





Tuberculosis Surveillance Annual Report, 2016-2020

Rhode Island Department of Health

Division of Preparedness, Response, Infectious Disease, and Emergency Medical Services

Center for HIV, Hepatitis, STD, and TB Epidemiology



About Tuberculosis

- Tuberculosis (TB) is caused by the *Mycobacterium tuberculosis* bacteria.
- TB bacteria are spread through the air and are transmitted by those with infectious active disease in the lungs or throat (pulmonary TB).
- Many people in Rhode Island (~15% of foreign born persons) have latent TB infection (LTBI). Those with LTBI have no symptoms and cannot spread TB bacteria.
- About 5-10% of people with LTBI will develop active TB disease in their lifetime; treatment reduces this risk.
- Symptoms of active pulmonary TB disease include cough, fever, night sweats, hemoptysis (coughing up blood), and weight loss.

Data Overview, Tuberculosis in Rhode Island, 2020



- In 2020, there were 8 cases of active TB disease:
 - 87% foreign born
 - 13% U.S. born
- The incidence rate was 0.8 cases of active disease per 100,000 population.
- Cases decreased by 43% from 2019 to 2020
- The highest rates of TB disease were seen in Providence County.

Reported Cases of Tuberculosis, Rhode Island, 2016-2020

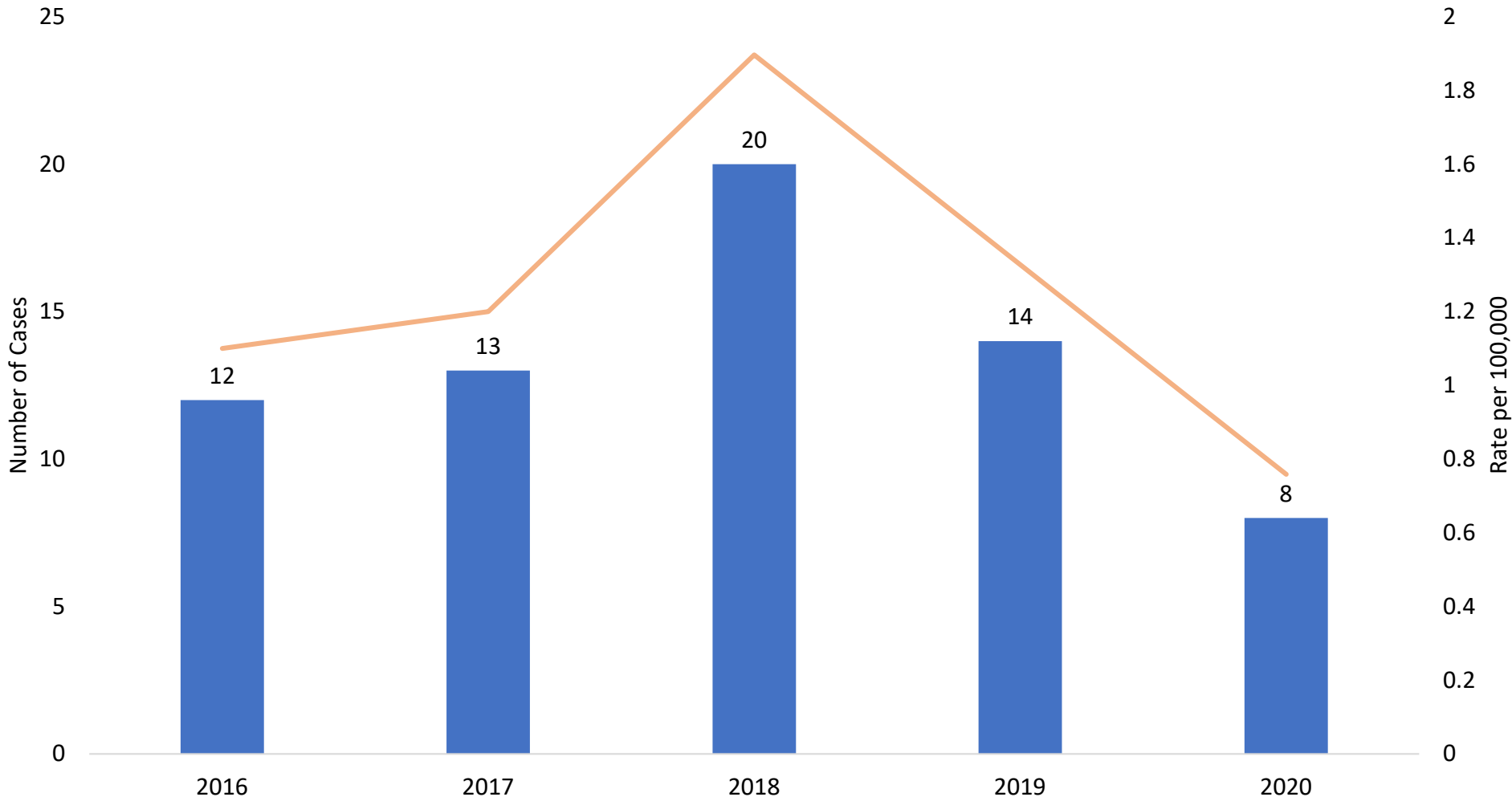


Figure 1. In 2020, there were 8 cases of Active Tuberculosis in Rhode Island, at a rate of 0.8 cases per 100,000 population. This rate has fluctuated over the last 5 years, with a peak in 2018 and previously 2015.

