

## TUBERCULOSIS IN SEATTLE & KING COUNTY

### 2024 PROGRAM SUMMARY



#### TB PROGRAM

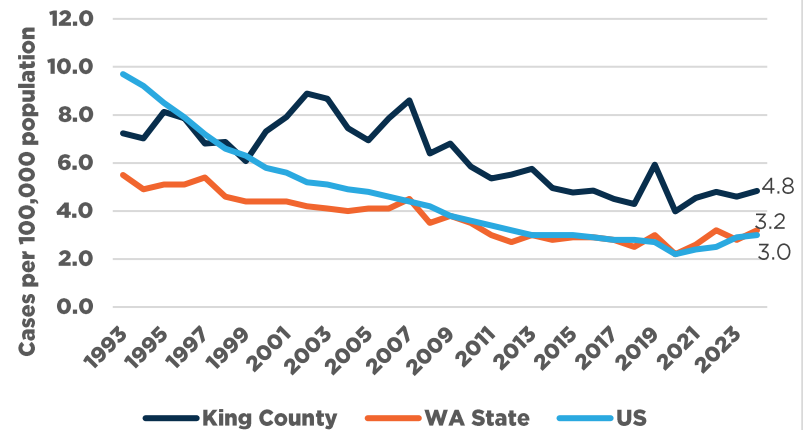
The mission of the TB Program is to prevent the transmission of tuberculosis (TB) within Seattle-King County.

The Public Health Seattle-King County TB Program views TB control as a multi-disciplinary, public-private partnership, collaborating with other local, state, and national organizations. With this deep-rooted collaboration, it provides residents, workers, and students of King County with the best available prevention and treatment services.

The TB Program is mandated by Washington State law to perform public health functions related to surveillance, epidemiologic analysis, and contact tracing.

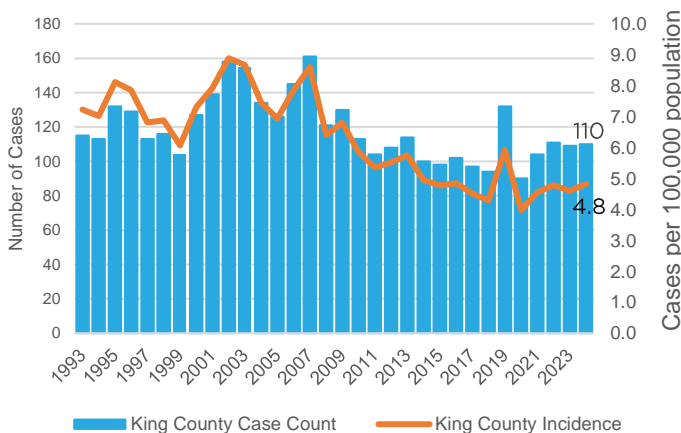
2020, there has been a trend of increased case reporting.

Reported Tuberculosis (TB) Rates, 1993-2024



#### 2024 EPIDEMIOLOGY HIGHLIGHTS

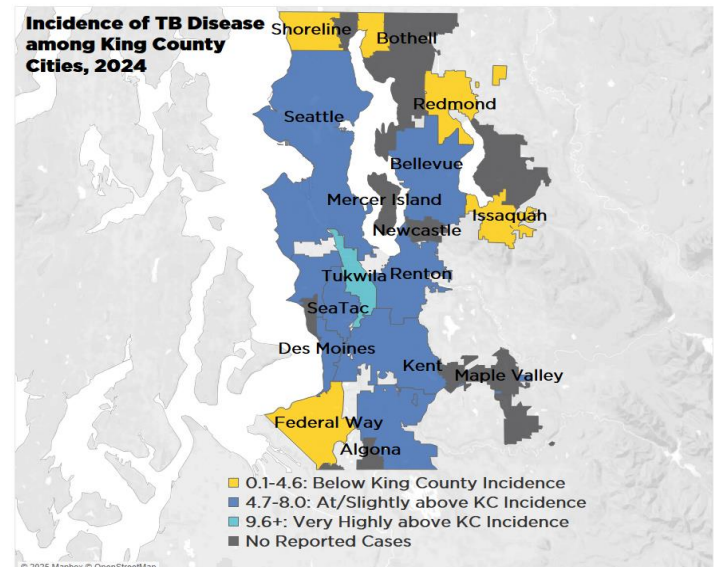
TB Case Count and Case Rate, 1993-2024, King County, WA



