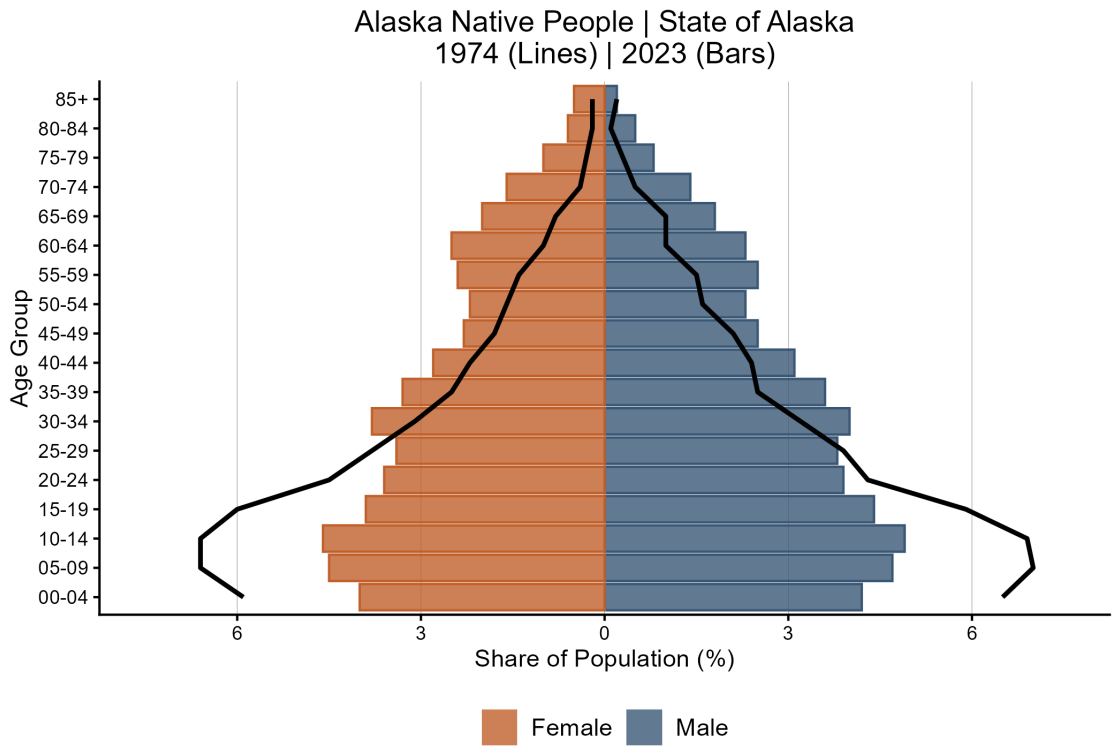
Data Summaries

Cancer Burden in Alaska Native People

Alaska is home to 229 federally recognized Alaska Native Tribes (3). In 2024, there were approximately 150,430 Alaska Native/American Indian (AN/AI) people living in Alaska, comprising 18.6% of the total state population (4). This includes people who identified as Alaska Native alone or in combination with other races. The Alaska Native Tumor Registry collects cancer information for all AN people who are residents in Alaska at the time of cancer diagnosis; who are eligible for Indian Health Service benefits; and who have been diagnosed with cancer from 1969 through the present day. The data refer to Alaska Native (AN) people but are inclusive of Alaska Native and American Indian people of Alaska.

The data in this report play key roles in the assessment of cancer burden indicators. It is important to note that the age structure of the Alaska Native population in Alaska has changed dramatically over the past decades (Figure 1). As the population ages, the number of cancer cases increases, but this does not necessarily mean that the rate of cancer incidence increases by age group. As such, we present age-adjusted rates for incidence and mortality in this report to allow for comparison across race, place, and time. We also present incidence and mortality by age group, using age at diagnosis and calculated as age-specific rates, to highlight how cancer burden changes with age.

Figure 1. Age structure of Alaska Native people of Alaska in 1974 (lines) and 2023 (bars).



Data Source: ANTR Analysis Database, Nov 2025 Sub

Incidence, Top Sites

Breast was the most commonly diagnosed cancer site for Alaska Native females in 2019-2023. It had an age-adjusted incidence rate of 157, with a total of 432 new cases diagnosed. The second most commonly diagnosed cancer site was Lung and Bronchus (incidence rate 78, 206 new cases), and the third most commonly diagnosed cancer site was Colon and Rectum (incidence rate 71, 185 cases).