Rate of Tuberculosis, by Age Group, Rhode Island, 2020

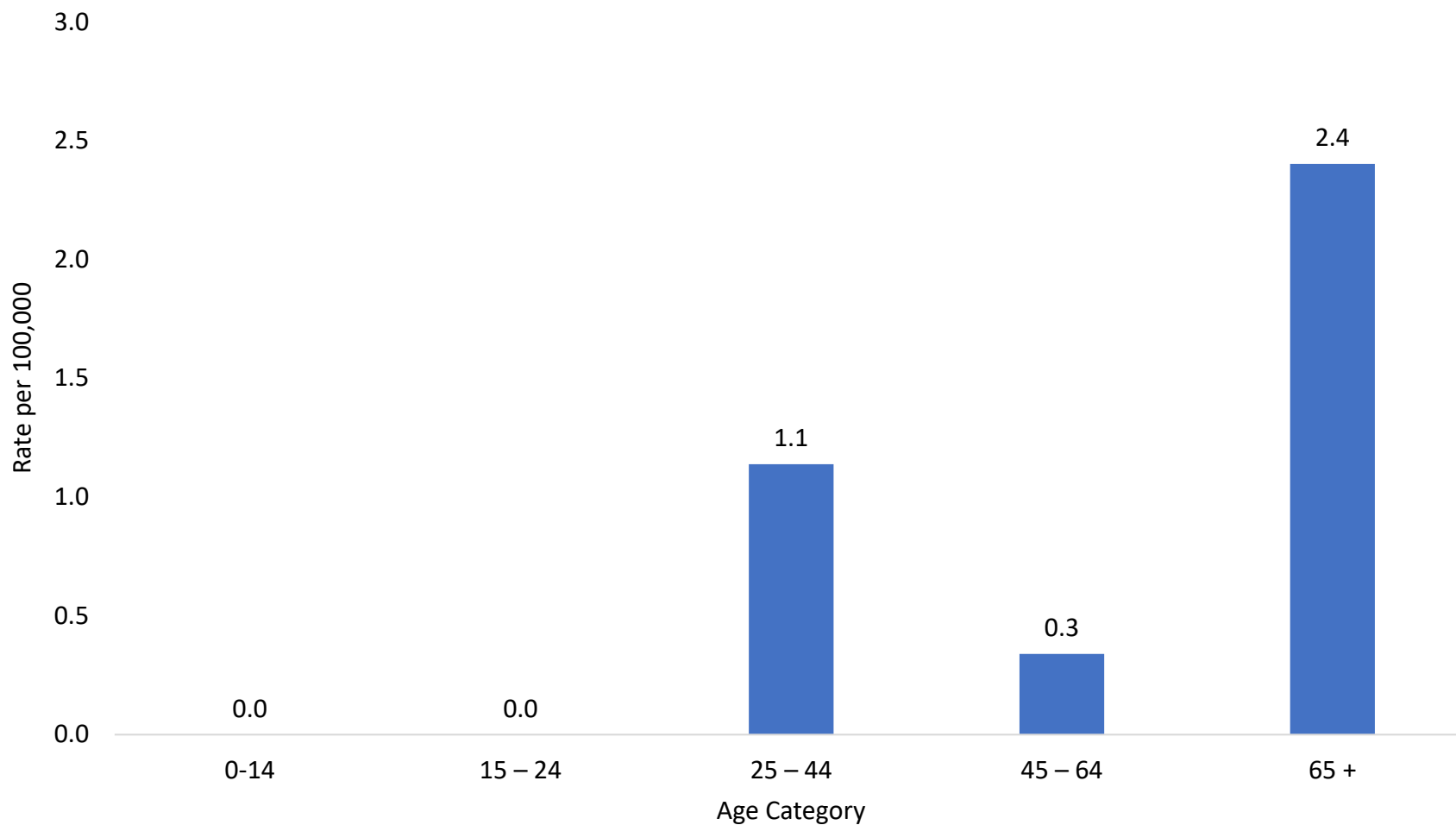


Figure 2. In 2020, the highest rates of active Tuberculosis were seen in adults aged 65 and older, at a rate of 2.4 cases per 100,000 population. The second highest rate of infection was among the 25-44 age group, at 1.1 cases per 100,000. In 2020 there were no reported cases in anyone under the age of 25.

