TB in Texas: Current Numbers and Challenges

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World TB Day
March 20, 2024
Webcast

Anette Costa, MPH has the following disclosures to make:

- No conflict of interests
- No relevant financial relationships with any commercial companies pertaining to this educational activity

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World TB Day, 2024

Heartland National TB Center

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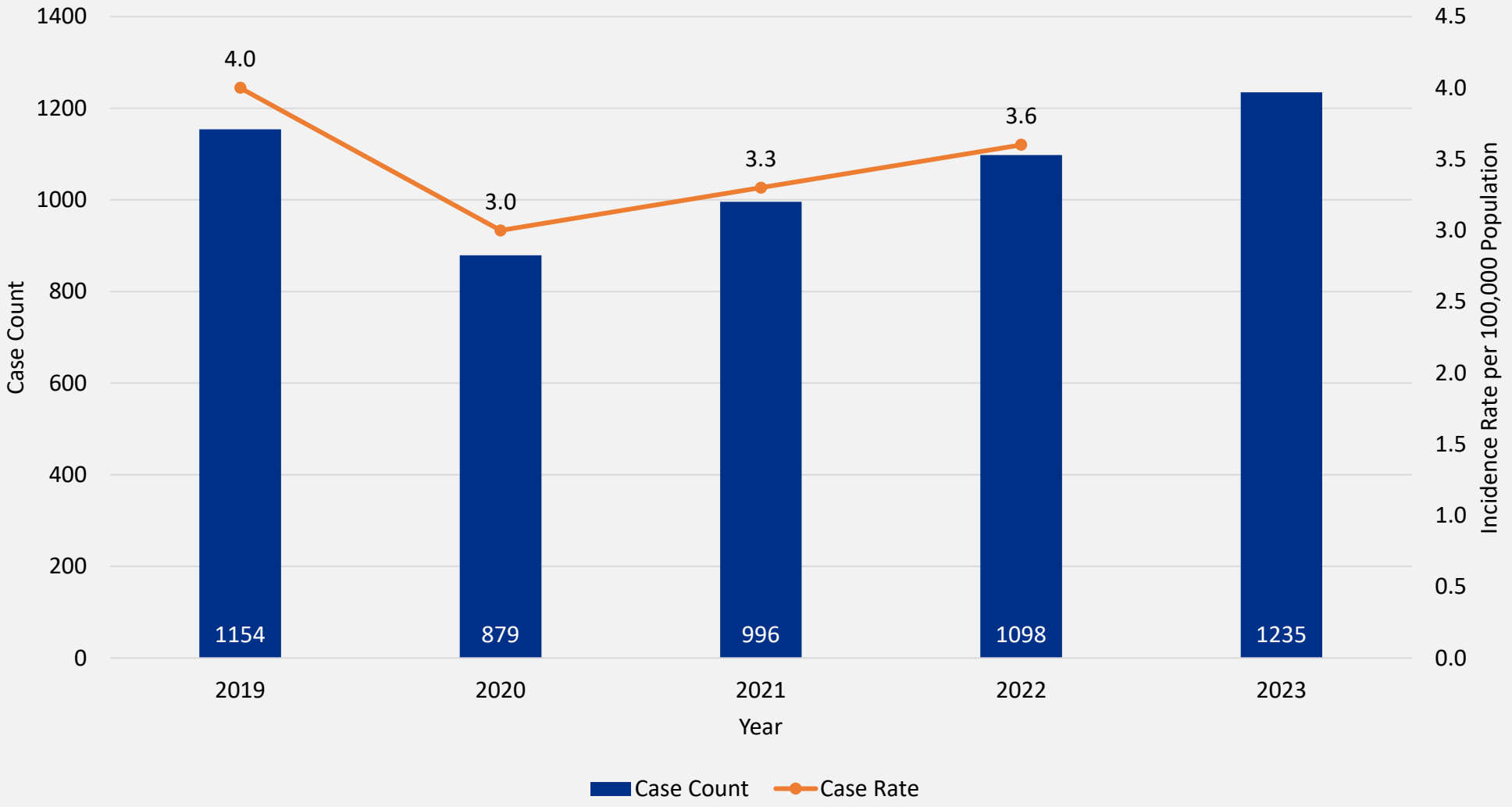
Texas Department of State Health Services

March 20, 2024

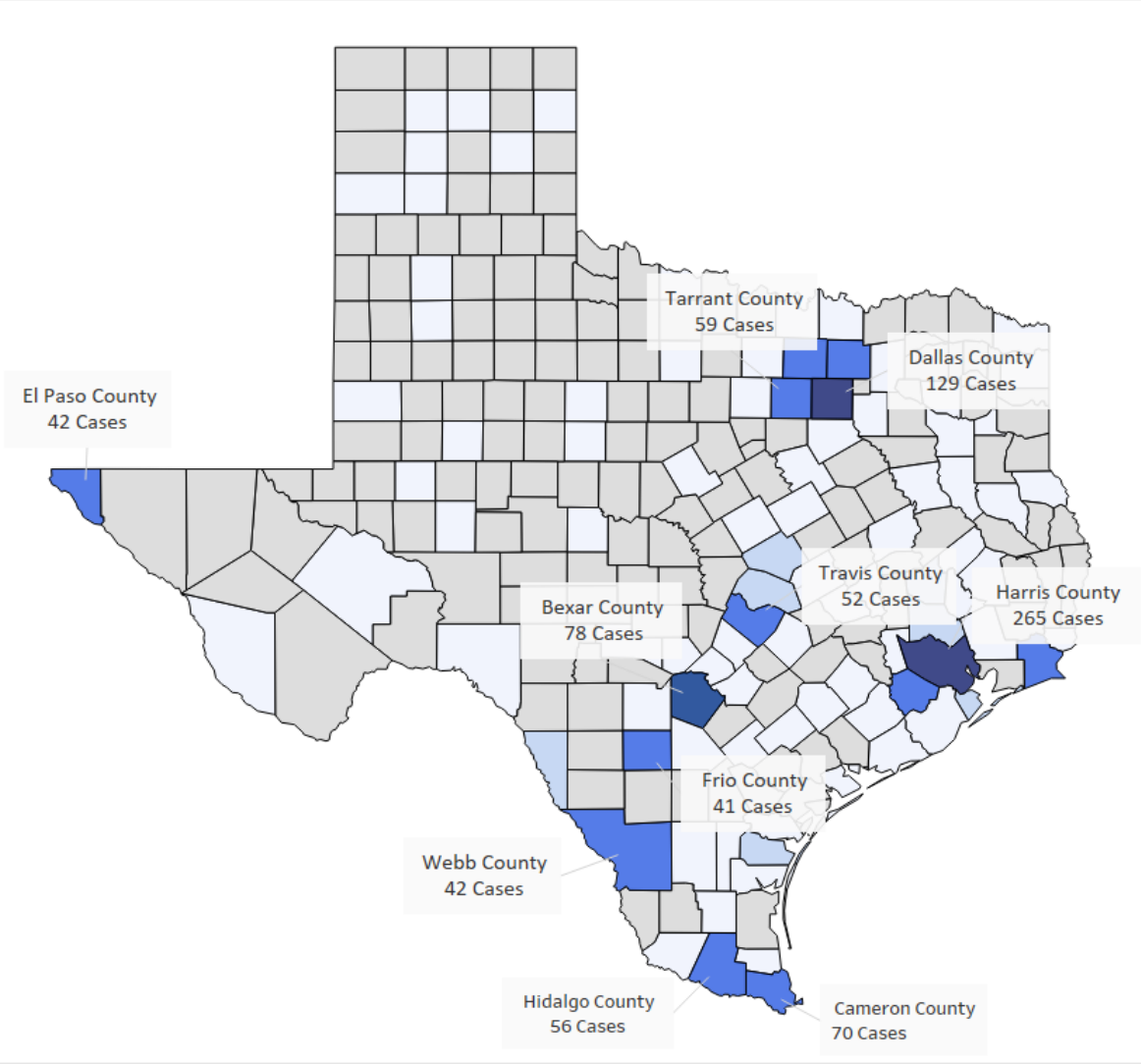
2023 Data Are Provisional and Subject to Change

