

Epidemiology of TB in Indiana - 2019

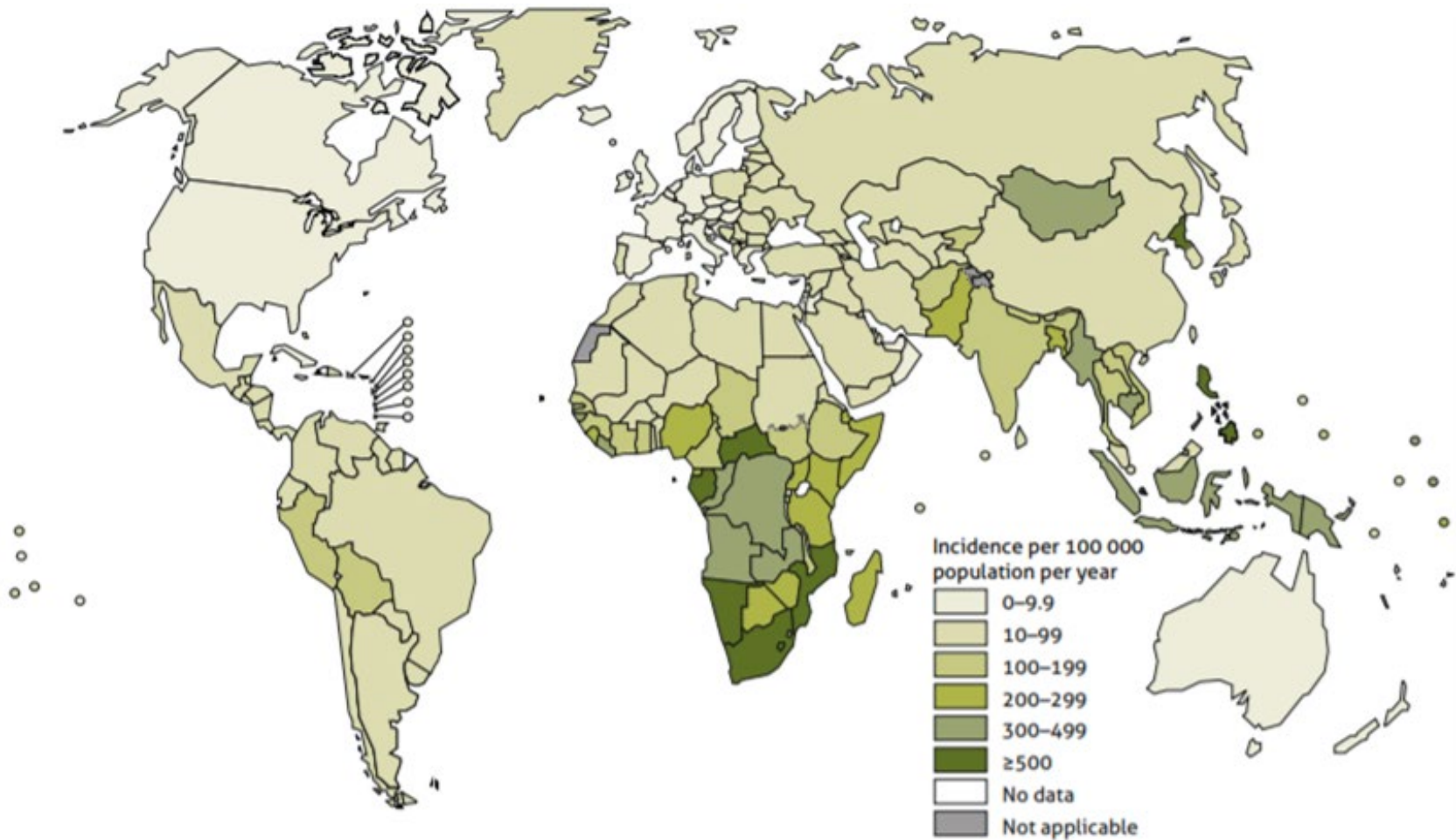
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Epidemiology Resource Center



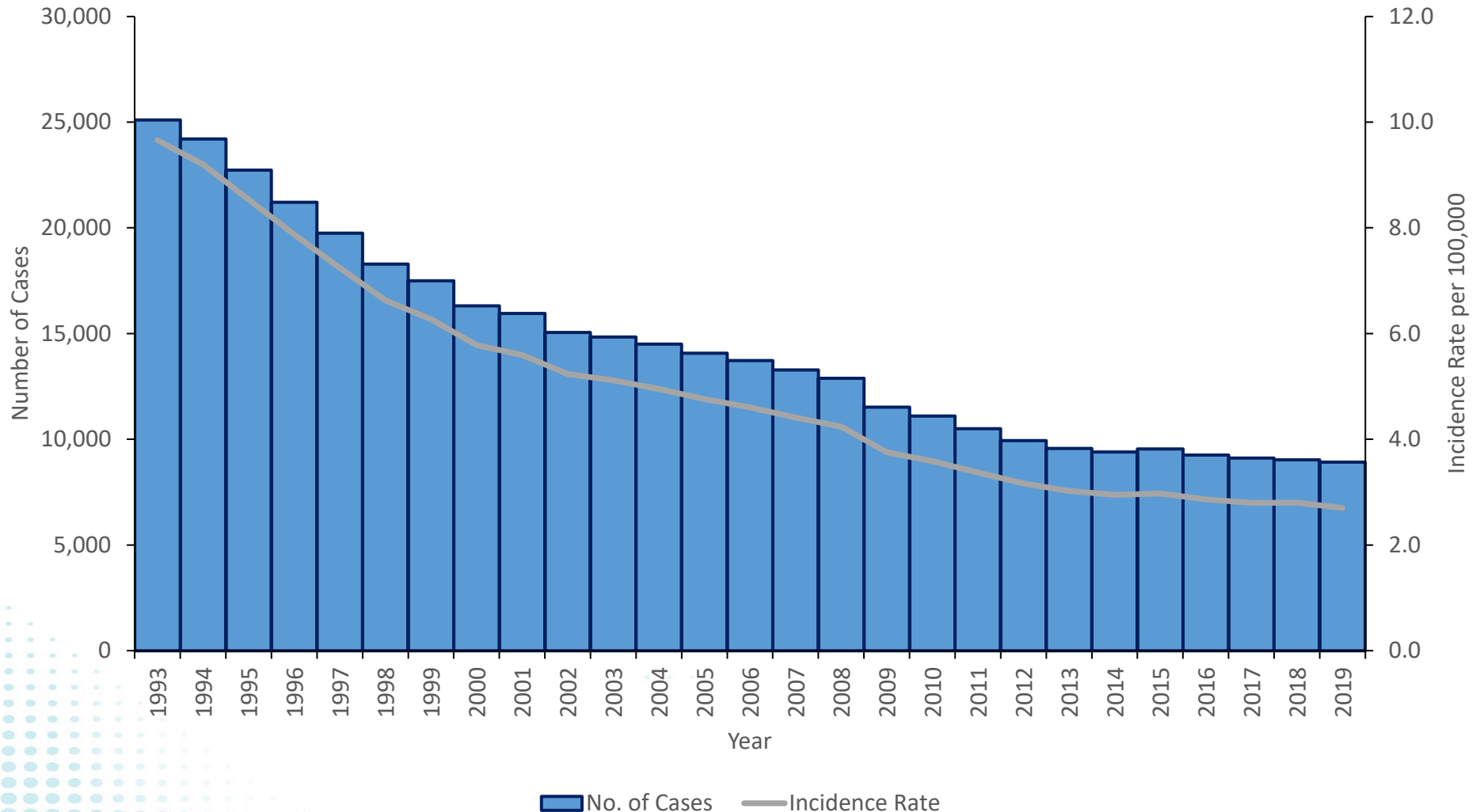
Indiana State
Department of Health

May 26, 2020

Annual Tuberculosis Incidence (per 100,000 population), Worldwide, 2018



Reported Tuberculosis Cases and Rates United States, 1993-2019



TB Trends, United States, 2018

Minority populations continue to be disproportionately affected by TB disease.

