

Public Health – Seattle & King County, TB Program Epidemiology & Surveillance Report 2025

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Acknowledgement: We acknowledge the staff of Seattle & King County's TB Program for their collective tireless work and dedication to provide the best patient care possible and to prevent further transmission of TB In King County.

King County's Devotion to Equity and Social Justice (ESJ)

King County is devoted to a Strategic Plan where the vision is: "A King County where all people have equitable opportunities to thrive." Our strategies as one King County to advance Equity and Social Justice are to invest:

- Upstream and where needs are greatest
- In community partnerships
- In employees

The Equity and Social Justice shared values guide and shape the work of King County. King County is:

- Inclusive and collaborative
- Diverse and people focused
- Responsive and adaptive
- Transparent and accountable
- Racially just
- Focused upstream where needs are greatest

Therefore, these values are the pillars of the Tuberculosis Program, and the multi-disciplinary work and care of the program are guided by these principles.

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Tuberculosis and the Tuberculosis Program

Pulmonary Tuberculosis (TB) is an infectious disease which spreads by airborne transmission. In the pre-antibiotic era (early 1900s), approximately 50 percent of people with TB died of their disease, but with the development of effective antibiotic treatment, TB became preventable and curable. However, TB remains the most common cause of infectious disease death, and is a serious public health threat worldwide. About a quarter of the world's population has latent TB infection (LTBI); people with LTBI are at risk for progression to active TB disease. The Tuberculosis Program at Public Health – Seattle & King County is a diverse, multi-disciplinary team comprised of medical doctors, nurse case managers, disease research intervention specialists, outreach workers, epidemiologists, project and program managers, and administrative staff that aim to cure, prevent and eliminate TB in King County.

Tuberculosis Program Mission Statement

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

The Seattle-King County TB Program views TB treatment and prevention as a multi-disciplinary, public-private partnership, collaborating with other local, state, and national organizations. With this deep-rooted collaboration, the TB Program provides residents 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, case finding, epidemiologic analysis, and contact tracing.

Following national and international guidelines, the TB Program has the following aims:

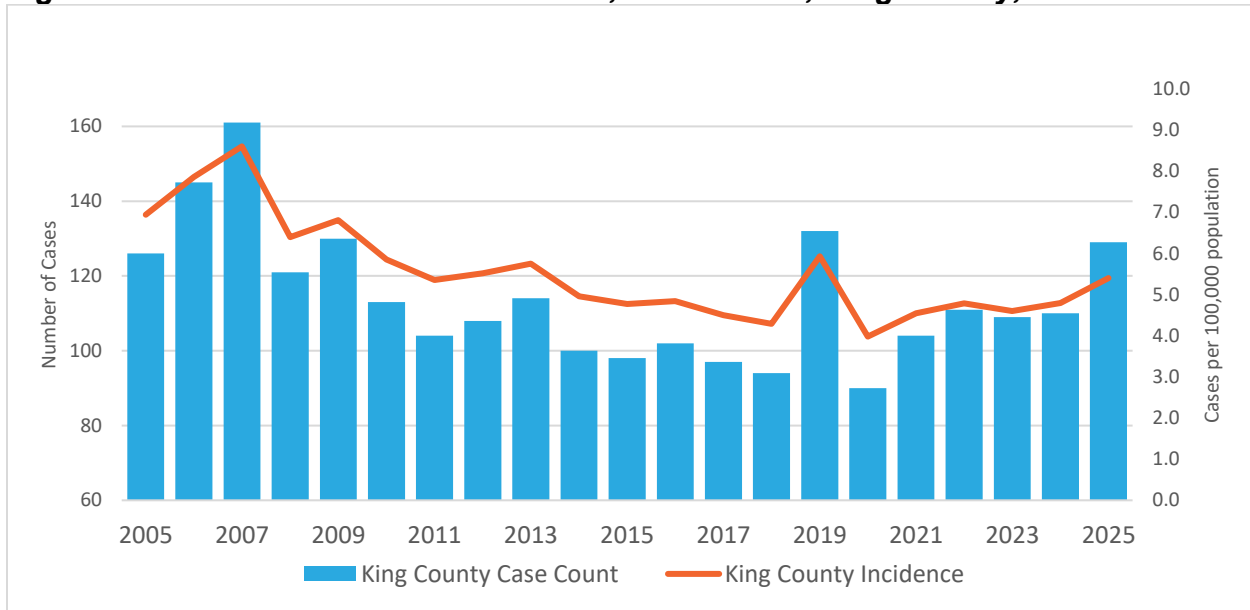
1. Ensure that persons with active TB are found, isolated, and fully treated until cured.
2. Ensure that contacts of persons with infectious TB are screened and offered appropriate preventive therapy
3. Collaborate with public health and community partners to enhance targeted TB testing and treatment of latent TB infection.
4. Monitor TB trends in Seattle and King County.

