

# Cancer in Alaska Multi-Year Summary Report, 2017



**Alaska Cancer Registry**  
**Section of Chronic Disease Prevention and Health  
Promotion**  
**Alaska Department of Health and Social Services**

**June 2017**

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**June 2017**

**A Publication of the  
Alaska Cancer Registry**



**State of Alaska  
Bill Walker, Governor**

**Department of Health and Social Services  
Valerie Davidson, Commissioner**

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## **Cancer in Alaska: Multi-Year Summary Report, 2017**

A publication of the Alaska Cancer Registry  
June 2017

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# Table of Contents

Executive Summary.....	1
Introduction .....	4
Data Sources .....	7
Definitions.....	9
Leading Cancers in Alaska .....	13
Cancer Incidence (2010-2014) .....	15
Cancer Mortality (2005-2014).....	24
Cancer among Children in Alaska .....	33
Detailed Cancer Summaries.....	35
All Cancer .....	36
Bladder Cancer.....	48
Breast Cancer (Female).....	60
Cervical Cancer.....	72
Colorectal Cancer.....	84
Kidney and Renal Pelvis Cancer .....	96
Leukemia.....	108
Liver Cancer.....	120
Lung and Bronchus Cancer.....	132
Non-Hodgkin Lymphoma .....	144
Pancreatic Cancer .....	156
Prostate Cancer.....	168
Appendix .....	180
Description of Alaska Borough and Census Areas .....	180
Years of Data Included in this Report .....	182
Resources.....	183

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## Executive Summary

This report summarizes the most recently available information about cancer incidence rates in Alaska. In contrast to annual cancer reports, this report combines multiple years of data to allow for comparisons among groups that are not possible with only single years of data. The purpose of this report is to provide information for partners in Alaska who are working to reduce cancer risk, find cancers earlier, improve treatment, increase the number of people who survive cancer and improve the quality of life for cancer survivors.

Data on cancer incidence are from the Alaska Cancer Registry (ACR), a population-based cancer surveillance system that is funded by the Centers for Disease Control and Prevention. ACR collects data on all newly diagnosed cases of cancer for the State of Alaska. Data on mortality are from the Alaska Health Analytics and Vital Records Section.

The first section of this report describes the burden of cancer in Alaska during recent years, and identifies the most common cancers overall and within specific groups. The second section of the report provides rates of incidence and mortality overall and for specific population groups (by gender, race, and geographic area) and general trends over time for the 7 leading cancers for incidence, the 7 leading cancers for mortality, cervical cancer, and all cancers combined, for a total of 12 cancer summaries.

Key findings include:

- *Burden of cancer in Alaska.* Between 2010 and 2014 (5 years) there were a total of 13,550 new cancer cases among Alaska residents. Between 2005 and 2014 (10 years) there were a total of 8,815 cancer deaths among Alaska residents.
- *Gender comparisons.* The overall incidence and mortality of cancer in Alaska were higher among men than women for multiple cancers, including all cancer combined, bladder, leukemia, liver, lung and bronchus, and non-Hodgkin lymphoma. Mortality specifically was higher among men than women for colorectal cancer and kidney and renal pelvis cancer.
- *Race comparisons.* Alaska Native people had elevated incidence and mortality in comparison to Whites and the state average for multiple cancers including overall cancer, colorectal, kidney and renal pelvis, liver (mortality), lung and bronchus. Asians/Pacific Islanders had higher rates of liver cancer mortality, and Blacks had higher rates of prostate cancer, in comparison to Whites.
- *Regional comparisons.* The incidence of overall cancer was lower in the Juneau, Southwest and Y-K Delta regions than statewide; by borough/census area this corresponds to the Aleutians East Borough, Bethel Census Area, Juneau Borough, and Sitka Borough. For specific cancer types many regions, boroughs or census areas had too few cases to report rates, even with many years of data combined. Some differences in regional rates may be due to differences in screening and detection capacity rather than in actual cancer rates.

- *Trends over time.* Alaska's overall cancer incidence rate was stable during 1996-2007. The rate began significantly declining in 2008, and has declined by an average of about 3% per year during 2008-2014. Cancer mortality also decreased by about 1% per year during 1996-2014. Significant declines in either incidence or mortality were shown for many cancers including bladder, breast, cervical, colorectal, leukemia, lung and bronchus, non-Hodgkin lymphoma, and prostate. Significant increases were observed for kidney and renal pelvis and liver cancers.
- *Comparisons to the United States (U.S.).* Cancer incidence and mortality rates and trends for Alaska were generally similar to the U.S. The overall cancer incidence rate was historically similar to the U.S. rate, but has been lower than the U.S. rate during recent years. However, although the overall incidence rate among Alaskans was lower than the U.S., rates for many cancers were higher than the U.S. rate for Alaska Native people.

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# Introduction

The Alaska Multi-Year Cancer Report combines years of the most recently available information about cancer incidence rates in Alaska, to support comparisons of cancer among subgroups. Annual cancer reports that are also provided by the State of Alaska include information about only the single most recent year of data, which does not include sufficient numbers to allow for such comparisons. Together, these two reports provide data for stakeholders to use for informing public health actions. This report can be used by the Alaska Comprehensive Cancer Partnership stakeholders – clinical and public health professionals as well as other health advocacy partners and the public – to support continued planning and evaluation of cancer prevention and control efforts.

## *What is cancer?*

Cancer is a group of diseases, all of which involve uncontrolled growth and spread of abnormal cells.<sup>1</sup> There are over 100 different types of cancer.

The human body is made up of billions of cells. Normally, body cells grow, divide, and die in an orderly fashion. Cancer cells, however, continue to grow and divide and can spread to other parts of the body. These cells accumulate and form tumors (lumps) that compress, invade, and destroy normal tissue. If cells break away from such a tumor, they can travel through the bloodstream or the lymph system to other areas of the body. There, they may settle and form “colony” tumors. In their new location, the cancer cells continue growing. The spread of a tumor to a new site is called metastasis. Not all tumors are cancerous. Benign tumors do not metastasize and, with very rare exceptions, are not life-threatening.

When cancer spreads, it is still named after the body part where it started. For example, if prostate cancer spreads to the bones, it is still prostate cancer, and if breast cancer spreads to the lungs it is still called breast cancer. However, it is possible for a person to develop multiple unrelated types of cancer in different parts of the body over their lifetime.

Cancer is also classified by its appearance under a microscope, known as “histology”. Different types of cancer vary in their rates of growth, patterns of spread, and responses to different types of treatment. That’s why people with cancer need treatment that is aimed at their specific form of the disease.

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<sup>1</sup> For more discussion, see American Cancer Society, 2015. *What is cancer? A guide for patients and families*. Available at: <http://www.cancer.org/cancer/cancerbasics/what-is-cancer> (last accessed 12/28/16)

Most cancer falls into 5 major histology groups. Within each group there are subtypes.

- **Carcinoma** is a cancer that develops from cells that cover the surface of the body (skin), glands (breast, prostate), and internal organs (lung, stomach, and intestines). Eighty to ninety percent of all cancers fall into this category.
- **Sarcoma** is a cancer that occurs in connective tissues such as bones, tendons, cartilage, fat, and muscle.
- **Leukemia** is a cancer that develops from cells in bone marrow that make blood, and circulates through other tissues. Leukemia does not usually form a tumor.
- **Lymphoma** is a cancer that develops from cells in the immune system. Hodgkin lymphoma and non-Hodgkin lymphoma are in this group.
- **Myeloma** is a cancer that develops in the plasma cells of bone marrow.

#### *Who is at risk for cancer?*

Everyone. In the United States, an estimated half of all men and one-third of women will develop cancer during their lifetimes.<sup>2</sup> Today, millions of people are living with cancer or have been cured of the disease. The sooner a cancer is found, and the sooner treatment begins, the better the person's chances are of a cure.

Although there are certain specific childhood cancers that have an expected early age peak and then are rarely seen in the rest of the population, the occurrence of cancer generally increases with age; most cancers occur among middle-aged or older adults. The term "lifetime risk" is the probability that an individual, over the course of a lifetime, will develop cancer or die from it. The American Cancer Society (ACS) has published lifetime risks of developing specific cancers by age and gender,<sup>2</sup> estimating:

- 1 in 7 men will develop prostate cancer
- 1 in 8 women will develop breast cancer
- 1 in 14 men and 1 in 17 women will develop lung or bronchus cancer
- 1 in 21 men and 1 in 23 women will develop colorectal cancer

#### *What causes cancer?*

An estimated 70% or more of the most common types of cancers are due to behavioral, occupational, and environmental factors.<sup>3</sup> These cover external factors that affect us, and include tobacco, diet, exercise, viruses, radiation, chemicals in the workplace, and not just what is thought of as the environmental pollution of air, water, and food.

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<sup>2</sup> American Cancer Society (ACS), 2016. *Cancer Facts and Figures 2016*. Available at <http://www.cancer.org/research/cancerfactsstatistics/index> (last accessed 12/28/16).

<sup>3</sup> Wu S., Powers S., Zhu W., and Hannun YA, 2016. Substantial contribution to extrinsic risk factors to cancer development. *Nature*, Jan 7; 529(7584): 43-47.

Tobacco is the greatest risk factor for all cancers combined and is the single leading preventable cause of cancer.<sup>4</sup> Excessive alcohol consumption, particularly coupled with tobacco use, and failure to eat sufficient fresh fruits, vegetables and whole grains contribute to one-third of all cancer deaths.<sup>4</sup> Reduction of these risk factors can be controlled by individual behavioral choices.<sup>5</sup> Research indicates that genes play a role, but the currently known genetic “markers” alone account for only a small proportion of cancers.

Sometimes when a family member or friend is diagnosed with cancer, the tragedy makes us more aware of others in our community with cancer and we begin to be concerned that there may be an unusually large number of cancer cases in a certain area. Sometimes this may be the case, but not often. There are a certain number of cancers that are expected to occur in any U.S. population. The leading cancers in the U.S. will almost always be found in each community and include: lung, breast, prostate, and colorectal cancer.

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<sup>4</sup> World Health Organization. Cancer Fact Sheet. Revised February 2017. Available at: <http://www.who.int/mediacentre/factsheets/fs297/en/> (last accessed 3/21/17)

<sup>5</sup> World Health Organization, 2016. Cancer prevention web page: <http://www.who.int/cancer/prevention/en/> (last accessed 1/16/2017).

# Data Sources

## **Alaska Cancer Registry**

Most data in this report are from the Alaska Cancer Registry (ACR), a population-based cancer surveillance system that is funded by the Centers for Disease Control and Prevention (CDC), National Program of Cancer Registries. ACR is housed within the Alaska Department of Health and Social Services (DHSS), Division of Public Health (DPH).

ACR collects data on all newly diagnosed cases of cancer for the State of Alaska, including a wide variety of information to determine cancer incidence, mortality, and survival.

The data are used to:

- Determine the incidence of cancer in Alaska with respect to geographic and demographic characteristics
- Monitor trends over time, looking for unusual patterns
- Monitor early detection, evaluate the effectiveness of cancer control programs and identify areas in need of public health interventions
- Determine how Alaska compares with the rest of the U.S.
- Serve as a resource for health planners, medical professionals, researchers and others concerned about cancer

### *Regulations and confidentiality*

ACR was established in January 1996 by Alaska Administrative Code (7 AAC 27.011), and has operated under several statutes and regulations required for compliance with state law and federal quality control guidelines since that time. The regulations require all hospitals, health care facilities and health care practitioners screening, diagnosing or providing treatment for cancer patients diagnosed on or after January 1, 1996 to report information on newly diagnosed cancer cases to the Alaska Division of Public Health. ACR uses quality control methods to assure that cases are not duplicated in the cancer database. ACR has interstate agreements with most other state health departments to ensure that information about Alaska residents diagnosed or treated in other states are shared with ACR.

Alaska law demands strict confidentiality and the protection of the identity of both cancer patients and sources reporting to ACR. An additional law protects facilities and physicians from any liability for their reporting to the registry program. Registry personnel are held to the highest standards of data confidentiality. Access to the ACR office and its data is restricted. Any research study involving data with unique identifiers must be reviewed by an Institutional Review Board, which protects rights to privacy and informed consent, with final approval resting with DHSS.

### *Quality assurance*

ACR is a member of the North American Association of Central Cancer Registries (NAACCR), which sets standards for data definition, quality and completeness of reporting. Each year, NAACCR provides an objective evaluation of state central cancer registry data for completeness, quality and timeliness. For 16 of the last 17 years, ACR has met the “Gold Standard”, the highest level of certification available.

### *Data collected*

ACR collects information on all in situ and malignant cancers (those with behavior codes 2 or 3 in the *International Classification of Disease for Oncology*, 3rd Ed.), as well as benign brain cancers diagnosed as of 2004 and later. Three cancers are exempt from reporting because they are rarely fatal, are easily treated at a physician’s office, and usually do not require hospitalization. These are:

- Carcinoma in situ of the cervix
- Basal and squamous cell skin cancers (unless these are at an external genital area)

The specific information required to be reported on each cancer case includes demographic data (date of birth, sex, ethnicity, race, residence, etc.) and information on each primary tumor, including site, histology, staging and first course of cancer-directed treatment.

For more information on Alaska’s cancer surveillance and ACR, visit:

<http://dhss.alaska.gov/dph/Chronic/Pages/Cancer/registry.aspx>

### **Mortality Data**

Information on Alaska residents who died from cancer was obtained from the Alaska Health Analytics and Vital Records Section, DPH. Only Alaska residents are included in the mortality data.

For more information on Alaska’s mortality data, visit:

<http://dhss.alaska.gov/dph/VitalStats/Pages/data/default.aspx>

### **U.S. Cancer Rates**

National cancer incidence rates are age adjusted and come from the United States Cancer Statistics (USCS). The USCS data represents the combined data sets of the two U.S. cancer registry programs: National Program of Cancer Registries of CDC and the Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute (NCI). These federal programs fund cancer registries in all 50 states, the District of Columbia, and the U.S. Pacific Island Jurisdiction.

For more information on U.S. cancer rates, visit:

<https://nccd.cdc.gov/uscs/>

## **Alaska Population Estimates**

The calculation of incidence rates requires population numbers by age, sex, and race. This information was available within NCI's cancer statistical program, SEER\*Stat, which was used to produce the statistics for this report. SEER\*Stat incorporated U.S. population data (including annual Alaska population estimates) from the U.S. Census Bureau's Population Estimates Program and the National Center for Health Statistics.

For more information on single year of age population estimates by county visit:

<https://seer.cancer.gov/popdata/singleages.html>

## **Definitions**

### ***Age-adjusted Rates***

A "crude" cancer rate is calculated by taking the annual number of cancer cases for a given population and dividing it by the total number of people in that population. Since this number would be a very small decimal, it is multiplied by 100,000 and is thus expressed as "per 100,000 persons". However, cancer incidence and mortality rates in this report are calculated using the direct method and age-adjusted to the standard 2000 U.S. population; they are expressed as an annual number of cases per 100,000 persons.

Age adjustment (sometimes called age standardization) is a statistical process that allows communities and states with different age structures to be compared. Age adjustment removes the influence of the differences in age distributions that occur from one population to another. Since the risk of developing cancer is strongly associated with age, a geographic area with a high proportion of elderly residents could not be accurately compared with a younger-age populated area unless rates were adjusted to a standard reference population – the older community group would always naturally have a higher cancer rate even if the two communities had the same cancer risk.

Effectively, rates for a specific age group in the population of interest are multiplied by the number of people in the same age group in a standard population (in this case, the U.S. 2000 population). Age adjustment is an internationally approved statistical method to remove confounding caused by age.

Rates for sex specific cancer sites are calculated using the population for that specific sex, rather than the entire population. In other words, the prostate rate is per 100,000 men while cervix, uterus and female breast rates are per 100,000 women.

Rates shown for combined years of data are sometimes labeled on chart axes as "annual age-adjusted rates". These are average annual age-adjusted rates for the years of data indicated.

### **Alaska Regions**

Data are presented geographically in this report for Borough/Census Areas (BCAs) and Behavioral Health Systems Regions (which are made up of multiple BCAs). Rates and counts are not shown for specific areas when there were fewer than 6 cases within the combined years. The Appendix of this report includes a list of BCAs included in each of Alaska's Behavioral Health Systems Regions, as well as their total population.

Many BCAs have small populations and data are suppressed due to having small numbers of cases (fewer than 6). Additionally, BCAs in southeast Alaska were reorganized in 2007 and 2008. ACR started using the new BCA definitions in 2010. For this reason, BCA-based data presentations that include data from prior to 2010 are organized by the older BCA definitions (27 BCAs), and BCA-based data presentations that include data only from 2010 and forward use the newer definitions (29 BCAs).

Behavioral Health Systems Regions, which include multiple BCAs, have been organized consistently over time, so examining data by these regions allows us to examine rate trends not affected by the BCA change.

### **Confidence Intervals**

Upper and lower confidence intervals for age-adjusted incidence rates were calculated using the method of Tiwari et al.<sup>6</sup> The "margin of error" is a common term for the "plus or minus" value around a point estimate, which in total represents the confidence interval. The confidence interval helps to understand the size of uncertainty of the "true value" in a population. Readers are advised to consider the precision of point estimates.

Our report uses 95% confidence intervals. If there is no bias in the data collection system, there is a 95% chance (95 times out of 100 times) that the confidence interval around an estimate will include the true value.

The magnitude of the confidence interval is dependent upon the size of the population at risk and the number of reported cancer cases. Generally, large populations with large number of cancer cases will result in rates with small confidence intervals. Because U.S. rates are based on very large populations and number of cases, their confidence intervals are not stated in this report and are usually about  $\pm 0.1$  of the rate. Rural areas with sparse populations tend to have large confidence intervals.

Uncertainty in our estimates occurs because the number of cases of cancer diagnosed is likely to change each year based on random variation. For example, perhaps 2 cases of stomach cancer were diagnosed in early January of the current year instead of December of the previous

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<sup>6</sup> Tiwari RC, Clegg LX, Zou Z. Efficient interval estimation for age-adjusted cancer rates. *Statistical Methods in Medical Research* 2006 Dec;15(6):547-569.

year because the physicians (or the patients) were on vacation at the end of the previous year. Therefore, the incidence of stomach cancer in the previous year would appear slightly lower than it might have been otherwise. The effect of random variation can be much greater when numbers of cases are small: if the 2 stomach cancers were 2 of only 4 for the entire year, then attributing those cases to the current year instead of the previous year more drastically affects the estimate of stomach cancer incidence than if those cases were 2 of 40 stomach cancers for the year.

Confidence intervals are also used as another way to test statistical significance. Generally, if the confidence intervals of two different rates overlap, we cannot be certain that there is a true difference between them. However, if the confidence intervals do not overlap, then we believe the true values of results for the two groups are different. When we state in this report that a particular rate is higher or lower than another rate, it is because there is a statistically significant difference between them as their confidence intervals do not overlap.

### ***Incidence***

An incident case is defined as a newly diagnosed primary cancer. A primary cancer, or site, is the cancer of origin, as opposed to a cancer that has spread, or metastasized, from another site. Since individuals can have more than one primary cancer, diagnosed either sequentially or at the same time, the number of incident cases may be greater than the number of persons who were diagnosed with cancer.

Only Alaska residents are included in the incidence data. Incidence data are presented as the number of cases and age-adjusted incidence rates.