Incidence and Distribution

TB Case Counts and TB Case Rates, 2019-2023



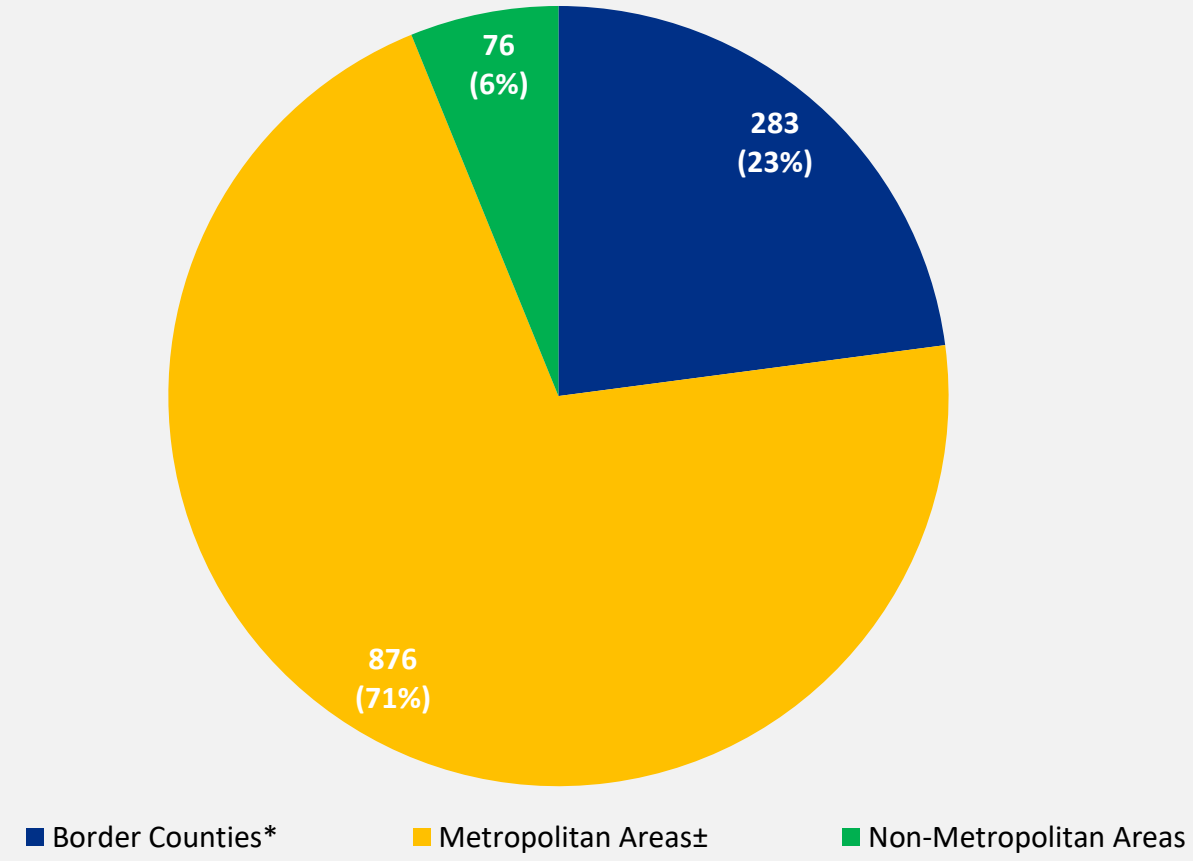
Distribution of TB in Texas, 2023



County	Reported Cases	Percent of All Cases
Harris	265	21.5%
Dallas	129	10.5%
Bexar	78	6.3%
Cameron	70	5.7%
Tarrant	59	4.8%
Hidalgo	56	4.5%
Travis	52	4.2%
El Paso	42	3.4%
Webb	42	3.4%
Frio	41	3.3%
Total	**834**	**67.5%**

TB Distribution by Statistical Area, 2023

- The majority of TB cases are reported from large metropolitan areas
- Border counties have the second highest number of cases



±Metropolitan areas as defined by the U.S. Census Bureau include
*Border counties are defined by the La Paz Agreement

TB in Border Counties*, 2023

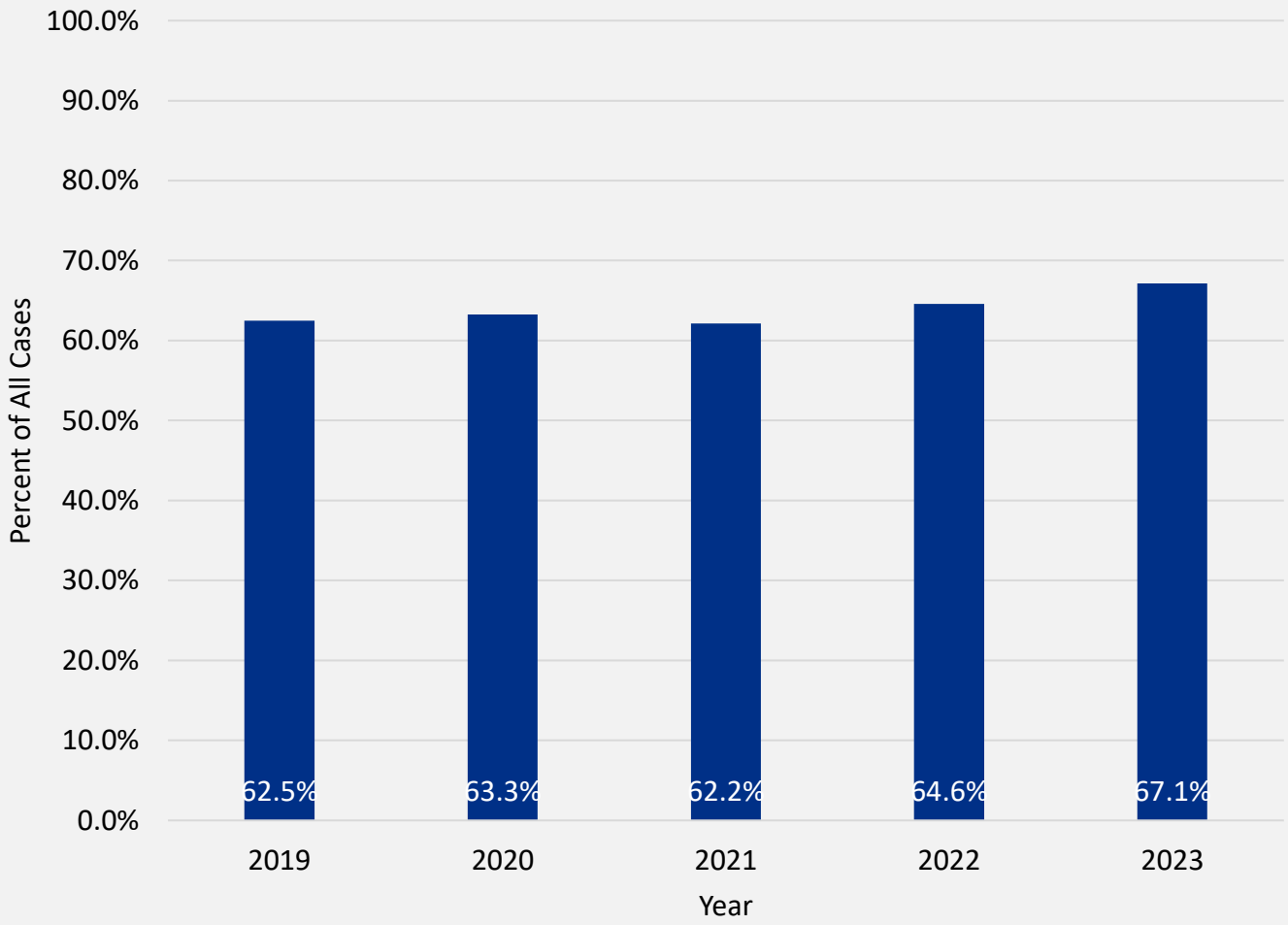
- 13 of the 32 border counties reported at least one TB case
  - This region accounts for 23% of all TB cases
- Less than 10% of the Texas population lives in the border region

*As defined by the La Paz Agreement

Demographics

Origin of Birth, 2019-2023*

- Per the World Health Organization (WHO), 10.6 million people fell ill with TB worldwide in 2022
  - TB is present in all countries and age groups
- Non-U.S. born persons represented about 72% of TB cases in the U.S. in the last 5 years
- In 2023, 67% of Texas TB cases were born outside the U.S.