TB Epidemiology in King County

TB in King County

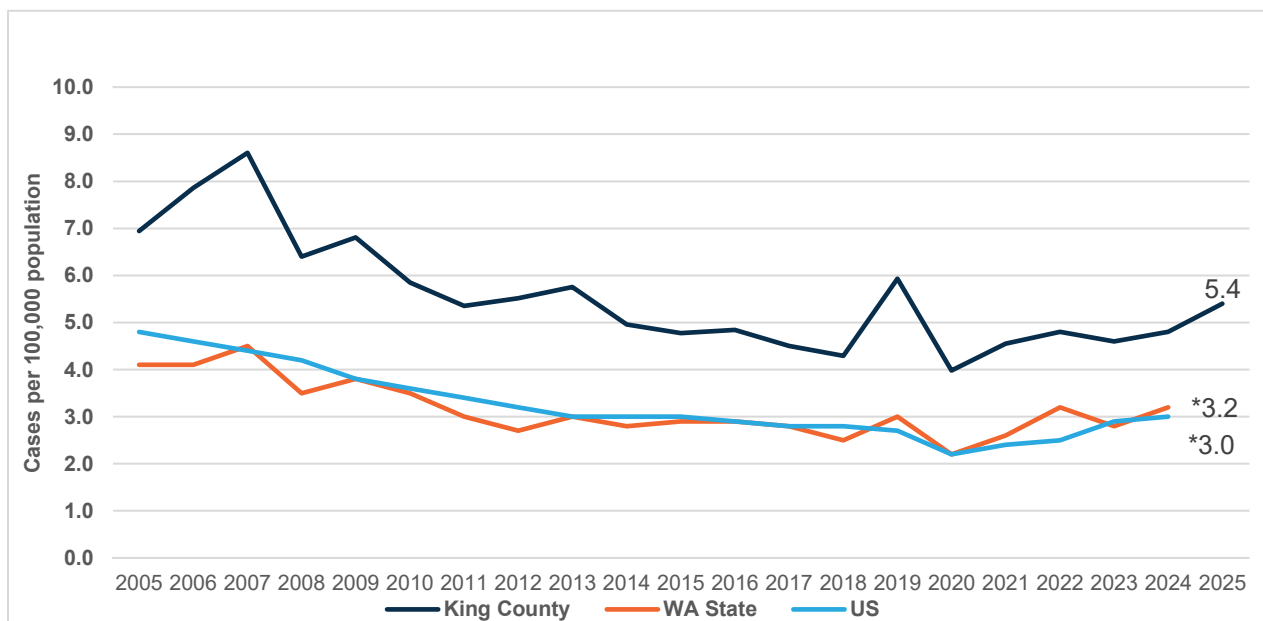
In 2025, 129 patients with active TB disease were reported in King County, an increase from 110 in 2024. In 2025, the incidence rate was 5.4 TB cases per 100,000 people. Since 2020, there has been an increasing trend in number of TB cases reported.

Figure 1: TB Case Count and Case Rate, 2005 – 2025, King County, WA



King County incidence rates are typically higher than both than the state and national incidence rates.

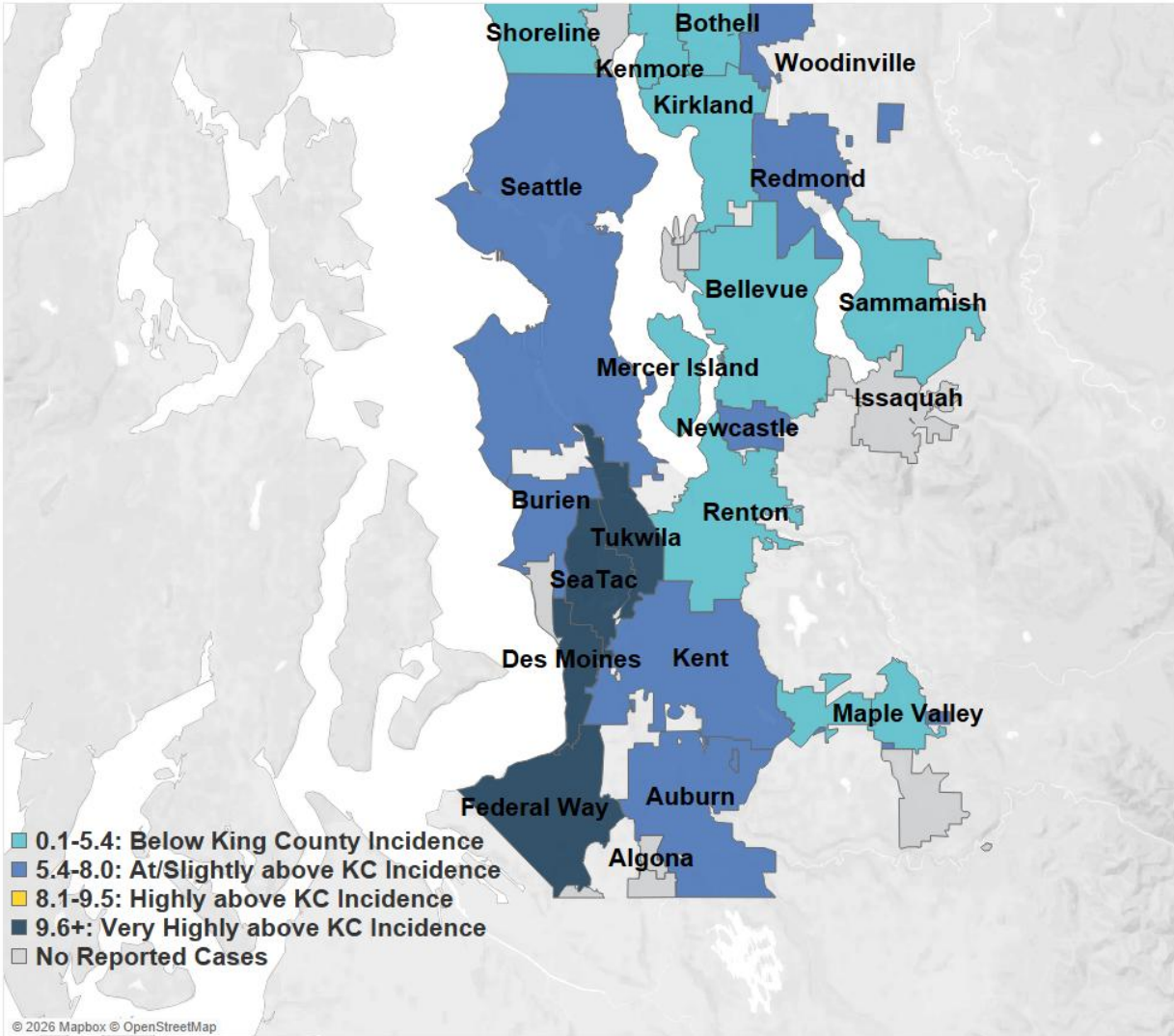
Figure 1-1: Reported Tuberculosis (TB) Rates, King County 2005 – 2025.



Incidence of TB in King County Cities

In 2025, South King County cities (Tukwila, SeaTac, Des Moines, and Federal Way) had over double the incidence rates (≥ 9.6 cases per 100,000 people) compared to the King County average of 5.4 cases per 100,000.

