

# TUBERCULOSIS

Seattle & King County, Washington, 2017

**MISSION: The Mission of the Public Health - Seattle & King County Tuberculosis (TB) Control Program is to interrupt the transmission of TB in Seattle & King County**

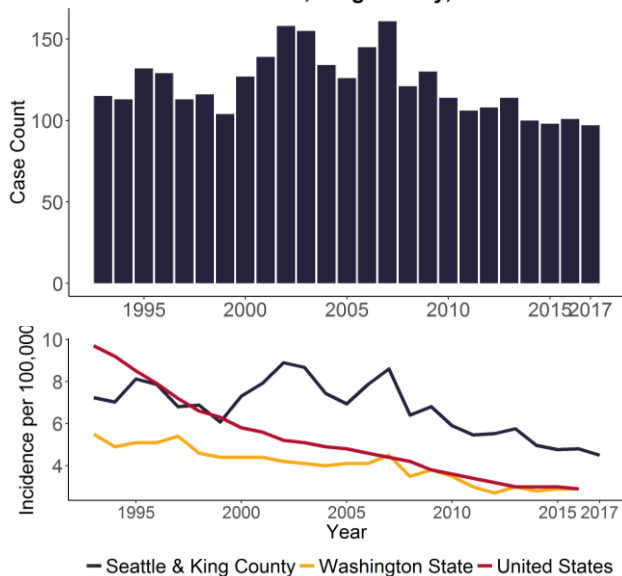
## TAKEAWAYS:

- Tuberculosis continues to disproportionately affect vulnerable populations in King County.
- On average, two cases of tuberculosis disease are diagnosed in King County each week. Another 100,000 residents are infected with tuberculosis, but the microbe lies dormant.
- Rates of TB disease are at an all-time low in King County, but as a crossroads for global trade and migration, we have higher rates of TB disease than state and national averages.

## OVERVIEW

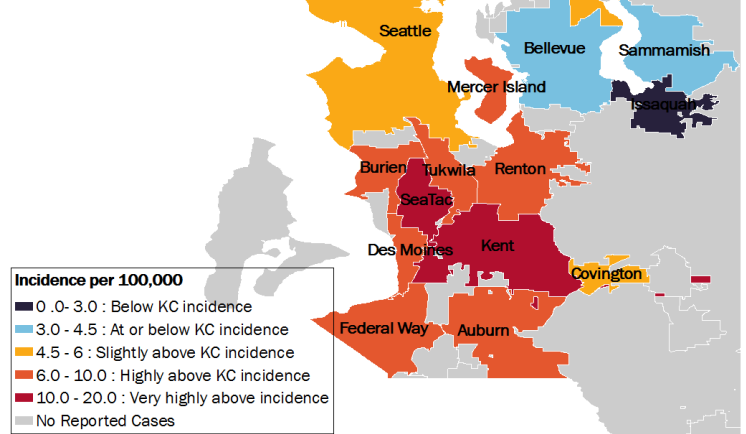
In 2017, 97 new cases of TB were reported in King County, for an incidence of 4.5 cases per 100,000 population. This number is similar to the number of cases in 2016. Over the past five years, there were between one and three deaths related to TB disease per year in King County; in 2017 there were two. Nearly one third of cases (33) were reported in the county's most populous city, Seattle. Another third (38) were concentrated in 5 southern cities: Kent, Renton, Federal Way, Auburn and SeaTac. These five cities have some of the highest incidence rates (range: 7.2-17.3 per 100,000 population). Twenty-four cities did not report any TB cases.

**TB case count and rate per 100,000 population, 1993-2017, King County, WA**



\*US and WA State incidence for 2017 not yet available

## Incidence of TB Among King County Cities 2017



## GENDER AND AGE

Historically, males comprise 55-65% of TB cases in King County. In 2017, 54% of TB cases were male. Cases ranged from three to 95 years of age with a median age of 46 years. The highest rate of TB was among individuals 65 years of age and older (8.6 cases per 100,000 population).

