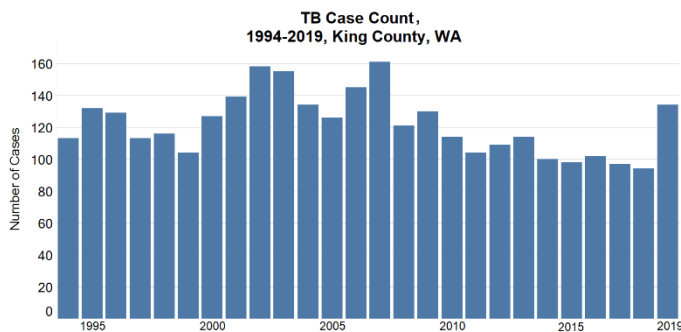


# TUBERCULOSIS

Seattle & King County, Washington, 2019

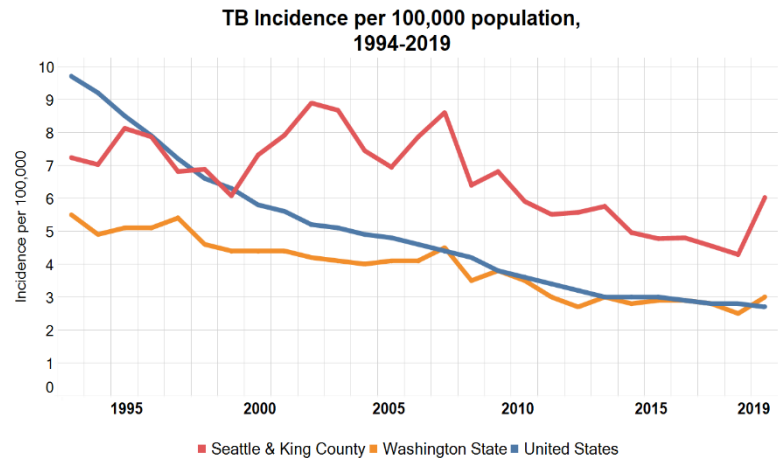
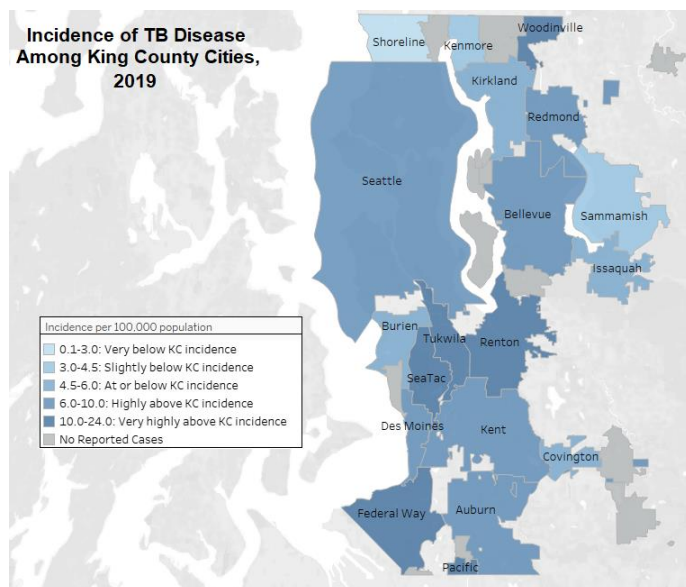
**MISSION: Interrupt the transmission of TB in Seattle & King County**

**VISION: TB-free King County**



## OVERVIEW

In 2019, 132 cases of TB were reported in King County, for an incidence of 5.9 cases per 100,000, a significant increase from 2018 (94 cases; 4.3 cases per 100,000). In 2019, there was one death related to TB disease in King County. Over a third of 2019 cases (34%) were reported in the City of Seattle. SeaTac, Tukwila, Federal Way, and Renton had some of the highest incidence rates (range: 12.4-24.0 per 100,000 population). Twenty King County cities did not report any TB cases in 2019.



## GENDER AND AGE

Historically, males comprise 55-65% of TB cases in King County. In 2019, 60% of TB cases were male. Cases ranged from 1 year to 90 years of age, with a median age of 45 years. The highest rate of TB was among individuals 65 years of age and older (12.2 cases per 100,000 population).