Figure 2: Incidence of TB Disease among King County Cities, 2025



Patient Demographics

Age and Gender

The age range of patients was between 1 to 92 years, with an average age of 43 years, and a median age of 41 years. This is consistent with the five-year average from 2021-2025 of 42 years.

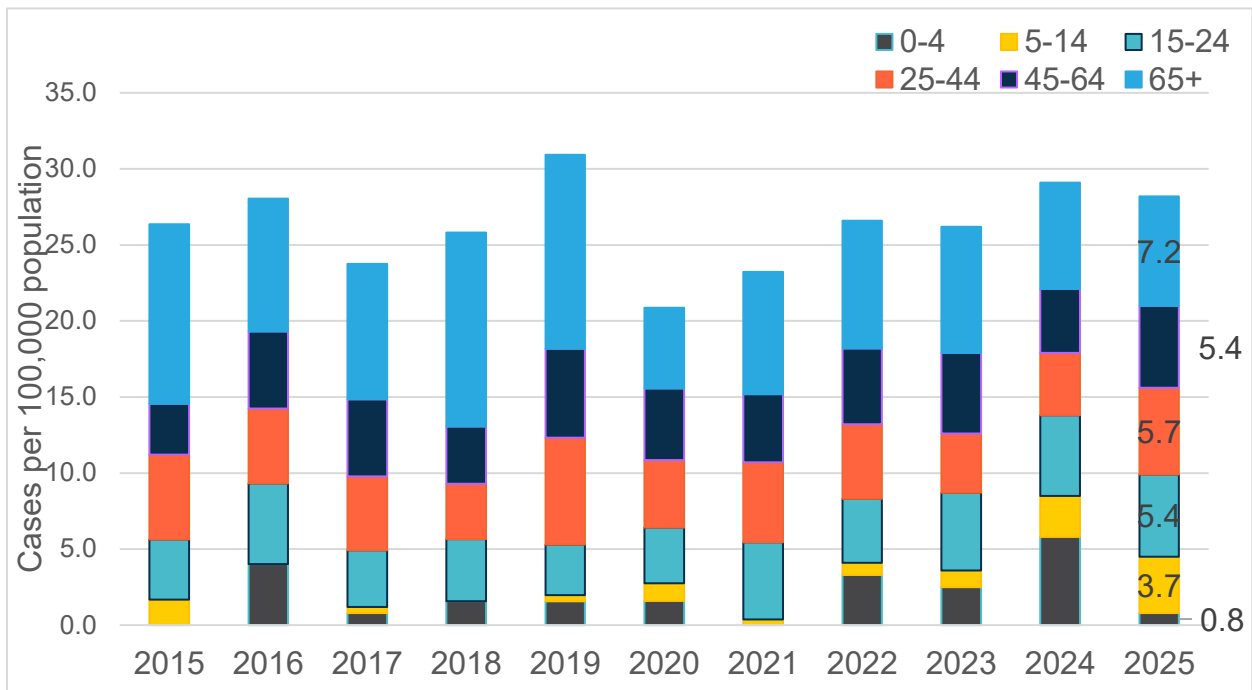
Table 1: Median Age of TB Cases 2021-2025, King County, WA

Year	Median Age
2021	40
2022	45
2023	46
2024	39
2025	41

Table 1-1: Case Counts, (N, %), by Age Group Per Year (2021-2025)

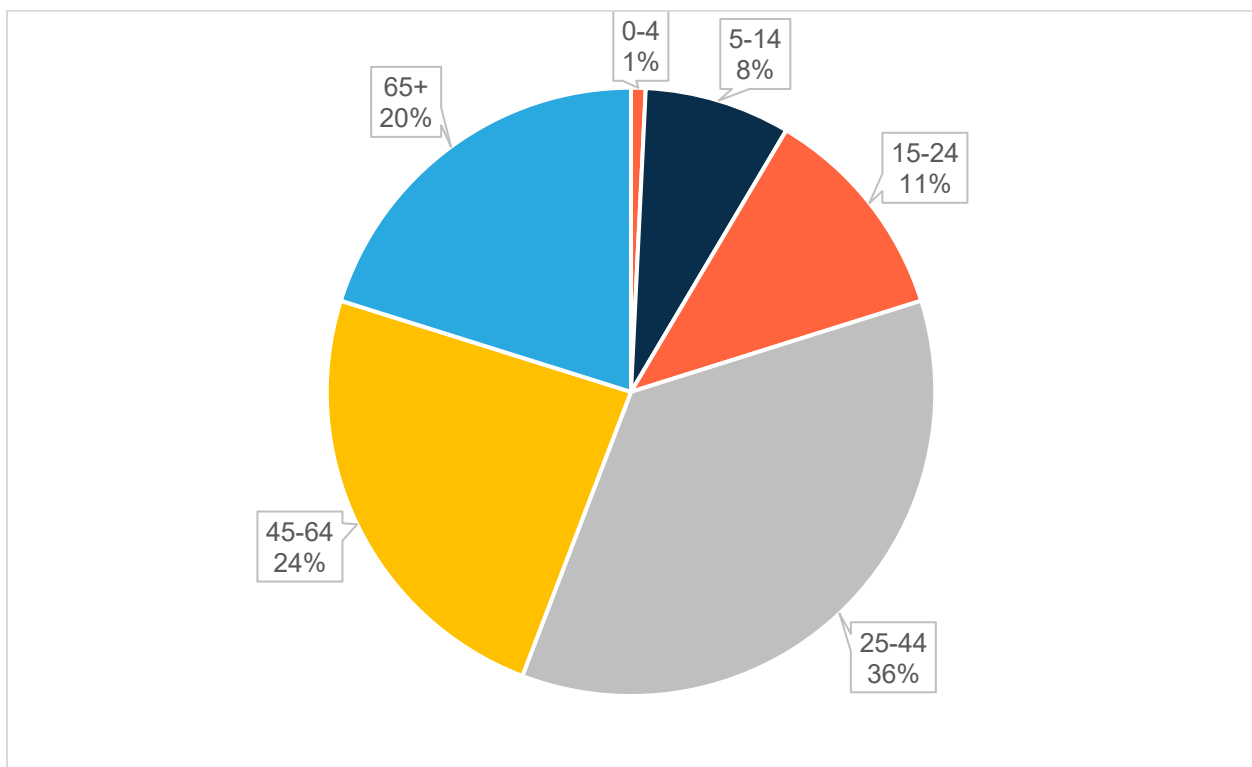
Age Group	2021	2022	2023	2024	2025
0-4	0	4 (4)	3 (3)	7 (6)	1 (0.78)
5-14	1 (1)	2 (2)	3 (3)	7 (6)	10 (8)
15-24	14 (13)	11 (10)	14 (13)	15 (14)	15 (12)
25-44	42 (40)	39 (35)	31 (28)	33 (30)	46 (36)
45-64	24 (23)	28 (25)	30 (28)	24 (22)	31 (24)
65+	23 (22)	27 (24)	28 (26)	24 (22)	26 (20)
Grand Total	104	111	109	110	129