The Alaska Cancer Registry follows standard protocols so that its incidence rates can be compared with those from other registries and the U.S. These include the following:

- Most cancers are grouped by the organ where they arise. The organ of origination is called the primary site.
- Rates are reported only for malignant cancers (those that have penetrated the basement membrane). The exception to this is cancer of the bladder, for which in situ cases are included with invasive cases because generally in situ bladder cancer is as aggressive as malignant bladder cancer.
- Basal cell and squamous cell carcinomas of the skin are excluded unless they occur at an external genital area. In these instances, they are considered cancers of the organs where they are located, not skin cancers.
- Cancers of the lymphatic, hematopoietic, and reticuloendothelial systems are grouped by their histology (e.g., leukemia, lymphoma), not by the anatomical sites where they occur. For example, lymphomas of the breast are grouped with non-Hodgkin lymphomas rather than with breast cancers.

### ***Mortality***

Deaths are attributed to cancer only if the underlying cause of death is listed as cancer.

***Race***

Cancer data in this report are presented by race group, regardless of ethnicity. The race groups are White (Caucasian), Black (African-American, African, and people of African descent), Alaska Native people (this also includes a small number of American Indians who are residents of Alaska), and Asians/Pacific Islanders (all Asian, Native Hawaiian and other Pacific Islander races combined). Some cancer cases are reported with “unknown race.” Since this represents a relatively small number of cases (less than 2%) and it is not possible to calculate rates for a group with an undefined population, statistics by race for “unknown race” are not presented.

***Limitations to Data Interpretation***

In non-census years, state and borough/census area population figures are estimates. Because rates are calculated from population data, any errors in the population estimates will impact the rates.

Age-adjusted rates calculated based on the occurrence of fewer than 20 cancer cases may be statistically unreliable and should be used with caution. When comparing rates among genders, races, or geographic areas, factors such as the number of cases and the upper and lower confidence intervals should be considered. Interpretation without consideration of these factors may be misleading or inaccurate.

# Leading Cancers in Alaska

The first section of this report describes the burden of cancer in Alaska during recent years, and identifies the most common cancers overall and within specific groups.

## *Incidence*

Between 2010 and 2014, a total of 13,550 new cancer cases were diagnosed in the State of Alaska among residents. Cancers representing the largest share of those cases were female breast (15.6% of cancers with 2,109 cases), lung and bronchus (12.6% of cancers with 1,713 cases), prostate (11.5% of cancers with 1,553 cases) and colon and rectum cancer (9.8% of cancers with 1,327 cases). Other types of cancer each made up fewer than 5% of the total cases.

Among men, prostate cancer was the leading cancer in terms of numbers of cases (1,553 cases). Among women, breast cancer was the leading cancer (2,088 cases). Among both men and women, lung and bronchus cancer was the second most common type of cancer (939 cases among men and 774 among women) and colon and rectum was the third most common type of cancer (707 cases among men and 620 among women).

The leading three cancers by count were the same among Alaska Native and White men in Alaska, but their order is different with colon and rectum cancer and lung and bronchus cancer as leading cancers, each with 178 cases, and prostate cancer third with 99 cases among Alaska Native men in Alaska. In comparison, prostate cancer is the leading cancer among White men in Alaska (1,294 cases), followed by lung and bronchus (694 cases) and colon and rectum (461 cases). The leading three cancers among Alaska Native and White women in Alaska are the same, and breast cancer is the leading cancer in both groups (with 343 cases among Alaska Native women and 1,561 among White women).

## *Mortality*

Between 2005 and 2014, a total of 8,815 Alaska residents died as a result of cancer. The most common cause of cancer death was lung and bronchus (27.9% of cancer deaths, with 2,461 total deaths). Other relatively frequent cancer deaths were from colon and rectum (9.0% of cancer deaths, with 795 total deaths), female breast (7.0% of cancer deaths with 621 total deaths) and pancreas cancer (6.3% of cancer deaths, with 552 total deaths). Other specific types of cancer each made up less than 5.0% of cancer deaths.

Among both men and women, lung and bronchus was the leading type of cancer-related death (1,366 deaths among men and 1,095 among women). Colon and rectum cancer was the second most common cause of cancer death among men (448 deaths), and third among women (347 deaths). Prostate was the third most common cause of cancer death among men with 375

deaths. Female breast cancer was the second leading cause of cancer death among women with 615 deaths.

Among men, lung and bronchus cancer was the leading type of cancer death among Alaska Native (278 deaths) and White men (998 deaths). Colon and rectum cancer was the second leading cause of death among Alaska Native men (126 deaths), and third leading cause of death among White men (279 deaths). The third leading cause of cancer death among Alaska Native men was stomach cancer (70 deaths), which did not fall among the leading 10 causes of cancer death among White men. Prostate cancer – the second leading cancer death among White men (295 deaths) – was the fifth leading cause of cancer death among Alaska Native men (48 deaths).

Among women, lung and bronchus cancer was also the leading type of cancer death among both Alaska Native (201 deaths) and White women (812 deaths). Colon and rectum cancer was the second leading cause of death among Alaska Native women (112 deaths) and third among White women (207 deaths). Breast cancer was the third leading cause of death among Alaska Native women (109 deaths) and second among White women (460 deaths).

#### *Cancer among Children*

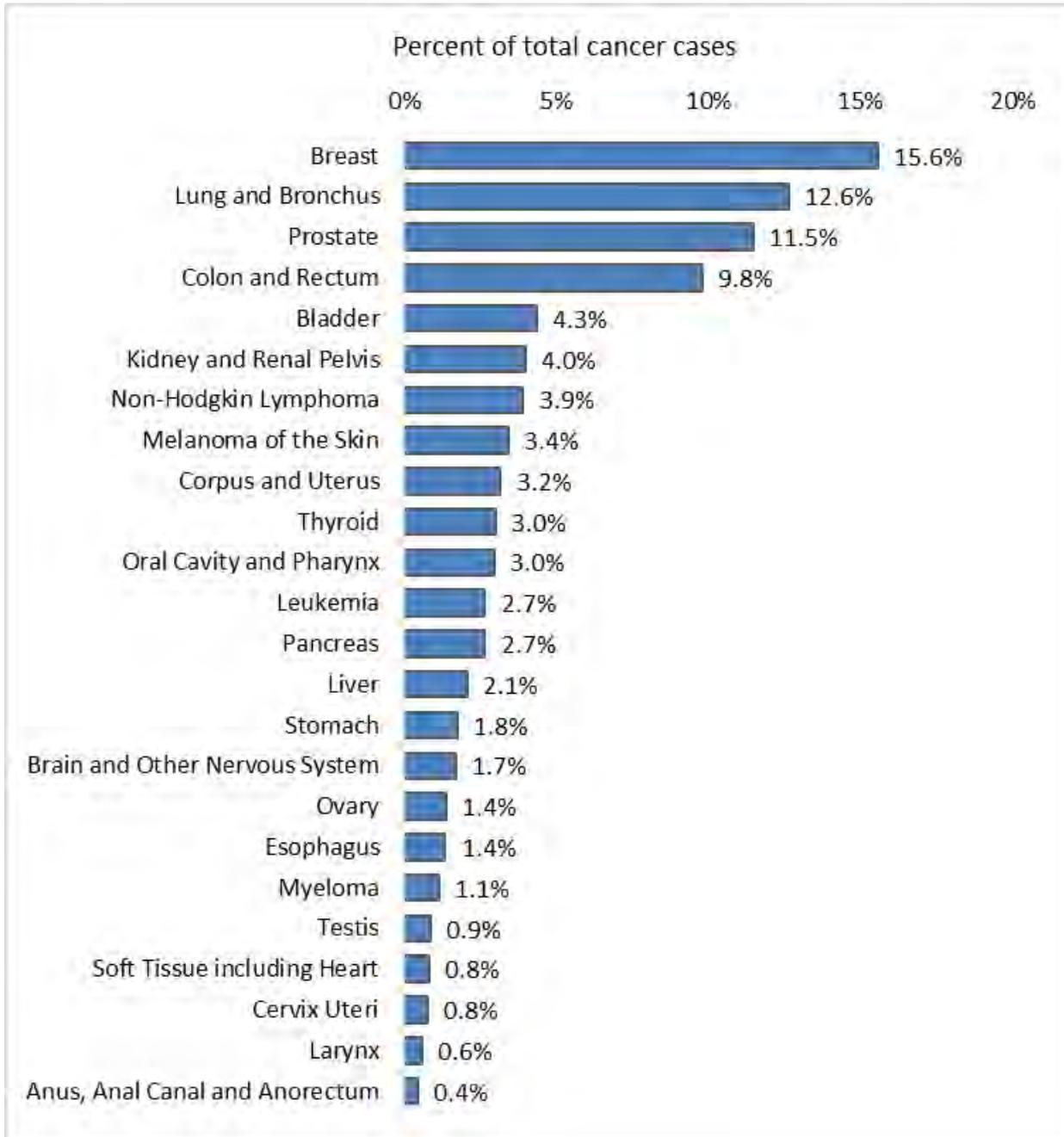
Cancer among children ages 0-19, both in Alaska and the United States (U.S.), is rather rare. Rates of cancer incidence and death among children in Alaska are similar to U.S. rates.

Between 2010 and 2014 a total of 365 cancers were diagnosed among children in Alaska. The leading type of cancer diagnosed was leukemia (27.7% of all cancers, with 101 cases). Brain and other nervous system cancer was the second leading type of cancer (56 cases), and soft tissue including heart cancer was third (29 cases).

Between 2005 and 2014 a total of 57 children in Alaska died from cancer. The leading type of cancer death among children was also leukemia (31.6% of all cancer deaths, with 18 cases). Brain and other nervous system, and soft tissue including heart cancer, were the next leading causes of cancer death among children, with fewer than 10 total deaths each during this 10-year period.

## Cancer Incidence (2010-2014)

**Figure 1: 25 Highest-ranked cancer types by percent of total cancer cases**  
Alaska Residents, 2010-2014



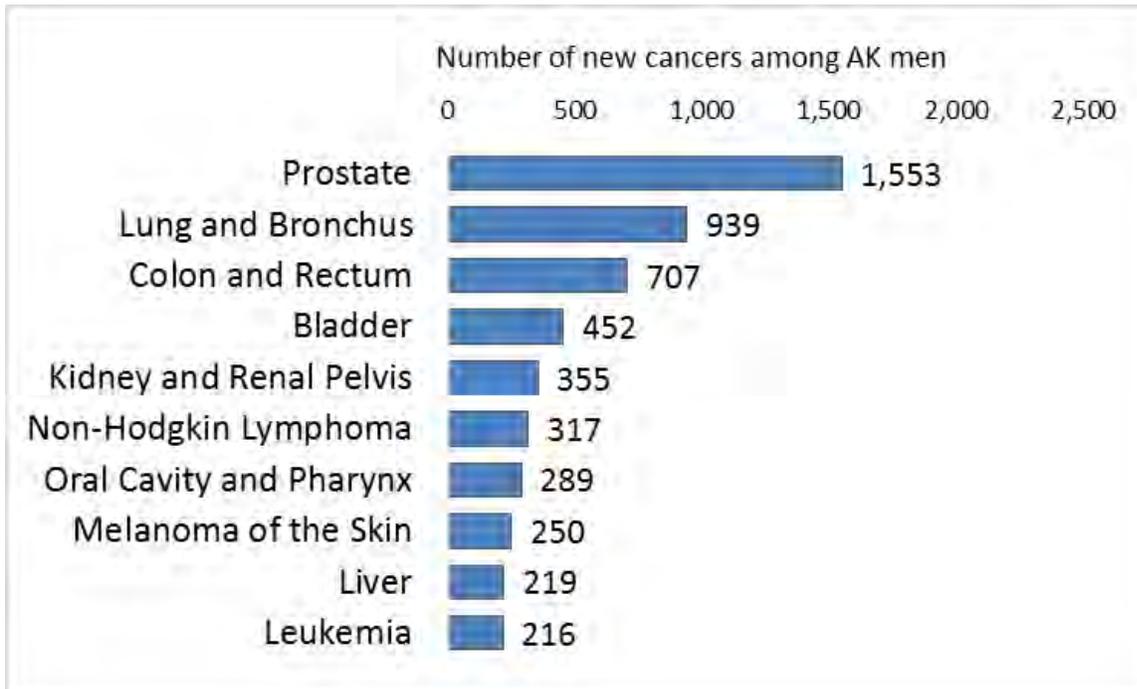
Leading Cancers in Alaska – Incidence

**Table 1: 25 Highest-ranked cancer types by percent of total cancer cases**  
Alaska residents, 2010-2014

Rank	Primary Site	Count	Percent
	<b>All Sites</b>	<b>13,550</b>	<b>100.0%</b>
<b>1</b>	Breast	2,109	<b>15.6%</b>
<b>2</b>	Lung and Bronchus	1,713	<b>12.6%</b>
<b>3</b>	Prostate	1,553	<b>11.5%</b>
<b>4</b>	Colon and Rectum	1,327	<b>9.8%</b>
<b>5</b>	Bladder	589	<b>4.3%</b>
<b>6</b>	Kidney and Renal Pelvis	539	<b>4.0%</b>
<b>7</b>	Non-Hodgkin Lymphoma	530	<b>3.9%</b>
<b>8</b>	Melanoma of the Skin	466	<b>3.4%</b>
<b>9</b>	Corpus and Uterus	431	<b>3.2%</b>
<b>10</b>	Thyroid	406	<b>3.0%</b>
<b>11</b>	Oral Cavity and Pharynx	402	<b>3.0%</b>
<b>12</b>	Leukemia	361	<b>2.7%</b>
<b>13</b>	Pancreas	360	<b>2.7%</b>
<b>14</b>	Liver	283	<b>2.1%</b>
<b>15</b>	Stomach	238	<b>1.8%</b>
<b>16</b>	Brain and Other Nervous System	232	<b>1.7%</b>
<b>17</b>	Ovary	186	<b>1.4%</b>
<b>18</b>	Esophagus	184	<b>1.4%</b>
<b>19</b>	Myeloma	155	<b>1.1%</b>
<b>20</b>	Testis	117	<b>0.9%</b>
<b>21</b>	Soft Tissue including Heart	112	<b>0.8%</b>
<b>22</b>	Cervix Uteri	106	<b>0.8%</b>
<b>23</b>	Larynx	81	<b>0.6%</b>
<b>24</b>	Anus, Anal Canal and Anorectum	60	<b>0.4%</b>
<b>25</b>	Hodgkin Lymphoma	60	<b>0.4%</b>

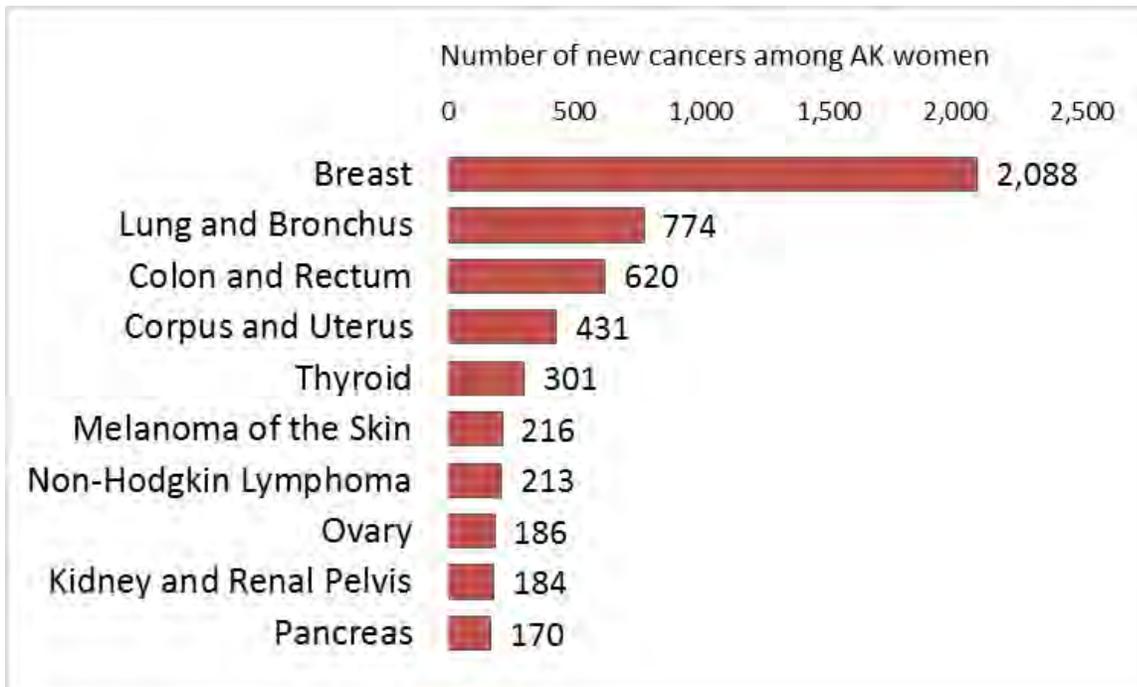
**Figure 2: 10 Highest-ranked cancer types by count – males**

Alaska residents, 2010-2014



**Figure 3: 10 Highest-ranked cancer types by count – females**

Alaska residents, 2010-2014



Leading Cancers in Alaska – Incidence

**Table 2: 10 Highest-ranked cancer types by count – males**

Alaska residents, 2010-2014

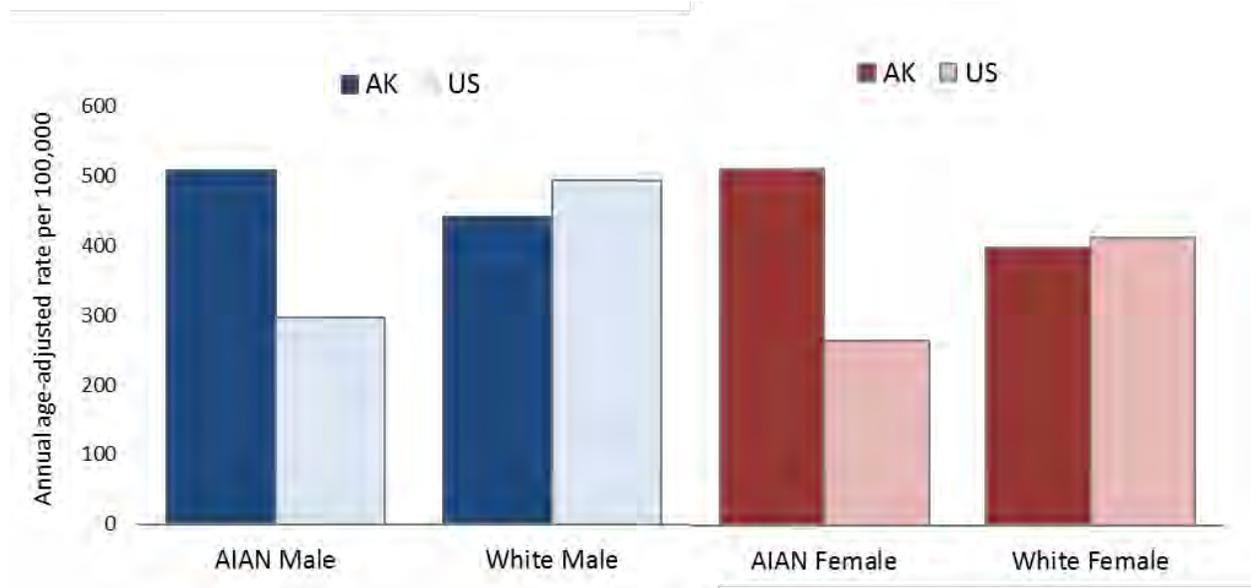
Rank	Primary Site	AK Male		U.S. Male
		Count	Rate per 100,000	Rate per 100,000
	All Sites	6,970	449.0	493.1
<b>1</b>	Prostate	1,553	91.8	119.0
<b>2</b>	Lung and Bronchus	939	67.7	72.7
<b>3</b>	Colon and Rectum	707	46.6	46.1
<b>4</b>	Urinary Bladder	452	33.9	35.6
<b>5</b>	Kidney and Renal Pelvis	355	21.7	21.5
<b>6</b>	Non-Hodgkin Lymphoma	317	20.9	22.8
<b>7</b>	Oral Cavity and Pharynx	289	15.7	17.2
<b>8</b>	Melanoma of the Skin	250	15.3	25.8
<b>9</b>	Liver	219	11.7	10.8
<b>10</b>	Leukemia	216	14.3	17.1

