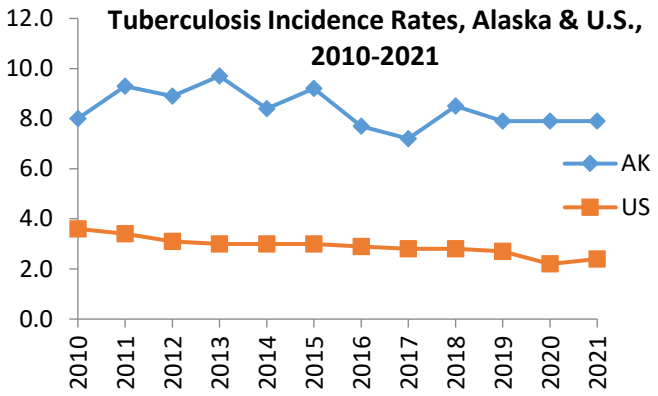
TUBERCULOSIS IN ALASKA- SUMMARY BRIEF 2021

Reported TB Cases

In 2021, 58 cases of TB disease were reported in Alaska, reflecting an incidence rate of 7.9 cases per 100,000 population. This represents no change from the previous year. The U.S. TB incidence rate for 2021 was 2.4 cases per 100,000, which is a 9.4% increase from 2020.



In the early- to mid-20th century, Alaska had some of the highest rates of TB morbidity and mortality ever recorded. Much of the TB activity in Alaska today is a consequence of this legacy and of the ongoing challenges of healthcare delivery, particularly in rural regions of the state. In 2021, Alaska continued to have the highest TB incidence rate in the nation. Many TB cases in Alaska arise from activation of longstanding untreated latent TB infection.

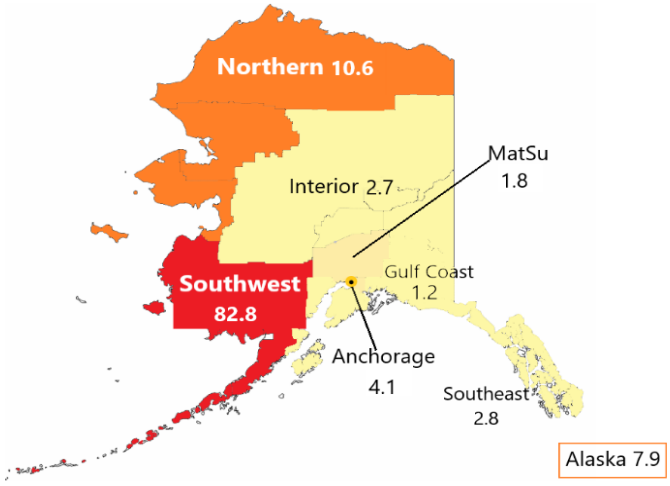
US States with Highest TB Incidence, 2021[1]

Jurisdiction	Number of Cases	TB Incidence
Alaska	58	7.9
Hawaii	106	7.4
California	1750	4.5
Delaware	43	4.3
New York	681	3.4

Trends and populations

TB incidence is not evenly distributed in Alaska; it varies dramatically between different regions and populations. The Southwest and Northern regions consistently have the highest rates of TB, and the Alaska Native population bears a disproportionate burden of cases. The median age of TB cases in 2021 was 38 years (range 0-85 years). While 71% of all U.S. cases were in foreign-born individuals, only 24% of Alaska cases were foreign-born.