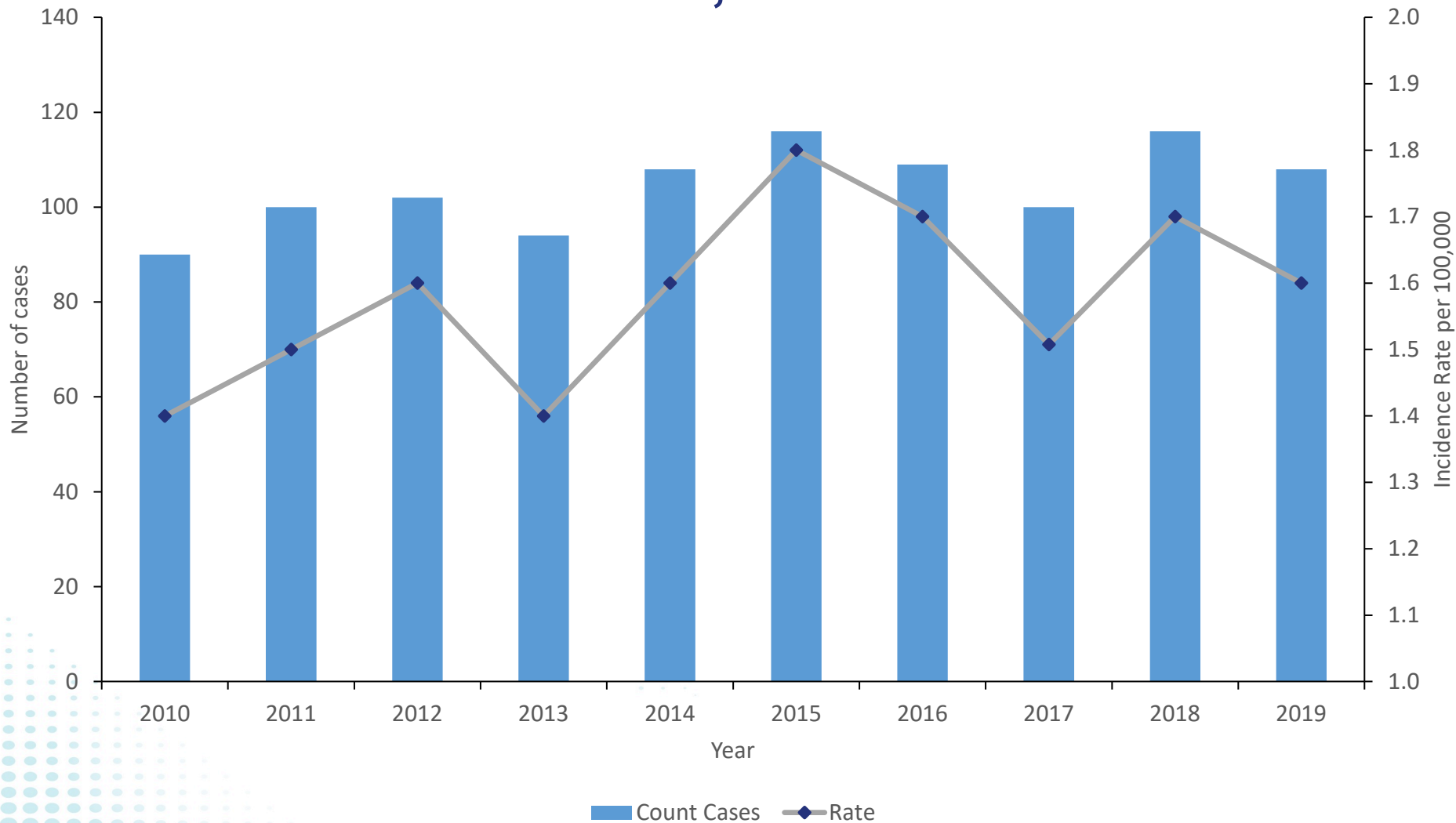
- American Indian/ Alaska Natives had a 10% increase in incidence from 2017 to 2018.
- Native Hawaiians and other Pacific Islanders had a 2.7% increase in incidence from 2017 to 2018.
- Hispanics and Whites remained stagnant.
- Non-Hispanic Asians and Non-Hispanic Blacks had a decrease in incidence, 4.7% and 6.7% respectively.

19.8% of cases reported having diabetes.

72.0% of cases occurred among non-U.S.-born people.



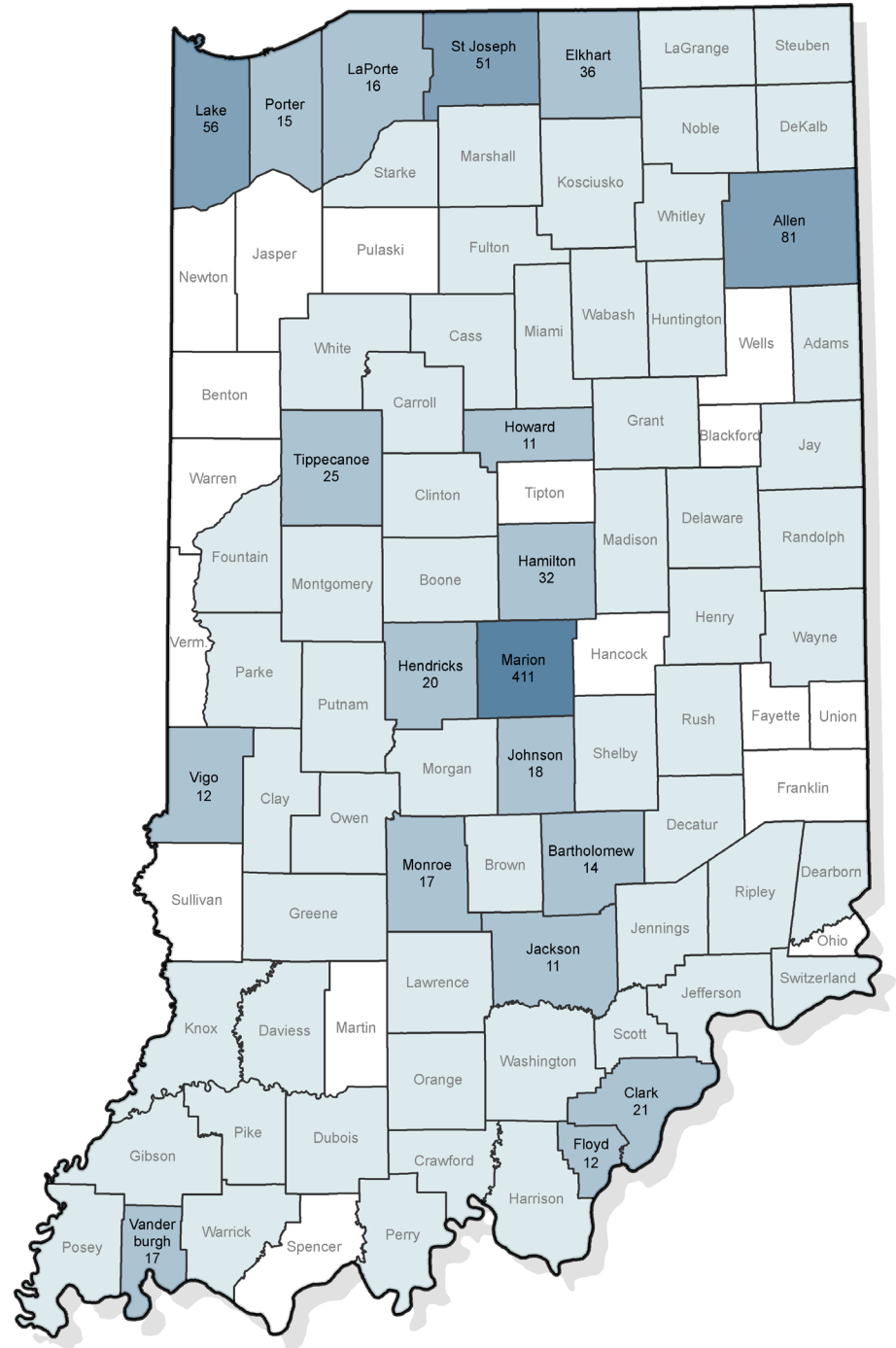
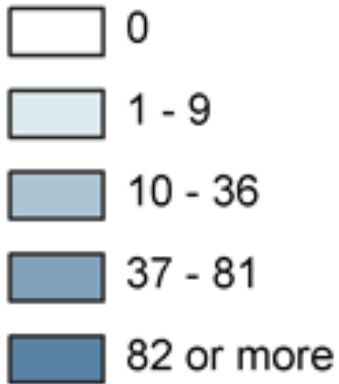
TB Case Count and Incidence Rate, Indiana, 2010-2019