Figure 3: TB Case Rates by Age Group, 2015-2025, King County, WA



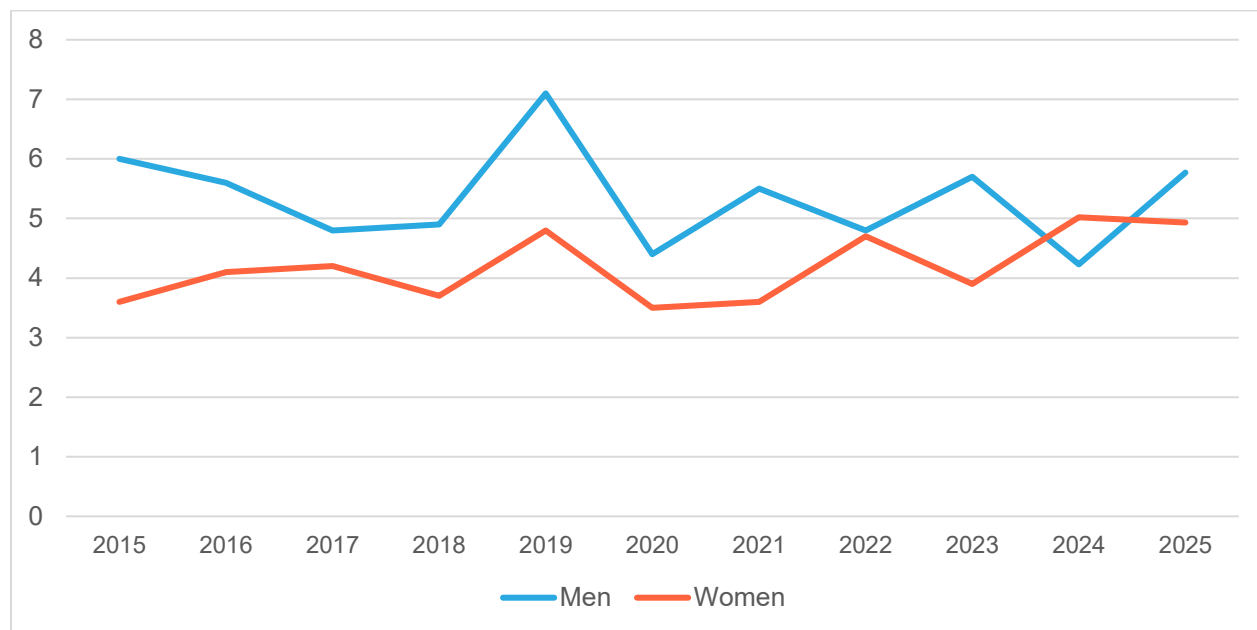
In 2025, there was the highest case reporting in the 24-44 age group and the highest incidence rate in the 65+ age group.

Figure 3-1: Proportion of TB Cases by Age Group (Years), 2025, King County, WA



The incidence rate for males (n=70) was 5.7 per 100,000 and the incidence rate for females (n=59) was 4.9 per 100,000. This fits the historical trend, with males having a greater incidence than females.

Figure 3-2: TB Case Rates by Gender, 2015-2025, King County, WA



Pediatric TB

In 2025, it was reported that this age group (0-14) was estimated to be 386,837 (16.0%) of the total population of King County. In 2025, King County had 11 cases reported in children (age range: 0-14 years). This was 8.5% of the total TB cases (n=129). This is a slightly increased rate for pediatric TB cases. For reference, the five-year average of cases in this age group from 2021-2025 was 6.8%.

Household transmission from adults with active TB disease can result in children developing TB infection or TB disease. The TB Program initiates timely and thorough contact investigations for all infectious TB cases in order to prevent this from happening and conducts investigations to identify sources of pediatric cases.

Race and Ethnicity

Asian individuals accounted for the highest proportion of cases at 47% with an incidence rate of 11.2 per 100,000. This finding is consistent with the 5-year average of 49% for this group from 2021– 2025. Black or African American individuals represented 33% of cases, with an incidence rate of 24.4 per 100,000. This proportion is higher than the-year average of 29% from 2021– 2025. Native Hawaiian or other Pacific Islanders had the highest incidence rates overall. However, because this population is relatively small in King County, even a small number of cases can result in a high calculated incidence.

Table 2: Case Rate (Cases per 100,000 People) in King County by Race, 2025

Race	Incidence
Black or African American	24/100,000
Asian	11/100,000
Native Hawaiian/Pacific Islander	31.8/100,000
White	0.6/100,000
American Indian or Alaska Native	0/100,000
Hispanic (Any Race)	3.6/100,000

Table 2-1: Proportion of Race and Ethnicity of TB Cases 2021-2025, King County, WA

Race and Ethnicity	2021	2022	2023	2024	2025
Asian	59%	49%	45%	45%	47%
Black or African American	25%	22%	25%	38%	35%
Native Hawaiian/Pacific Islander	2%	10%	8%	7%	5%
White	5%	5%	13%	3%	5%
American Indian/Alaska Native	1%	-	-	-	-
Hispanic (Any Race)	9%	15%	9%	7%	8%

Region of Origin

12% percent of reported TB cases were among US-born individuals, while 88% occurred among non-US-born individuals. These proportions were consistent with the 2021-2025 five-year averages of 12% and 88%, respectively.