Rate of Tuberculosis, by Sex, Rhode Island, 2016-2020

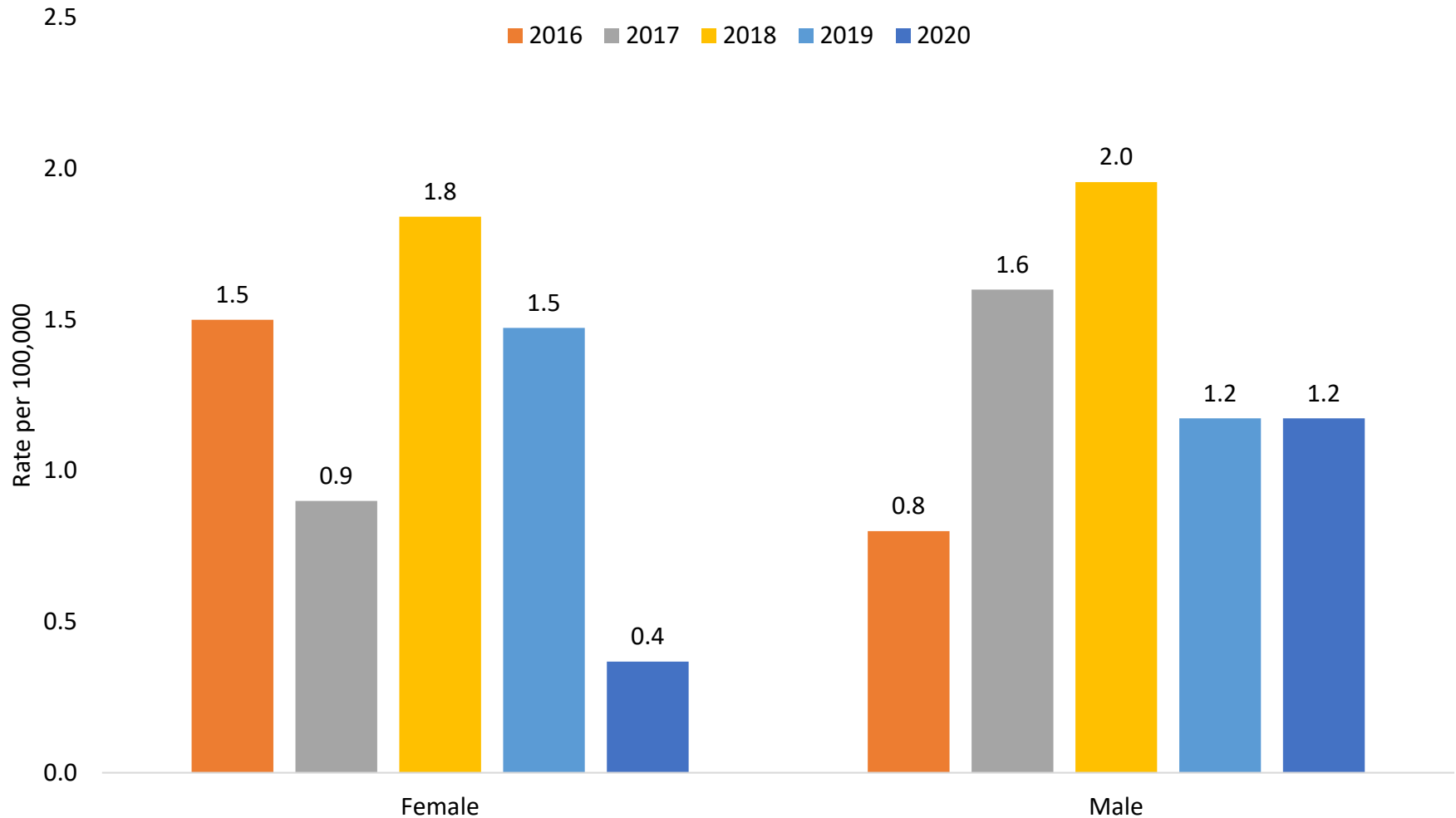


Figure 3. Over the last five years the distribution of Tuberculosis by sex has fluctuated. In 2020, there were 2 female cases and 6 male cases, at a rate of 