TB Cases by County, Indiana, 2010-2019

Labeled by Cases Per County
(counties with > 10 cases)

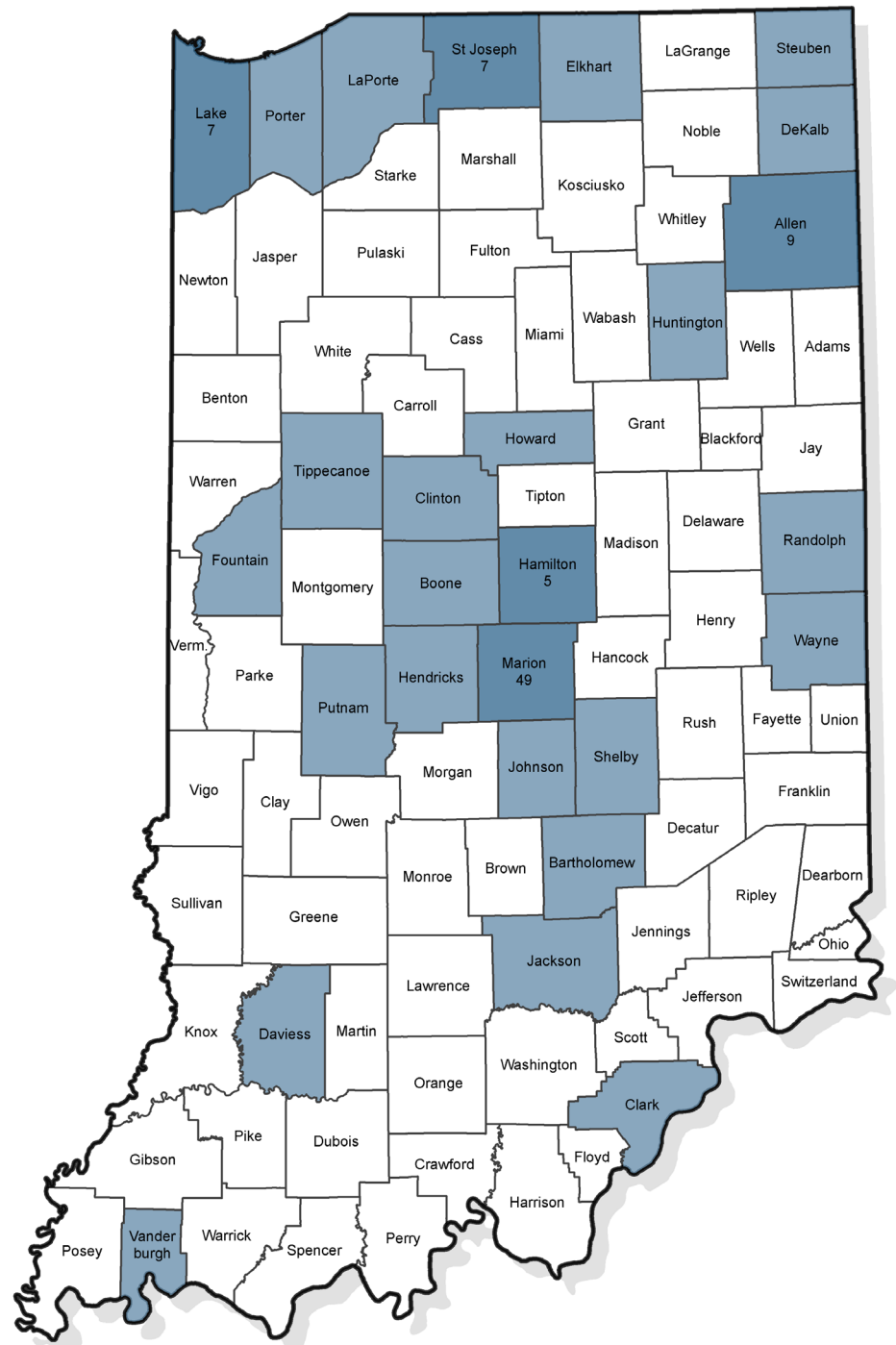
Shaded by Number of
Cases per County



TB Cases by County, Indiana, 2019

Labeled by Cases Per County
(counties with ≥ 5 cases)

Shaded by Number of
Cases per County



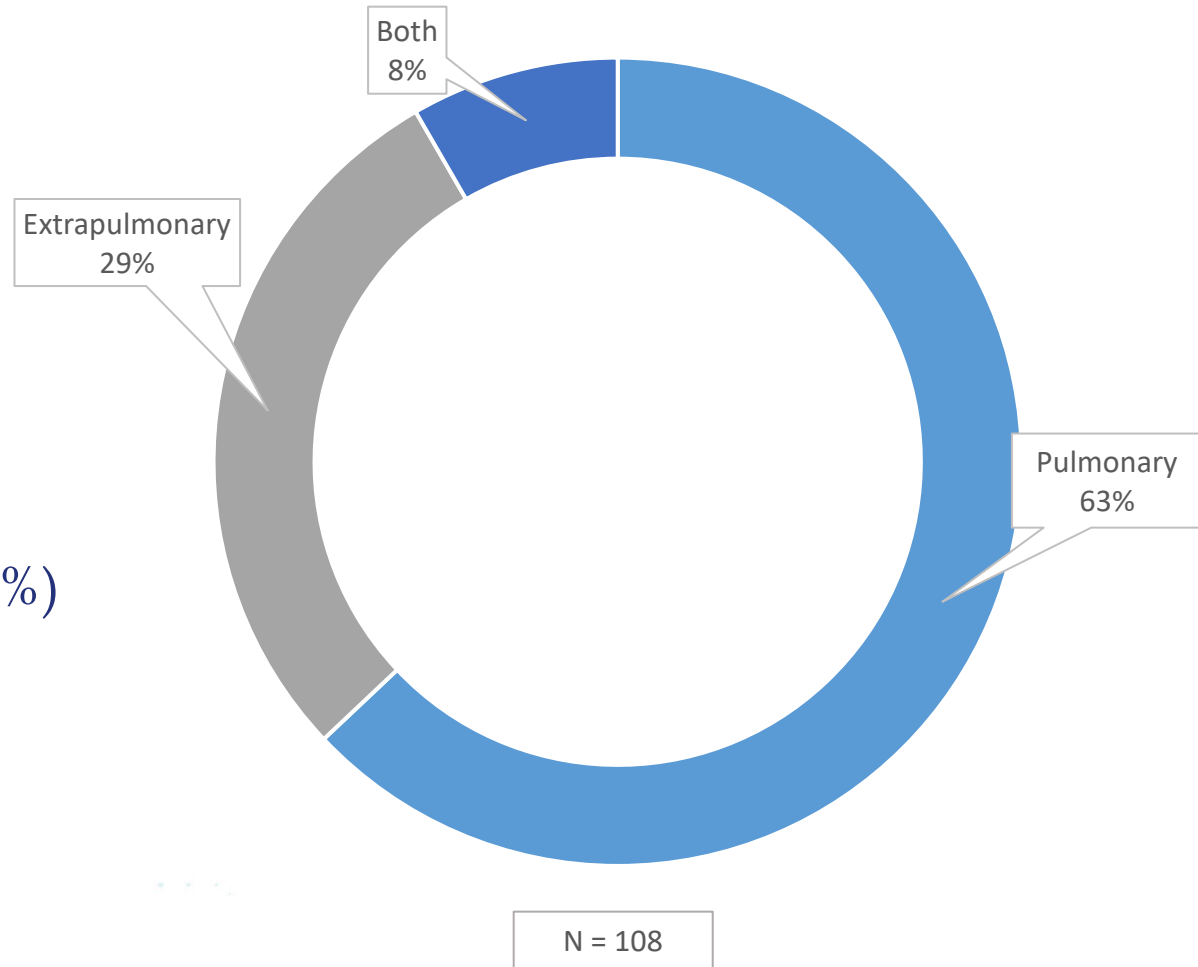
Overview of TB in Indiana, 2019

- Total TB Cases: 108
 - Top Jurisdictions:
 1. Marion (49)
 2. Allen (9)
 3. St. Joseph (7)
 4. Lake (7)
 - Incidence Rate: 1.6 cases of TB per 100,000 population
- Total Reported LTBI Cases: 961
 - Top Jurisdictions:
 1. Tippecanoe (202)
 2. Allen (89)
 3. Hendricks (49)
 4. St. Joseph (49)
 5. Lake (46)