TB case rate per 100,000 population by age group, 2015-2019, King County, WA					
	2015	2016	2017	2018	2019
0-17	1.4	1.6	0.9	0.4	1.1
18-44	5.3	5.3	4.8	4.1	6.5
45-64	3.3	4.6	5.0	3.9	6.2
65+	11.8	8.8	8.6	12.0	12.2

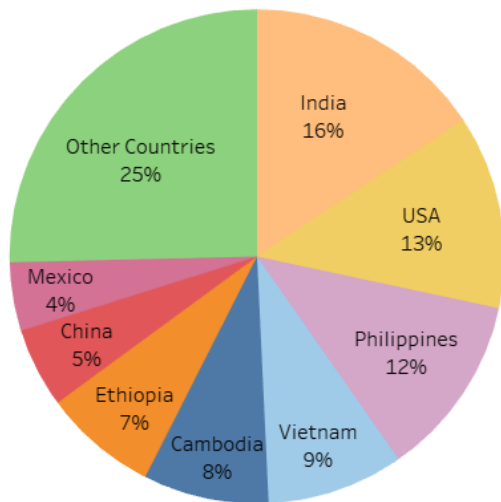
## COMORBIDITIES

In 2019, four TB cases (3%) were also infected with HIV whereas 0.32% of King County residents have been diagnosed with HIV. All four co-infected TB cases were born outside the US. Diabetes mellitus is also a risk factor for progression to active TB. Eighteen TB patients (14%) also had a diagnosis of diabetes.

## PLACE OF BIRTH AND RACE/ETHNICITY

A total of 117 (89%) cases reported in 2019 were born outside the US. These individuals were born in 29 countries. More than half of cases born outside the US came from five countries: India, Philippines, Vietnam, Cambodia, and Ethiopia. In King County, the rate of TB among persons born outside the US was 24.0 per 100,000 population in 2019, which is 24 times the rate of TB in US-born individuals in King County (1.0 cases per 100,000 in 2019).

**Proportion of TB cases by country of origin, 2019, King County, WA**



Races and ethnicities other than non-Hispanic White in King County continue to have disproportionately high rates of TB. In 2019, Asians had the highest proportion of cases in King County (54%) and had the 3<sup>rd</sup>-highest rate of TB cases with 18.2 cases per 100,000 population. Black/African Americans and Native Hawaiian/Pacific Islanders had the highest rates of TB cases (19.5 and 19.4 cases per 100,000 population, respectively).

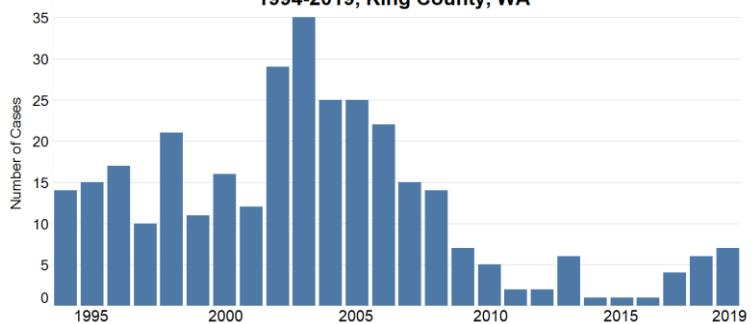
## CONTACT INVESTIGATIONS

In 2019 the TB program conducted 95 contact investigations including 19 institutional investigations. Institutional investigations can result in full on-site screenings, consultations, or a more individualized approach. Congregate settings included healthcare, retail, tech, schools, shelters, and supportive housing. Through contact investigations, we identified 99 individuals with LTBI and 5 with active TB disease.

## TB AND HOMELESSNESS

Across the US, TB continues to disproportionately affect those experiencing homelessness. Seven TB cases (5%) were diagnosed in 2019 among King County residents experiencing homelessness. The number of active TB cases among those experiencing homelessness has decreased since its peak in 2002-2003 (64 active TB cases in these two years) when a single strain was responsible for 66% of homeless cases. We continue to evaluate the increasing number of TB cases among the homeless over the past few years.

**TB cases among people experiencing homelessness, 1994-2019, King County, WA**



## DRUG RESISTANCE

Of the 109 TB cases with drug susceptibility testing available, 19 (17%) were resistant to at least one first-line TB medication. Four cases (4%) were diagnosed with multidrug-resistant TB (MDR-TB), defined as resistance to both isoniazid and rifampin, the two most potent TB drugs. One case had rifampin-monoresistant TB (RMR-TB). Globally, 3.4% of new TB cases and 18% of previously treated cases have MDR-TB or RMR-TB.

### WANT TO KNOW MORE? CHECK OUT:

- Public Health – Seattle & King County Tuberculosis Control Program  
[www.kingcounty.gov/health/TB](http://www.kingcounty.gov/health/TB)
- Centers for Disease Control and Prevention Division of Tuberculosis Elimination  
<http://www.cdc.gov/tb>
- World Health Organization – Tuberculosis (TB)  
<https://www.who.int/tb>

1-In Washington State health care providers, laboratories and health care facilities are legally required to notify public health authorities at their local health jurisdiction of suspected or confirmed cases of tuberculosis. Case counts are calculated using these reports.

2-Rates are calculated with population data from the Washington State Office of Financial Management with the exception of foreign born rate. <http://www.ofm.wa.gov/pop/>

3-Rate of foreign born cases is calculated with population data from the U.S. Census Bureau: State and County QuickFacts. <http://quickfacts.census.gov/>