0.4 and 1.2 cases per 100,000 respectively.

Rate of Tuberculosis, by County, Rhode Island, 2016-2020

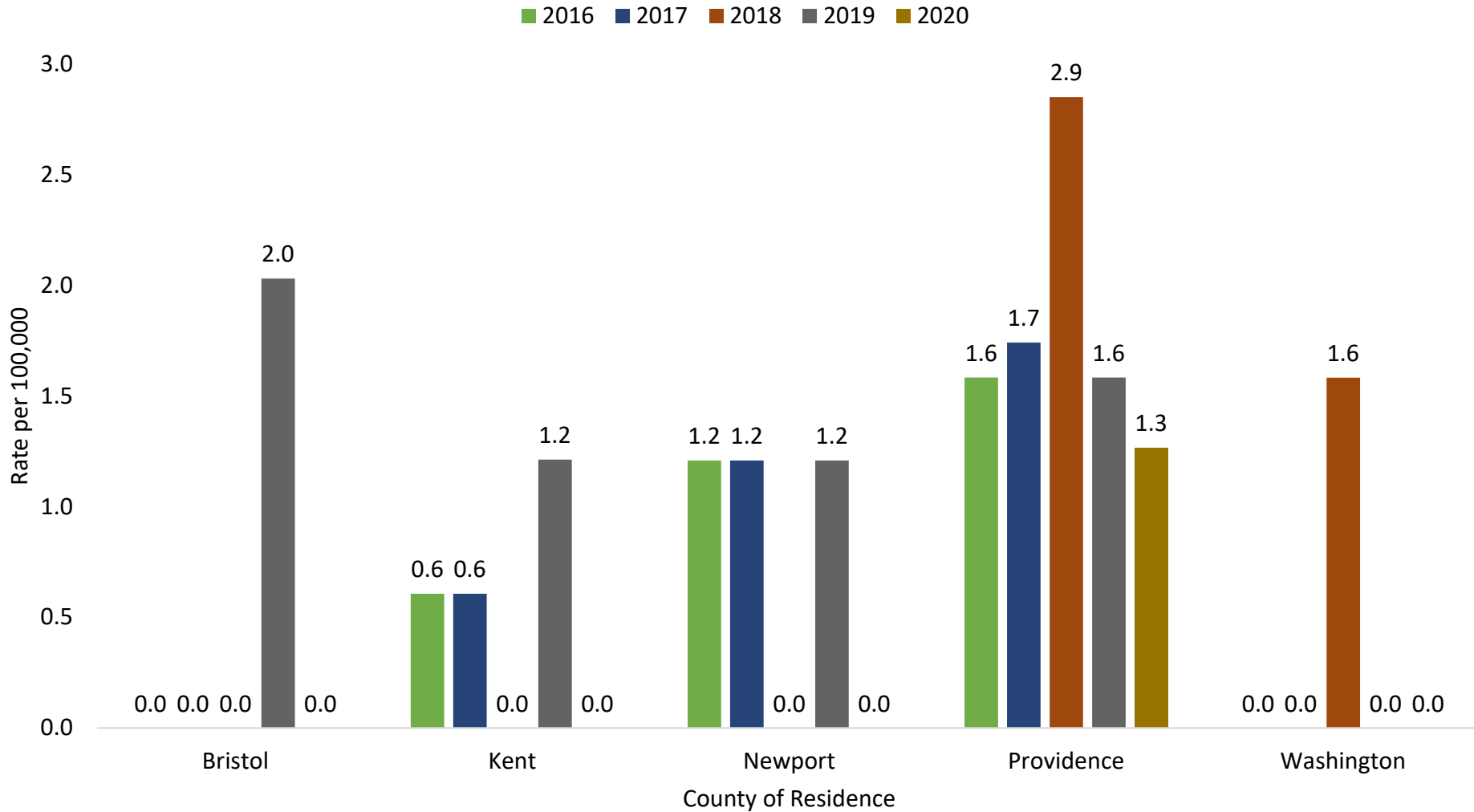


Figure 4. Providence County typically has the highest rate of reported TB compared to all other counties.

