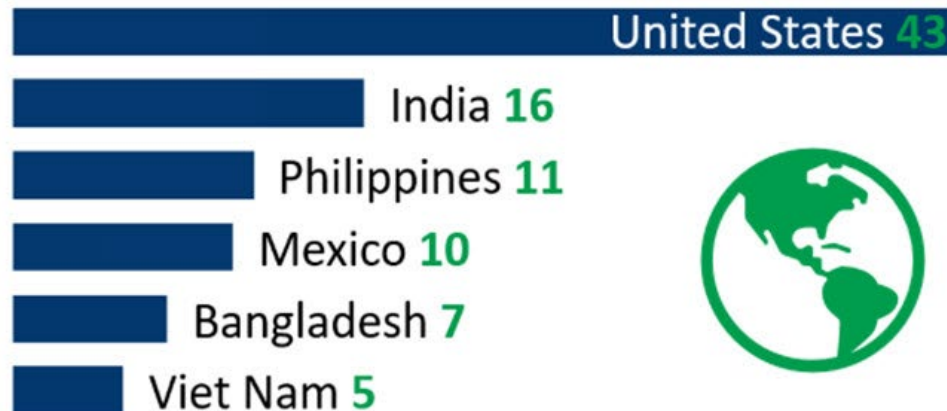
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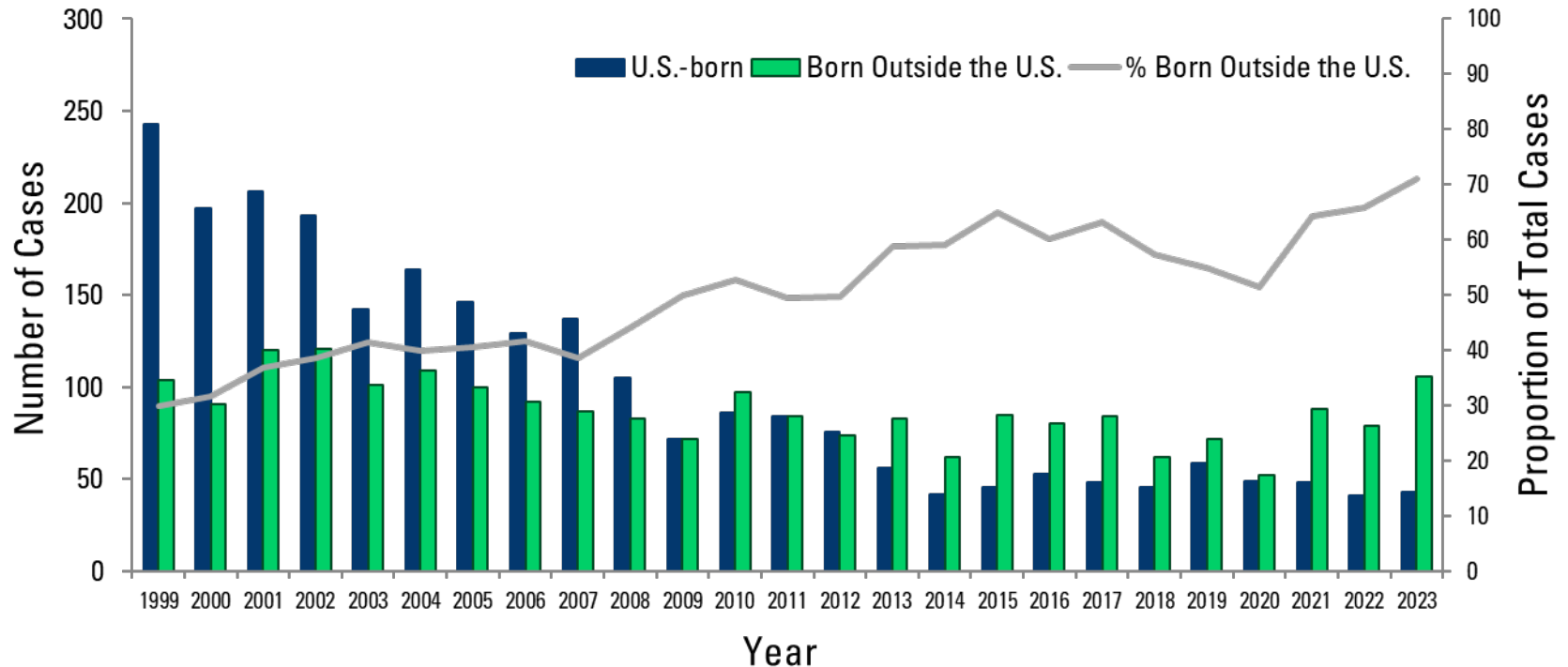