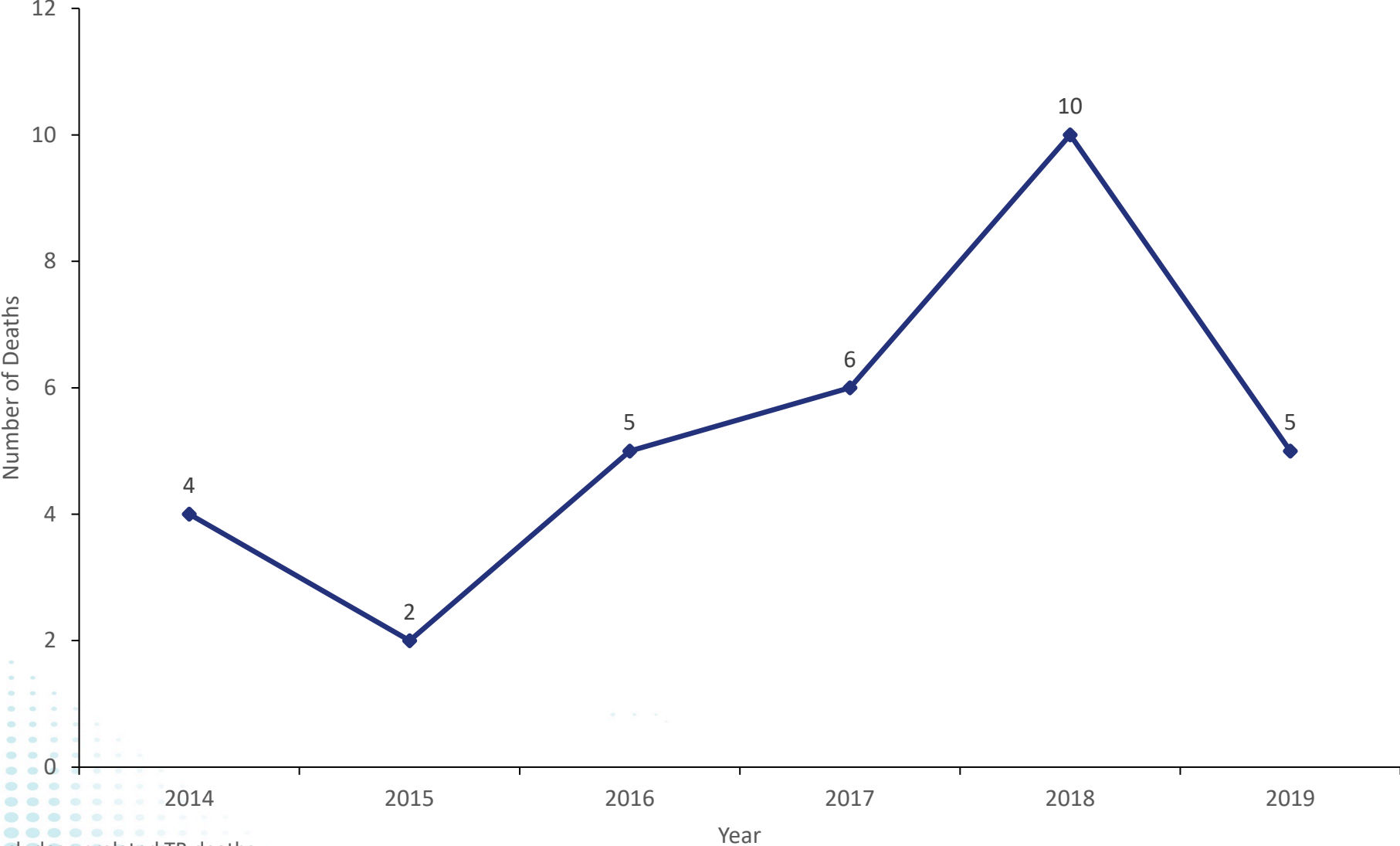
Tuberculosis Cases by Site of Disease, Indiana, 2019

Extrapulmonary sites include:

- Lymphatic (35%)
- Pleural (16%)
- Eye and/or Ear (13%)
- Meningeal (10%)
- Bone and/or Joint (10%)
- Genitourinary (10%)
- Other (6%)