In 2024, a total of 110 patients with active TB disease were reported in King County, which is about the same as compared to 2023 (n=109). In 2024, the incidence rate was 4.8 TB cases per 100,000 people. This is higher compared to both the state (3.2 per 100,000) and national (3.0 per 100,000) incidence rates for 2024. Since

In 2024, a majority of King County cities were slightly above the overall incidence rate of 4.8 cases per 100,000 people. Tukwila is the King County city with the highest incidence rate (13.1 per 100,000 people); nearly triple the KC incidence rate.

Incidence of TB Disease among King County Cities, 2024



### TB-RELATED DEATHS

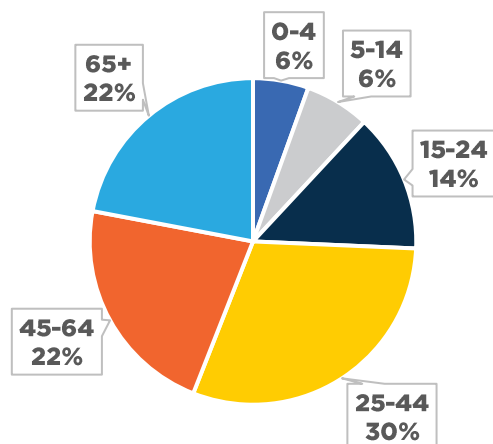
In 2024, there were 4 deaths among the TB patients related to TB or complications of TB treatment, a significant decrease from the previous year (9 deaths).

### GENDER AND AGE

In 2024, the incidence rate for females was 5.0 per 100,000, and the incidence rate for males was 4.2 per 100,000.

In 2024, the age range of patients was between 0 to 93 years, with a median age of 39 years. The median age decreased from 46 years to 39 years. This is slightly lower compared to the 5-year average for median age from 2020-2024. See the pie chart for case distribution among different age groups in 2024.

**Proportion of TB Cases by Age Group (Years), 2024, King County, WA**



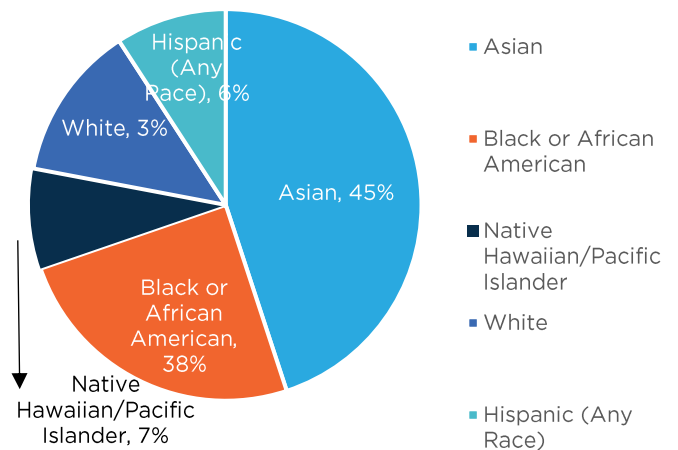
**Table 1: Median Age of TB Cases 2020-2024, King County, WA**

Year	Median Age
2020	42
2021	40
2022	45
2023	46
2024	39

### RACE AND ETHNICITY

In 2024, Asians had the highest proportion of cases compared to other races at 45% with an incidence rate of 9.7 per 100,000. This is consistent with the 5-year average of 48% for this race group from 2020-2024. This was followed by Black or African Americans at 38% of TB King County cases with an incidence rate of 26 per 100,000. This is slightly higher compared with the 5-year average of 26% from 2020-2024.