**Table 3: 10 Highest-ranked cancer types by count – females**

Alaska and U.S. residents, 2010-2014

Rank	Primary Site	AK Female		U.S. Female
		Count	Rate per 100,000	Rate per 100,000
	All Sites	6,580	412.6	408.4
<b>1</b>	Breast	2,088	125.6	122.5
<b>2</b>	Lung and Bronchus	774	53.4	52.3
<b>3</b>	Colon and Rectum	620	40.2	34.9
<b>4</b>	Corpus and Uterus	431	24.6	25.6
<b>5</b>	Thyroid	301	17.6	21.2
<b>6</b>	Melanoma of the Skin	216	13.0	16.0
<b>7</b>	Non-Hodgkin Lymphoma	213	13.5	15.7
<b>8</b>	Ovary	186	11.8	11.4
<b>9</b>	Kidney and Renal Pelvis	184	10.9	11.1
<b>10</b>	Pancreas	170	11.3	10.9

**Figure 4: All cancer incidence, by sex and race**  
Alaska residents and U.S., 2010-2014

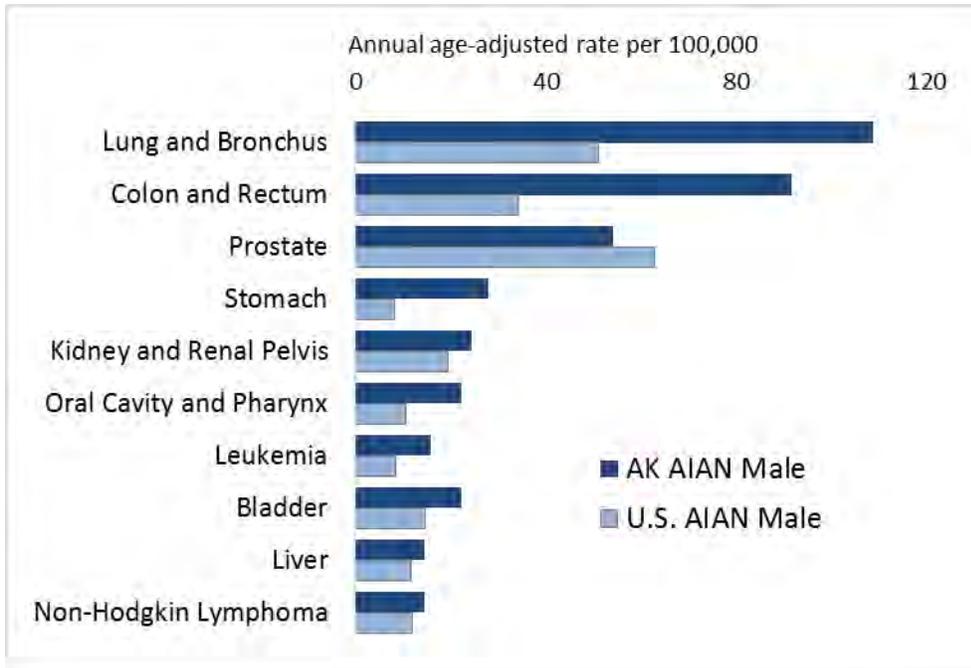


**Table 4: All cancer incidence, by sex and race**  
Alaska residents and U.S., 2010-2014

	AK		U.S.
	Count	Rate per 100,000	Rate per 100,000
<b>AIAN - Male</b>	986	508.0	296.7
<b>White - Male</b>	5,433	441.7	494.4
<b>AIAN - Female</b>	1,182	518.8	268.1
<b>White - Female</b>	4,840	404.8	419.7

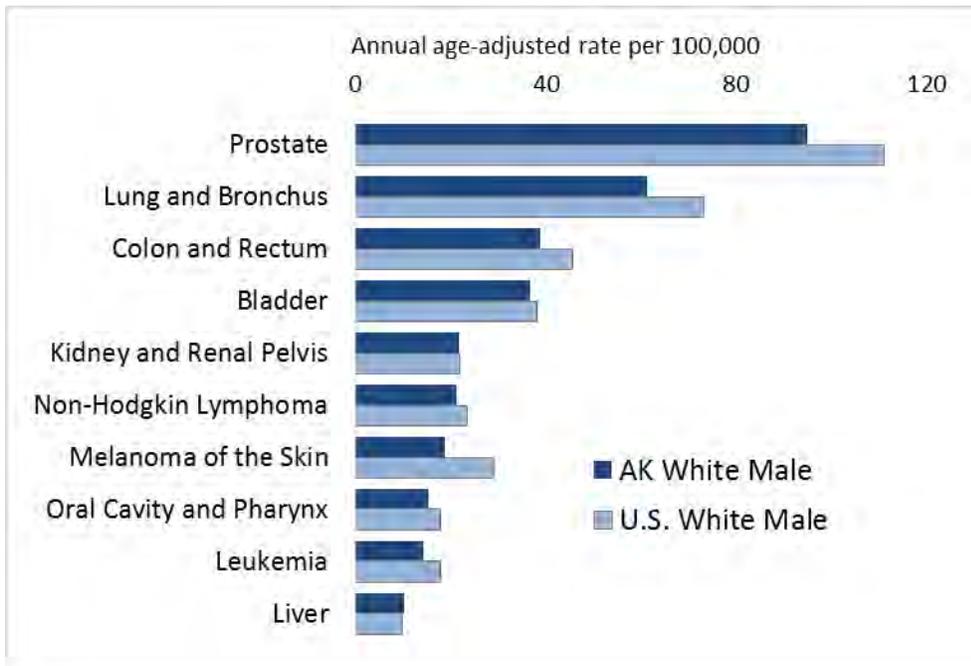
**Figure 5: Rates for 10 highest-ranked cancer types by count – American Indian/Alaska Native (AIAN) males**

Alaska and U.S., 2010-2014



**Figure 6: Rates for 10 highest-ranked cancer types by count – White males**

Alaska and U.S., 2010-2014



Leading Cancers in Alaska – Incidence

**Table 5: 10 Highest-ranked cancer types by count – American Indian/Alaska Native (AIAN) males**

Alaska and U.S., 2010-2014

Rank	Primary Site	AK Male		U.S. Male
		Count	Rate per 100,000	Rate per 100,000
	All Sites	986	508.0	296.7
<b>1</b>	Lung and Bronchus	178	108.8	51.0
<b>1</b>	Colon and Rectum	178	91.7	34.1
<b>3</b>	Prostate	99	54.1	62.8
<b>4</b>	Stomach	59	27.8	8.2
<b>5</b>	Kidney and Renal Pelvis	54	24.5	19.5
<b>6</b>	Oral Cavity and Pharynx	50	22.2	10.7
<b>7</b>	Leukemia	39	15.8	8.6
<b>8</b>	Bladder	34	22.3	14.6
<b>9</b>	Liver	32	14.4	11.8
<b>10</b>	Non-Hodgkin Lymphoma	31	14.6	12.1

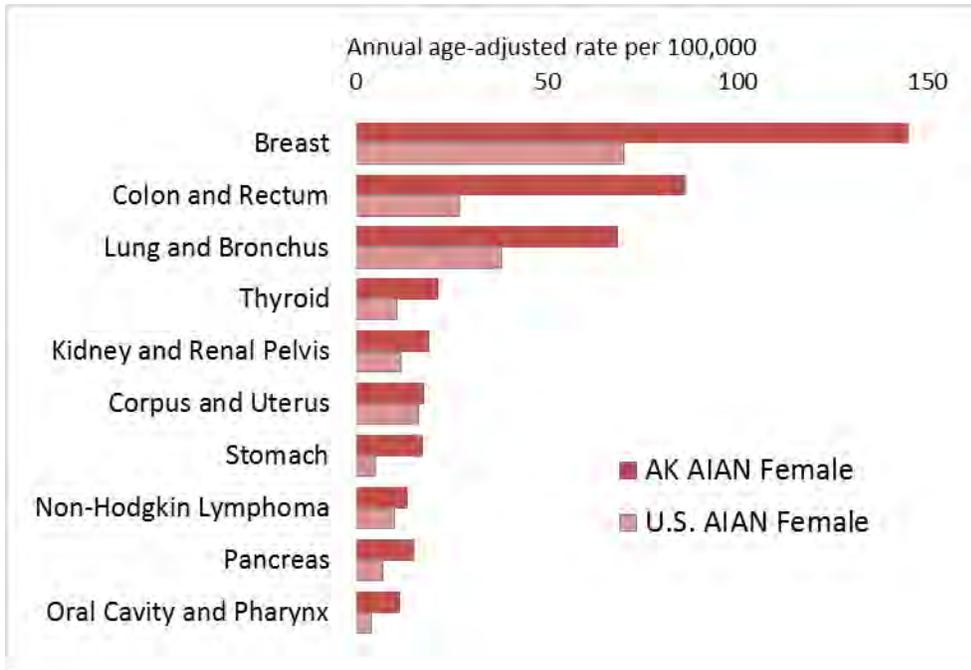
**Table 6: 10 Highest-ranked cancer types by count – White males**

Alaska and U.S., 2010-2014

Rank	Primary Site	AK Male		U.S. Male
		Count	Rate per 100,000	Rate per 100,000
	All Sites	5,433	441.7	494.4
<b>1</b>	Prostate	1,294	94.9	111.1
<b>2</b>	Lung and Bronchus	694	61.3	73.3
<b>3</b>	Colon and Rectum	461	39.0	45.6
<b>4</b>	Bladder	395	36.8	38.3
<b>5</b>	Kidney and Renal Pelvis	276	21.8	21.8
<b>6</b>	Non-Hodgkin Lymphoma	255	21.2	23.6
<b>7</b>	Melanoma of the Skin	240	18.9	29.1
<b>8</b>	Oral Cavity and Pharynx	225	15.3	17.8
<b>9</b>	Leukemia	162	14.3	17.9
<b>10</b>	Liver	158	10.3	9.8

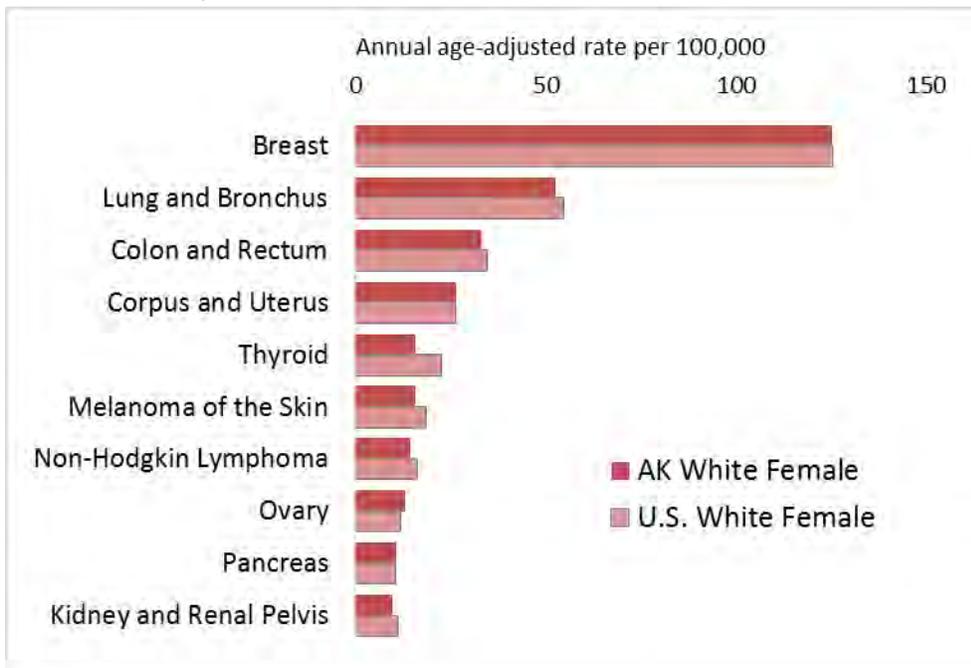
**Figure 7: Rates for 10 highest-ranked cancer types by count – American Indian/Alaska Native (AIAN) females**

Alaska and U.S., 2010-2014



**Figure 8: Rates for 10 highest-ranked cancer types by count – White females**

Alaska and U.S., 2010-2014



**Table 7: 10 Highest-ranked cancer types by count – American Indian/Alaska Native (AIAN) females**  
Alaska and U.S., 2010-2014

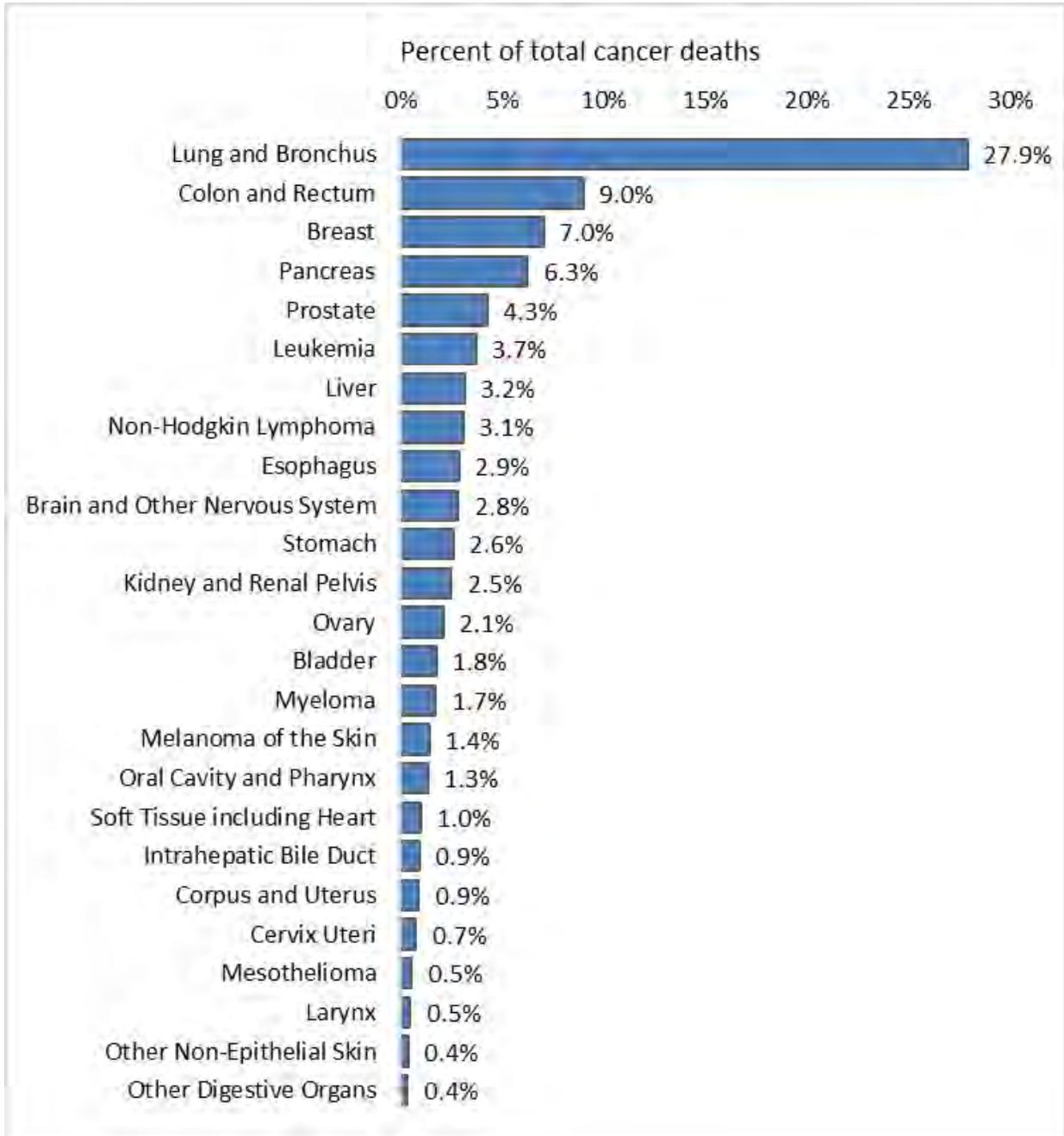
Rank	Primary Site	AK Female		U.S. Female
		Count	Rate per 100,000	Rate per 100,000
	All Sites	1,182	518.8	268.1
<b>1</b>	Breast	343	144.8	70.2
<b>2</b>	Colon and Rectum	184	86.4	27.1
<b>3</b>	Lung and Bronchus	144	68.8	38.1
<b>4</b>	Thyroid	53	21.6	10.5
<b>5</b>	Kidney and Renal Pelvis	48	19.3	11.8
<b>6</b>	Corpus and Uterus	43	17.7	16.3
<b>7</b>	Stomach	38	17.5	4.8
<b>8</b>	Non-Hodgkin Lymphoma	31	13.4	10.0
<b>9</b>	Pancreas	30	15.3	7.0
<b>10</b>	Oral Cavity and Pharynx	29	11.4	4.1

**Table 8: 10 Highest-ranked cancer types by count – White females**  
Alaska and U.S., 2010-2014

Rank	Primary Site	AK Female		U.S. Female
		Count	Rate per 100,000	Rate per 100,000
	All Sites	4,840	404.8	419.7
<b>1</b>	Breast	1,561	125.1	125.2
<b>2</b>	Lung and Bronchus	574	52.7	54.6
<b>3</b>	Colon and Rectum	392	33.3	34.6
<b>4</b>	Corpus and Uterus	348	26.4	26.4
<b>5</b>	Thyroid	203	15.8	22.5
<b>6</b>	Melanoma of the Skin	196	15.8	18.6
<b>7</b>	Non-Hodgkin Lymphoma	171	14.4	16.4
<b>8</b>	Ovary	151	13.1	12.0
<b>9</b>	Pancreas	125	10.8	10.7
<b>10</b>	Kidney and Renal Pelvis	123	9.7	11.4