Regional Incidence per 100,000 population



Case demographics and social risk factors

		2021 Count (%)	2021 Incidence
Sex	Male	32 (55%)	8.5
	Female	26 (45%)	7.3
Pediatric (0-14 years)		12 (21%)	7.9
Foreign-born		14 (24%)	24.4
Race	Am. Indian/ AK Native	41 (71%)	35.8
	Asian	10 (17%)	21.0
	White	1 (2%)	0.2
	Pacific Islander	2 (3%)	19.5
	Black	3 (5%)	11.0
Homelessness		7 (12%)	359.2
Drug Use (IV & non-IV)		13 (22%)	
Excessive alcohol use		14 (24%)	
Known epi-link to another active case		27 (47%)	

Alaska TB cases by country of birth, 2021

Country	Count (%)
United States	44 (76%)
Philippines	8 (14%)
Sierra Leone	2 (3%)
Ethiopia	1 (2%)
Indonesia	1 (2%)
Mexico	1 (2%)
Micronesia	1 (2%)
Sudan	1 (2%)

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Outbreaks, clusters, and investigations

In 2021, 27 cases (47%) had a known epidemiologic link to another active case, demonstrating the significance of recent transmission. Estimates of recent transmission in Alaska are higher than in any other jurisdiction in the U.S.[2]

Clinical Features

Clinical feature	Count (%)
Sputum AFB smear positive	18 (38% of pulmonary cases)
Sputum culture positive	36 (77% of pulmonary cases)
Isoniazid resistant	4 (7%)
Multi-drug resistant	0 (0%)
Previous TB disease	4 (7%)
Abnormal chest x-ray or CT	21 (36%)
Died during treatment	0 (0%)

Site of disease

Site	Count (%)
Pulmonary	47 (81%)
Lymphatic	6 (10%)
Pleural	2 (3%)
Peritoneal	2 (3%)
Blood	1(2%)
GU	1 (2%)
Spine	1 (2%)
Other	3 (5%)

Program Challenges

- Although TB remains a public health priority, the COVID-19 pandemic continued to negatively impact TB control efforts by diverting limited public health resources and further limiting access to health care, likely leading to decreased TB diagnosis, reporting, and treatment.
- Geographic and healthcare access barriers continue to challenge timely evaluation, laboratory testing, directly observed treatment, and contact investigation. Public health staffing shortages and turnover also continue to be problematic.
- 69% of contacts to TB patients with AFB smear-positive sputum were examined and 66% of contacts who started treatment for TB infection completed treatment (national targets 94% and 93%, respectively).
- 72% of active TB patients with positive AFB sputum smear results had treatment initiation within 7 days of sputum collection (target 96%).
- 51% of active TB patients had sputum culture conversion documented within 60 days of treatment initiation (target 83%).

Program Successes

- 94% of patients started on therapy for confirmed or suspected disease were started on an appropriate 4-drug regimen.
- 100% of cases with a positive culture had drug susceptibility testing performed.
- 94% of infectious cases had contact investigations.

In 2021 the TB control team partnered actively with colleagues in the Alaska Section of Public Health Nursing; Alaska State Public Health Laboratories; Anchorage Health Department; and Alaska's medical and social services providers and institutions, pharmacists, and DOT and community health aides in the management and prevention of TB disease. Some of the work of the TB control program and partners in 2021 included:

- Evaluation of 207 identified contacts to infectious cases
- Treatment of 212 people with latent TB infection
- Coordination of screening and follow-up for 29 immigrant/refugee B-notifications

REFERENCES AND RESOURCES:

State of Alaska

TB Control Program Website:
http://dhss.alaska.gov/dph/Epi/id/Pages/tb.aspx
Alaska TB Control Manual:
https://health.alaska.gov/dph/Epi/id/Pages/Alaska-TB-Manual.aspx
Alaska Epidemiology *Bulletin*. "Alaska's Ongoing Journey with Tuberculosis." Vol 19, Number 1, April 11, 2017:
http://www.epi.alaska.gov/bulletins/docs/rr2017_01.pdf

Centers for Disease Control and Prevention

Main TB Website: https://www.cdc.gov/tb/
National TB Indicators Project:
http://www.cdc.gov/tb/publications/factsheets/statistics/ntip.htm
TB Glossary: https://www.cdc.gov/tb/topic/basics/glossary.htm
State and Local TB Data:
1. Tuberculosis—United States, 2021:
https://www.cdc.gov/mmwr/volumes/71/wr/mm7112a1.htm#
2. Estimates of recent transmission:
https://www.cdc.gov/tb/statistics/reports/2020/table57.htm