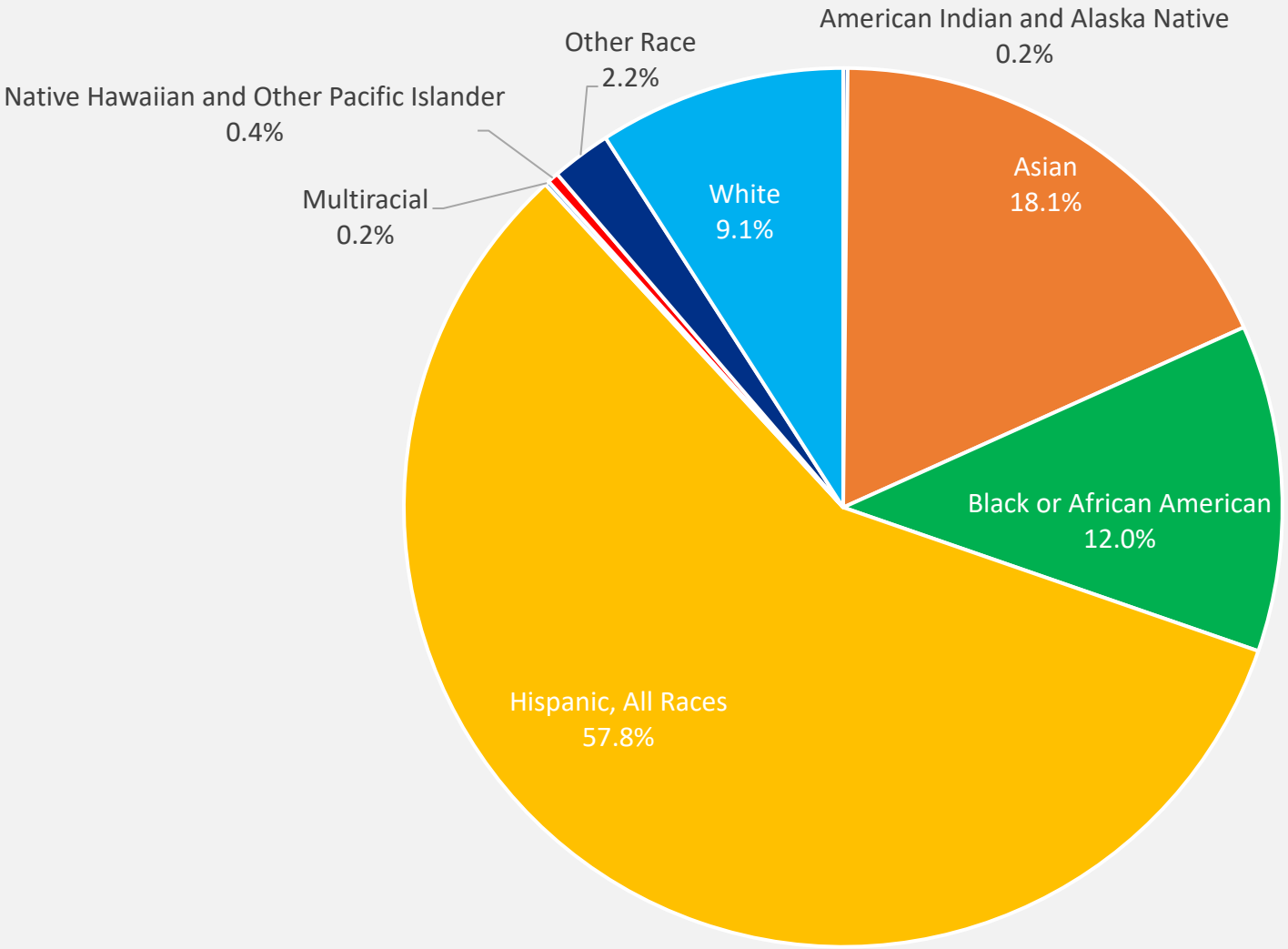
Origin of Birth

- Being born outside the U.S. is the highest risk factor for TB in Texas
- There were about 61 different countries represented among Texas TB cases in 2023
- 51.3% of all non-U.S. born TB cases in 2023 have been the U.S. for at least 5 years prior to diagnosis

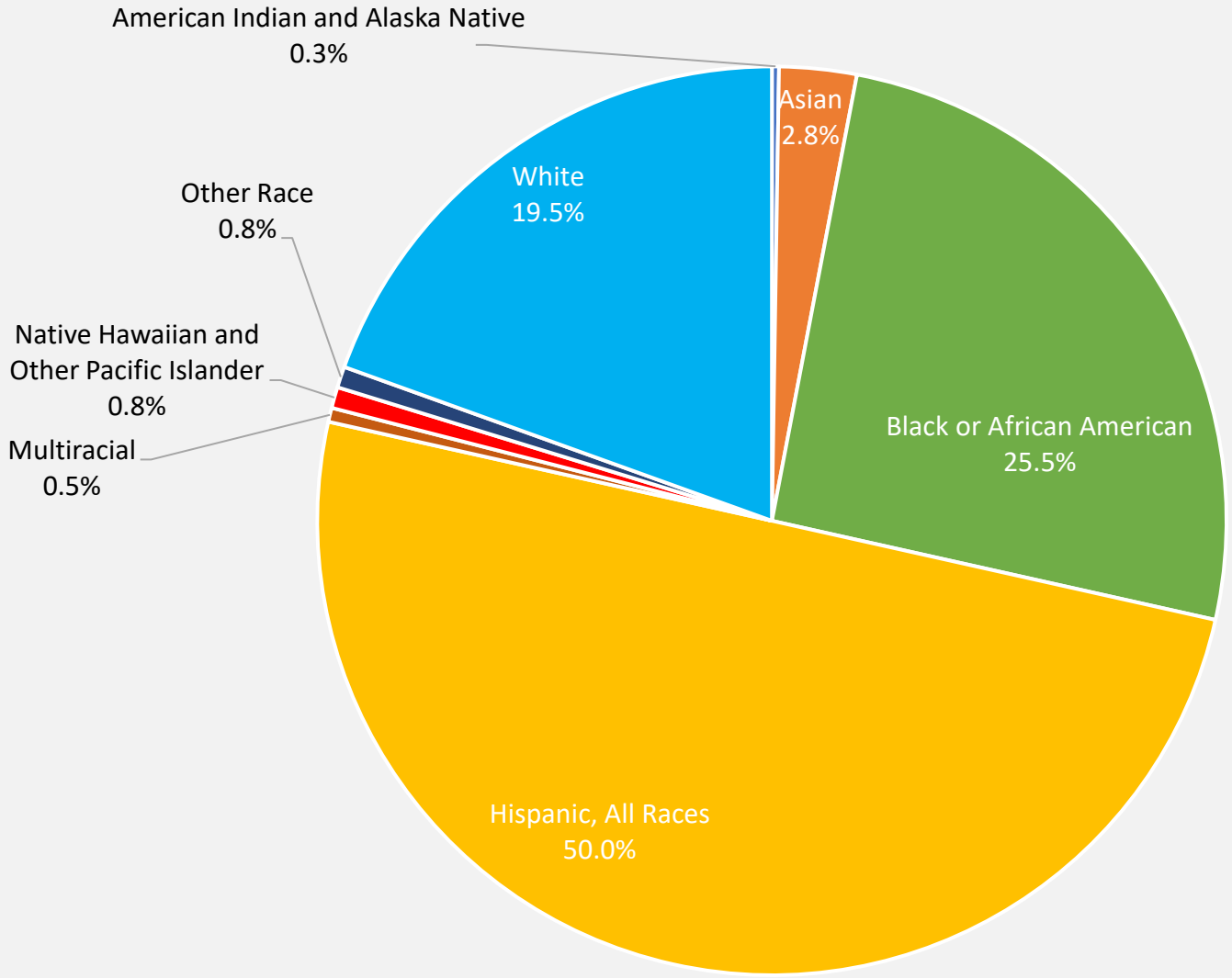
10 Countries With the Highest Representation Among Texas TB Cases, 2023