Figure 4: Proportion of US-born and non-US-born TB Cases, 2005-2025, King County, WA

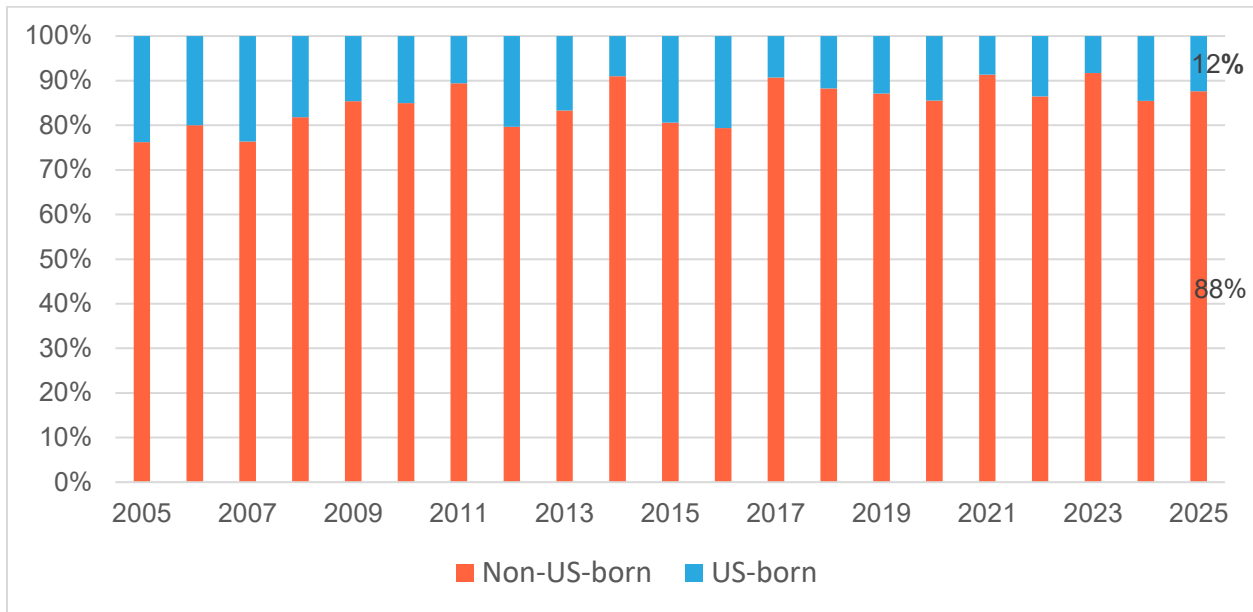
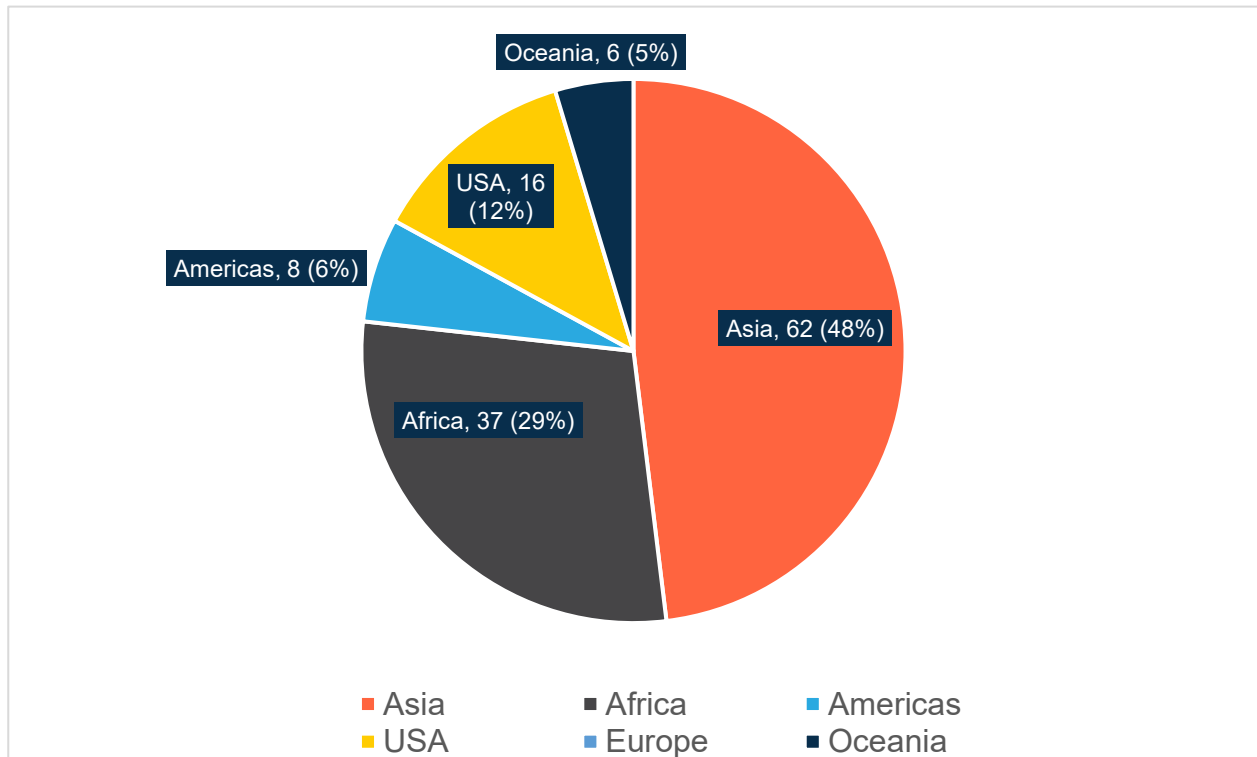


Figure 4-1: Case Distribution of Region of Birth, 2025, King County



A large proportion of patients (48%) were born in Asian countries, followed by 29% of patients that were born in African countries.