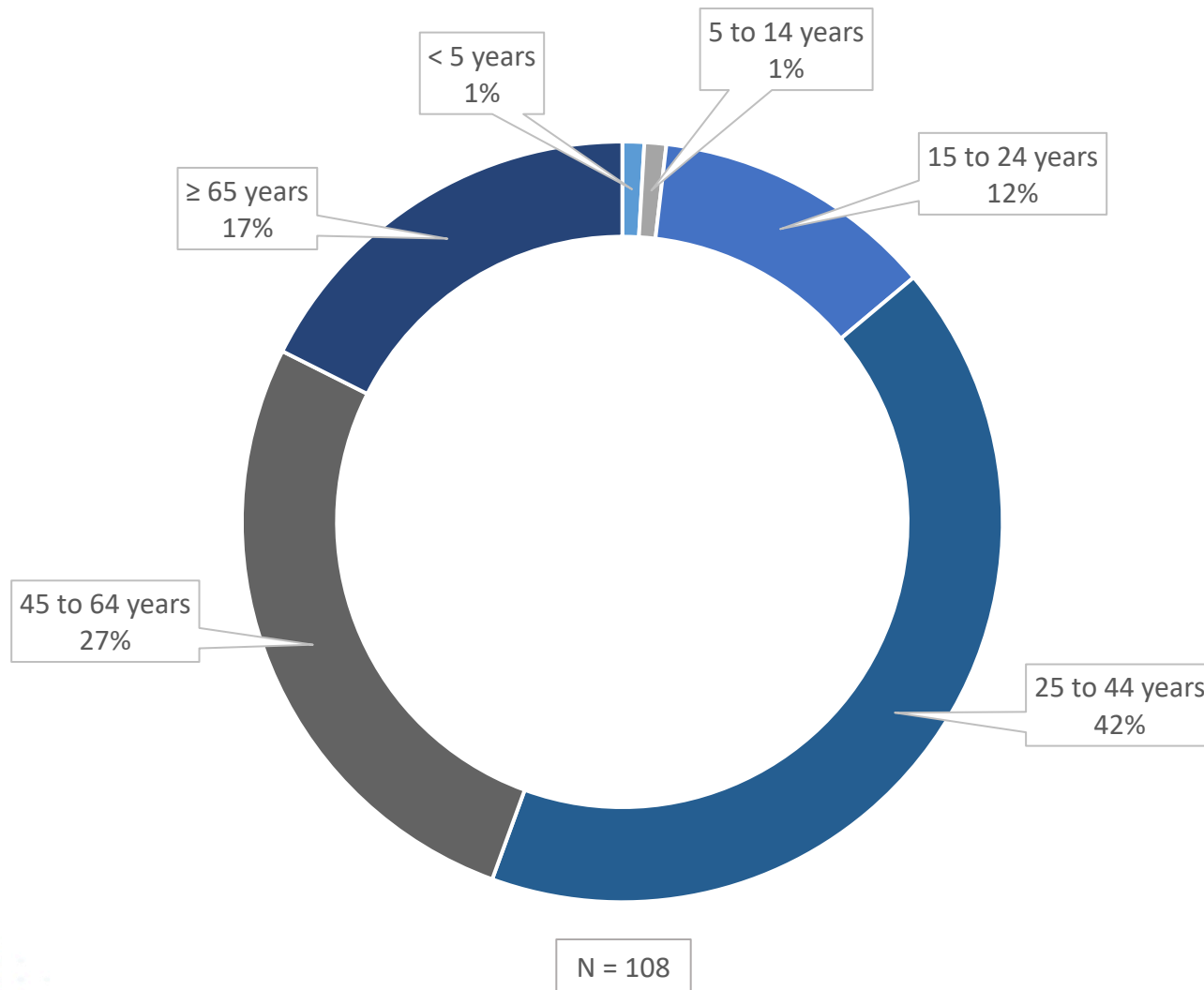


Tuberculosis Deaths, Indiana, 2014-2019

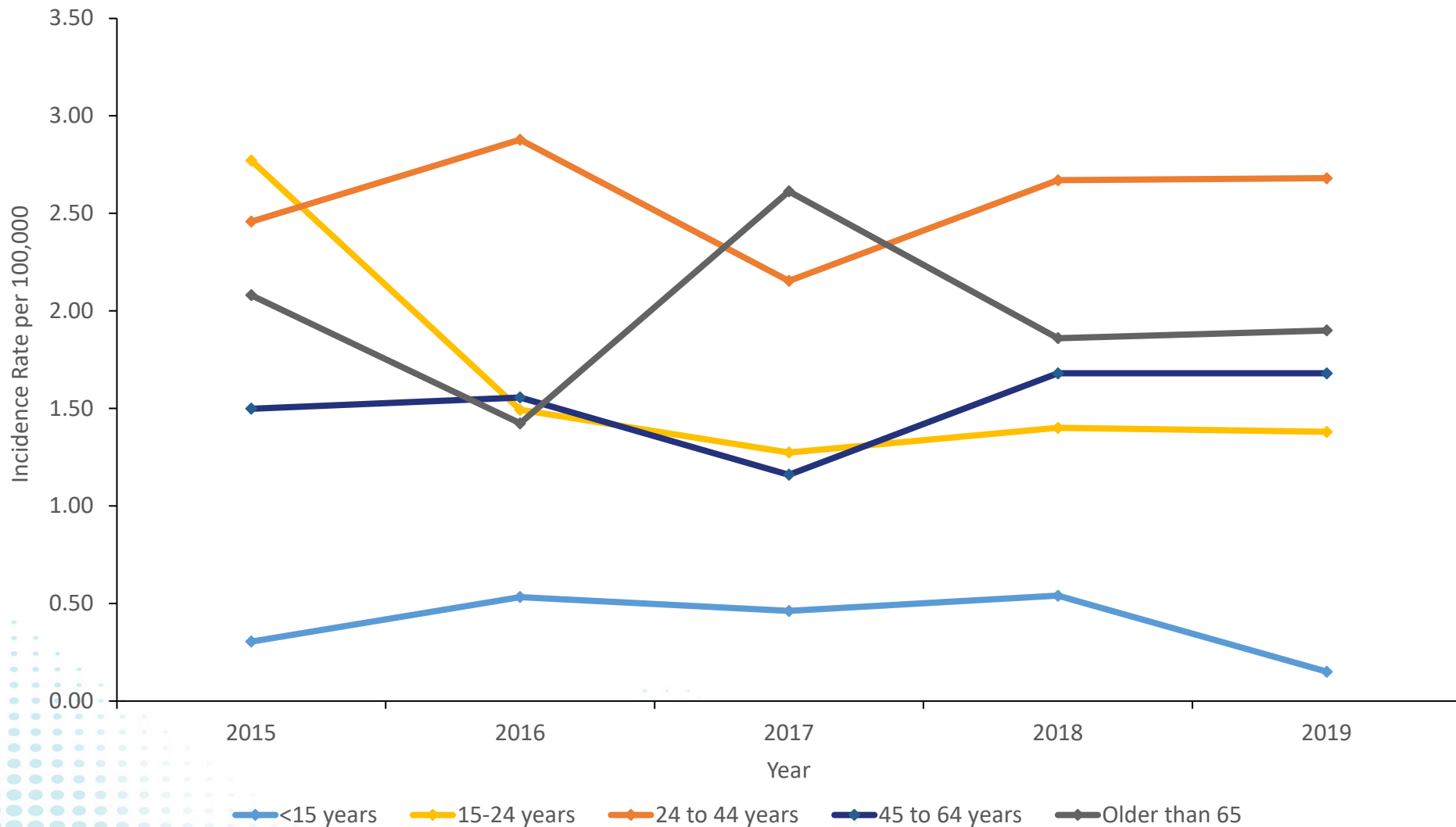


*Excludes unrelated TB deaths

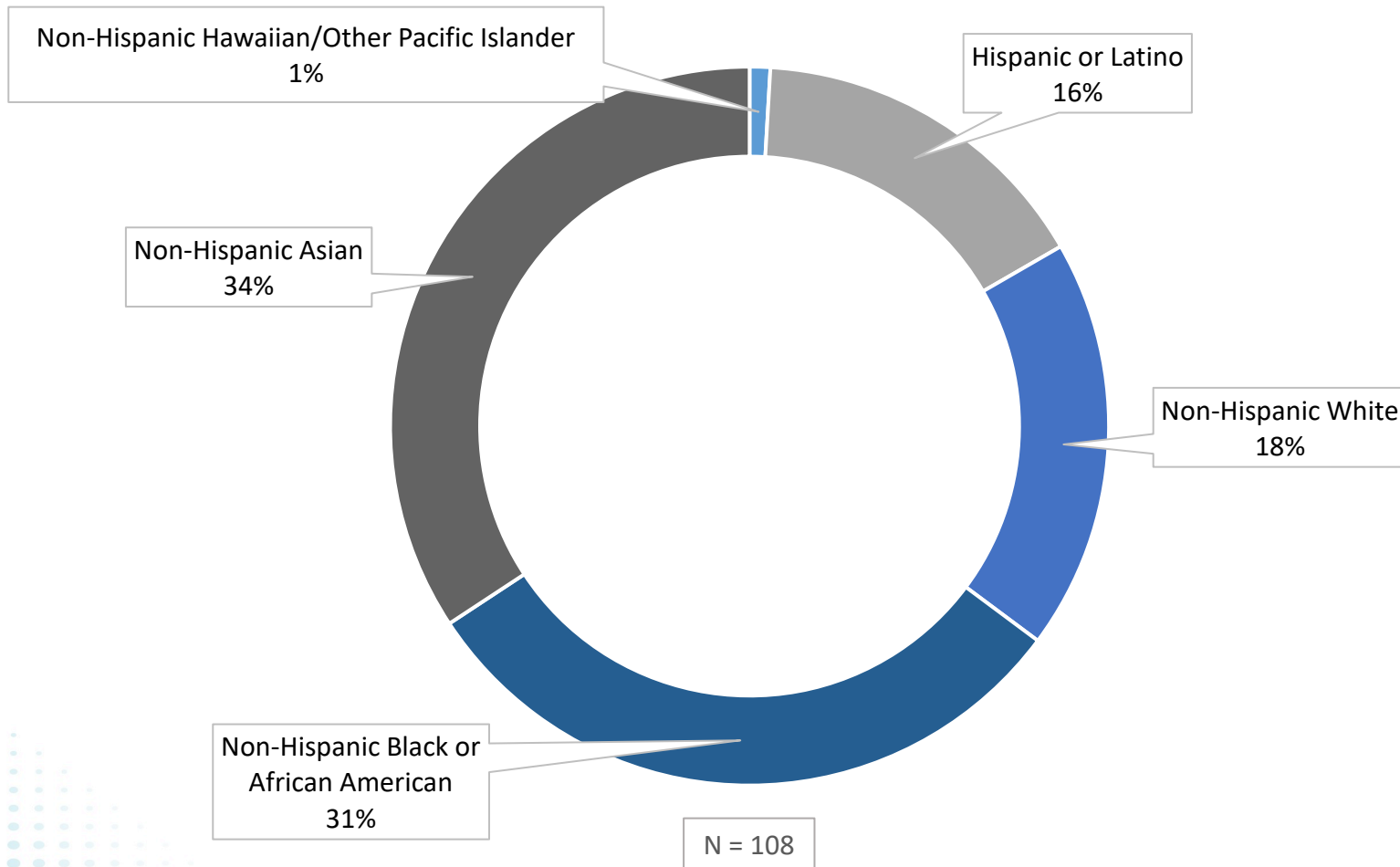
TB Cases by Age Group, Indiana, 2019