## Cancer Mortality (2005-2014)

**Figure 9: 25 Highest-ranked cancer types by percent of total cancer deaths**  
Alaska residents, 2005-2014

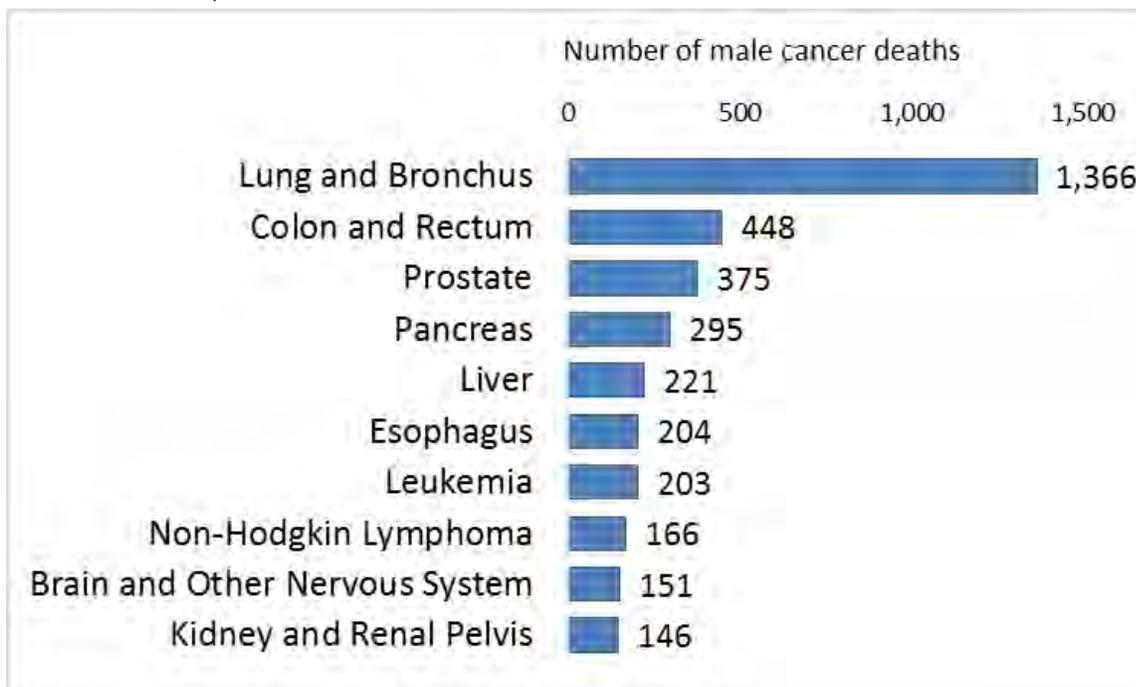


**Table 9: 25 Highest-ranked cancer types as a percentage of total cancer deaths**  
 Alaska residents, 2005-2014

Rank	Primary Site	Count	Percent
	<b>All Malignant Cancers</b>	<b>8,815</b>	<b>100.0%</b>
<b>1</b>	Lung and Bronchus	2,461	<b>27.9%</b>
<b>2</b>	Colon and Rectum	795	<b>9.0%</b>
<b>3</b>	Breast	621	<b>7.0%</b>
<b>4</b>	Pancreas	552	<b>6.3%</b>
<b>5</b>	Prostate	375	<b>4.3%</b>
<b>6</b>	Leukemia	329	<b>3.7%</b>
<b>7</b>	Liver	278	<b>3.2%</b>
<b>8</b>	Non-Hodgkin Lymphoma	273	<b>3.1%</b>
<b>9</b>	Esophagus	253	<b>2.9%</b>
<b>10</b>	Brain and Other Nervous System	251	<b>2.8%</b>
<b>11</b>	Stomach	228	<b>2.6%</b>
<b>12</b>	Kidney and Renal Pelvis	219	<b>2.5%</b>
<b>13</b>	Ovary	185	<b>2.1%</b>
<b>14</b>	Urinary Bladder	156	<b>1.8%</b>
<b>15</b>	Myeloma	152	<b>1.7%</b>
<b>16</b>	Melanoma of the Skin	125	<b>1.4%</b>
<b>17</b>	Oral Cavity and Pharynx	119	<b>1.3%</b>
<b>18</b>	Soft Tissue including Heart	89	<b>1.0%</b>
<b>19</b>	Intrahepatic Bile Duct	81	<b>0.9%</b>
<b>20</b>	Corpus and Uterus, NOS	80	<b>0.9%</b>
<b>21</b>	Cervix Uteri	66	<b>0.7%</b>
<b>22</b>	Mesothelioma	48	<b>0.5%</b>
<b>23</b>	Larynx	43	<b>0.5%</b>
<b>24</b>	Other Non-Epithelial Skin	33	<b>0.4%</b>
<b>25</b>	Other Digestive Organs	31	<b>0.4%</b>

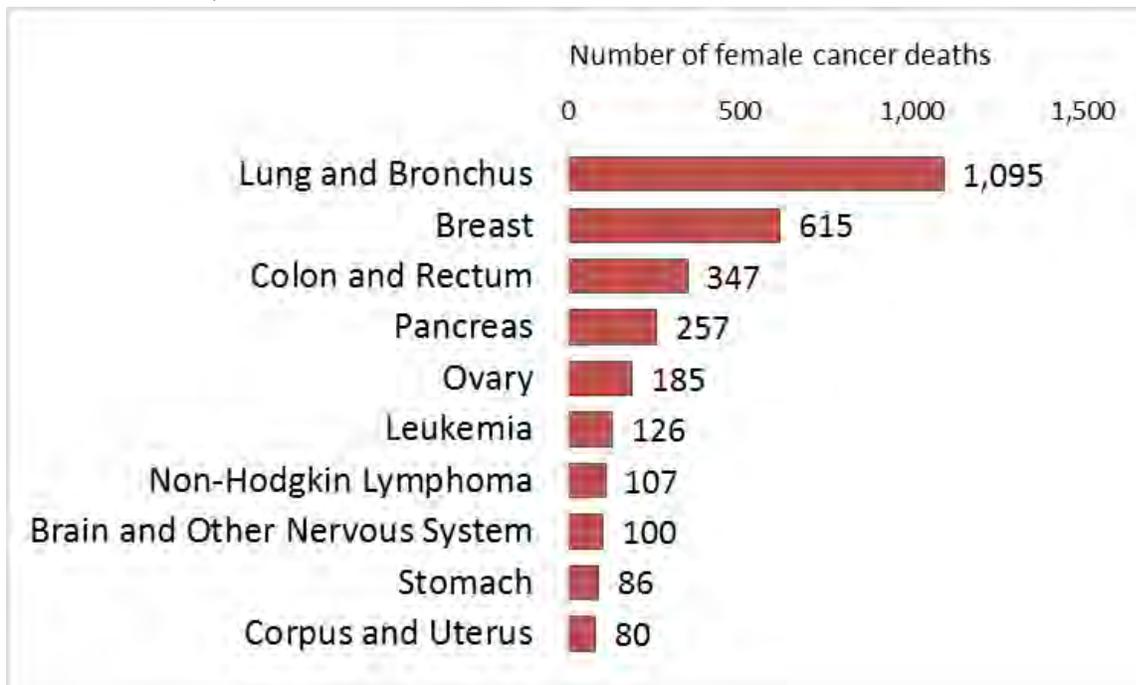
**Figure 10: 10 Highest ranked cancer deaths by count – males**

Alaska residents, 2005-2014



**Figure 11: 10 Highest ranked cancer deaths by count – females**

Alaska residents, 2005-2014



Leading Cancers in Alaska – Mortality

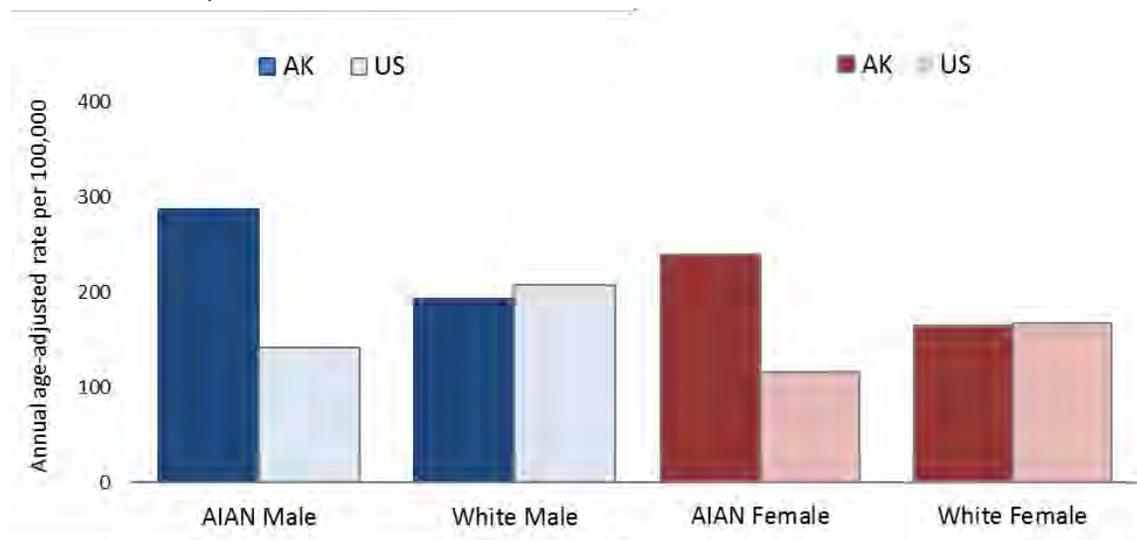
**Table 10: 10 Highest-ranked cancer deaths by count – males**  
Alaska and U.S., 2005-2014

Rank	Primary Site	AK Male		U.S. Male
		Count	Rate per 100,000	Rate per 100,000
	All Malignant Cancers	4,843	205.6	209.2
<b>1</b>	Lung and Bronchus	1,366	57.8	60.3
<b>2</b>	Colon and Rectum	448	19.2	18.8
<b>3</b>	Prostate	375	21.4	21.8
<b>4</b>	Pancreas	295	11.9	12.5
<b>5</b>	Liver	221	7.1	7.1
<b>6</b>	Esophagus	204	7.5	7.5
<b>7</b>	Leukemia	203	9.3	9.4
<b>8</b>	Non-Hodgkin Lymphoma	166	7.4	8.0
<b>9</b>	Brain and Other Nervous System	151	5.3	5.3
<b>10</b>	Kidney and Renal Pelvis	146	6.1	5.7

**Table 11: 10 Highest-ranked cancer deaths by count – females**  
Alaska and U.S., 2005-2014

Rank	Primary Site	AK Female		U.S. Female
		Count	Rate per 100,000	Rate per 100,000
	All Malignant Cancers	3,972	152.3	146.4
<b>1</b>	Lung and Bronchus	1,095	43.3	37.9
<b>2</b>	Breast	615	21.7	22.1
<b>3</b>	Colon and Rectum	347	13.8	13.3
<b>4</b>	Pancreas	257	10.0	9.5
<b>5</b>	Ovary	185	6.6	7.8
<b>6</b>	Leukemia	126	5.2	5.2
<b>7</b>	Non-Hodgkin Lymphoma	107	4.6	4.9
<b>8</b>	Brain and Other Nervous System	100	3.4	3.5
<b>9</b>	Stomach	86	3.3	2.5
<b>10</b>	Corpus and Uterus	80	2.9	4.4

**Figure 12: All cancers, mortality by sex and race**  
Alaska and U.S., 2005-2014

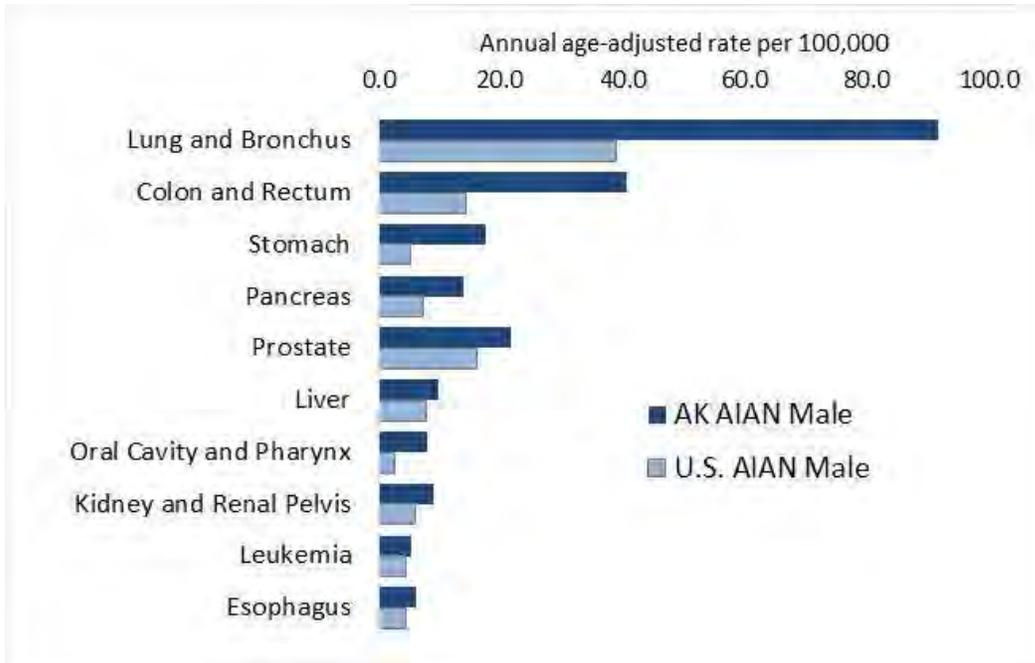


**Table 12: All cancers, mortality by sex and race**  
Alaska and U.S., 2005-2014

	AK		U.S.
	Count	Rate per 100,000	Rate per 100,000
<b>AIAN - Male</b>	902	286.7	141.8
<b>White - Male</b>	3,581	192.7	207.8
<b>AIAN - Female</b>	818	210.1	100.9
<b>White - Female</b>	2,830	144.8	146.6

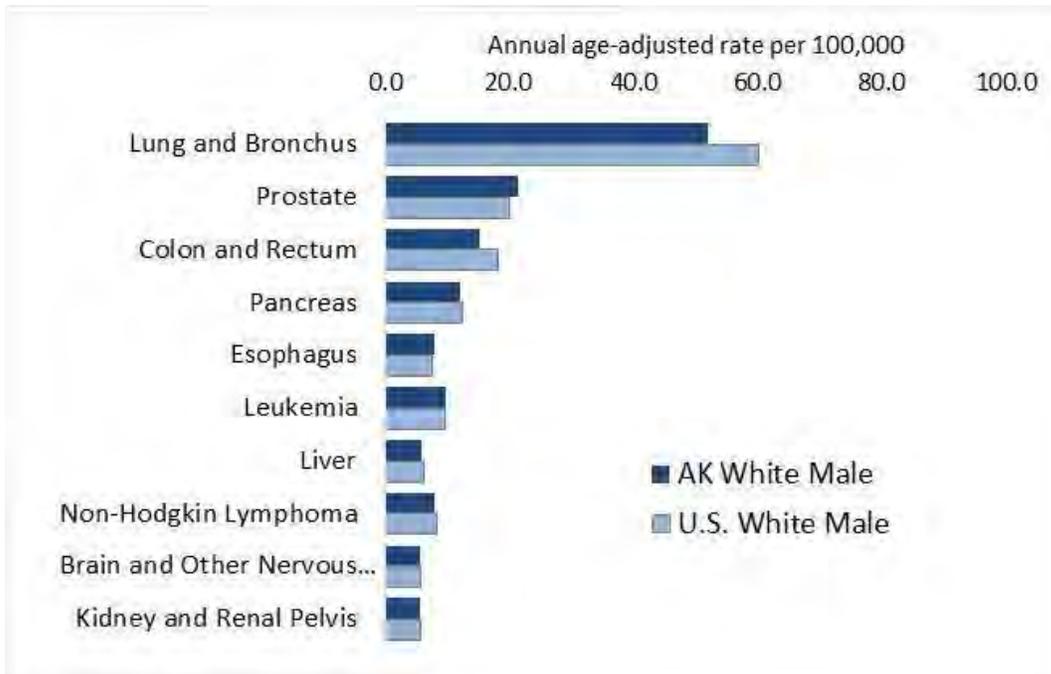
**Figure 13: Rates for 10 highest-ranked cancer deaths by count – American Indian/Alaska Native (AIAN) males**

Alaska and U.S., 2005-2014



**Figure 14: Rates for 10 highest-ranked cancer deaths by count – White males**

Alaska and U.S., 2005-2014



**Table 13: 10 Highest-ranked cancer deaths by count – American Indian/Alaska Native (AIAN) males**

Alaska and U.S., 2005-2014

Rank	Primary Site	AK Male		U.S. Male
		Count	Rate per 100,000	Rate per 100,000
	All Malignant Cancers	902	286.7	141.8
<b>1</b>	Lung and Bronchus	278	91.6	39.0
<b>2</b>	Colon and Rectum	126	40.8	14.3
<b>3</b>	Stomach	70	17.5	5.3
<b>4</b>	Pancreas	49	13.9	7.3
<b>5</b>	Prostate	48	21.7	16.2
<b>6</b>	Liver	36	9.9	8.0
<b>7</b>	Oral Cavity and Pharynx	29	8.0	2.6
<b>8</b>	Kidney and Renal Pelvis	24	9.1	6.1
<b>9</b>	Leukemia	24	5.3	4.5
<b>10</b>	Esophagus	23	6.3	4.5

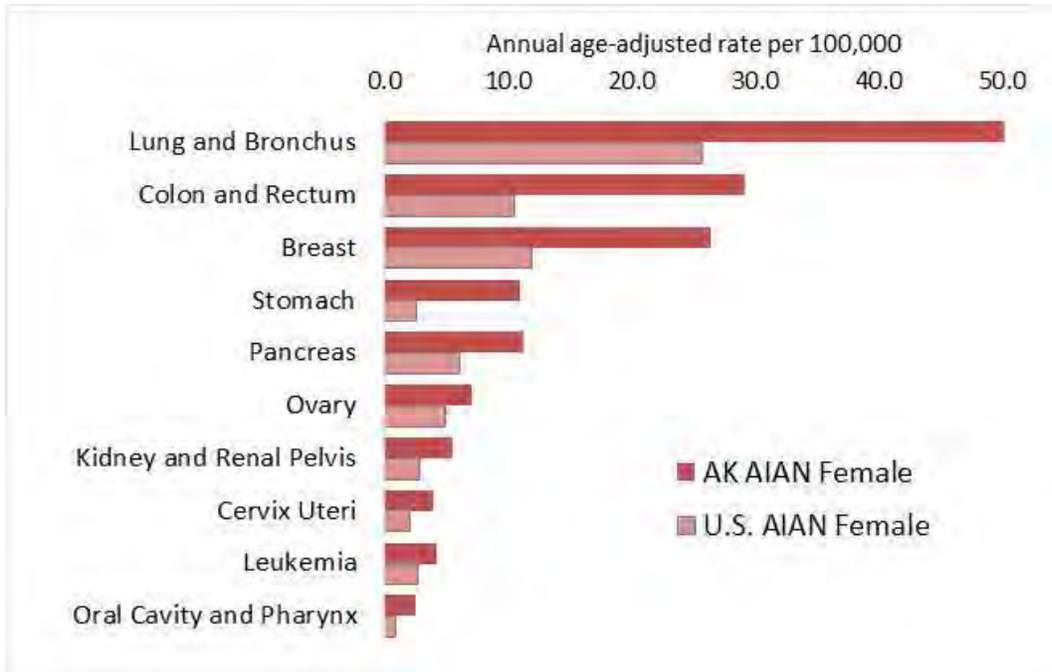
**Table 14: 10 Highest-ranked cancer deaths by count – White males**