Lung and Bronchus was the most commonly diagnosed cancer site for Alaska Native males in 2019-2023. It had an age-adjusted incidence rate of 87, with a total of 187 new cases diagnosed. The second most commonly diagnosed cancer site was Colon and Rectum (incidence rate 85, 196 new cases), and the third most commonly diagnosed cancer site was Prostate (incidence rate 79, 192 cases).

The high rates of newly diagnosed Lung and Bronchus cancer during 2019-2023 may be due to increased lung imaging during the Covid-19 pandemic for individuals presenting with respiratory issues. This increased screening may have caught cancer cases which otherwise would not have yet been diagnosed. Refer to Section 1.

Incidence, Top Sites, Over Time

This is the first iteration of the cancer report to include charts of changes in top cancer sites over time, based on both count of cases (1969-2023) and age-adjusted incidence rates (1974-2023). By count of cases, for Alaska Native females in the earliest period (1969-1973), the top three cancer sites were: Colon and Rectum, Breast, and Cervix Uteri. In the latest period (2014-2023), the top three cancer sites were: Breast, Colon and Rectum, and Lung and Bronchus. For Alaska Native males in the earliest period (1969-1973), the top three cancer sites were: Colon and Rectum, Lung and Bronchus, and Prostate. In the latest period (2014-2023), the top three cancer sites were: Colon and Rectum, Lung and Bronchus, and Prostate. Refer to Section 1.

Incidence by Age at Diagnosis

Incidence rates by age group are reported as age-specific rates and are not age-adjusted. Age groups are based on age at diagnosis. The age group with the highest incidence for Alaska Native people in 2019-2023 was ages 70+, with an incidence rate of 2,410 and 909 new cases. The age group with the highest incidence for Alaska Native females was ages 70+, with an incidence rate of 2,231 and 473 new cases. The age group with the highest incidence for Alaska Native males was ages 70+, with an incidence rate of 2,638 and 436 new cases.

Among females ages 20-69, the top cancer sites were: Breast (incidence rate 178, 326 new cases), Colon and Rectum (incidence rate 57, 104 new cases), and Lung and Bronchus (incidence rate 51, 94 new cases). Among females ages 70+, the top cancer sites were: Lung and Bronchus (incidence rate 528, 112 new cases), Breast (incidence rate 500, 106 new cases), and Colon and Rectum (incidence rate 377, 80 new cases). Among males ages 20-69, the top cancer sites were: Colon and Rectum (incidence rate 68, 130 new cases), Prostate (incidence rate 57, 110 new cases), and Lung and Bronchus (incidence rate 50, 96 new cases). Among males ages 70+, the top cancer sites were: Lung and Bronchus (incidence rate 551, 91 new cases), Prostate (incidence rate 496, 82 new cases), and Colon and Rectum (incidence rate 399, 66 new cases). Refer to Section 2.

Childhood Cancers

In children and young adults, cancers are more likely to be hematologic or central nervous system tumors. For Alaska Native children ages 0-19, the top cancer sites were: Brain (incidence rate 4, 10 new cases), and Acute Lymphocytic Leukemia (incidence rate 4, 9 new cases). Refer to Section 2.

Incidence by Stage at Diagnosis

For Alaska Native people during 2019-2023, the modal stage at diagnosis, based on age-adjusted incidence rates, was the Localized stage (incidence rate 212, 1,123 new cases). However, modal stage at diagnosis differs by sex. During the same period, for Alaska Native females, the modal stage at diagnosis was the Localized stage (incidence rate 248, 673 new cases). However, for Alaska Native males, the modal stage at diagnosis was the Distant stage (incidence rate 196, 460 new cases). This indicates new diagnoses for males are occurring later than would be most beneficial for survival outcomes.

For both Alaska Native females and males, age-adjusted incidence rate by stage at diagnosis varies widely by site. For females, among the top cancer sites, the site with the highest incidence of cases diagnosed in the Localized stage is Breast (incidence rate 104, 287 new cases). The site with the highest incidence of cases diagnosed in the Distant stage is Lung and Bronchus (incidence rate 42, 109 new cases). For males, among the top cancer sites, the site with the highest incidence of cases diagnosed in the Localized stage is Prostate (incidence rate 45, 117 new cases). The site with the highest incidence of cases diagnosed in the Distant stage is Lung and Bronchus (incidence rate 47, 106 new cases). Refer to Section 3.