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TB Cases by U.S. Origin



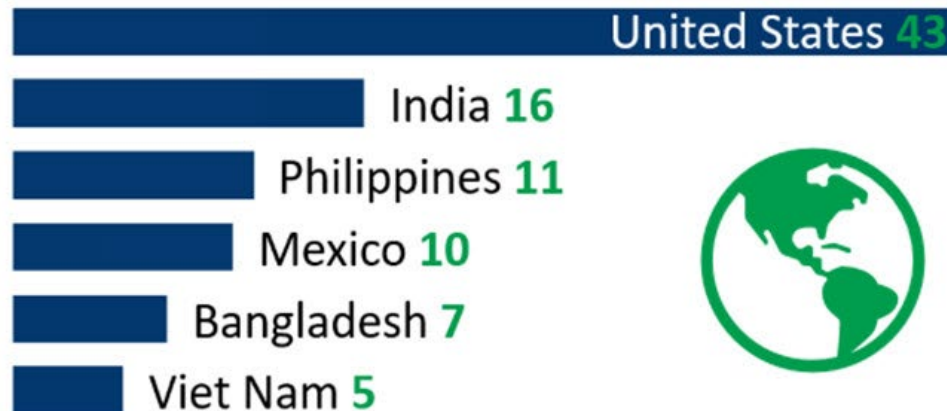
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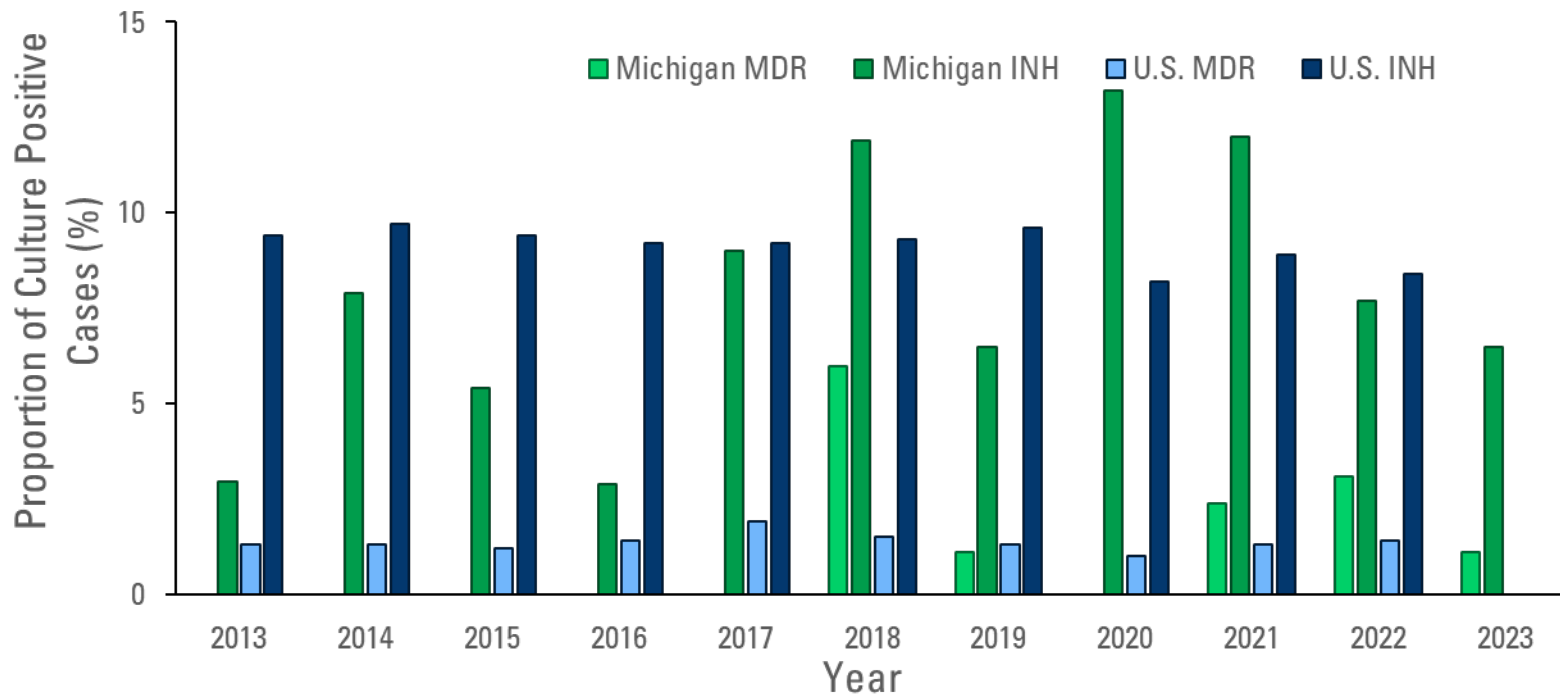
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Drug – Resistant Tuberculosis