**TB Cases by Race & Ethnicity, 2024, King County, WA**



**\*No American Indian/Alaska Native Reported in 2024**

**Table 2: Proportion of Race and Ethnicity of TB Cases 2020-2024, King County, WA**

Race and Ethnicity	2020	2021	2022	2023	2024
Asian	45%	59%	49%	45%	45%
Black or African American	24%	25%	22%	25%	38%
Native Hawaiian/Pacific Islander	6%	2%	10%	8%	7%
White	10%	5%	5%	13%	3%
American Indian/Alaska Native	1%	1%	-	-	-
Hispanic (Any Race)	14%	9%	15%	9%	7%

## PLACE OF BIRTH

About half of cases born outside the US came from five countries: Vietnam, India, Ethiopia, Philippines, and China.

TB historically disproportionately affects individuals that were born outside of the US. In 2024 in King County, 15% of reported TB cases were US-born while 85% of reported TB cases were non-US-born and is consistent with previous years. For reference, the 5-year average of US born from 2020-2024 was 11% and non-US born was 89%,

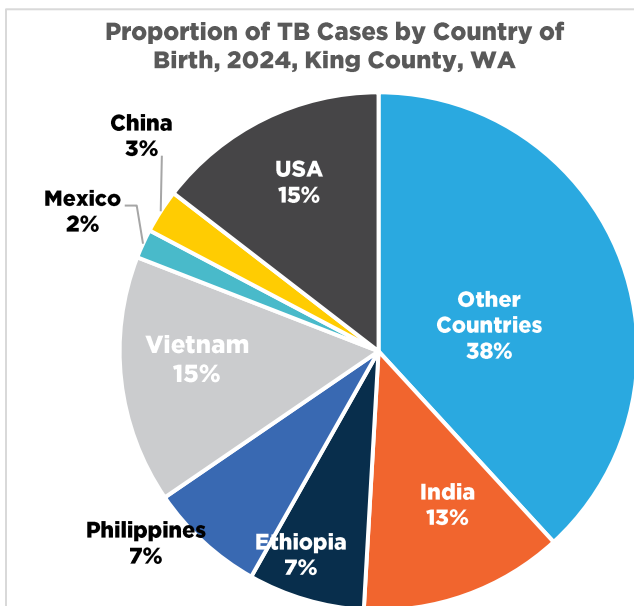
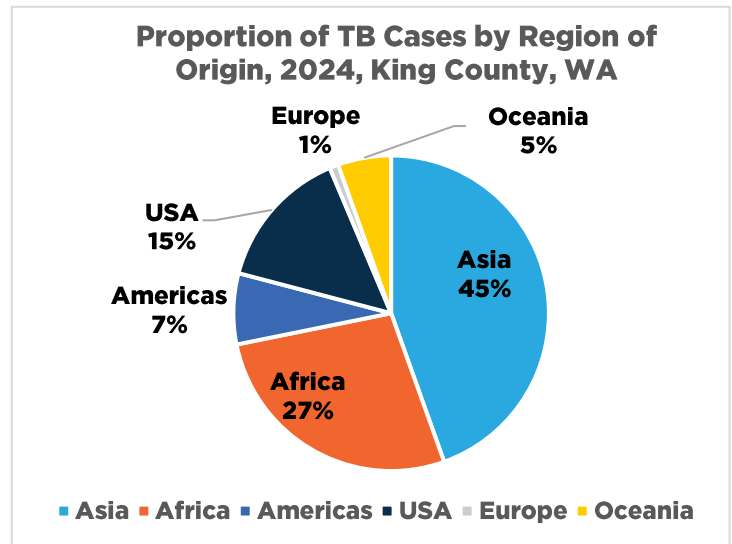


Table 3: Country of Birth for TB Cases 2020-2024, King County, WA

Country	2020	2021	2022	2023	2024
USA	13%	7%	14%	8%	15%
China	3%	8%	5%	4%	3%
Mexico	9%	8%	6%	7%	2%
Philippines	9%	10%	7%	11%	7%
Ethiopia	10%	14%	7%	7%	7%
India	17%	14%	8%	8%	13%
Vietnam	11%	8%	15%	12%	15%
Other Countries	28%	31%	38%	43%	38%

Of the 85% of cases reported in King County in 2024 that were non-US-born,

the majority of cases were born in either Asia (42%) or Africa (27%). This is consistent with previous years.