Alaska and U.S., 2005-2014

Rank	Primary Site	AK Male		U.S. Male
		Count	Rate per 100,000	Rate per 100,000
	All Malignant Cancers	3,581	192.7	207.8
<b>1</b>	Lung and Bronchus	998	52.2	60.2
<b>2</b>	Prostate	295	21.4	20.2
<b>3</b>	Colon and Rectum	279	15.3	18.3
<b>4</b>	Pancreas	235	12.1	12.5
<b>5</b>	Esophagus	174	8.1	7.7
<b>6</b>	Leukemia	163	9.9	9.7
<b>7</b>	Liver	150	6.0	6.4
<b>8</b>	Non-Hodgkin Lymphoma	142	8.0	8.3
<b>9</b>	Brain and Other Nervous System	132	5.8	5.7
<b>10</b>	Kidney and Renal Pelvis	111	5.6	5.8

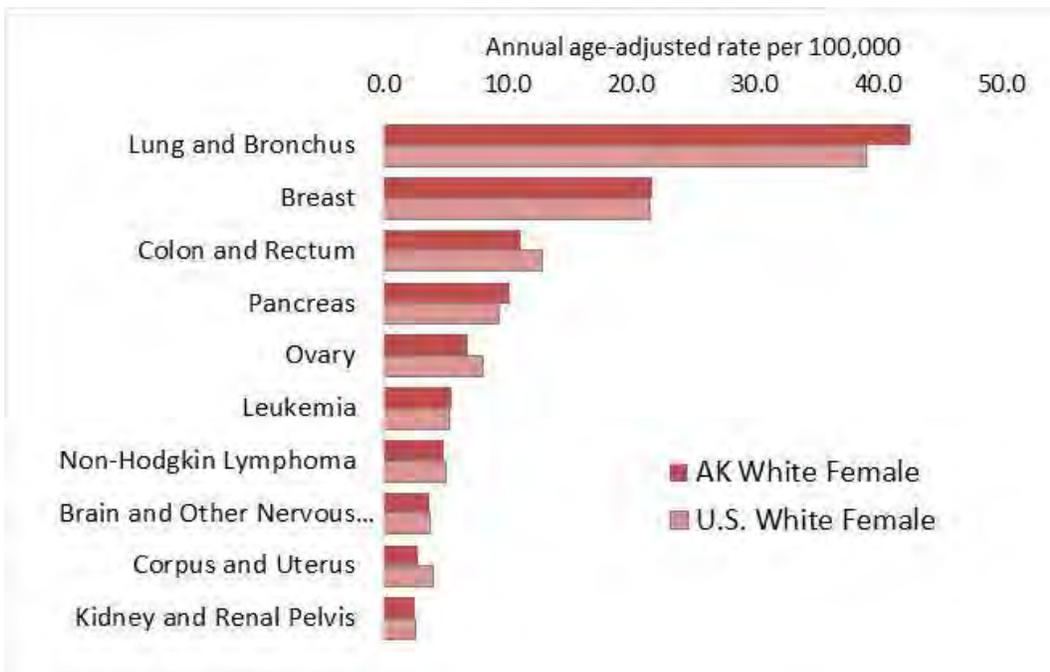
**Figure 15: Rates for 10 highest-ranked cancer deaths by count – American Indian/Alaska Native (AIAN) females**

Alaska and U.S., 2005-2014



**Figure 16: Rates for 10 highest-ranked cancer deaths by count – White females**

Alaska and U.S., 2005-2014



**Table 15: 10 Highest-ranked cancer deaths by count – American Indian/Alaska Native (AIAN) females**

Alaska and U.S., 2005-2014

Rank	Primary Site	AK Female		U.S. Female
		Count	Rate per 100,000	Rate per 100,000
	All Malignant Cancers	818	210.1	100.9
<b>1</b>	Lung and Bronchus	201	53.5	25.7
<b>2</b>	Colon and Rectum	112	29.1	10.6
<b>3</b>	Breast	109	26.4	11.9
<b>4</b>	Stomach	44	11.0	2.6
<b>5</b>	Pancreas	44	11.2	6.1
<b>6</b>	Ovary	29	7.1	5.0
<b>7</b>	Kidney and Renal Pelvis	19	5.5	2.9
<b>8</b>	Cervix Uteri	18	4.0	2.1
<b>9</b>	Leukemia	18	4.2	2.7
<b>10</b>	Oral Cavity and Pharynx	12	2.6	1.0

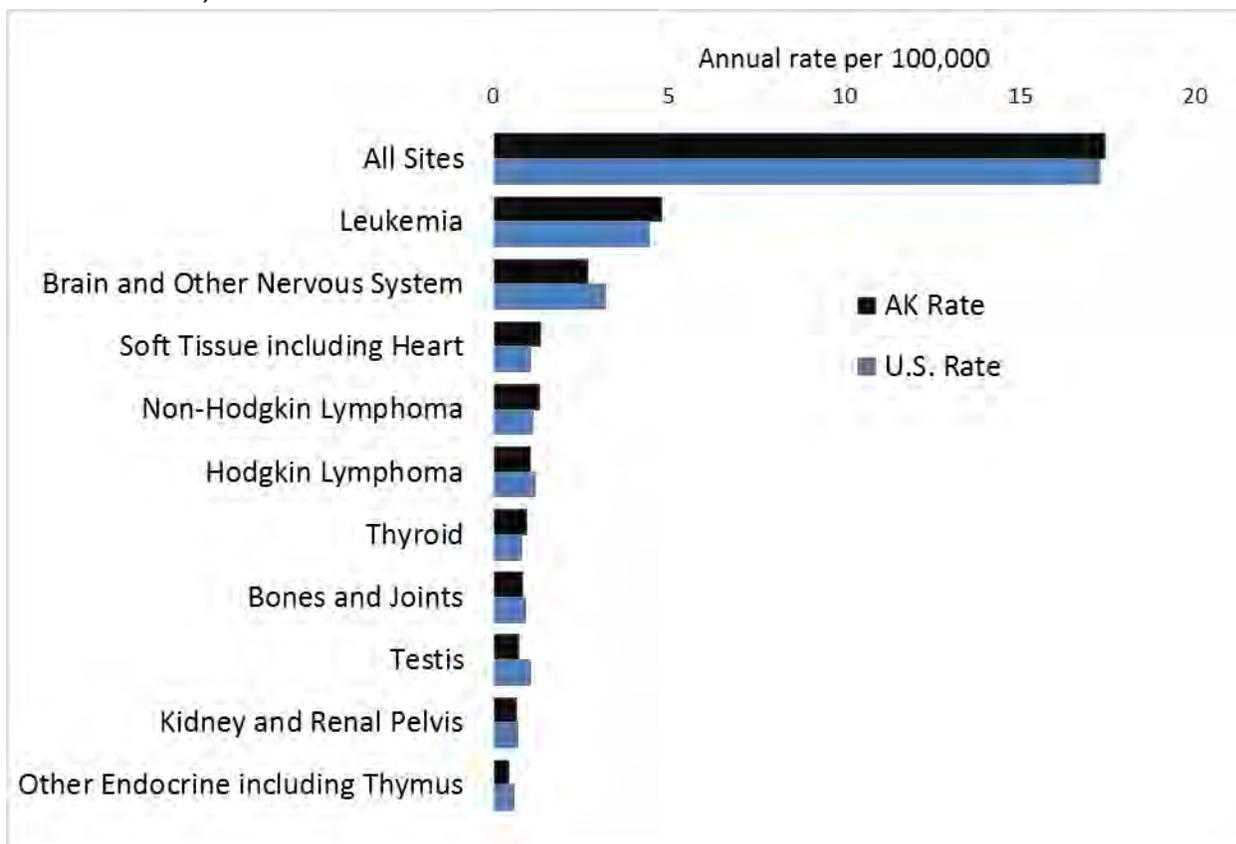
**Table 16: 10 Highest-ranked cancer deaths by count – White females**

Alaska and U.S., 2005-2014

Rank	Primary Site	AK Female		U.S. Female
		Count	Rate per 100,000	Rate per 100,000
	All Malignant Cancers	2,830	144.8	146.6
<b>1</b>	Lung and Bronchus	812	42.6	39.1
<b>2</b>	Breast	460	21.8	21.6
<b>3</b>	Colon and Rectum	207	11.1	12.9
<b>4</b>	Pancreas	194	10.2	9.4
<b>5</b>	Ovary	144	6.8	8.1
<b>6</b>	Leukemia	98	5.6	5.4
<b>7</b>	Non-Hodgkin Lymphoma	87	4.9	5.1
<b>8</b>	Brain and Other Nervous System	80	3.7	3.8
<b>9</b>	Corpus and Uterus	60	2.8	4.1
<b>10</b>	Kidney and Renal Pelvis	50	2.6	2.6

## Cancer among Children in Alaska

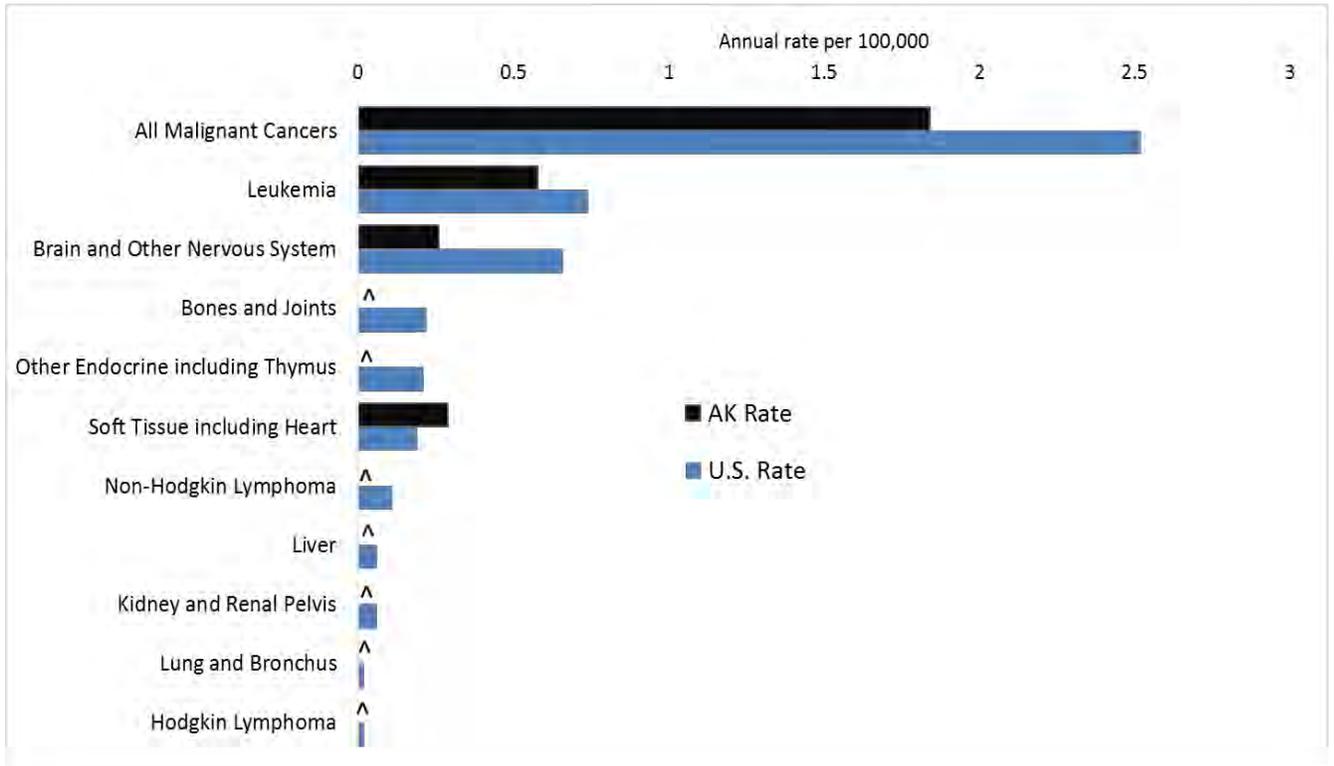
**Figure 17: 10 Highest-ranked cancer types by rate – children ages 0-19**  
Alaska and U.S., 2010-2014



**Table 17: 10 Highest-ranked cancer types by rate – children ages 0-19**  
Alaska and U.S., 2010-2014

Rank	Primary Site	AK Count	AK Rate	U.S. Rate
	All Sites	365	17.46	17.31
<b>1</b>	Leukemia	101	4.81	4.46
<b>2</b>	Brain and Other Nervous System	56	2.71	3.21
<b>3</b>	Soft Tissue including Heart	29	1.37	1.05
<b>4</b>	Non-Hodgkin Lymphoma	27	1.31	1.15
<b>5</b>	Hodgkin Lymphoma	22	1.06	1.23
<b>6</b>	Thyroid	20	0.97	0.82
<b>7</b>	Bones and Joints	17	0.84	0.91
<b>8</b>	Testis	8	0.73	1.07
<b>9</b>	Kidney and Renal Pelvis	14	0.66	0.72
<b>10</b>	Other Endocrine including Thymus	10	0.46	0.58

**Figure 18: 10 Highest-ranked cancer deaths by rate – children ages 0-19**  
Alaska and U.S., 2005-2014



^ indicates fewer than 6 total cases

**Table 18: 10 Highest-ranked cancer deaths by rate – children ages 0-19**  
Alaska and U.S., 2005-2014

Rank	Primary Site	AK Count	AK Rate	U.S. Rate
	All Malignant Cancers	57	1.84	2.52
1	Leukemia	18	0.58	0.74
2	Brain and Other Nervous System	8	0.26	0.66
3	Bones and Joints	^	^	0.22
4	Other Endocrine including Thymus	^	^	0.21
5	Soft Tissue including Heart	9	0.29	0.19
6	Non-Hodgkin Lymphoma	^	^	0.11
7	Liver	^	^	0.06
8	Kidney and Renal Pelvis	^	^	0.06
9	Lung and Bronchus	^	^	0.02
10	Hodgkin Lymphoma	^	^	0.02

^ indicates fewer than 6 total cases

## Detailed Cancer Summaries

The remainder of this report summarizes incidence and mortality data for 12 types of cancer. These include all cancers combined, and 11 specific cancers that fall within the leading 7 specific cancer types for either incidence or mortality, as well as cervical cancer, which has a low ranking but is important to summarize because it can be effectively addressed through clinical screening tests and vaccinations.

The rankings for these cancers are by count (from Tables 1 and 9) and are summarized in the table below. The specific cancers in this section are presented alphabetically.

**Table 19: Overall cancer rankings in Alaska, for incidence (2010-2014) and mortality (2005-2014) Alaska residents**

<i>Cancer site</i>	<i>Rank for Incidence (2010-2014)</i>	<i>Rank for Mortality (2005-2014)</i>
All Cancers	--	--
Breast	1	3
Lung/Bronchus	2	1
Prostate	3	5
Colon/Rectum	4	2
Bladder	5	14
Kidney/Renal Pelvis	6	12
Non-Hodgkin Lymphoma	7	8
Leukemia	12	6
Pancreas	13	4
Liver	14	7
Cervix	22	21

Each subsection for specific cancers describes recent results for incidence and mortality overall, by gender, by race, by Alaska’s Behavioral Health Systems Regions, by borough/census area, and trend over time. In some cases, more years are combined in order to provide sufficient numbers of cases so that incidence and mortality rates can be reported. See the appendix of this report for a summary table of the number of years that were combined for each of the specific cancers described in this report.

When it is stated in this section that a particular rate is higher or lower than another rate, it is because there is a statistically significant difference between them as their confidence intervals do not overlap.

## All Cancer

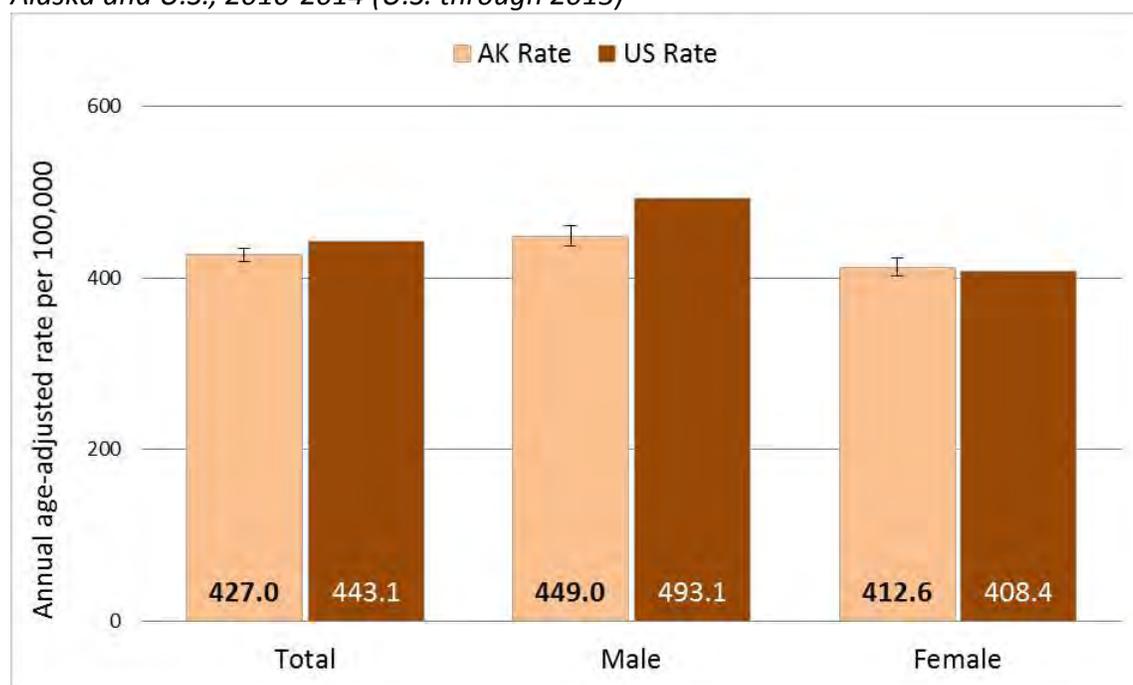
### Incidence (2010-2014)

- Alaska’s overall cancer incidence rate for the 5 most recently available years is 427.0 per 100,000.
- This rate is similar to the U.S. rate, but has been lower than the U.S. rate during recent years.
- The overall incidence of cancer in Alaska is higher among men than women.
- The overall incidence of cancer is higher among Alaska Native people than among other races in Alaska; the incidence among Alaska Native people is also higher than the U.S. rate for AIAN people.
- The incidence of overall cancer is lower in the Juneau, Southwest and Y-K Delta regions than statewide; it is lower in the Aleutians East Borough, Bethel Census Area, Juneau Borough, and Sitka Borough than in Alaska statewide.
- Alaska’s overall cancer incidence rate was stable during 1996-2007. The rate began significantly declining in 2008, and has declined by an average of about 3% per year from 2008-2014.