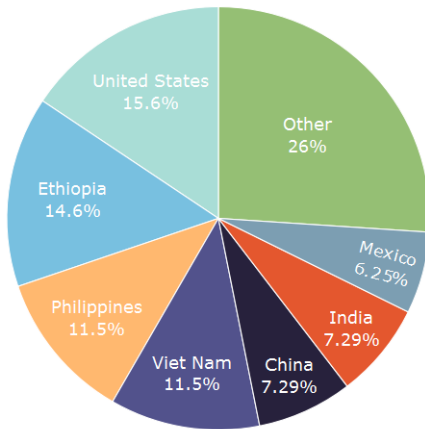
**TB case rate per 100,000 population by age group, 2012-2016, King County, WA**

	2013	2014	2015	2016	2017
0-17	1.2	1.9	1.4	1.6	0.9
18-44	5.4	5.8	5.3	5.3	4.8
45-64	7.5	4.5	3.3	4.6	5.0
65+	10.9	8.5	11.8	8.8	8.6

## PLACE OF BIRTH AND RACE/ETHNICITY

A total of 81 (84%) cases reported in 2017 were born outside the US. These individuals were born in 25 countries.

Proportion of TB cases by country of origin, 2017, King County, WA



More than half of cases born outside the US came from just five countries: Ethiopia, Vietnam, Philippines, India, and China. In King County, the rate of TB among persons born outside the US was 18.1 per

100,000 population in 2017, which is 20 times the rate of TB in US born individuals in King County of 0.9 per 100,000 population.

Races and ethnicities other than non-Hispanic white in King County continue to have disproportionately high rates of TB. Asians had the highest proportion of cases in King County (49.5%) and Black or African Americans had the highest rate of TB cases in King County with 19.1 cases per 100,000 population.

## COMORBIDITIES

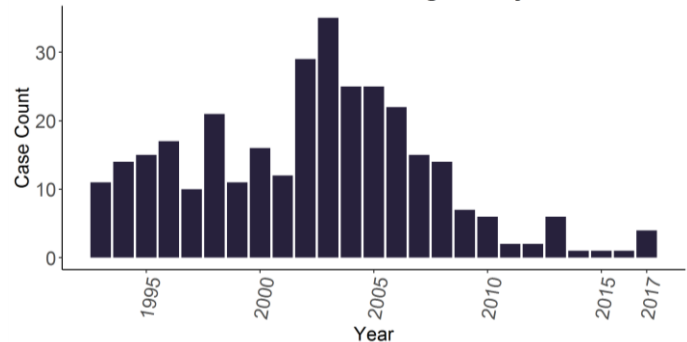
In 2017, 2% of TB cases (2) were also infected with HIV. In the King County general population <1% of individuals are presumed living with HIV infection. Of these two co-infected cases, one was born outside the United States.

Diabetes mellitus is also a concerning risk factor for tuberculosis. Thirteen percent of TB patients also had a diagnosis of diabetes. The median age of these patients is higher than patients who do not have diabetes (60 years old vs. 44 years old). All but one of these were born in the US.

## TB AND HOMELESSNESS

Across the US TB continues to disproportionately affect those experiencing homelessness. Four cases of active TB were diagnosed in 2017 among persons 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.

TB cases among people experiencing homelessness, 1993-2017, King County, WA



## DRUG RESISTANCE

Of the 77 TB cases with drug susceptibility testing, 21 (27%) were resistant to at least one first-line TB medication. Two cases were diagnosed with multidrug-resistant TB (MDR-TB), defined as resistance to both isoniazid and rifampin, the two most potent TB drugs. There have been no known cases of extensively drug-resistant TB (XDR-TB) in Seattle & King County. Approximately 5 percent of global TB cases are now MDR.

### WANT TO KNOW MORE?

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/>

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/>