Clinical Characteristics and Risk Factors

Disease Site

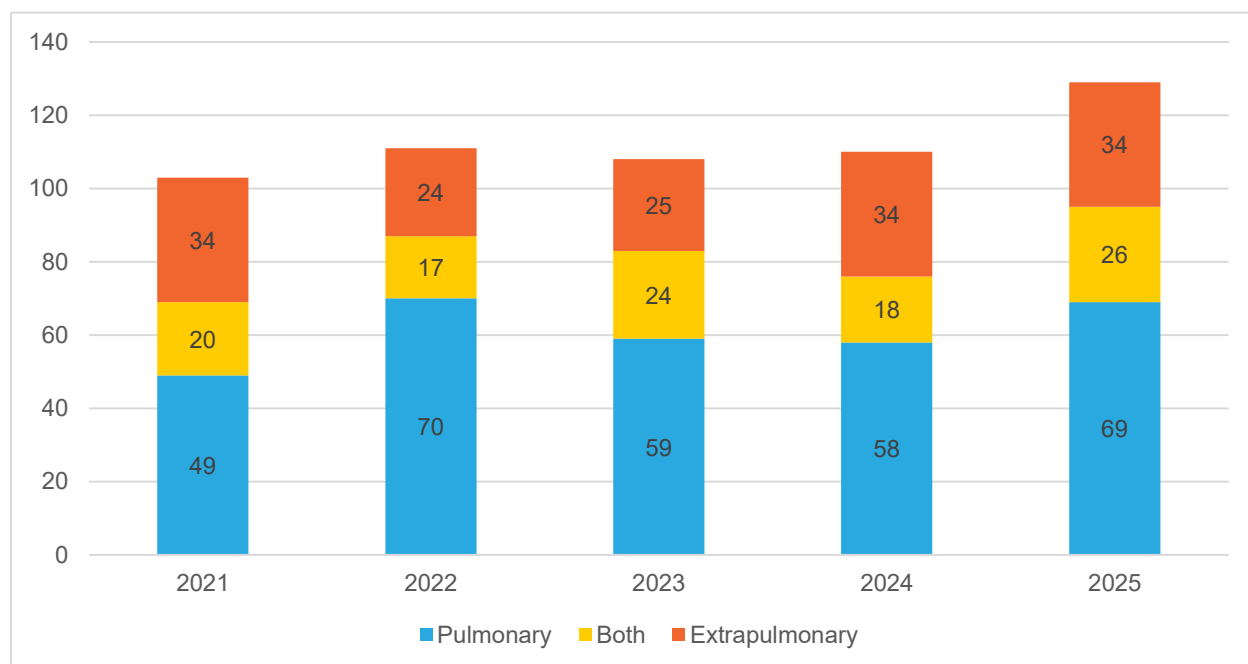
TB can occur in different places in the body and in more than one place at the same time. Disease site is defined as the location in the body where TB occurs. Pulmonary TB occurs in the lungs, while extrapulmonary TB occurs in places other than the lungs such as lymph nodes, pleura, brain, and kidney.

In 2025, 54% of TB cases involved a pulmonary site of disease, 26% involved extrapulmonary, and 20% involved both.

Table 3: Total Cases by Disease Site 2021-2025

Disease Site	2021	2022	2023	2024	2025
Pulmonary	49 (48%)	70 (63%)	59 (55%)	58 (53%)	69 (54%)
Extrapulmonary	20 (19%)	17 (15%)	24 (22%)	18 (16%)	34 (26%)
Both	34 (33%)	24 (22%)	25 (23%)	34 (31%)	26 (20%)
Total	103	111	108	110	129

Figure 5: Epidemiology Curve of Active TB Cases by Disease Site 2021-2025



In 2025, the top extrapulmonary sites of disease were pleural and cervical lymph nodes.

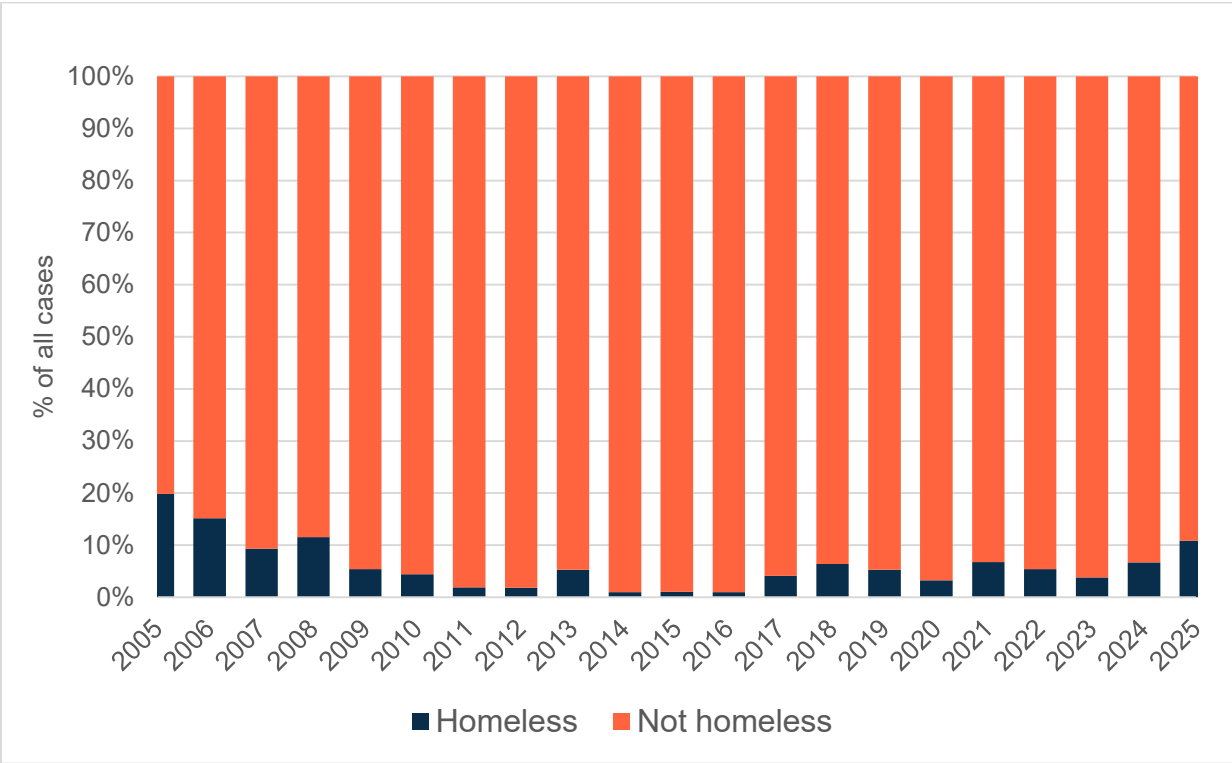
Table 3-1: Top Extrapulmonary Disease Site, King County, 2025