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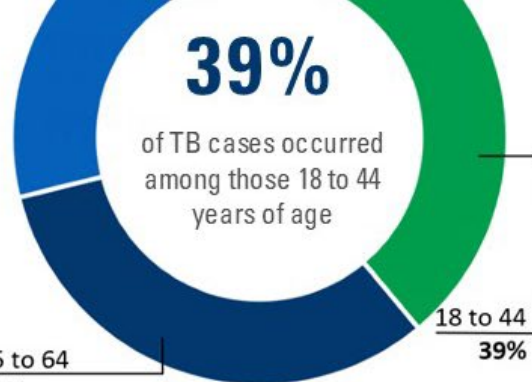
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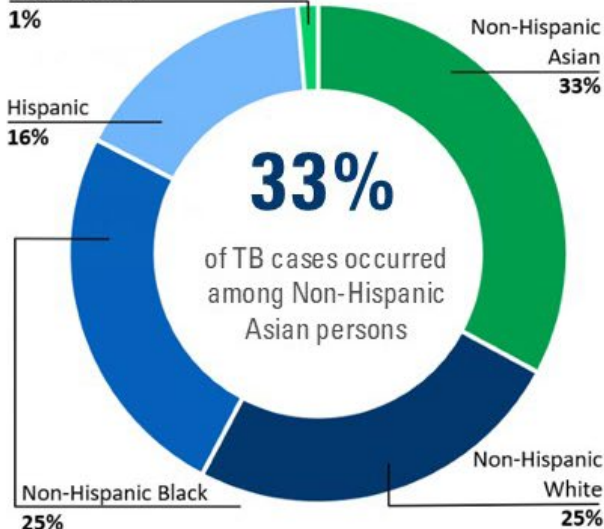
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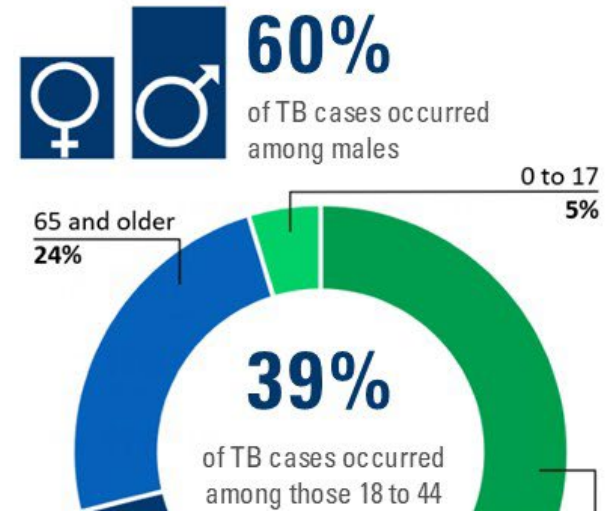
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LHD Nurses and Staff

MDHHS Tuberculosis Unit

CDC Division of Tuberculosis Elimination (DTBE)

Contact Information

smiths79@michigan.gov

References

1. CDC. Reported tuberculosis in the United States, 2022. Atlanta, GA: US Department of Health and Human Services, CDC; 2022.
<https://www.cdc.gov/tb/statistics/reports/2022/default.htm>
2. US Census Bureau. Current estimates data. Washington, DC: US Census Bureau; 2020.
<https://www2.census.gov/programs-surveys/pepest/datasets/2010-2020/state/asrh/>