Country of Birth	Case Count	Percent of All Cases
Mexico	296	24.0%
Viet Nam	80	6.5%
Honduras	62	5.0%
Venezuela	60	4.9%
India	59	4.8%
Guatemala	44	3.6%
Philippines	31	2.5%
El Salvador	25	2.0%
Nepal	22	1.8%
Colombia	16	1.3%
Total	695	56.3%

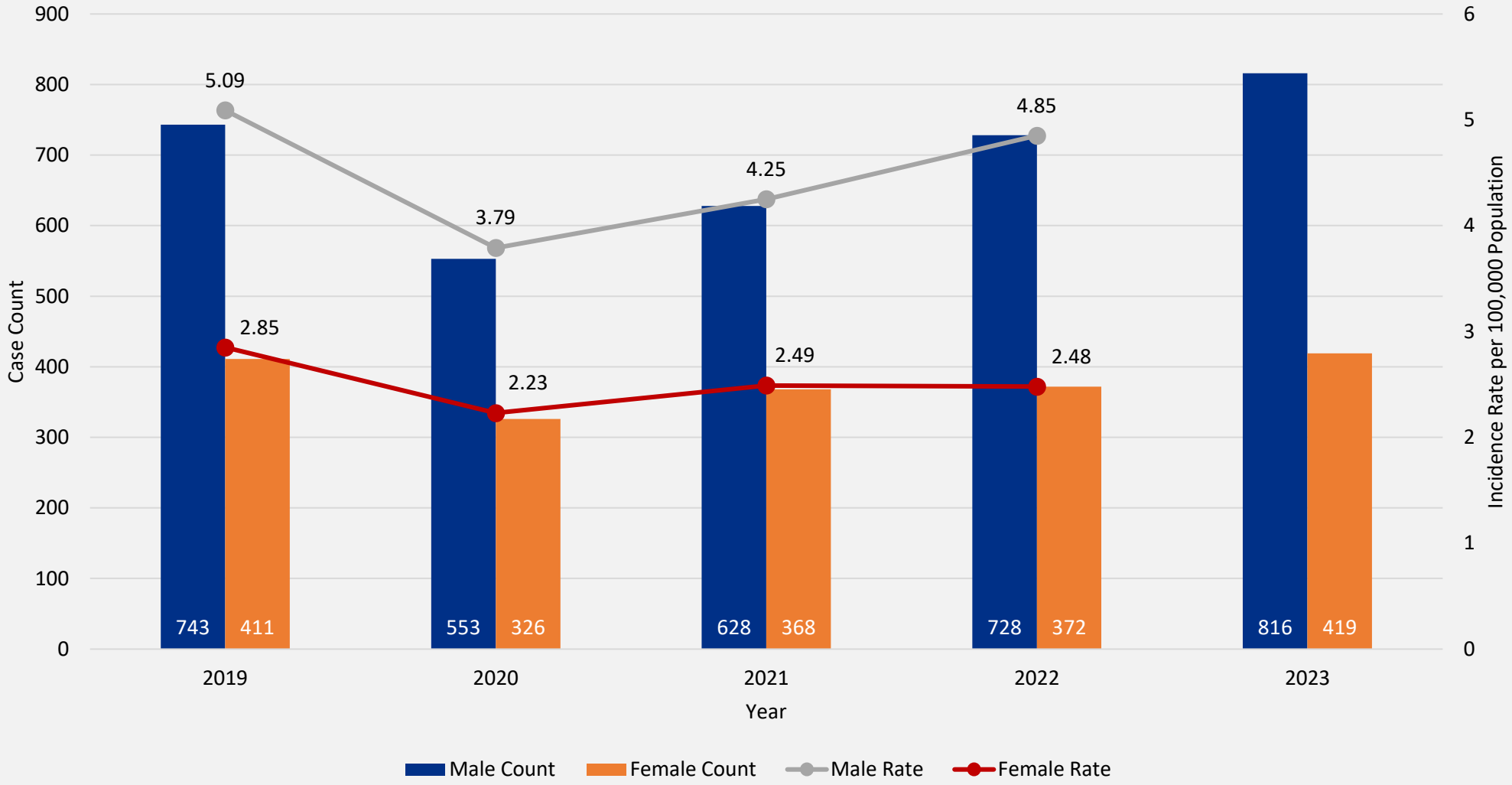
Race/Ethnicity for All Cases, 2023



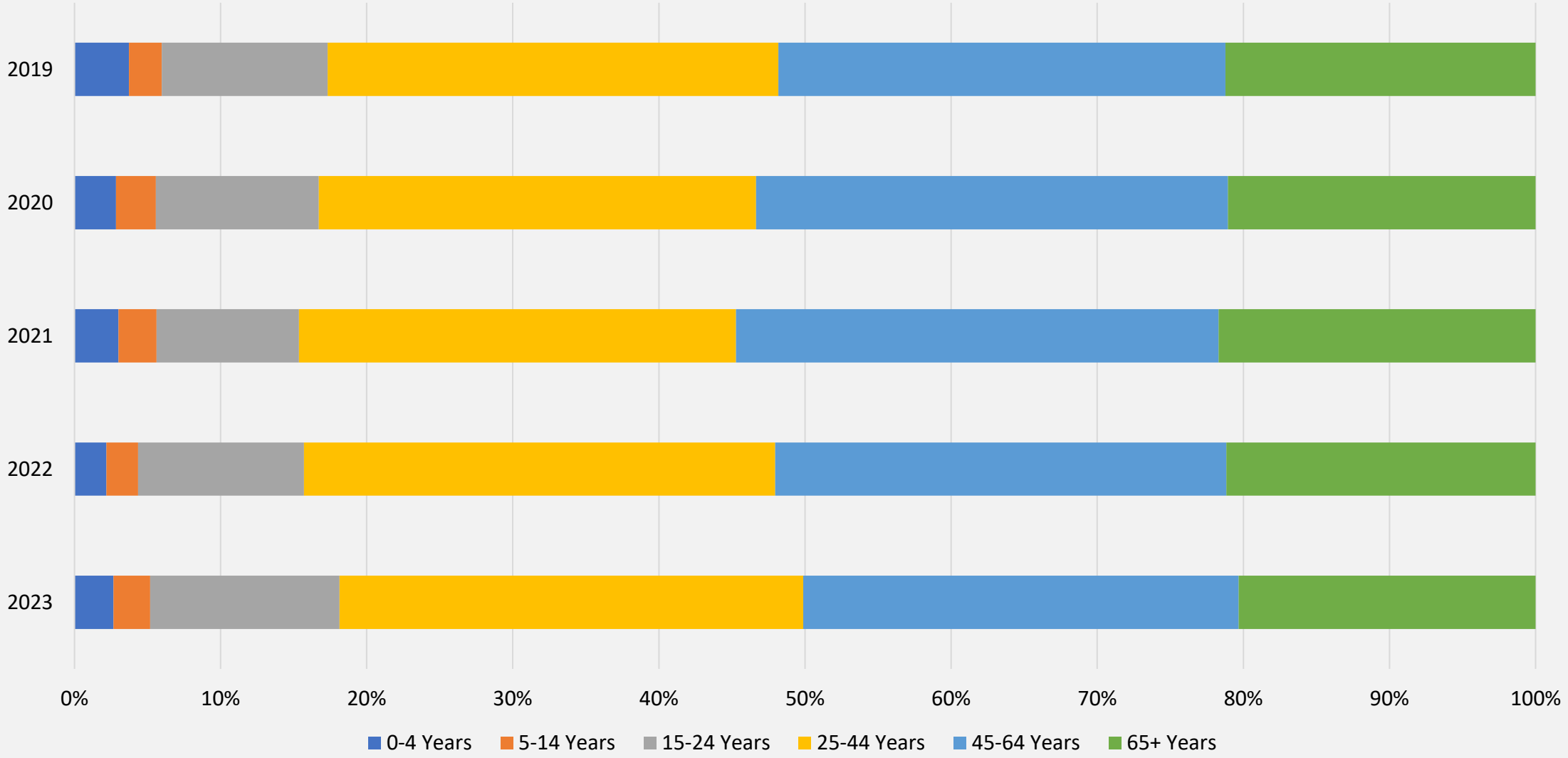
Race/Ethnicity for U.S.-Born Cases, 2023