Site	Count (%)
Pleural	9 (7%)
Cervical Lymph Node	8 (6%)
Bone, joint, and/or tissue	4 (3%)
Peritoneal	4 (3%)

People Experiencing Homelessness

TB continues to disproportionately affect people experiencing homelessness. A notable peak occurred in 2002–2003, with 64 active cases were reported, a single TB strain was responsible for 66% of these cases. Following intensive efforts at active case-finding and contact investigation, the number of cases declined substantially. Given this historical context, and health disparities present among the people experiencing homelessness, we closely monitor TB in this population. In 2025, there were 14 cases (11%) among King County residents experiencing homelessness, which is the largest number of cases since 2007.

Figure 6: Proportion of TB Cases Experiencing Homelessness in Past 12 Months, 2005-2025, King County, WA



TB Comorbidities: HIV Co-infection & Diabetes

TB poses a serious health threat to those living with HIV. Determining HIV status of every TB case is an important clinical measure to ensure appropriate medical management of both diseases. Case management of TB/HIV co-infected patients typically requires more intense and frequent coordination of care between the TB Program and HIV care providers.

In 2025, 112 people tested negative, six patients had a positive result, and 11 patients did not have an HIV test done. The trend of HIV infection among TB cases has remained linear between 2021 and 2024 with a slight increase in 2025.

Table 4: HIV Test Results Among TB Cases, 2025

HIV Status	N (%) with HIV Infection
Negative	112 (87%)
Positive	6 (5%)
Not Done	12 (9%)
Total	129

Diabetes is an important risk factor for progression to active TB disease. People living with diabetes who are also infected with TB are more likely to develop TB disease. Diabetes was the most commonly reported comorbidity in 2025 (26 cases, 29%). The five-year average from 2021-2025 in King County was 23%.

Table 4-1: Trend of HIV and Diabetes Among TB Cases 2021-2025

Year	N (%) with HIV Infection	N (%) with Diabetes
2021	4 (3.8%)	30 (29%)
2022	4 (3.7%)	21 (19%)
2023	4 (3.6%)	32 (29%)
2024	4 (3.6%)	21 (19%)
2025	6 (4.6%)	27 (21%)

Additional Risk Factors

Other risk factors are categorized into the following groups: epidemiological, environmental, medical, and social. In 2025 the most common risk factors were experiencing homelessness, excess alcohol use and close contact with an infectious TB patient.

Table 5: Additional Risk Factors

Risk Factors	N, (%)
Epidemiological Risk Factors	
Incomplete treatment of TB infection	7 (5%)
Contact of infectious TB patient	12 (9%)
Environmental Risk Factors	

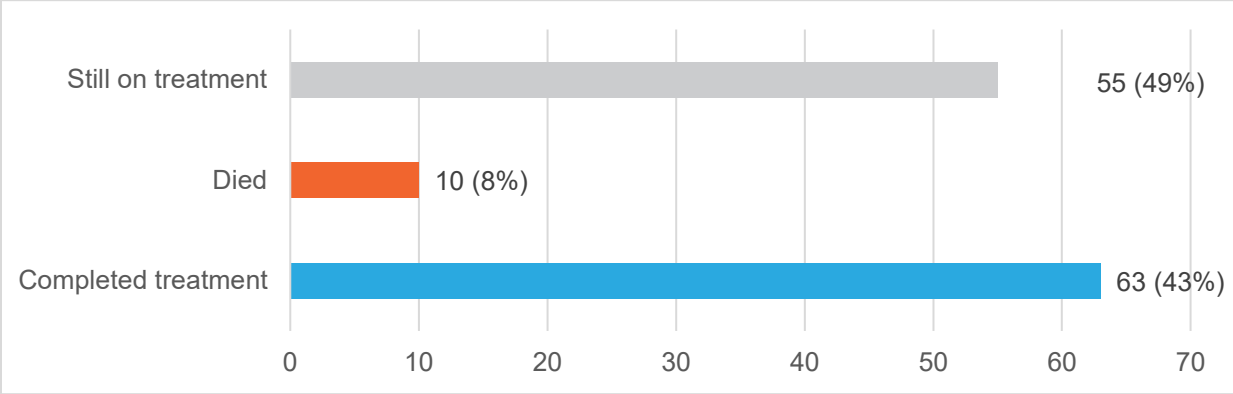
Resident of long-term care facility, current	2 (2%)
Resident of a correctional facility, ever	4 (3%)
Medical Risk Factors	
TNF-Antagonist therapy	0
End-Stage renal disease	3 (2%)
Immunosuppression (Not HIV/AIDS)	3 (2%)
Social Risk Factors	
Injecting drug use within past year	1 (1%)
Non-Injecting drug use	4 (3%)
Experiencing homelessness within past year	14 (11%)
Excess alcohol use	13 (10%)

Drug Resistance

Most patients with TB can be treated with standard regimens. However, some TB strains can become resistant to the drugs used for treatment. In 2025, two patients with rifampin-resistant TB were treated with BPaL (Bedaquiline, Pretomanid and Linezolid), a newer six-month regimen. This regimen represents a shorter alternative to traditional multidrug-resistant (MDR) TB treatment, which typically was treated for at least 18 months.