Rate of Tuberculosis, by Race/Ethnicity, Rhode Island, 2016-2020

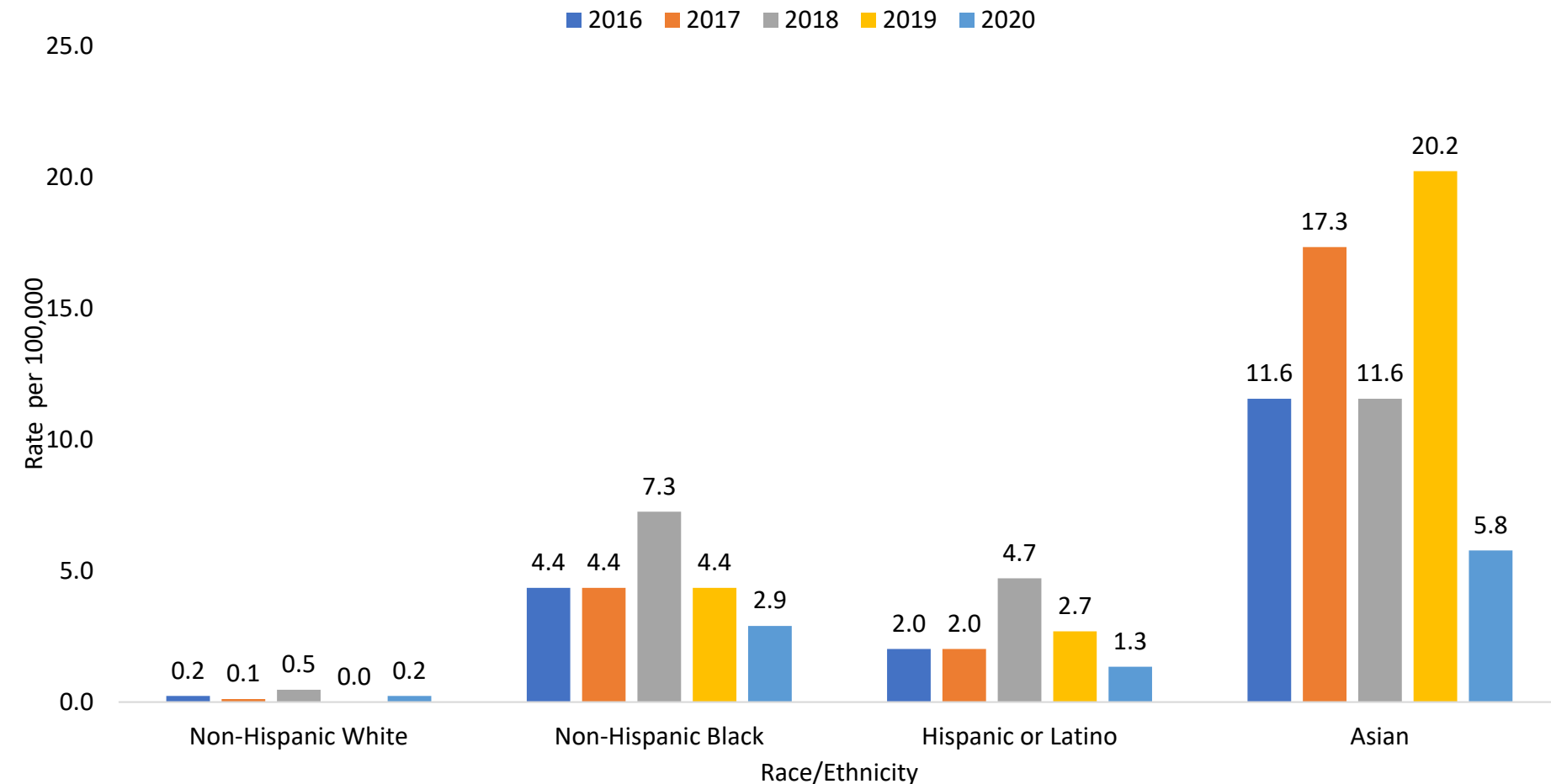


Figure 5. Between 2016 and 2020 rates of TB were highest among the Non-Hispanic Asian population. In the last five years no cases have been reported in the American Indian/Alaska Native or Native Hawaiian/Pacific Islander demographic groups.