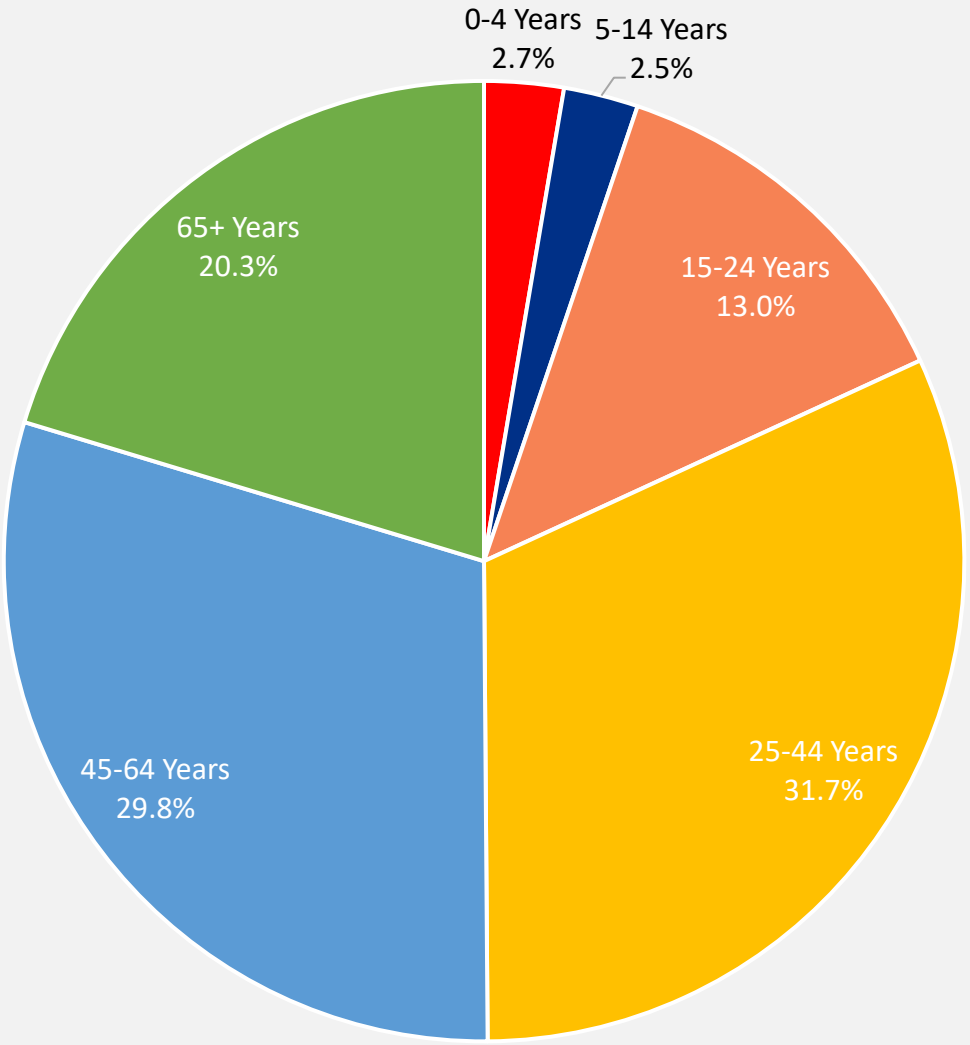
Sex at Birth, 2019-2023



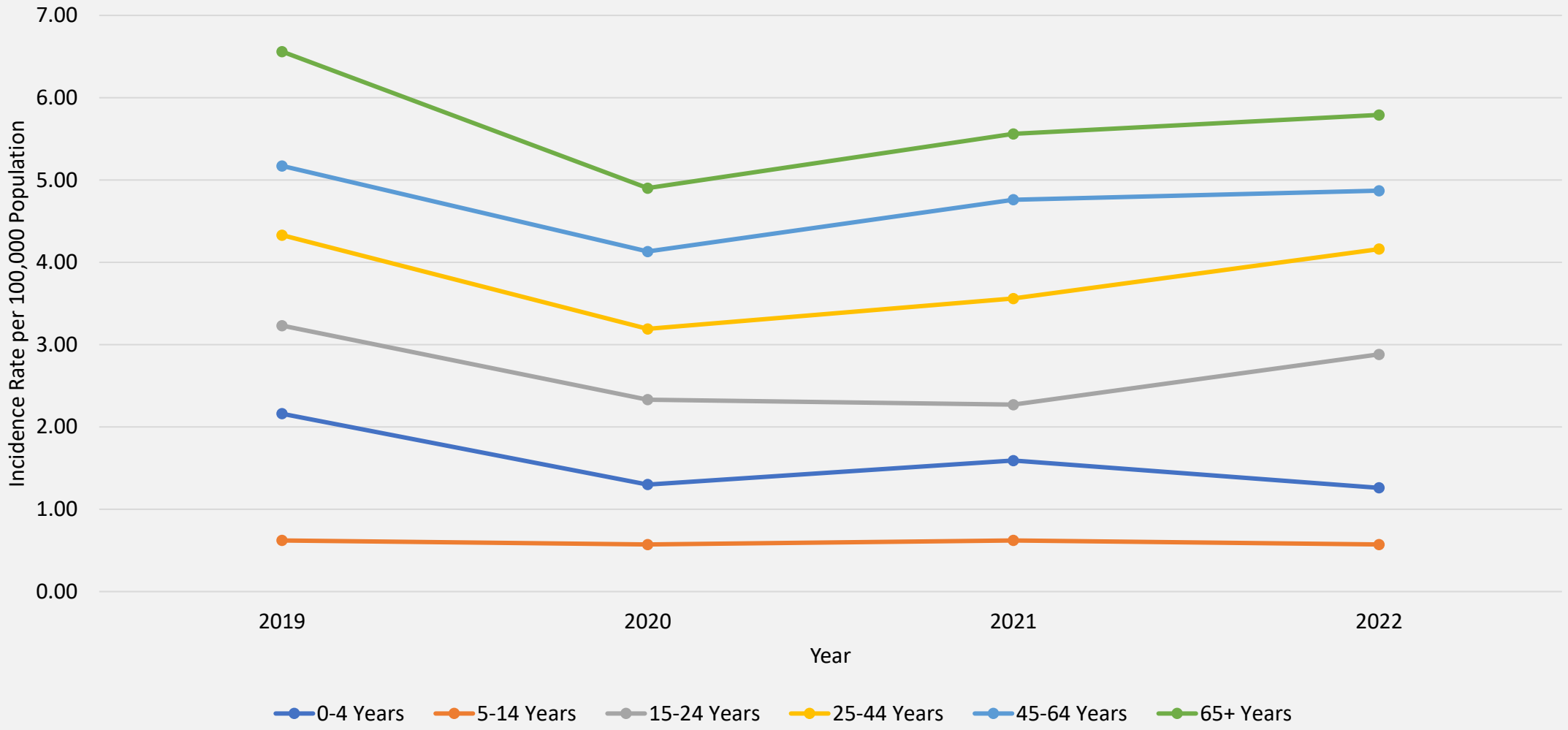
Age at Diagnosis (in Years), 2019-2023



Cases by Age at Diagnosis (in Years), 2023

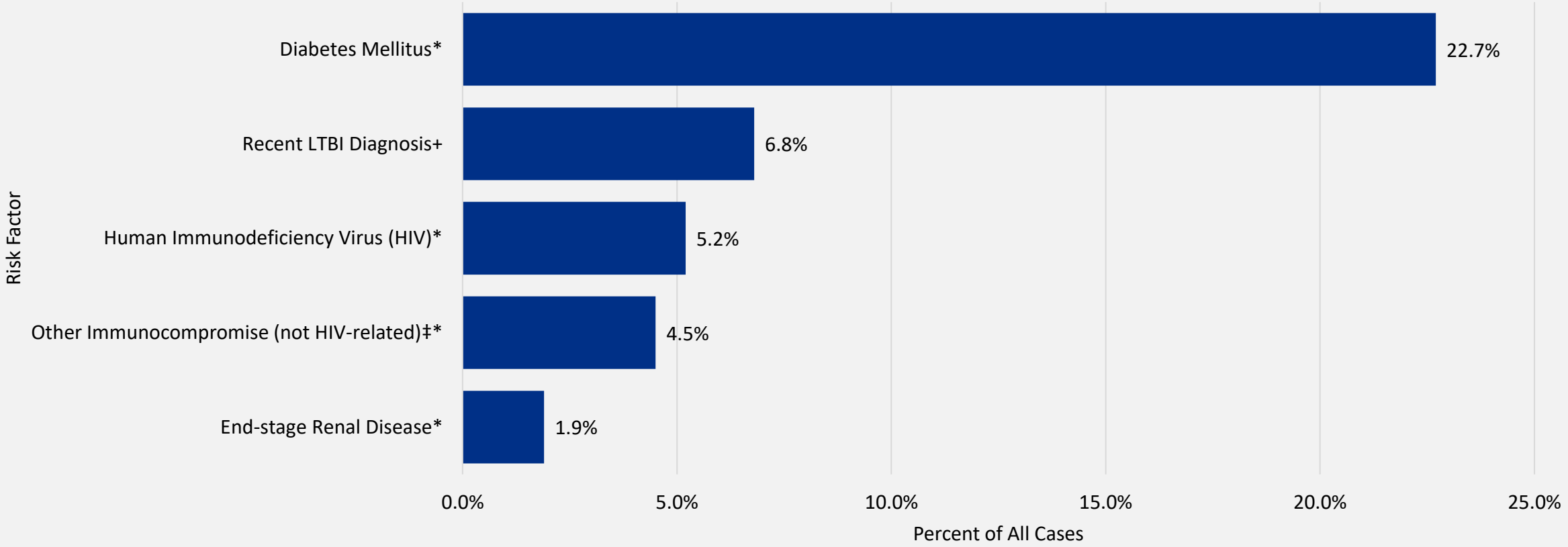


Incidence by Age at Diagnosis, 2019-2022



Risk Factors

Medical Conditions , 2023

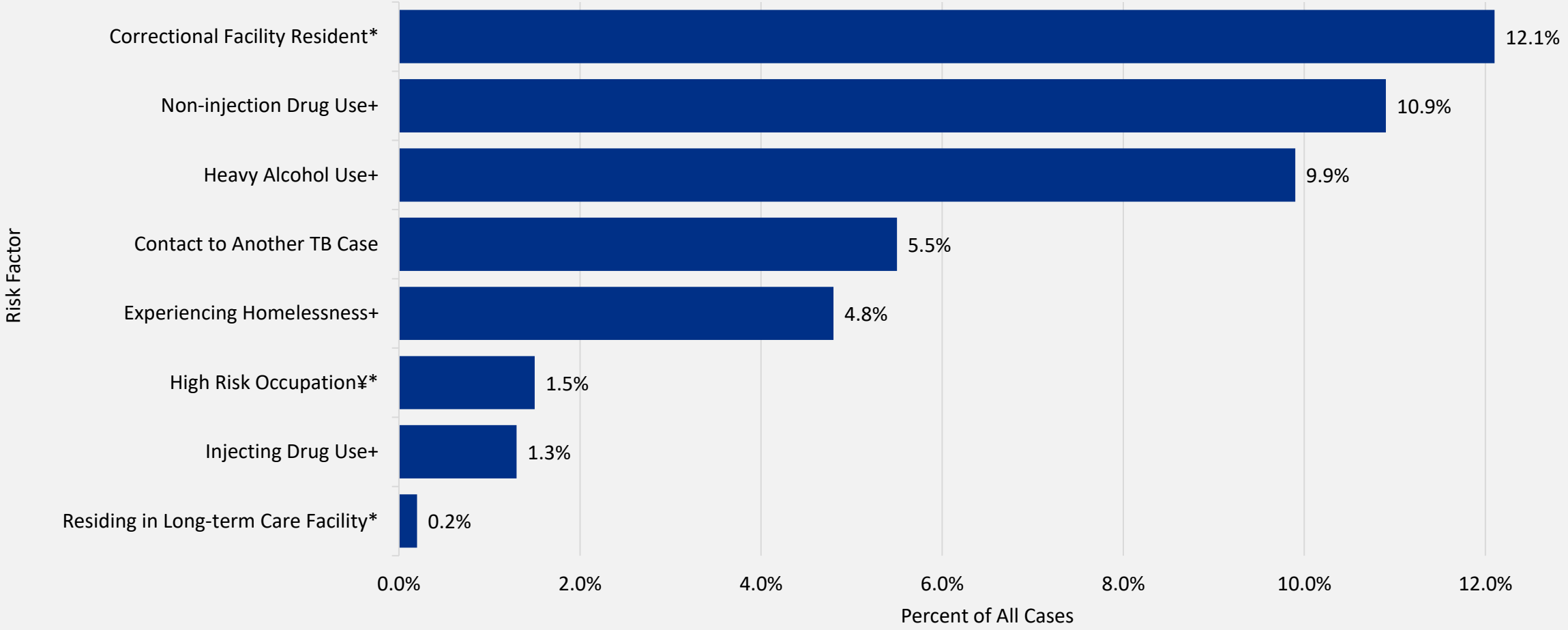


+ Within 12 months prior to TB diagnosis

*At the time of TB diagnosis