## COMORBIDITIES AND RISK FACTORS

HIV is an important and crucial medical risk factor that the CDC tracks for TB patients. The treatment approach to HIV TB coinfection is different and complex, and it additionally has worse clinical outcomes. In 2024, 95% of King County cases (104 patients) were tested for HIV infection, and of those, four patients (4%) had a positive result for HIV. For reference, the 5-year average from 2020-2024 in King County for TB patients was 4%.

Diabetes mellitus is also a risk factor for progression to active TB disease and was the most commonly reported comorbidity in 2024 (21 cases, 19%). For reference, the 5-year average from 2019-2024 in King County was 24%.

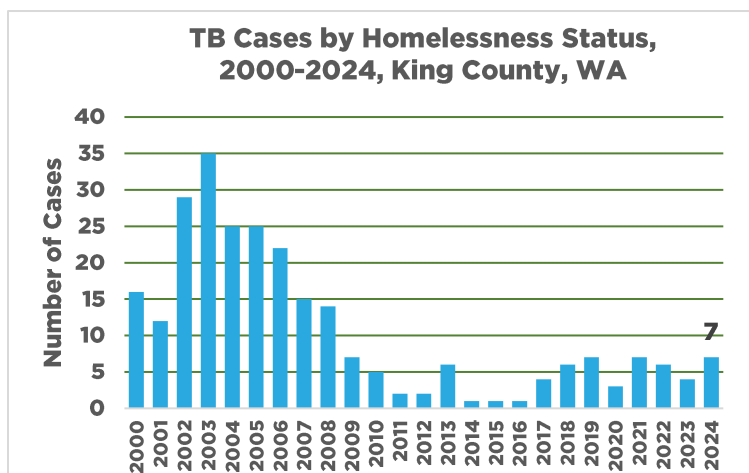
Table 4: HIV and Diabetes Status for TB Patients 2020-2024, King County, WA

Risk Factor	2020	2021	2022	2023	2024
HIV	6%	4%	4%	4%	4%
Diabetes	22%	29%	19%	29%	19%

## TB AND PEOPLE EXPERIENCING HOMELESSNESS

A large outbreak occurred among people experiencing homelessness in 2002 and 2003 with a total of 64 active TB cases, and a single virulent strain was responsible for 66% of the cases. This strain is still observed in King today.

Given this historical context, and health disparities present among the people experiencing homelessness, we closely monitor TB in this population. In 2024, there were seven cases among King County residents experiencing homelessness within the past 12 months. There were no outbreaks or transmission in service sites for people experiencing homelessness.



## DRUG RESISTANCE

Of the 70 TB cases with drug susceptibility testing available, 2 cases were resistant to at least one first-line drug. One case was diagnosed with multidrug-resistant TB (MDR-TB), defined as resistance to both isoniazid and rifampin.

## CONTACT INVESTIGATIONS

Contact investigations are a pivotal and important aspect of TB prevention. As TB can be highly infectious, it is imperative to screen, treat and identify any potential secondary cases. In 2024, the TB program conducted 63 contact investigations and

identified 344 contacts of infectious TB cases in King County residents and cases transferred from other jurisdictions. Through these investigations, we identified 82 individuals with latent TB infections (LTBI) and 15 with active TB disease.

## COMMUNITY TB PREVENTION UNIT

It is estimated that as much of a fourth of the world's population has tuberculosis (TB) infection. Individuals with Latent TB infection (LTBI) or inactive TB are not sick from TB and can't spread TB to others, but can develop active, contagious TB over time. LTBI is treatable. Nearly all the cases of active TB in King County could have been prevented by increasing LTBI testing and treatment among individuals who have spent two or more years in TB endemic countries. To address this prevention opportunity, King County TB Program established a Community TB Prevention Unit in 2022 to focus on the more than 100,000 people in King County estimated to have LTBI. The goal of this unit is to reduce the number of people with untreated latent TB infection by 20% in ten years. To achieve this goal, the Community TB Prevention Unit has developed a multifaceted approach to TB prevention that includes:

- Working with communities at higher risk for TB infection in partnership with Community Navigators, who are trusted community members that are able to effectively convey public health messages, and community based and faith-based organizations
- Working with healthcare providers and systems to identify and treat more people who have LTBI to prevent their infections from becoming active.