Treatment Outcomes

Figure 7: Treatment Status, 2025, King County, WA

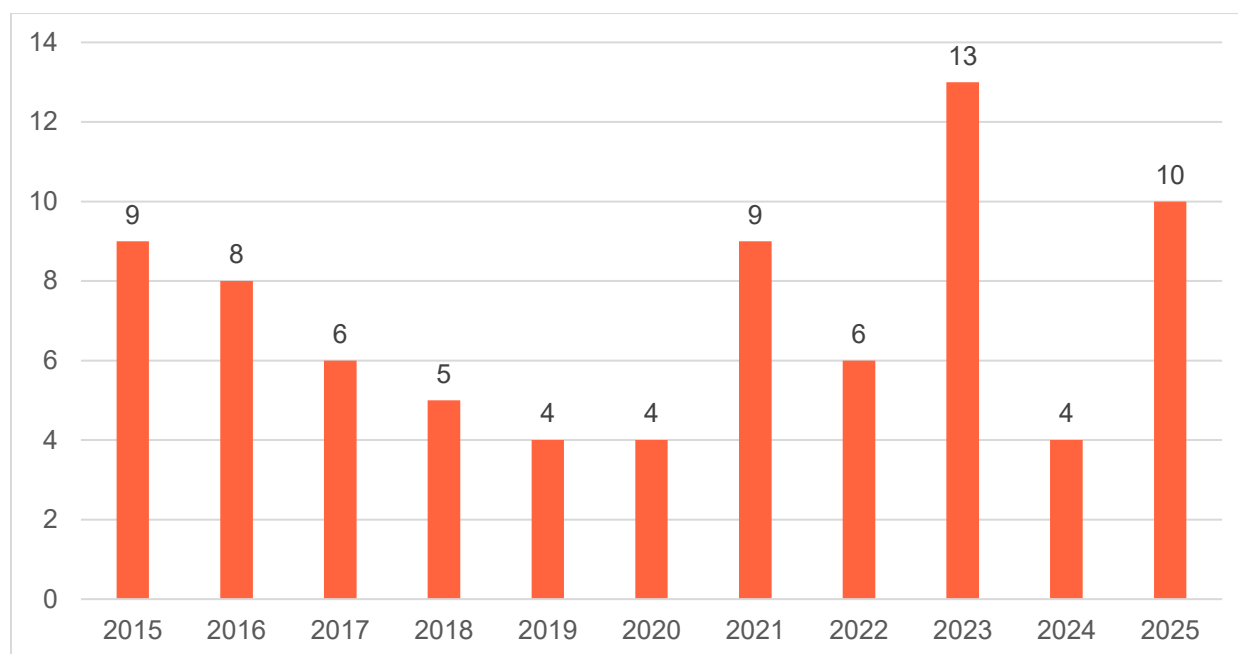


The TB Program closely monitors the treatment outcomes of active TB patients. In 2025, 55 people completed treatment, while 63 patients are still continuing treatment. Ten patients passed away.

Mortality

Mortality rates declined from 2015 to 2020 but began to rise in 2021, with the peak of 13 deaths in 2023. In 2025, there were 10 deaths among the TB patients, six of which were attributed to TB disease or complications of treatment. Of the 10 patients who died, two passed away before being evaluated by the TB Program and never started treatment. Eight patients had initiated treatment prior to their deaths.

Figure 8: Mortality by Year, 2015-2025, King County WA



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. Contact investigations can be divided into two major categories: Community and Household.

Community Contact Investigations

Community Contact Investigations are large settings such as workplaces, schools, shelters, or correctional facilities. The TB Program works directly with these settings to mitigate any concerns about TB, as well as providing resources to conduct screenings.

In 2025, the TB Program screened a total of 286 contacts across 16 community contact investigations.

Household Contact Investigations

Household Contact Investigation settings can be households, and also may include close social circles. These settings are contacts that are in close proximity with the infectious TB patient.

In 2025 the TB Program conducted 84 total household contact investigations and screened a total of 275 contacts.

Immigrants and Refugees

When immigrants and refugees enter the U.S, a pre-immigration exam is required to check for certain diseases, including TB. Prior to arrival in the U.S, individuals 15 years or older are required to have a chest x-ray and a TB blood test or TB skin test. If

diagnosed with active TB disease during the pre-immigration exam, they must be treated before they can travel to the U.S. If an individual has an abnormal chest x-ray (CXR) or a positive TB blood or skin test but infectious TB disease is ruled out overseas, a TB class B designation is given and immigration is permitted.

Our role as the TB Program is to evaluate immigrants and refugees with Class B status after they arrive and determine if further treatment or evaluation is necessary. Persons classified as B1 have an abnormal pre-immigration CXR and are high priority for re-evaluation by a TB Program clinician as this group is at high risk for subsequent progression to TB disease. In 2025, King County received a total of 534 Class B1 referrals. 173 finished evaluations, 58 were diagnosed with TB infection, 38 had treatment recommended and 24 started treatment. Through 2026, 11 patients finished LTBI treatment.

Additionally, the TB Program works to help connect immigrants and refugees with Class B2 (LTBI) designations and individuals with LTBI adjusting their immigration status to care. In 2025, King County received a total of 812 Class B2 referrals and 984 individuals adjusting their immigration status were referred to care.

Resources and Sources

More Resources

- Public Health – Seattle & King County Tuberculosis Program
<https://kingcounty.gov/depts/health/communicable-diseases/tuberculosis.aspx>
- Centers for Disease Control and Prevention Division of Tuberculosis Elimination
<https://www.cdc.gov/tb/default.htm>
- World Health Organization – TB
https://www.who.int/health-topics/tuberculosis#tab=tab_1

Sources

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 the 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. More information of King County Equity, Racial & Social Justice Vision can be found here. <https://kingcounty.gov/elected/executive/equity-social-justice/vision.aspx>
5. National TB Data is taken from the Centers for Disease Control and Prevention: TB Data and Statistics. <https://www.cdc.gov/tb/statistics/tbcases.htm>

6. National TB Data about case rates among different race and age populations are taken from the Centers for Disease Control and Prevention: TB in Specific Populations. <https://www.cdc.gov/tb/topic/populations/default.htm>
7. Washington State TB Data is taken from Washington State Department of Health Tuberculosis Report. <https://doh.wa.gov/sites/default/files/2022-03/343-113-TuberculosisCasesStatewide2017-2021.pdf?uid=64123db9d5c06>