Incidence Trends

Cancer incidence has been increasing from 398 in 1974 to 516 in 2023. As mentioned previously, the Alaska Native population of Alaska has been aging; with the population comprising a larger share of older adults and a smaller share of children than in previous generations. Yet, as age-adjusted cancer incidence rates are increasing, the data indicate there is indeed more cancer being diagnosed among Alaska Native people, when adjusting for age, than in previous generations. The increase has been more dramatic for females than for males. The gap between the Alaska Native cancer incidence rate and the US White cancer incidence rate has widened over time. Refer to Section 5.

Mortality, Top Sites

The cancers responsible for the most cancer deaths, by age-adjusted mortality rate, were Lung and Bronchus cancer (mortality rate 54, 257 deaths), Colon and Rectum (mortality rate 29, 131 deaths) and Stomach (mortality rate 13, 68 deaths). The most common cause of cancer death in Alaska Native females in 2019-2023 was Lung and Bronchus cancer (mortality rate 48, 122 deaths), followed by the Colon and Rectum (mortality rate 24, 59 deaths), and Breast cancer (mortality rate 12, 32 deaths). The most common cause of cancer death in Alaska Native males was Lung and Bronchus cancer (mortality rate 64, 135 deaths), followed by Colon and Rectum cancer (mortality rate 36, 72 deaths), and Stomach cancer (mortality rate 20, 47 deaths). Refer to Section 6.

Mortality by Age at Diagnosis

Mortality rates by age group are reported as age-specific rates and are not age-adjusted. Age groups are based on age at diagnosis. The age group with the highest five-year cancer mortality rate for Alaska Native people in 2019-2023 was ages 70+, with a mortality rate of 1,074 and 405 deaths. The age group with the highest five-year cancer mortality rate for Alaska Native females was ages 70+, with a mortality rate of 929 and 197 deaths. The age group with the highest five-year cancer mortality rate for Alaska Native males was ages 70+, with a mortality rate of 1,258 and 208 deaths.

Among females ages 20-69, the top cancer sites for mortality were: Lung and Bronchus (mortality rate 26, 48 deaths), Colon and Rectum (mortality rate 14, 26 deaths), and Breast (mortality rate 9, 17 deaths). Among females ages 70+, the top cancer sites for mortality were: Lung and Bronchus (mortality rate 349, 74 deaths), Colon and Rectum (mortality rate 156, 33 deaths), and Breast (mortality rate 71, 15 deaths). Among males ages 20-69, the top cancer sites for mortality were: Lung and Bronchus (mortality rate 35, 68 deaths), Colon and Rectum (mortality rate 20, 38 deaths), and Stomach (mortality rate 16, 31 deaths). Among males ages 70+, the top cancer sites for mortality

were: Lung and Bronchus (mortality rate 405, 67 deaths), Colon and Rectum (mortality rate 206, 34 deaths), and Stomach (mortality rate 97, 16 deaths). Refer to Section 7.

Mortality Trends

Overall, the five-year cancer mortality rate has remained relatively stable for Alaska Native people during 1974 and 2023. This is true for all of the top cancer sites. However, it is worth nothing that for Colon and Rectum cancer, the Alaska Native five-year cancer mortality rate has remained stable, while the US White mortality has declined significantly during the same period. Refer to Section 9.

Regional Incidence

Section 10 shows incidence rate trends by Tribal Health Region, relative to Alaska Native people statewide and the US White population. Cancer incidence rates have remained relatively stable during 1994 and 2023. Refer to Section 10.

Section 11 compares incidence rates for the leading cancer sites by Tribal Health Region, relative to Alaska Native people statewide and the US White population. There was sizeable variability between Tribal Health Regions for each cancer site. For example, rates of Breast cancer (female) were highest in Copper River/Prince William Sound (incidence rate 105) and lowest in Yukon-Kuskokwim (incidence rate 30). Rates of Colon and Rectum cancer were highest in Norton Sound (incidence rate 112) and lowest in Aleutians and Pribilofs (incidence rate 41). Lung and Bronchus cancer rates were highest in Arctic Slope (incidence rate 144) and lowest in Northwest Arctic (incidence rate 66). Refer to Section 11.