### Some 2024 Community TB Prevention Unit highlights are:

- Reaching out to offer resources to 930 individuals adjusting their

immigration status who test positive for TB infection.

- Monitored and supported follow-up care for 365 refugees who test positive for TB infection.
- In partnership with the community navigator team, TB presentations occurred at close to 700 health fairs, clinics, schools, residential areas, and community events in over 15 languages. These presentations were held in communities identified through this partnership with a focus on communities that speak Amharic, Chinese, Eritrean, Garifuna, Lingala, Purépecha, Somali, Swahili, Tongan, Vietnamese, Arabic, Dari, French, Kikuyu, Marshallese, Samoan, Spanish, Tagalog, and Ukrainian.
- Collaborated with Healthcare for Humans Podcast to produce four episodes focused on the complexities of managing TB from the perspectives of Afghan, Congolese, Ethiopian, Iraqi, Kenyan, and Marshallese communities and discussing the critical need for culturally informed care.
- Collaborated with Ethnomed to create a TB Cultural Profile Project to support medical providers in administering culturally informed TB care. Ethnomed published Congolese & Marshallese profiles
- Used community input to improve access to information about latent TB infection by posting answers to frequently asked questions on our website.

## **CDC-FUNDED TB RESEARCH**

### **TBESC: TUBERCULOSIS EPIDEMIOLOGIC STUDIES CONSORTIUM**

TBESC is CDC-funded epidemiological research to improve testing and treatment of latent TB infection. The Seattle-King County TB Program is awarded contracts

for TBESC-III cycle (2021 – 2025). We are partnering with International Community Health Services (ICHS) to accomplish the research objectives which includes:

- Design and implement primary-care-based interventions to improve performance measures across the LTBI care cascade.
- Monitor and evaluate intervention performance over time to identify efficient and effective strategies to prevent TB disease.

We have currently implemented four interventions to improve TB screening and treatment at ICHS:

- Provider education regarding LTBI best practices.
- Cost/financial support for uninsured patients.
- Case management for LTBI patients.
- EMR modifications to alert providers to screen for LTBI.

### **TBTC: TUBERCULOSIS TRIALS CONSORTIUM**

The TB Program is also awarded contracts for TBTC-III cycle (2021 – 2030). TBTC's mission is to conduct programmatically relevant research concerning the diagnosis, clinical management and prevent of tuberculosis infection and disease. Since its inception, TBTC clinical trials have had significant impact on TB treatment and prevention such as the discovery of the 3HP regimen which is the shortest regimen for the treatment of LTBI and the 4-month treatment regimen for active TB disease which reduced the treatment duration by 2 months from the current standard regimen.

Currently Study 37 (ASTERoID) is looking into a 6-week regimen of daily rifapentine against the current standard of 12-16 weeks of rifamycin-based treatment for latent TB infection.

## DATA NOTES

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 non-US-born rate.  
<http://www.ofm.wa.gov/pop/>
3. Rate of non-US-born cases is calculated with population data from the U.S. Census Bureau: State and County QuickFacts.  
<https://census.gov/quickfacts>
4. CDC TB incidence rate was obtained from the CDC Provisional 2024 Tuberculosis Data.  
<https://www.cdc.gov/tb-data/2024-provisional/index.html>
5. State incidence rate obtained from Tuberculosis Cases Statewide by Year 2019-2024 report from Washington Department of Health.  
<https://doh.wa.gov/sites/default/files/2025-03/343113-TuberculosisCasesStatewide2020-2024.pdf>

### WANT TO KNOW MORE? CHECK OUT:

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