‡Includes persons immunocompromised because of either a medical condition or immunosuppressive therapy, persons on TNF-α antagonist therapy, and persons who have ever received a solid organ transplant

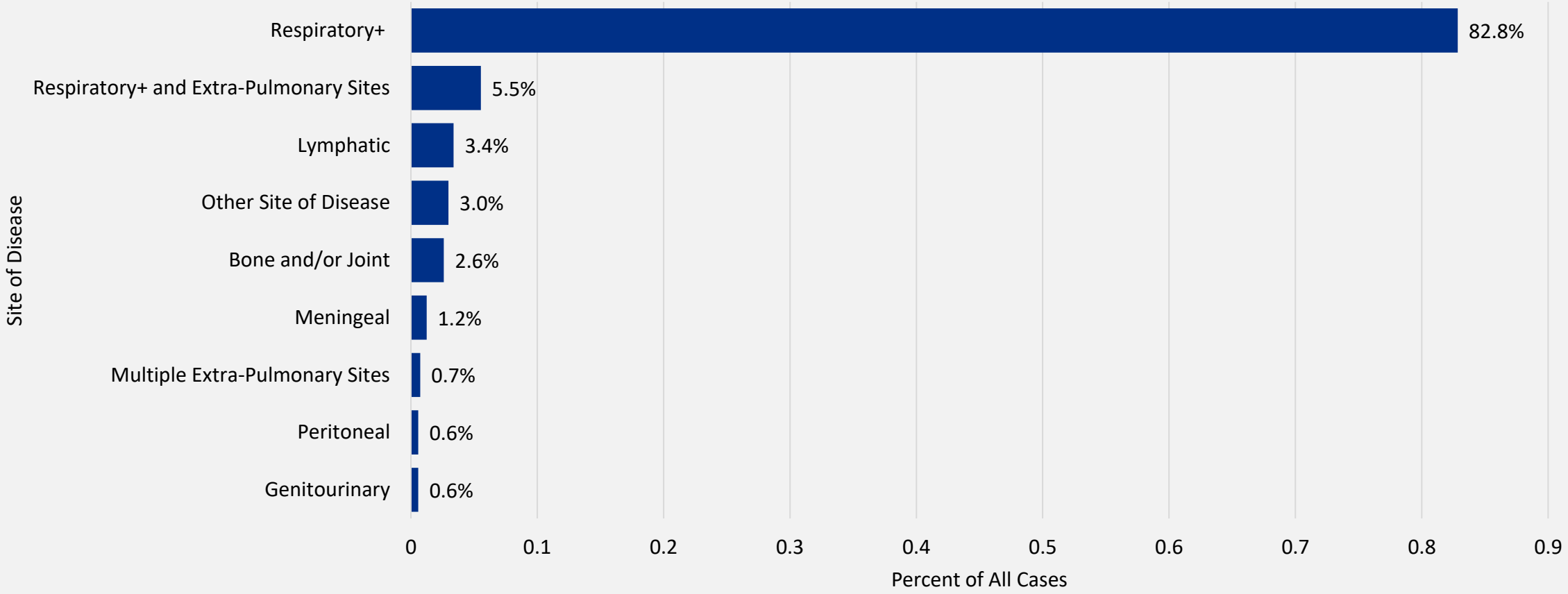
Social Risk Factors, 2023



+ Within 12 months prior to TB diagnosis
* At the time of TB diagnosis
¥ High risk occupations for TB include healthcare workers, correctional facility employees, and migrant/seasonal workers.