### Total and by Gender

#### All cancers, incidence rate overall and by sex

Alaska and U.S., 2010-2014 (U.S. through 2013)



#### All cancers, incidence rate overall and by sex

Alaska and U.S., 2010-2014 (U.S. through 2013)

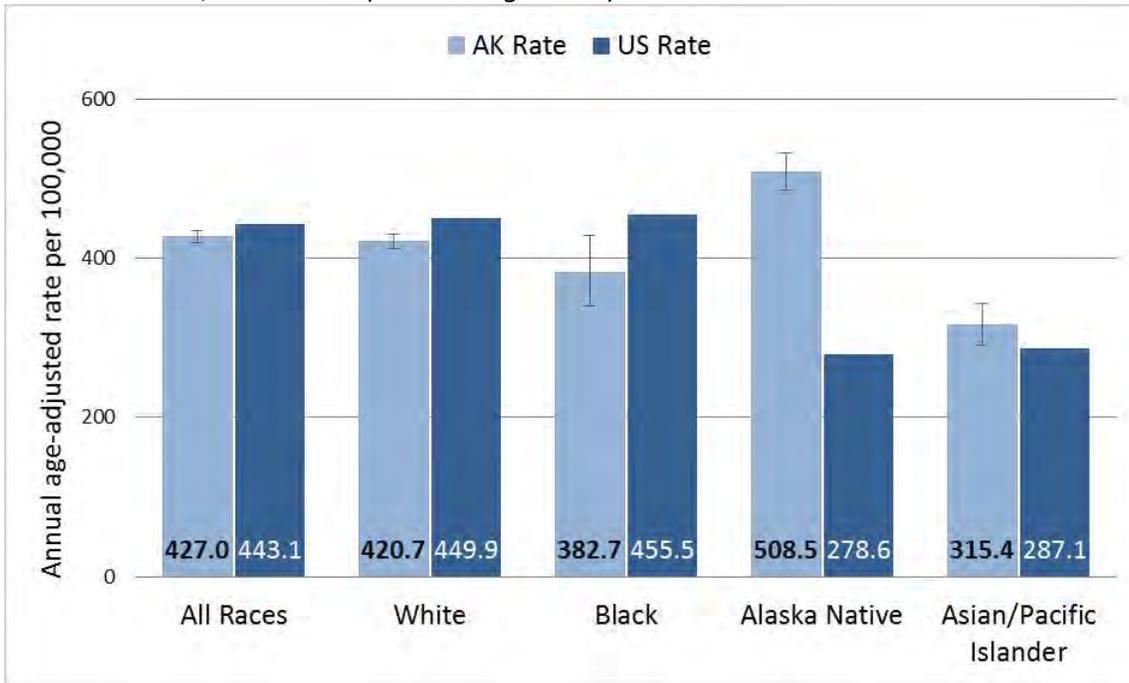
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>427.0</b>	<b>419.2</b>	<b>434.8</b>	<b>13,550</b>	<b>443.1</b>
Male	449.0	437.2	461.1	6,970	493.1
Female	412.6	402.1	423.3	6,580	408.4

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Race**

**All cancers, incidence rate by race**

Alaska and U.S., 2010-2014 (U.S. through 2013)



**All cancers, incidence rate by race**

Alaska and U.S., 2010-2014 (U.S. through 2013)

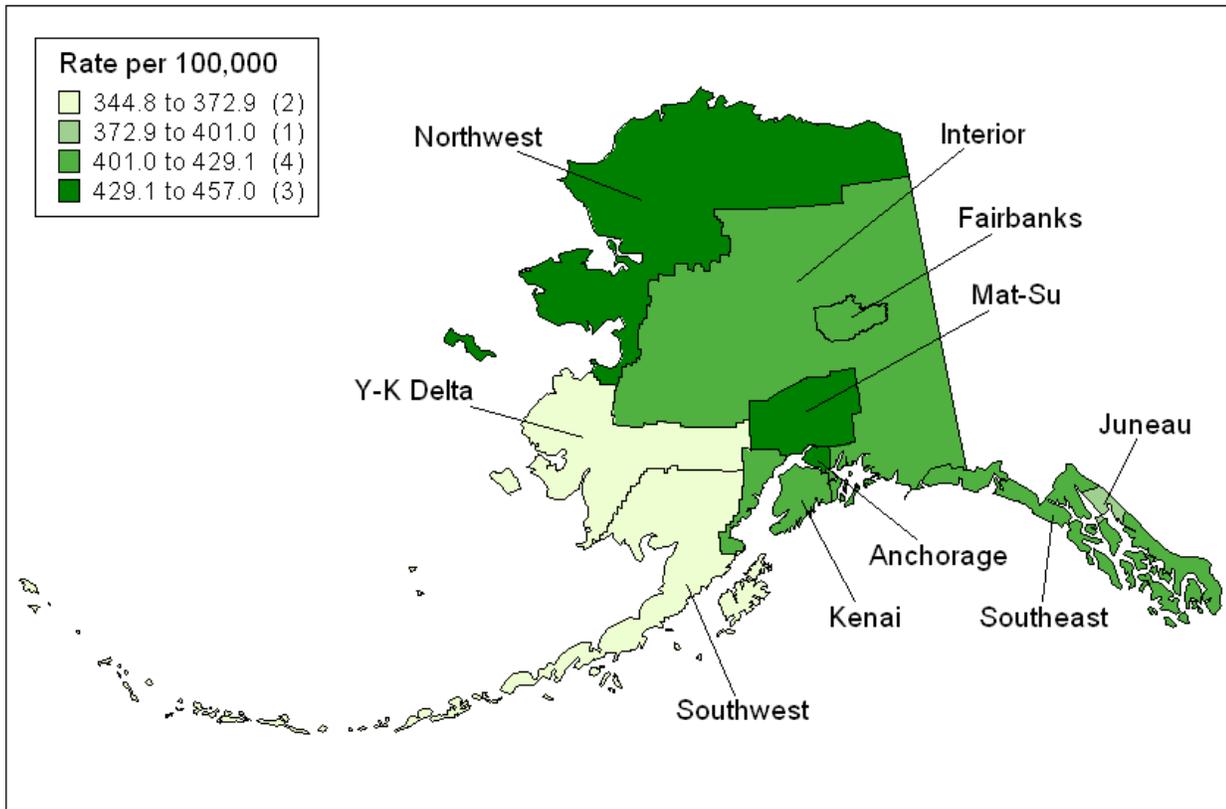
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>427.0</b>	<b>419.2</b>	<b>434.8</b>	<b>13,550</b>	<b>443.1</b>
White	420.7	411.9	429.7	10,273	449.9
Black	382.7	340.3	428.4	376	455.5
American Indian/Alaska Native	508.5	485.8	532.0	2,168	278.6
Asian/Pacific Islander	315.4	289.9	342.5	669	287.1

Rates are per 100,000 and age-adjusted to the 2000 U.S. Std Population (19 age groups - Census P25-1130) standard.

**By Behavioral Health Systems Region**

**All cancers, incidence rate by Behavioral Health Systems Region**

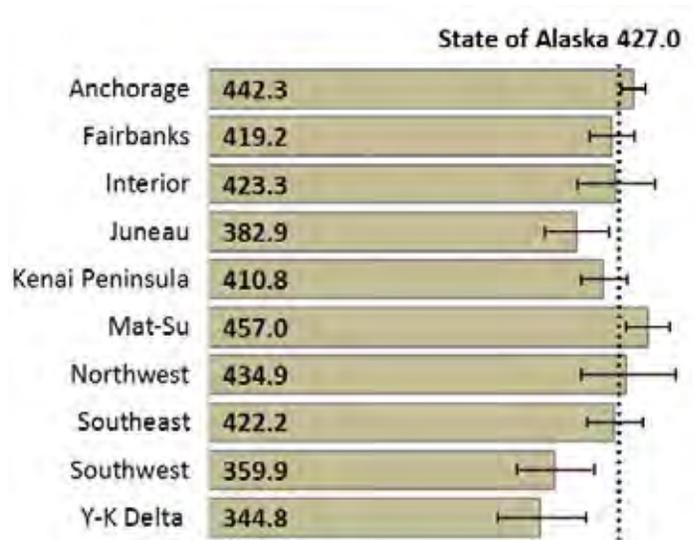
Alaska residents, 2010-2014



**All cancers, incidence rate by Behavioral Health Systems Region**

Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>427.0</b>	<b>419.2</b>	<b>434.8</b>	<b>13,550</b>
Anchorage	442.3	429.7	455.0	5,532
Fairbanks	419.2	396.6	442.7	1,582
Interior	423.3	384.3	465.2	519
Juneau	382.9	350.6	417.4	620
Kenai Peninsula	410.8	387.5	435.1	1,342
Mat-Su	457.0	434.7	480.1	1,894
Northwest	434.9	387.9	485.6	399
Southeast	422.2	394.3	451.6	957
Southwest	359.9	321.2	401.8	434
Y-K Delta	344.8	301.0	392.7	271



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

All Cancer – Incidence

**By Borough/Census Area**

**All cancers, incidence rate by Alaska Borough/Census Area**

Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>427.0</b>	<b>419.2</b>	<b>434.8</b>	<b>13,550</b>	
Aleutians East Borough	256.6	148.9	405.7	26	–
Aleutians West Census Area	300.8	185.6	453.3	53	
Municipality of Anchorage	442.3	429.7	455.0	5,532	
Bethel Census Area	316.2	267.2	370.8	181	–
Bristol Bay Borough	442.7	258.5	709.1	21	
Denali Borough	332.8	186.4	544.3	31	
Dillingham Census Area	359.9	276.4	459.8	75	
Fairbanks North Star Borough	419.2	396.6	442.7	1,582	
Haines Borough	405.2	305.0	530.0	65	
Hoonah-Angoon Census Area	413.3	300.1	557.2	56	
Juneau Borough	382.9	350.6	417.4	620	–
Kenai Peninsula Borough	410.8	387.5	435.1	1,342	
Ketchikan Gateway Borough	479.0	426.4	536.2	341	
Kodiak Island Borough	396.3	340.4	458.4	228	
Kusilvak Census Area	419.4	329.8	524.1	90	
Lake and Peninsula Borough	511.9	329.2	752.0	31	
Matanuska-Susitna Borough	457.0	434.7	480.1	1,894	
Nome Census Area	497.7	419.3	585.6	170	
North Slope Borough	440.5	350.2	544.6	128	
Northwest Arctic Borough	389.2	312.5	477.8	101	
Petersburg Borough	516.2	405.8	647.2	90	
Prince of Wales-Hyder Census Area	433.5	355.0	524.1	143	
Sitka Borough	332.4	281.2	390.3	162	–
Skagway Municipality	369.2	203.3	618.0	19	
Southeast Fairbanks Census Area	425.1	353.7	506.5	149	
Valdez-Cordova Census Area	405.7	341.3	478.3	186	
Wrangell Borough	457.9	351.6	588.9	72	
Yakutat Borough	281.1	121.1	553.5	9	
Yukon-Koyukuk Census Area	489.3	411.6	577.8	153	

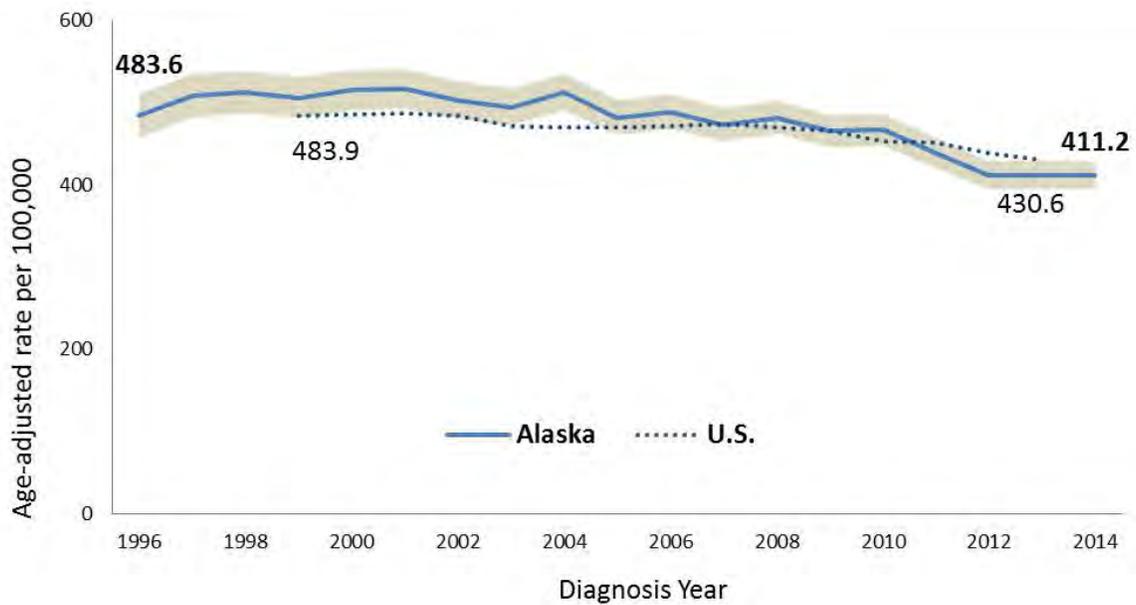
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

**All cancers, incidence rate**

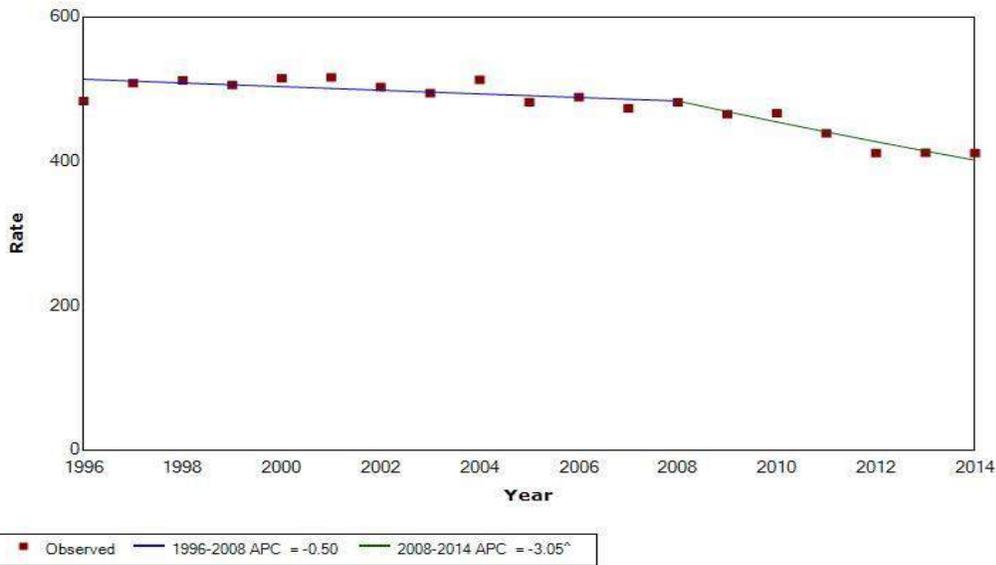
Alaska and U.S., 1996-2014 (U.S. through 2013)



Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1. Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**All cancers, incidence rate trend and change in trend**

Alaska residents, 1996-2014



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

*All Cancer – Incidence*

**All cancers, incidence rate**

*Alaska and U.S., 1996-2014 (U.S. through 2013)*

Year	Alaska			Count	U.S.	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate		
1996	483.6	457.6	510.6	1,680	**		
1997	508.3	482.3	535.3	1,826	**		
1998	512.3	487.1	538.4	1,920	**		
1999	505.9	481.4	531.3	1,966	483.9	5%	
2000	514.9	490.6	539.9	2,053	485.9	6%	+
2001	516.4	493.0	540.7	2,187	487.2	6%	+
2002	502.9	480.3	526.2	2,239	483.7	4%	
2003	494.5	472.4	517.4	2,266	471.8	5%	+
2004	512.8	490.8	535.5	2,436	470.7	9%	+
2005	481.7	460.8	503.3	2,375	470.5	2%	
2006	488.8	468.0	510.2	2,509	471.1	4%	
2007	473.3	453.3	493.9	2,523	474.6	0%	
2008	481.9	462.1	502.3	2,682	470.4	2%	
2009	465.4	446.2	485.1	2,677	465.3	0%	
2010	466.5	447.7	485.9	2,794	452.8	3%	
2011	438.6	420.8	457.0	2,722	451.9	-3%	
2012	411.4	394.6	428.8	2,659	438.1	-6%	–
2013	412.0	395.3	429.2	2,672	430.6	-4%	–
2014	411.2	394.6	428.3	2,703	**		

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

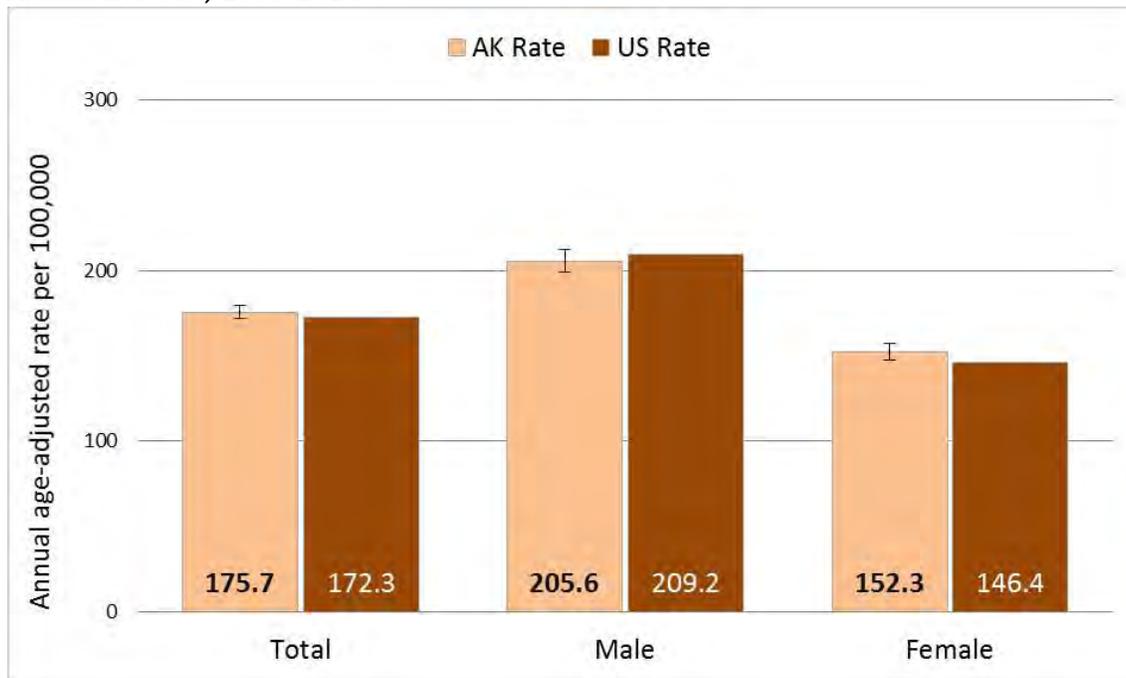
\*\* U.S. data for 1996-1998 are not available; data for 2014 are not yet available.

*Mortality (2005-2014)*

- Alaska’s overall cancer mortality rate during the most recent 10 years is 175.7 per 100,000.
- The overall cancer mortality rate and trend have been similar the U.S. rate and trend.
- Overall cancer mortality rates are higher among men than women in Alaska.
- Overall cancer mortality rates are higher among Alaska Native people than other race groups in Alaska; cancer mortality rates are lower among Asians/Pacific Islanders than other race groups. Overall cancer mortality rates are also higher among Alaska Native people than among American Indian and Alaska Native people in the U.S.
- Overall cancer mortality rates are higher than the state rate for the Northwest and Y-K Delta regions, as well as for several borough or census areas within those regions.
- Cancer mortality has been significantly declining since 1996, by an average of about 1.1% per year.