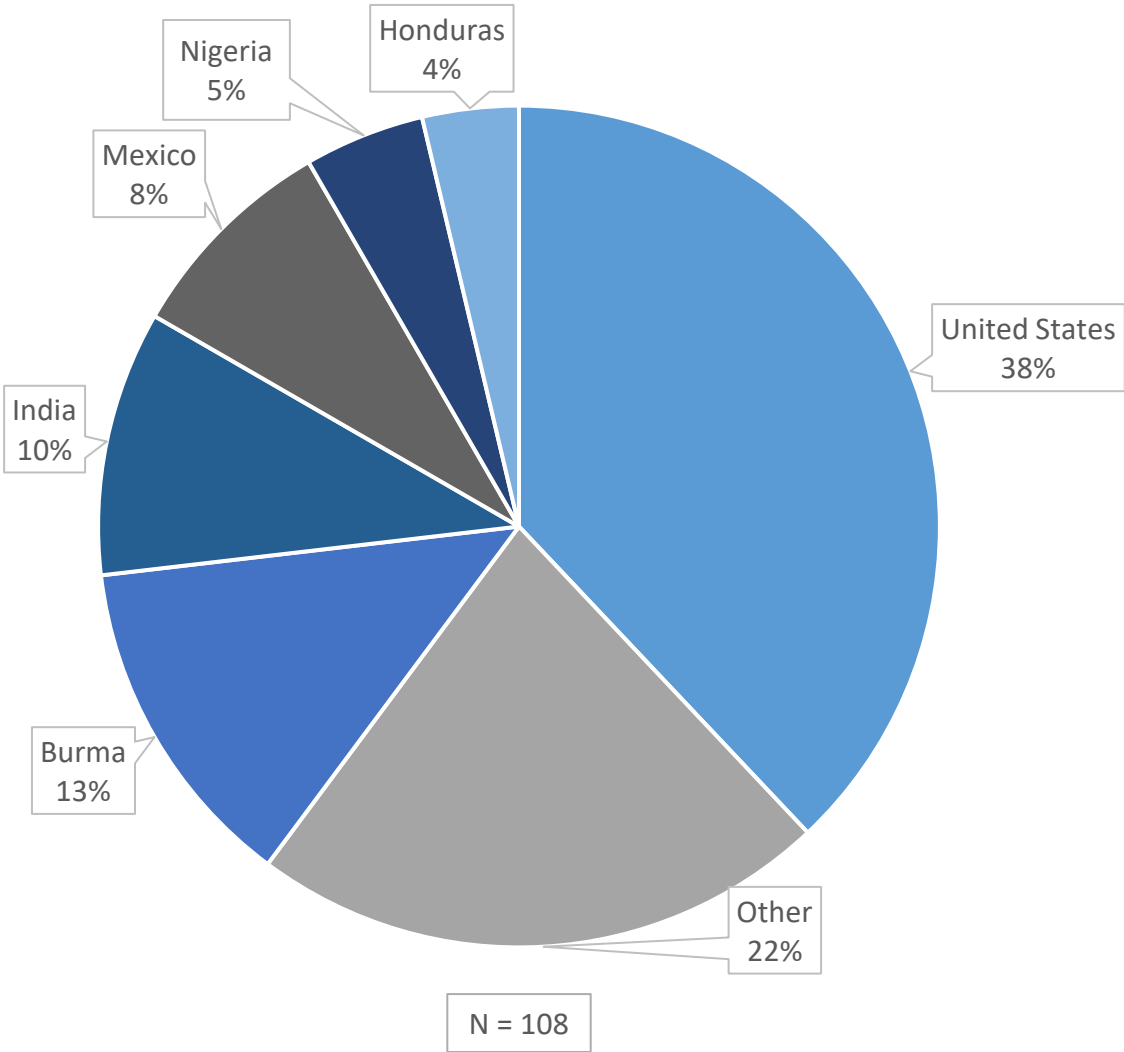
TB Incidence Rate by Age Group, Indiana, 2015 to 2019



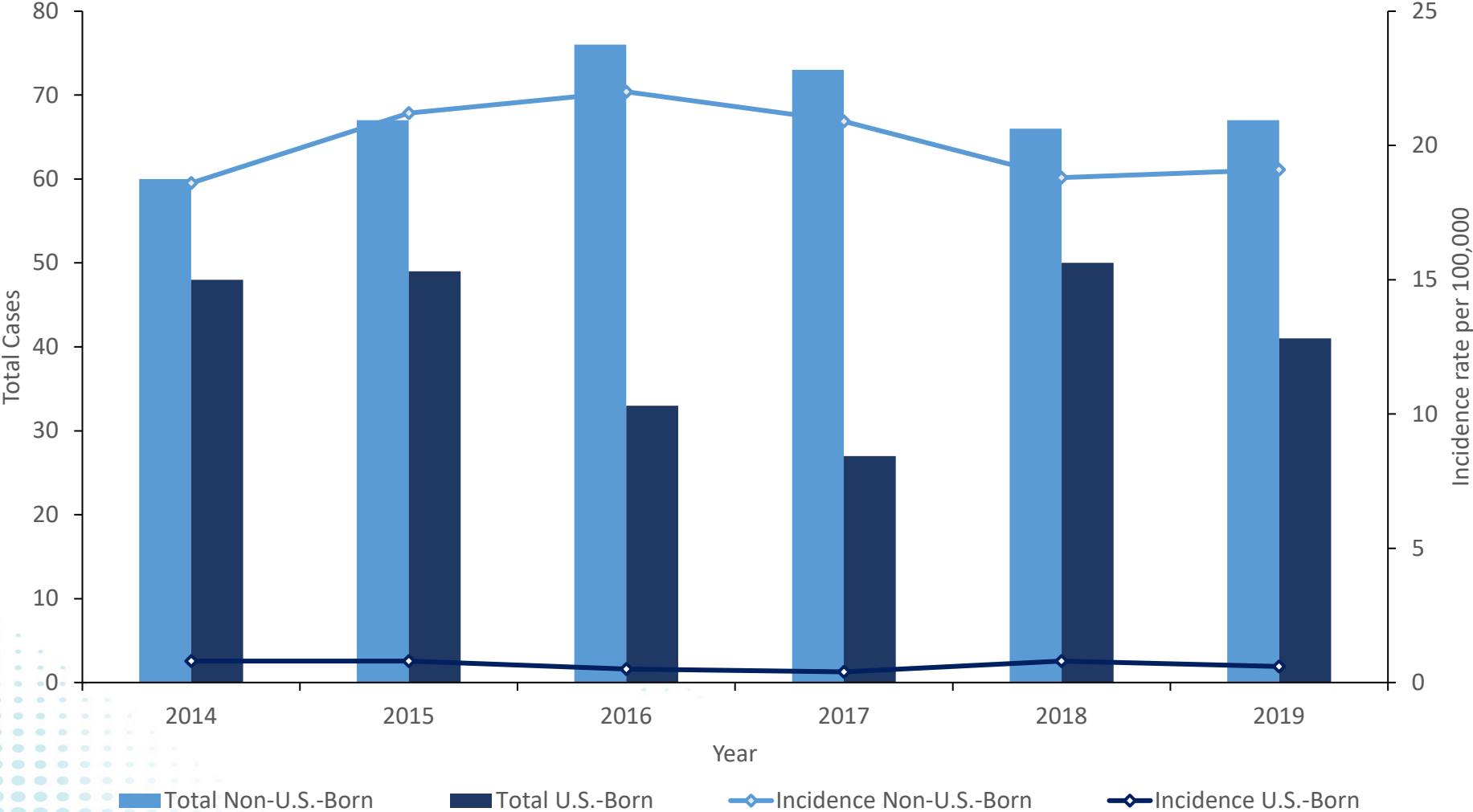
TB Cases by Hispanic Ethnicity and Non-Hispanic Race, Indiana, 2019