Disease Presentation

Site of Disease, 2023

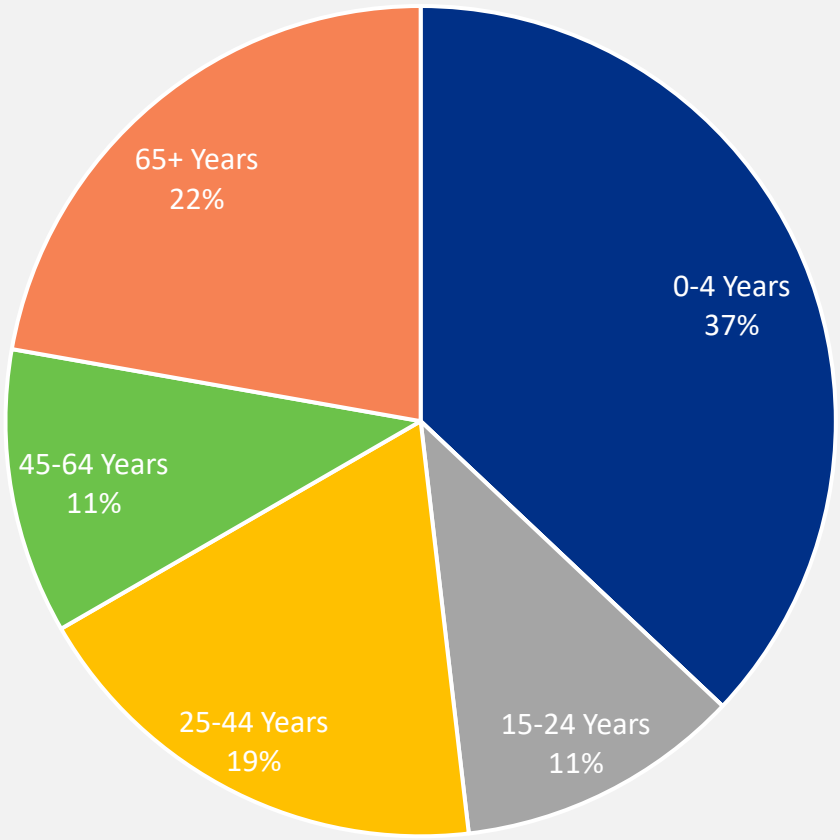


[+]Includes Pulmonary, Laryngeal, and Pleural Disease

Meningeal TB, 2023

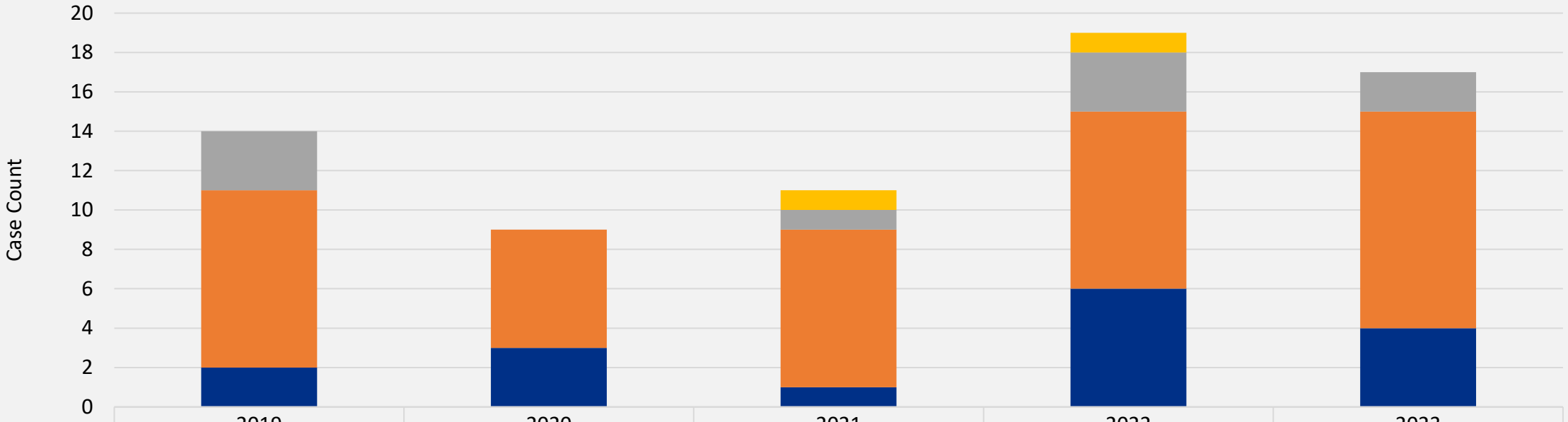
- TB meningitis in Texas is most prevalent among children under 5 years of age
- 10 of the 33 children 0-4 years diagnosed with TB disease in 2023 were reported to have meningeal disease

Age at Diagnosis in Years for Cases with Meningeal Involvement, 2023



Drug Resistance

Multi-Drug Resistant TB, 2019 – 2023*



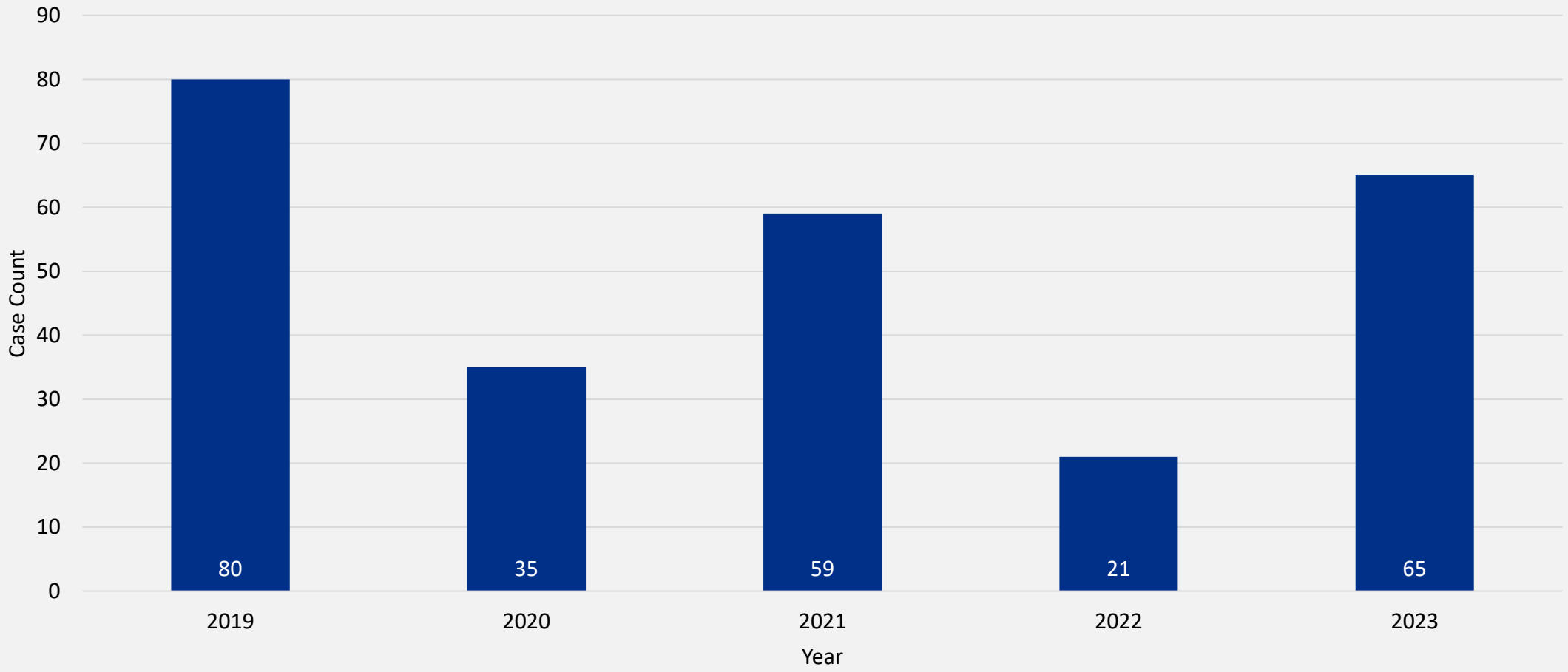
	2019	2020	2021	2022	2023
XDR	0	0	1	1	0
Pre-XDR	3	0	1	3	2
MDR	9	6	8	9	11
RIF	2	3	1	6	4