**Total and by Gender**

**All cancers, mortality rate overall and by sex**  
Alaska and U.S., 2005-2014



**All cancers, mortality rate overall and by sex**  
Alaska and U.S., 2005-2014

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>175.7</b>	<b>171.7</b>	<b>179.7</b>	<b>8,815</b>	<b>172.3</b>
Male	205.6	199.0	212.3	4,843	209.2
Female	152.3	147.3	157.3	3,972	146.4

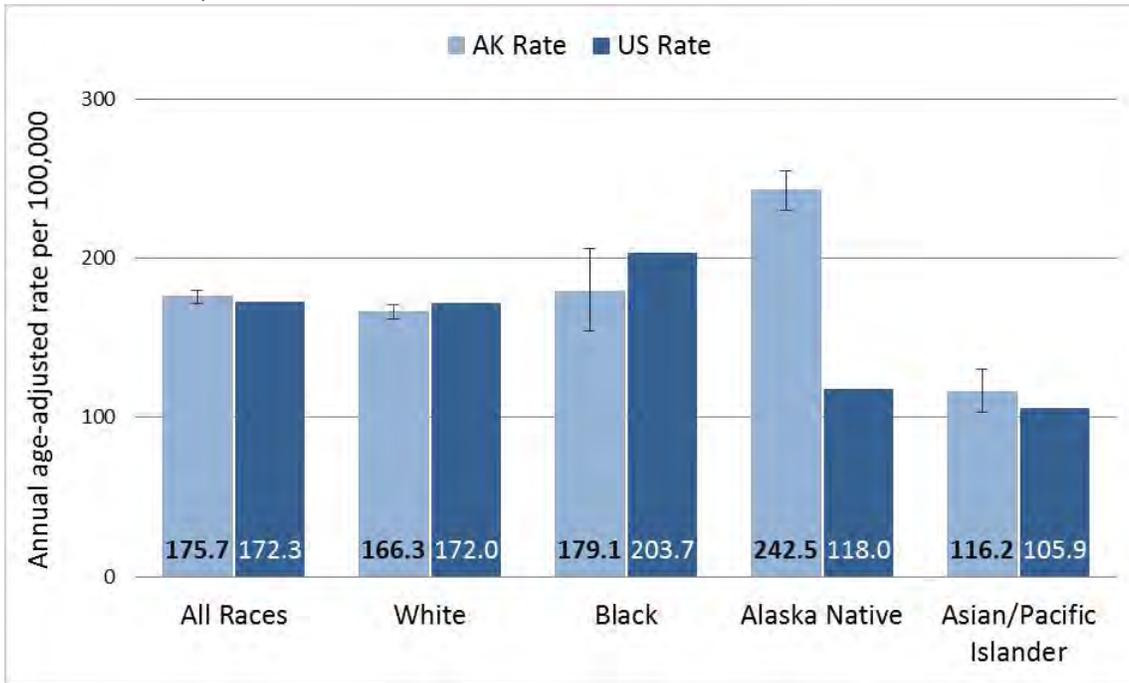
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

All Cancer - Mortality

**By Race**

**All cancers, mortality rate by race**

Alaska and U.S., 2005-2014



**All cancers, mortality rate by race**

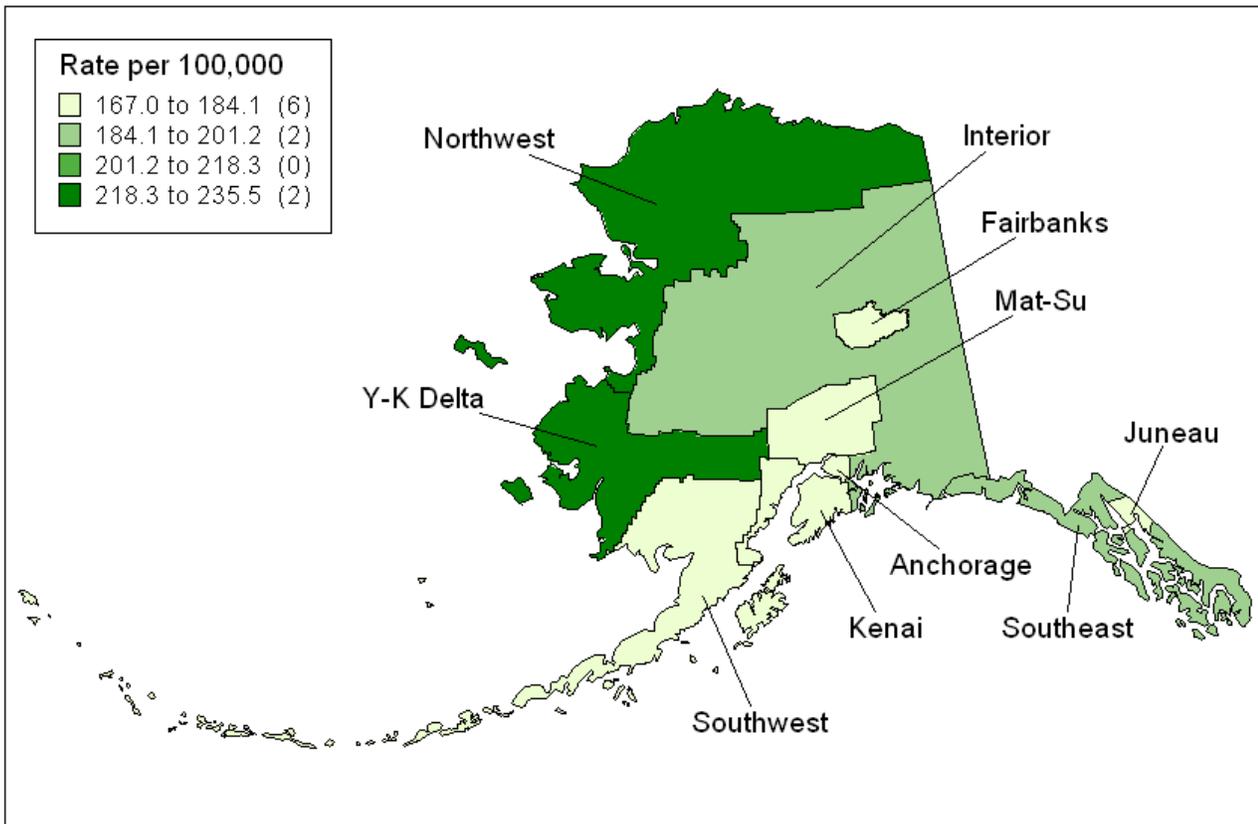
Alaska and U.S., 2005-2014

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>175.7</b>	<b>171.7</b>	<b>179.7</b>	<b>8,815</b>	<b>172.3</b>
White	166.3	161.9	170.8	6,411	172.0
Black	179.1	154.2	206.3	232	203.7
American Indian/Alaska Native	242.5	230.3	255.0	1,720	118.0
Asian/Pacific Islander	116.2	103.5	130.0	367	105.9

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

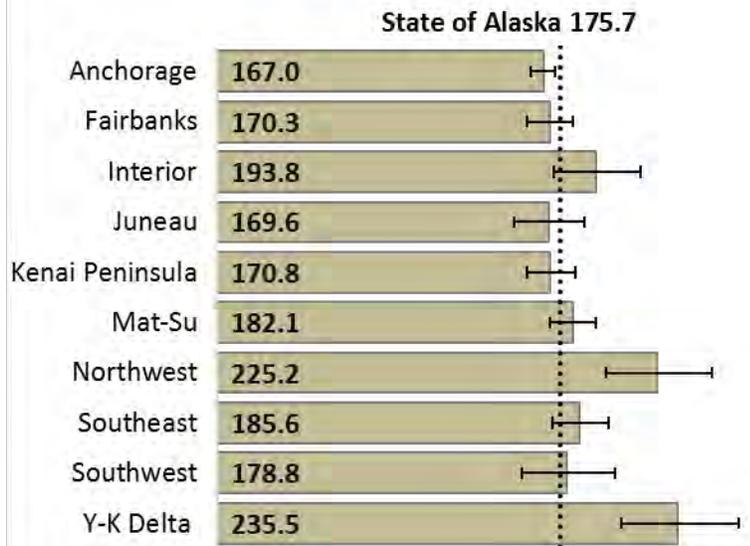
**By Behavioral Health Systems Region**

**All cancers, mortality rate by Behavioral Health Systems Region**  
Alaska residents, 2005-2014



**All cancers, mortality rate by Behavioral Health Systems Region**  
Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>175.7</b>	<b>171.7</b>	<b>179.7</b>	<b>8,815</b>
Anchorage	167.0	161.0	173.2	3,366
Fairbanks	170.3	158.7	182.5	969
Interior	193.8	172.4	217.0	369
Juneau	169.6	152.1	188.4	403
Kenai Peninsula	170.8	159.0	183.2	907
Mat-Su	182.1	170.7	194.1	1,147
Northwest	225.2	199.4	253.2	350
Southeast	185.6	171.5	200.5	712
Southwest	178.8	155.9	203.7	300
Y-K Delta	235.5	206.7	266.7	292



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

All Cancer - Mortality

**By Borough/Census Area**

**All cancers, mortality rate by Borough/Census Area**

Alaska residents, 2005-2014

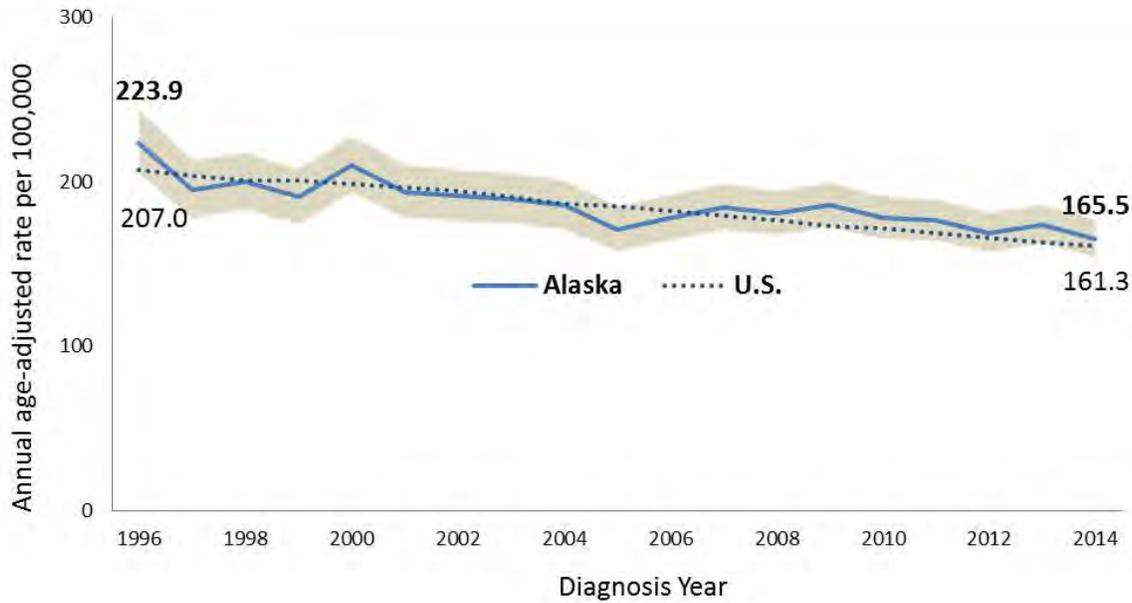
	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>175.7</b>	<b>171.7</b>	<b>179.7</b>	<b>8,815</b>	
Aleutians East Borough	111.5	54.0	196.5	17	
Aleutians West Census Area	184.4	100.2	299.2	29	
Municipality of Anchorage	167.0	161.0	173.2	3,366	
Bethel Census Area	218.4	185.7	254.7	196	+
Bristol Bay Borough	273.4	147.6	453.4	19	
Denali Borough	64.4	32.4	125.1	14	–
Dillingham Census Area	196.4	147.1	255.5	64	
Fairbanks North Star Borough	170.3	158.7	182.5	969	
Haines Borough	170.3	123.0	230.7	47	
Hoonah-Angoon Census Area	142.3	79.1	238.1	19	
Juneau Borough	169.6	152.1	188.4	403	
Kenai Peninsula Borough	170.8	159.0	183.2	907	
Ketchikan Gateway Borough	208.0	181.4	237.2	245	+
Kodiak Island Borough	181.5	149.8	217.3	146	
Kusilvak Census Area	278.1	221.7	343.0	96	+
Lake and Peninsula Borough	229.3	138.2	352.4	25	
Matanuska-Susitna Borough	182.1	170.7	194.1	1,147	
Nome Census Area	244.1	203.1	290.4	148	+
North Slope Borough	240.1	186.8	302.1	107	+
Northwest Arctic Borough	207.6	165.3	256.4	95	
Petersburg Borough	211.5	141.6	303.2	34	
Prince of Wales-Hyder Census Area	140.7	88.6	209.1	38	
Prince of Wales-Outer Ketchikan Census Area	231.6	158.6	323.2	46	
Sitka Borough	163.2	136.6	193.5	140	
Skagway Municipality	171.8	70.3	356.6	9	
Skagway-Hoonah-Angoon Census Area	146.7	90.0	226.2	26	
Southeast Fairbanks Census Area	196.3	157.5	241.2	109	
Valdez-Cordova Census Area	181.3	147.2	220.2	130	
Wrangell Borough	169.0	109.7	253.1	27	
Wrangell-Petersburg Census Area	239.4	185.8	303.7	72	+
Yakutat Borough	176.6	75.7	342.1	9	
Yukon-Koyukuk Census Area	231.7	189.5	280.3	116	+

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

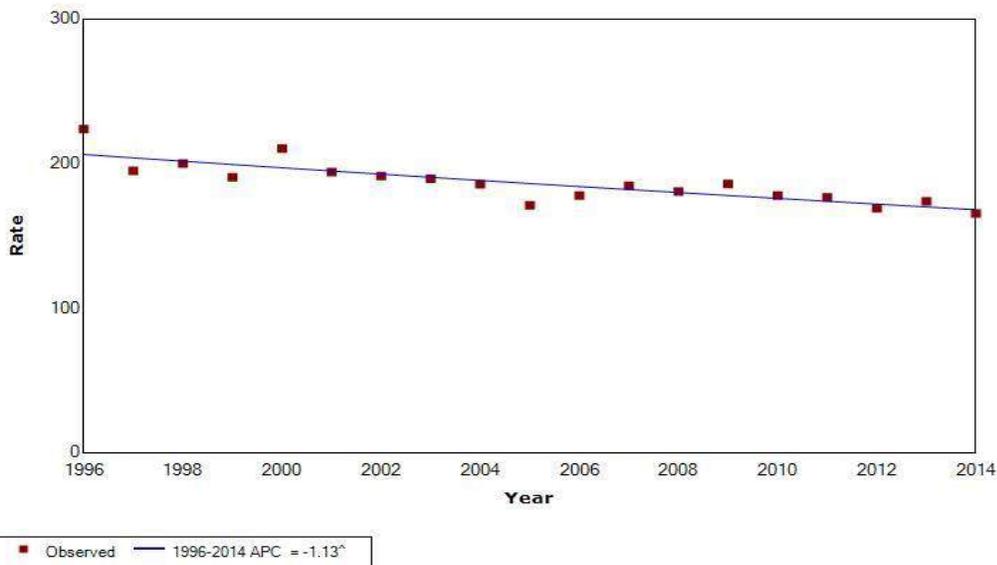
**Trend over time, Alaska and U.S.**

**All cancers, mortality rate**  
Alaska and U.S., 1996-2014



Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1. Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**All cancers, mortality rate trend and change in trend**  
Alaska residents, 1996-2014



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

*All Cancer - Mortality*

**All cancers, mortality rate**

*Alaska and U.S., 1996-2014*

Year	Alaska			Count	U.S.	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate		
1996	223.9	204.9	243.9	651	207.0	8%	
1997	195.0	178.1	212.9	615	203.6	-4%	
1998	200.0	183.3	217.6	649	200.8	0%	
1999	190.6	174.4	207.7	622	200.7	-5%	
2000	210.4	193.8	227.9	708	198.8	6%	
2001	194.0	178.4	210.4	680	196.3	-1%	
2002	191.4	176.3	207.3	712	194.4	-2%	
2003	189.5	174.8	204.9	732	190.9	-1%	
2004	185.7	171.3	200.8	723	186.8	-1%	
2005	171.2	157.9	185.3	723	185.2	-8%	
2006	177.9	164.6	191.9	781	182.0	-2%	
2007	184.6	171.1	198.7	837	179.3	3%	
2008	180.7	167.8	194.4	856	176.3	2%	
2009	185.8	172.8	199.5	891	173.4	7%	
2010	177.8	165.2	190.9	880	171.7	4%	
2011	176.6	164.5	189.3	935	168.7	5%	
2012	169.1	157.5	181.3	925	166.3	2%	
2013	173.8	162.4	185.8	1,017	163.1	7%	
2014	165.5	154.5	177.2	970	161.3	3%	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

## Bladder Cancer

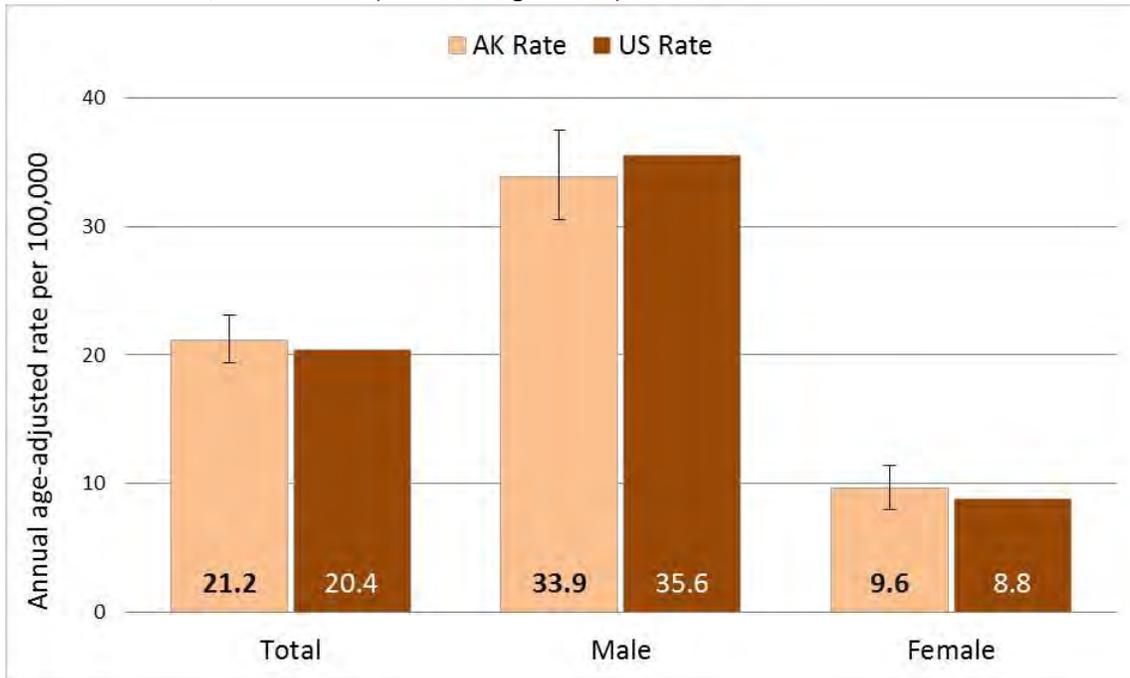
### Incidence (2010-2014)

- Alaska’s bladder cancer incidence rate during the 5 most recent years is 21.2 per 100,000.
- The rate and trend in Alaska have been similar the U.S. rate and trend.
- The rate of bladder cancer incidence is higher among men than women in Alaska.
- Bladder cancer incidence is lower among Alaska Native people and Asians/Pacific Islanders in comparison to Whites; although relatively low among race groups within the state of Alaska, bladder cancer incidence rates among Alaska Native people appear higher than rates among American Indian and Alaska Native people in the U.S.
- There were no detectable regional differences in the incidence of bladder cancer in Alaska.
- Bladder cancer incidence rates in Alaska have declined during 1996-2014, by an average of about 1.1% per year.