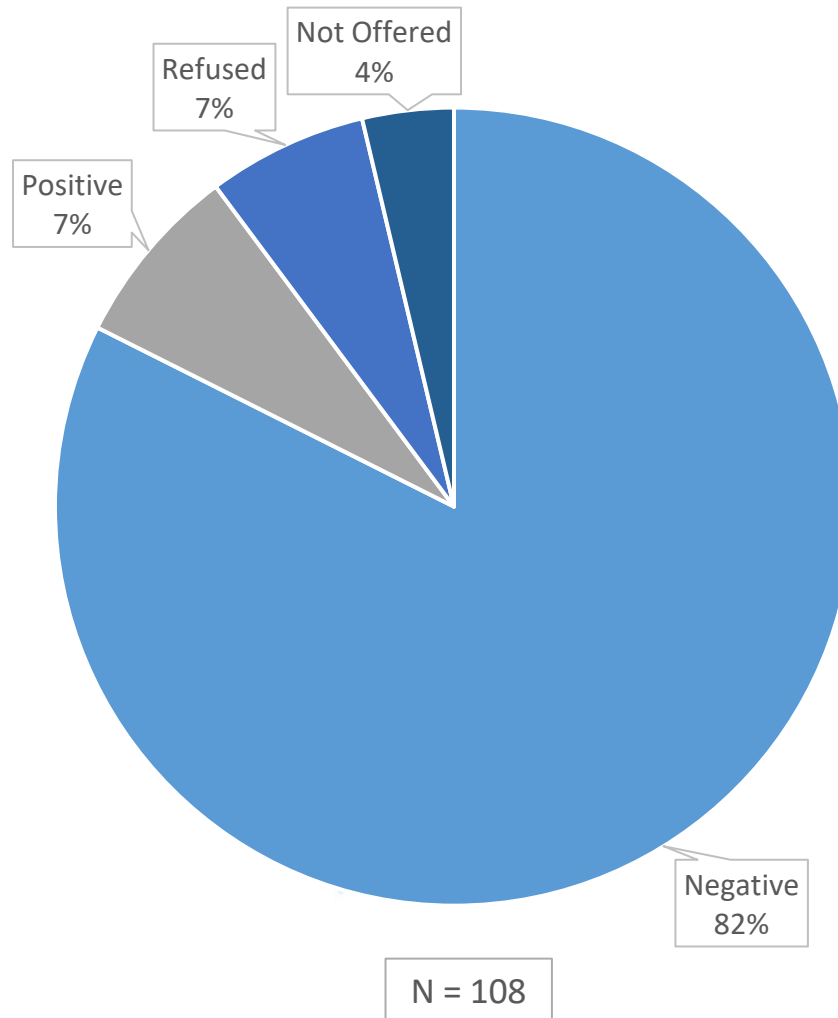
TB Cases by Country of Birth, Indiana, 2019



TB Case Count and Rate by National Origin, Indiana, 2014-2019



TB Cases by HIV Status, Indiana, 2019

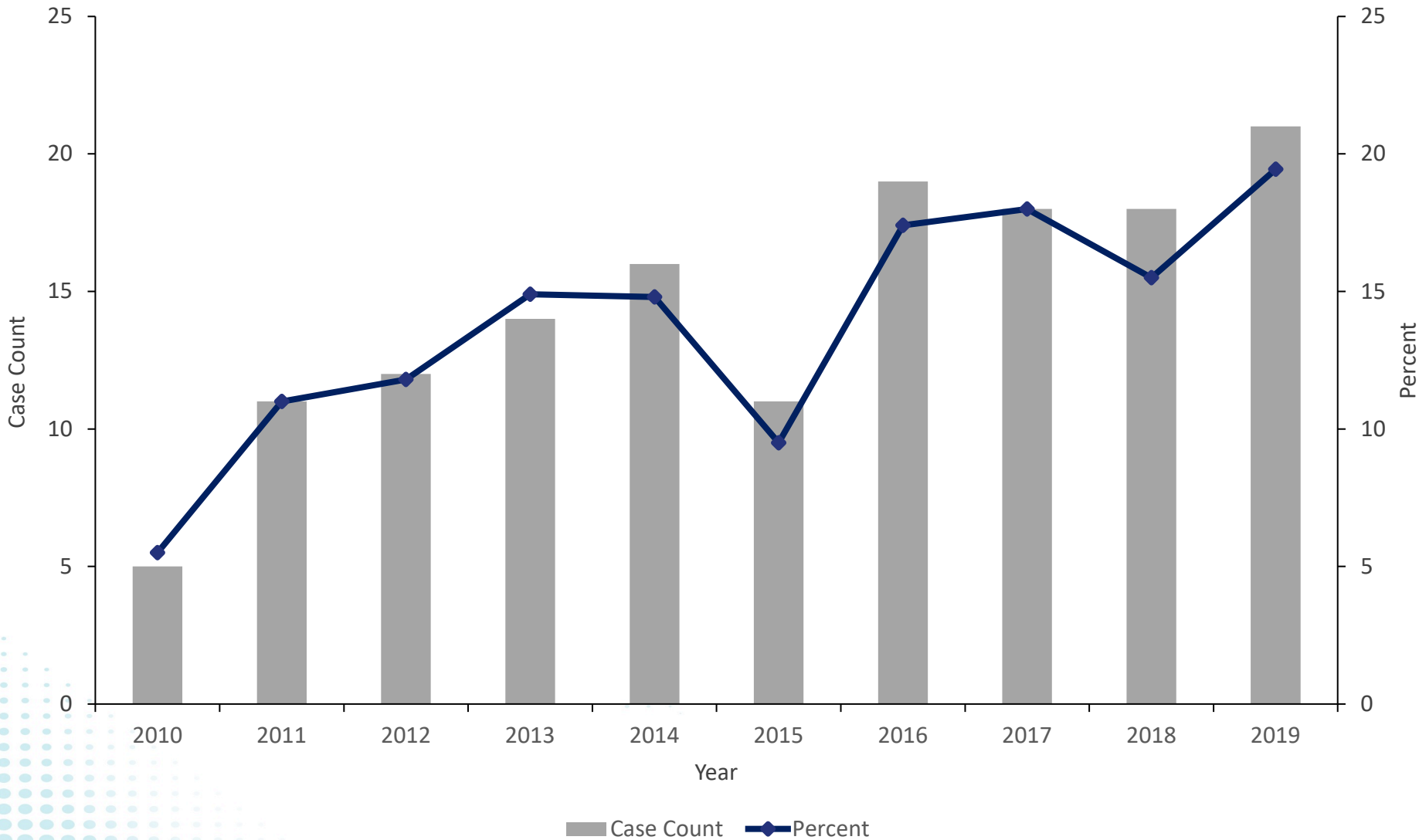


Most Commonly Reported Risk Factors among TB Cases, Indiana, 2019

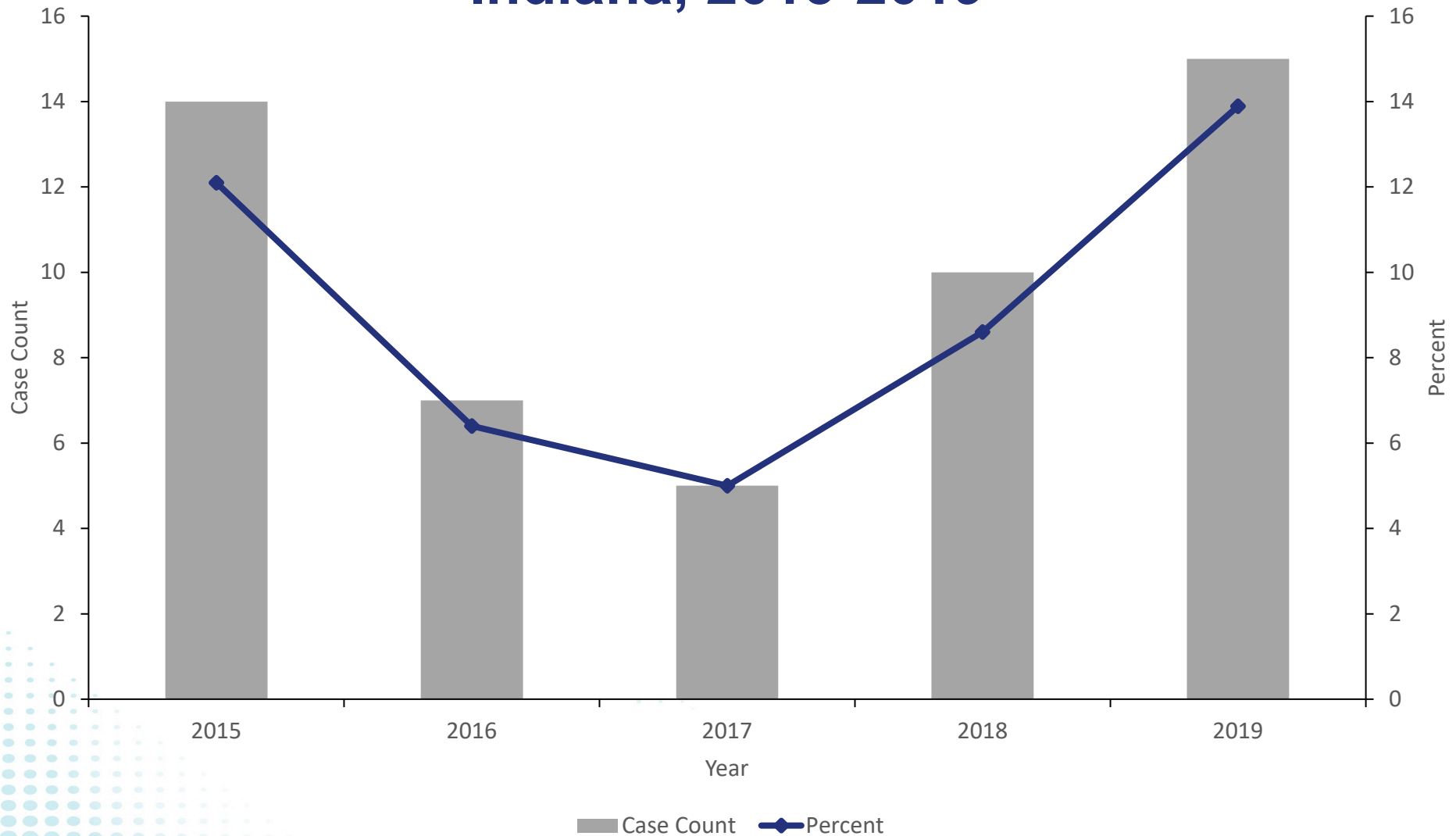
| Risk Factor | Percent |
|------------------------------------|---------|
| Diabetes | 19.4% |
| Non-Injection Drug Use | 13.9% |
| History of Homelessness | 9.3% |
| Contact of Infectious TB Patient | 8.3% |
| Excess Alcohol Use | 7.4% |
| Immunosuppression (not HIV/AIDS) | 6.5% |
| Correctional Facility at Diagnosis | 3.8% |
| Incomplete LTBI Therapy | 3.7% |
| End-Stage Renal Disease | 2.8% |
| Injection Drug Use | 1.9% |