Year

* Includes the following drug resistance patterns:

- Rifampin (RIF) resistance: resistance to rifampin excluding MDR, pre-XDR, and XDR TB
- Multidrug Resistant (MDR) TB: resistance to at least isoniazid and rifampin
- Pre-extensive Drug Resistant (Pre-XDR) TB: resistance to isoniazid, rifampin, and a fluoroquinolone or second-line injectable
- Extensive Drug Resistant (XDR) TB: resistance to isoniazid, rifampin, a fluroquinolone, and:
    A. A second-line injectable; or
    B. Bedaquiline or linezolid

Cases Resistant to Isoniazid (INH), 2019-2023

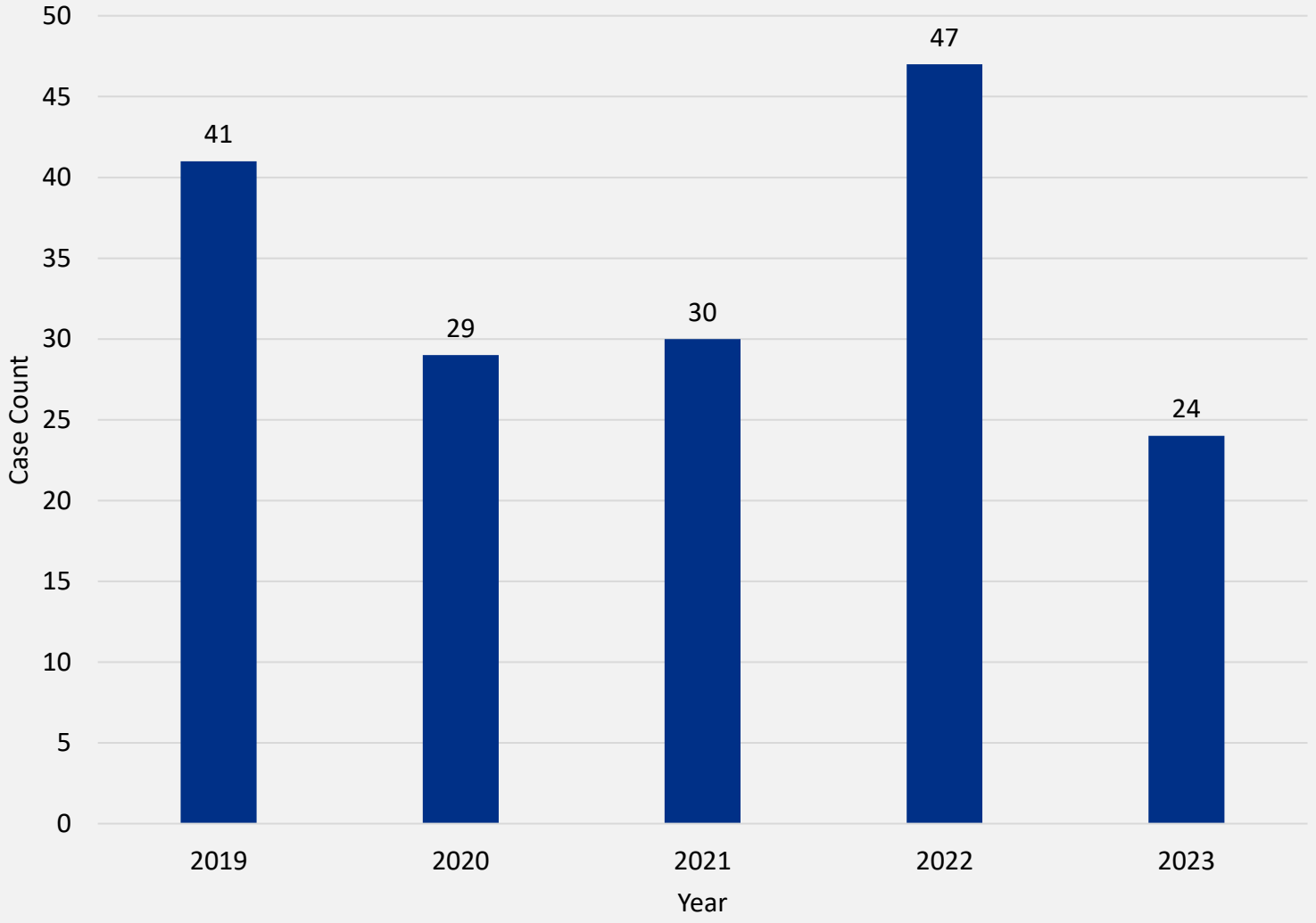


Includes cases resistant to Isoniazid without any Rifampin resistance

TB Mortality

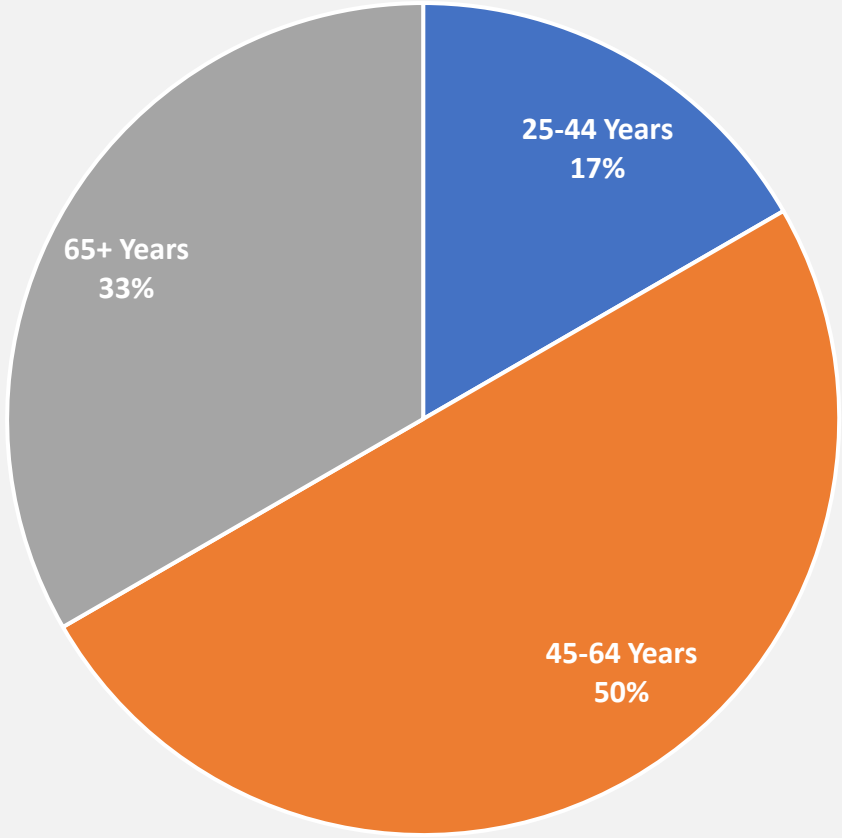
Deaths Related to TB Disease

- Every year, Texans die due to complications of TB disease or TB treatment
- The number of deaths varies year to year



Age at Diagnosis for TB-Related Deaths, 2023

- Adults aged 45-64 years represented the largest proportion of TB-related deaths in 2023
- There were no pediatric (0-14 years) TB-related deaths reported in 2023



Thank You!

For more information contact TBEpi@dshs.texas.gov