Tuberculosis Frequency and Rate, Rhode Island, 2016-2020



Table 1. Frequency by Year

	2016	2017	2018	2019	2020
Number of Cases	12	13	20	14	8

Table 2. Rate by Year

	2016	2017	2018	2019	2020
Rate per 100,000	1.1	1.2	1.9	1.3	0.8

Tuberculosis Frequency & Rate, by Age Group, Rhode Island, 2016-2020



Table 3. Frequency by Age Group and Year

	2016	2017	2018	2019	2020
0-14	1	1	0	0	0
15-24	2	1	0	0	0
25-44	3	3	6	6	3
45-64	3	5	7	4	1
≥65	3	3	7	4	4
Total	12	13	20	14	8

Table 4. Rate by Age Group and Year

	2016	2017	2018	2019	2020
0-14	0.6	0.6	0.0	0.0	0.0
15-24	1.3	0.6	0.0	0.0	0.0
25-44	1.1	1.1	2.3	2.3	1.1
45-64	1.0	1.7	2.4	1.4	0.3
≥65	1.8	1.8	4.2	2.4	2.4

Tuberculosis Frequency and Rate, by Sex, Rhode Island, 2016-2020



Table 5. Frequency by Sex and Year

	2016	2017	2018	2019	2020
Female	8	5	10	8	2
Male	4	8	10	6	6
Total	12	13	20	14	8

Table 6. Rate by Sex and Year

	2016	2017	2018	2019	2020
Female	1.5	0.9	1.8	1.5	0.4
Male	0.8	1.6	2.0	1.2	1.2

Tuberculosis Frequency & Rate, by County, Rhode Island, 2016-2020



Table 7. Frequency by County and Year

	2016	2017	2018	2019	2020
Bristol	0	0	0	1	0
Kent	1	1	0	2	0
Newport	1	1	0	1	0
Providence	10	11	18	10	8
Washington	0	0	2	0	0
All Counties	12	13	20	14	8

Table 8. Rate by County and Year

	2016	2017	2018	2019	2020
Bristol	0.0	0.0	0.0	2.0	0.0
Kent	0.6	0.6	0.0	1.2	0.0
Newport	1.2	1.2	0.0	1.2	0.0
Providence	1.6	1.7	2.9	1.6	1.3
Washington	0.0	0.0	1.6	0.0	0.0

Tuberculosis Frequency & Rate, by Race/Ethnicity, Rhode Island, 2016-2020



Table 9. Frequency by Race/Ethnicity and Year

	2016	2017	2018	2019	2020
Non-Hispanic White	2	1	4	0	2
Non-Hispanic Black	3	3	5	3	2
Hispanic or Latino	3	3	7	4	2
Asian	4	6	4	7	2
Am Indian/AK Native	0	0	0	0	0
HI Native/Pacific Islander	0	0	0	0	0

Table 10. Rate by Race/Ethnicity and Year

	2016	2017	2018	2019	2020
Non-Hispanic White	0.2	0.1	0.5	0.0	0.2
Non-Hispanic Black	4.4	4.4	7.3	4.4	2.9
Hispanic or Latino	2.0	2.0	4.7	2.7	1.3
Asian	11.6	17.3	11.6	20.2	5.8
Am Indian/AK Native	0.0	0.0	0.0	0.0	0.0
HI Native/Pacific Islander	0.0	0.0	0.0	0.0	0.0

Notes on Data



- Rates calculated per 100,000 population.
- Population denominator for 2017-2020 data based on 2016 U.S. Census Population Data.
- Population denominator for 2016 and prior data based on 2010 U.S. Census Population Data.

References



- <https://www.cdc.gov/tb/publications/factsheets/general/ltbiandactive/tb.htm>
- https://www.cdc.gov/tb/statistics/reports/2015/pdfs/2015_Surveillance_Report_Full_Report.pdf