*Risk Factors are not mutually exclusive

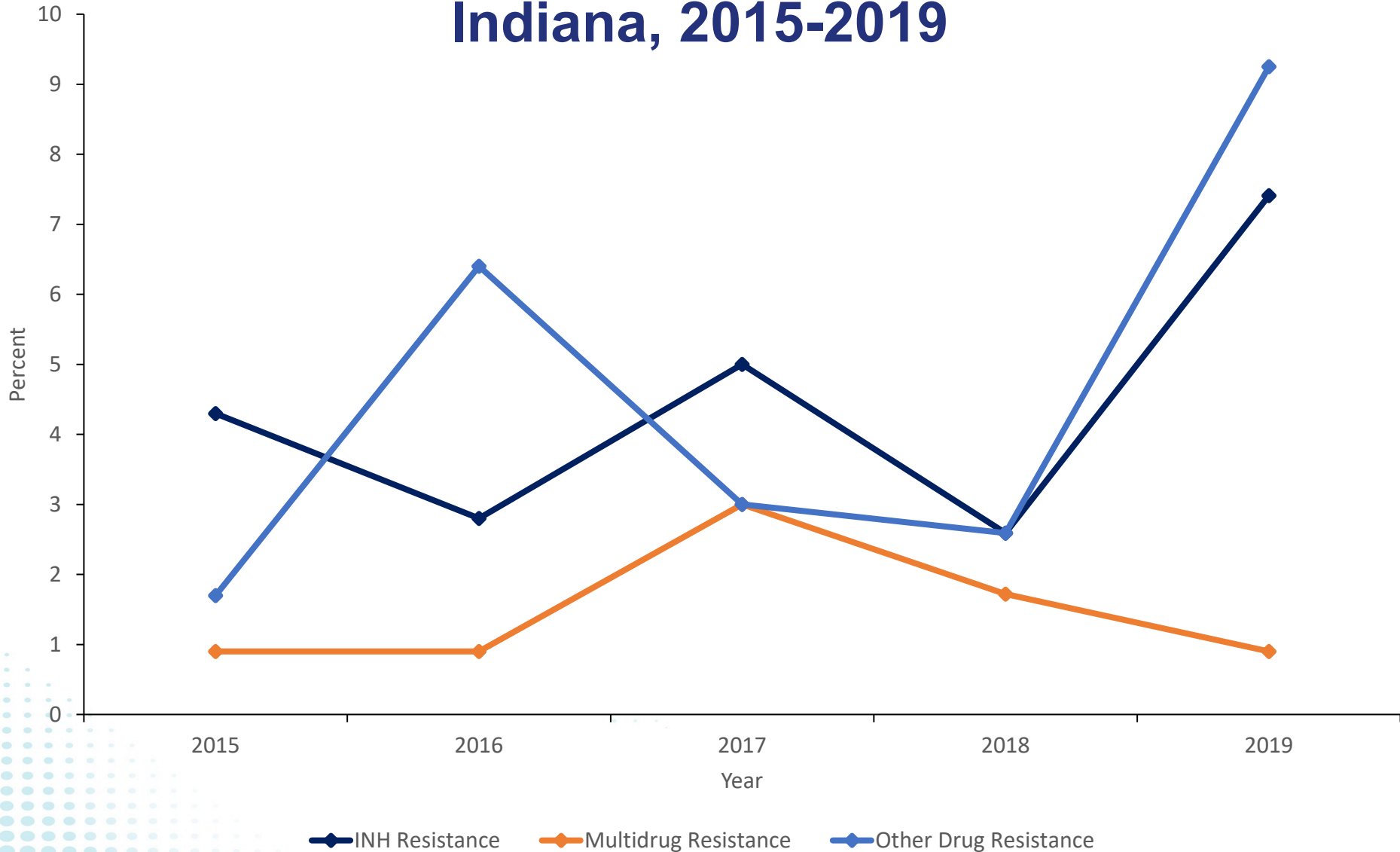
TB Cases with Diabetes, Indiana, 2010-2019



TB Cases with Non-injection Drug Use, Indiana, 2015-2019



Percent of TB Cases with Drug Resistance, Indiana, 2015-2019



TB Treatment Indicators, Indiana, 2018-2019

| | Percent of Cases | National Average | Program Goal |
|---------------------------------------|------------------|------------------|--------------|
| Initiate RIPE (2019) | 96.2% | 91.8% | 94.0% |
| Culture Conversion < 60 Days (2018) | 66.7% | 63.0% | 72.0% |
| Completion of Therapy < 1 Year (2018) | 95.8% | 81.1% | 95.0% |

*Orange = Goal Met

Contact Investigation Indicators, Indiana, 2018

| | AFB+ Sputum Smear (# of contacts) | Program Goal | AFB- Sputum Smear, Culture+ (# of contacts) |
|--------------------------|--------------------------------------|--------------|--|
| Contacts Elicited | 1354 | 92.0% | 72 |
| Contacts Evaluated | 905 | 75.0% | 62 |
| LTBI Treatment Initiated | 64 | 93.0% | 12 |
| LTBI Treatment Completed | 59 | 80.0% | 10 |

*Orange = Goal Met

Genotyping, Indiana, 2019

- 98.6% of culture positive cases were genotyped.
- 49.3% of genotyped cases were identified as part of a cluster.
- 3 new genotype clusters were identified.
- No ongoing outbreaks
 - Recurring cases from previous outbreaks

Genotyping Clusters of Interest

IN_0069

- 27 Cases in IN
 - 2008 to 2019

IN_0074

- 37 Cases in IN
 - 2009 to 2019

Risk Factors:

- History of homelessness
- Non-injection and injection drug use
- Excess alcohol use
- History of incarceration
- U.S.-born

Summary

- Indiana TB case count decreased in 2019.
 - -6.9% change
- The number of TB deaths in Indiana has decreased for the first time in four years.
- Proportion of U.S.-born cases decreased.
 - This trend matches national data.
- Risk Factors: Non-injection drug use and diabetes are increasing.
- Continued success in TB treatment and case management indicators:
 - HIV testing;
 - Genotyping;
 - Completion of treatment; and
 - Contact Investigations.

Questions?

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