### Total and by Gender

#### Bladder cancer, incidence rate overall and by sex

Alaska and U.S., 2010-2014 (U.S. through 2013)



#### Bladder cancers, incidence rate overall and by sex

Alaska and U.S., 2010-2014 (U.S. through 2013)

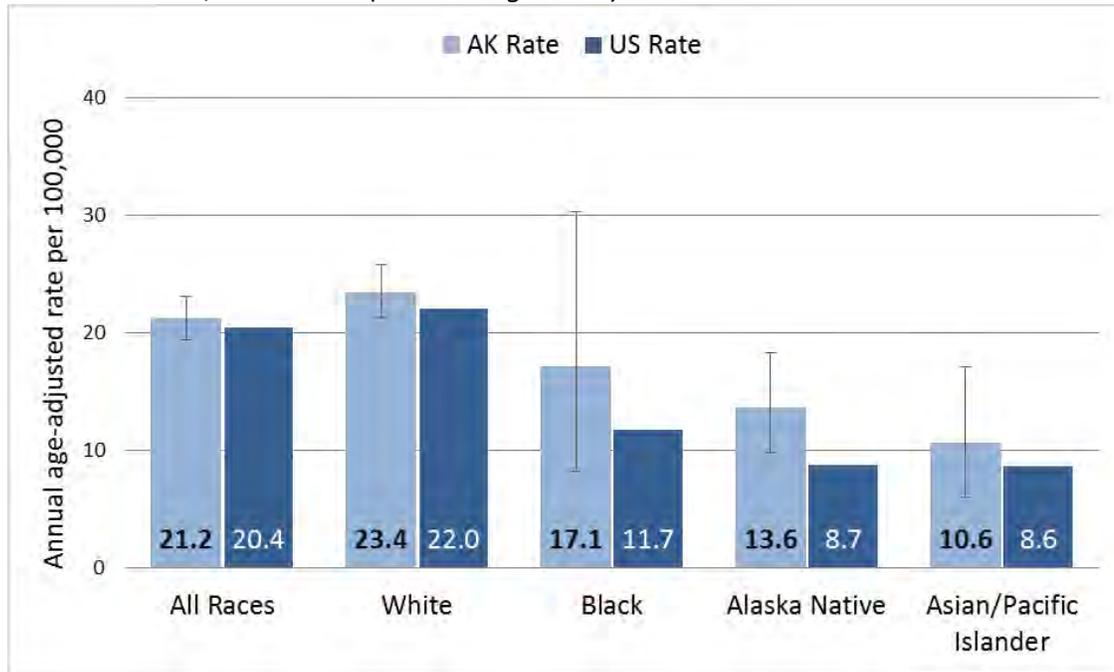
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>21.2</b>	<b>19.4</b>	<b>23.1</b>	<b>589</b>	<b>20.4</b>
Male	33.9	30.5	37.5	452	35.6
Female	9.6	8.0	11.4	137	8.8

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Race**

**Bladder cancer, incidence rate by race**

Alaska and U.S., 2010-2014 (U.S. through 2013)



**Bladder cancer, incidence rate by race**

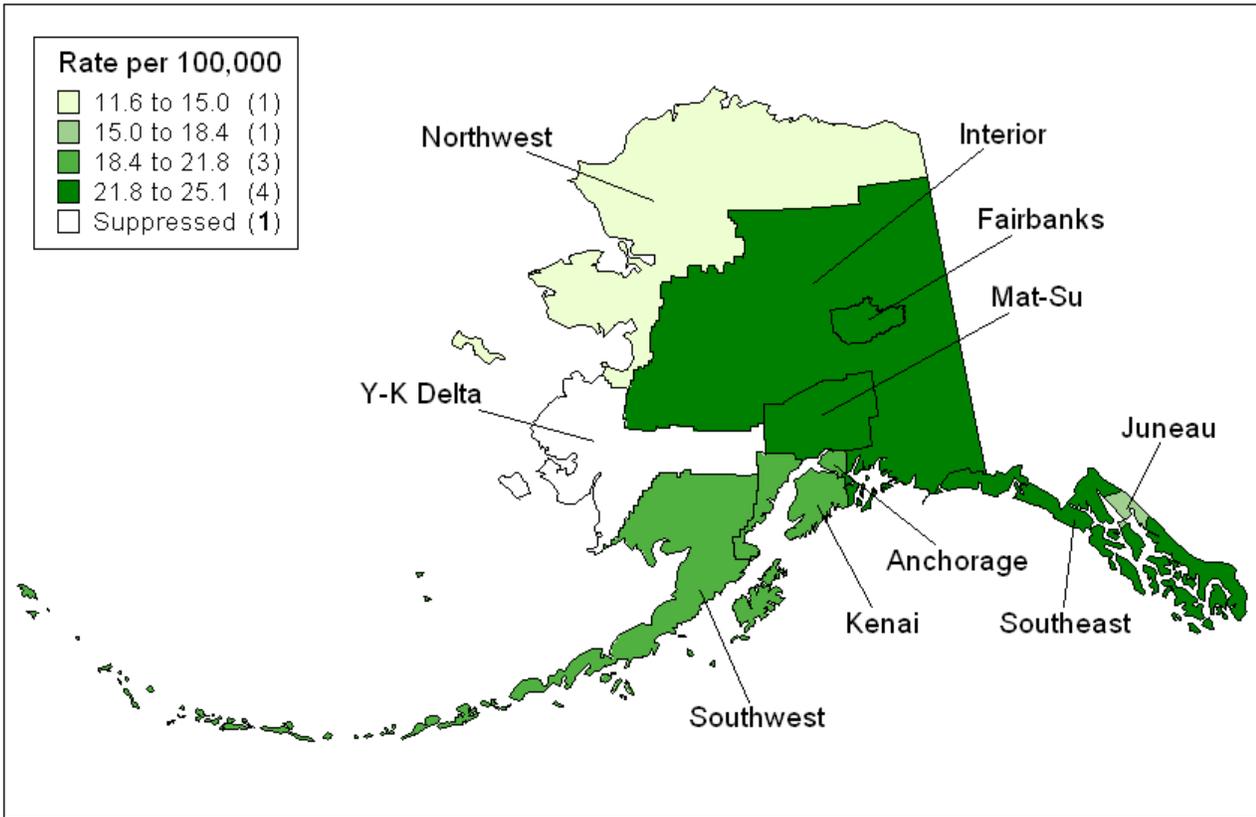
Alaska and U.S., 2010-2014 (U.S. through 2013)

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>21.2</b>	<b>19.4</b>	<b>23.1</b>	<b>589</b>	<b>20.4</b>
White	23.4	21.3	25.8	507	22.0
Black	17.1	8.2	30.3	12	11.7
American Indian/Alaska Native	13.6	9.8	18.3	48	8.7
Asian/Pacific Islander	10.6	6.0	17.1	18	8.6

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

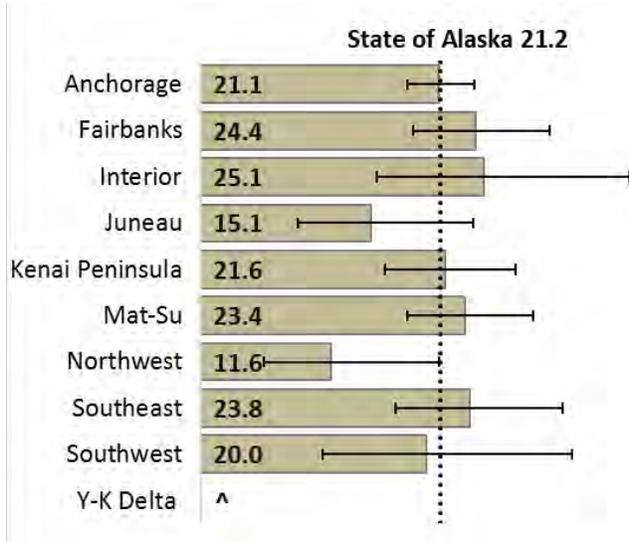
**By Behavioral Health Systems Region**

**Bladder cancer, incidence rate by Behavioral Health Systems Region**  
Alaska residents, 2010-2014



**Bladder cancer, incidence rate by Behavioral Health Systems Region**  
Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>21.2</b>	<b>19.4</b>	<b>23.1</b>	<b>589</b>
Anchorage	21.1	18.3	24.2	234
Fairbanks	24.4	18.8	30.9	76
Interior	25.1	15.6	38.0	25
Juneau	15.1	8.7	24.1	20
Kenai Peninsula	21.6	16.3	27.9	66
Mat-Su	23.4	18.3	29.4	86
Northwest	11.6	5.6	21.1	12
Southeast	23.8	17.3	32.0	49
Southwest	20.0	10.8	32.9	17
Y-K Delta	^	^	^	^



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

Bladder Cancer - Incidence

**By Borough/Census Area**

**Bladder cancer, incidence rate by Alaska Borough/Census Area**

Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>21.2</b>	<b>19.4</b>	<b>23.1</b>	<b>589</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	21.1	18.3	24.2	234	
Bethel Census Area	^	^	^	^	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	^	^	^	^	
Fairbanks North Star Borough	24.4	18.8	30.9	76	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	15.1	8.7	24.1	20	
Kenai Peninsula Borough	21.6	16.3	27.9	66	
Ketchikan Gateway Borough	37.3	23	56.8	23	
Kodiak Island Borough	16.5	5.6	35.6	6	
Kusilvak Census Area	^	^	^	^	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	23.4	18.3	29.4	86	
Nome Census Area	17.2	6.6	36.5	7	
North Slope Borough	^	^	^	^	
Northwest Arctic Borough	^	^	^	^	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	35.3	11.5	77.1	8	
Sitka Borough	23.3	11.2	42.8	11	
Skagway Municipality	^	^	^	^	
Southeast Fairbanks Census Area	21.2	6.8	47.8	6	
Valdez-Cordova Census Area	34.5	15.6	63.7	11	
Wrangell Borough	^	^	^	^	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	21.7	7.6	48.4	6	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

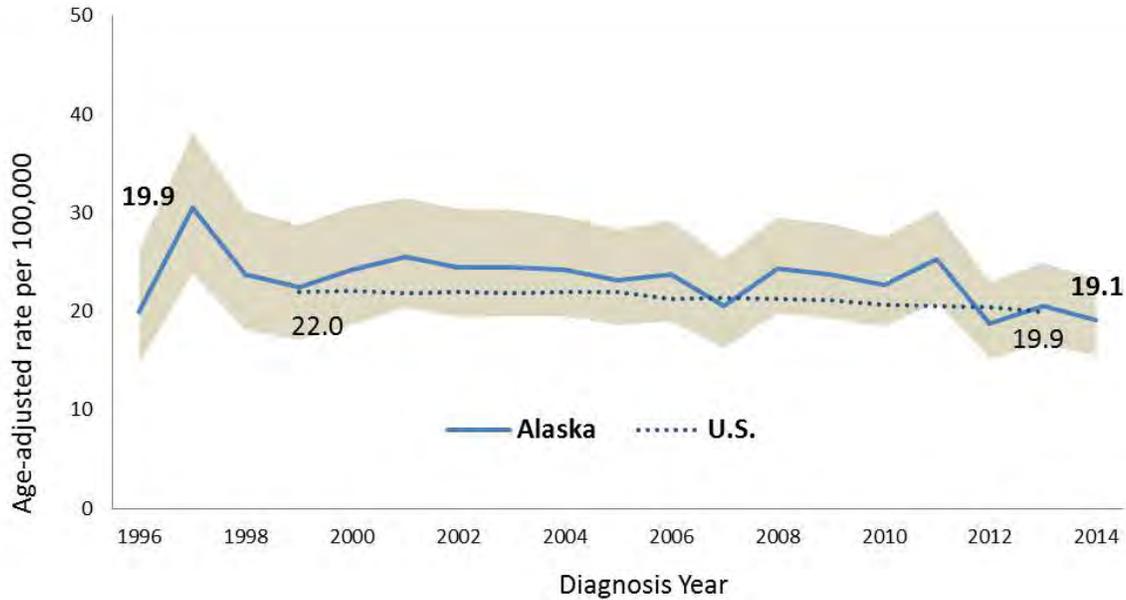
^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

**Bladder cancer, incidence rate**

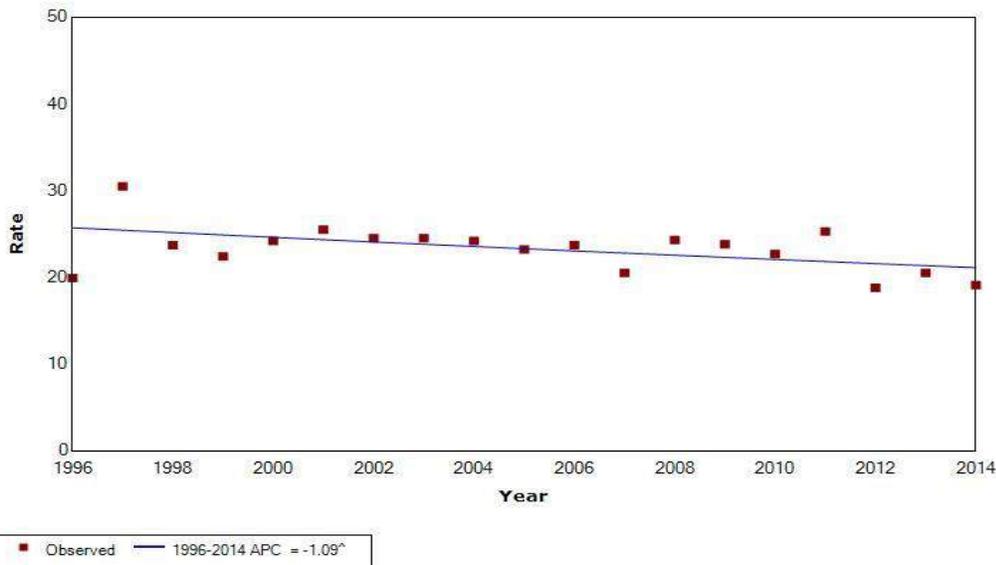
Alaska and U.S., 1996-2014 (U.S. through 2013)



Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1. Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Bladder cancer, incidence rate trend and change in trend**

Alaska, 1996-2014



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

Bladder Cancer - Incidence

**Bladder cancer, incidence rate**

Alaska and U.S., 1996-2014 (U.S. through 2013)

Year	Alaska			Count	U.S.		+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate	% difference (AK from U.S. rate)	
1996	19.9	14.8	26.2	62	**		
1997	30.5	23.8	38.2	89	**		
1998	23.7	18.1	30.3	72	**		
1999	22.4	17.1	28.7	71	22.0	2%	
2000	24.2	18.6	30.6	79	22.1	10%	
2001	25.5	20.4	31.5	98	21.9	16%	
2002	24.5	19.4	30.4	91	22.0	11%	
2003	24.5	19.5	30.3	96	21.8	12%	
2004	24.2	19.5	29.6	106	22.0	10%	
2005	23.2	18.6	28.3	103	22.0	5%	
2006	23.7	19.0	29.2	102	21.2	12%	
2007	20.5	16.3	25.4	98	21.4	-4%	
2008	24.3	19.8	29.5	120	21.3	14%	
2009	23.8	19.3	28.9	120	21.1	13%	
2010	22.7	18.4	27.5	118	20.7	10%	
2011	25.3	20.9	30.3	134	20.5	23%	+
2012	18.8	15.2	23.0	110	20.4	-8%	
2013	20.5	16.7	24.9	117	19.9	3%	
2014	19.1	15.5	23.3	110	**		

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\* Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

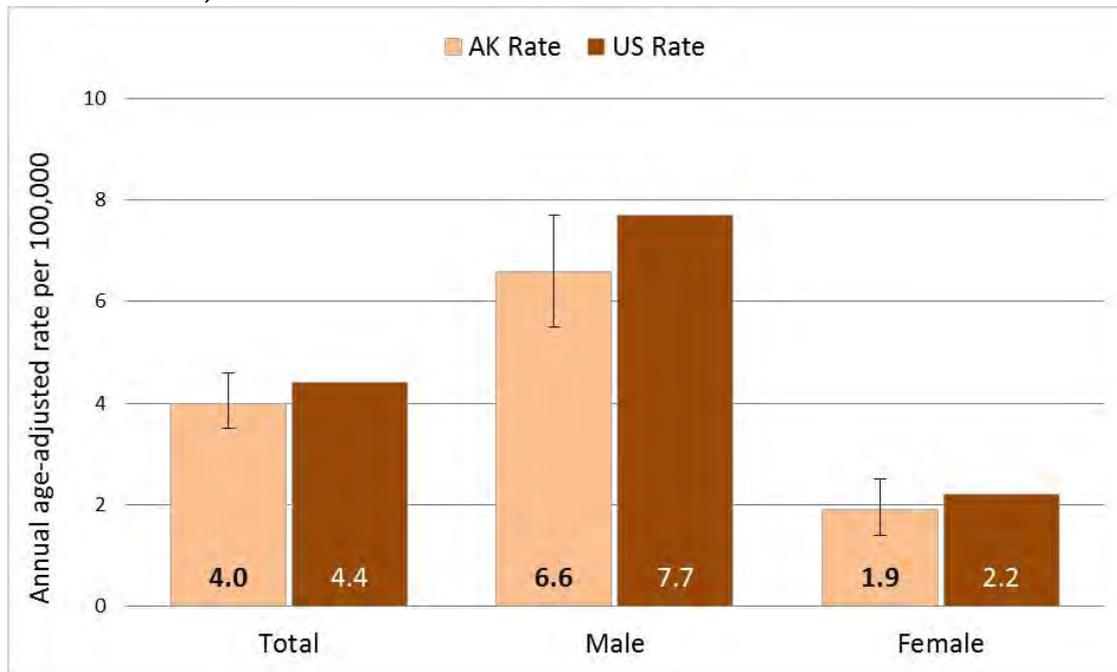
\*\* U.S. data for 1996-1998 are not available; data for 2014 are not yet available.

*Mortality (2000-2014)*

- Alaska’s bladder cancer mortality rate during the 15 most recent years was 4.0 per 100,000.
- Rates of bladder cancer mortality in Alaska have been similar to the U.S. overall.
- The rate of bladder cancer mortality in Alaska is higher among men than women.
- There were no detectable differences in bladder cancer mortality rate among race groups in Alaska. The rate of bladder cancer mortality among Alaska Native people was higher than for American Indian and Alaska Native people in the U.S.
- There were no detectable differences in bladder cancer mortality rates within different geographic regions of Alaska.
- The rate of bladder cancer mortality in Alaska has declined between 1996-2014, by an average of 3.4% per year.

**Total and by Gender**

**Bladder cancer, mortality rate overall and by sex**  
Alaska and U.S., 2000-2014



**Bladder cancer, mortality rate overall and by sex**  
Alaska and U.S., 2000-2014

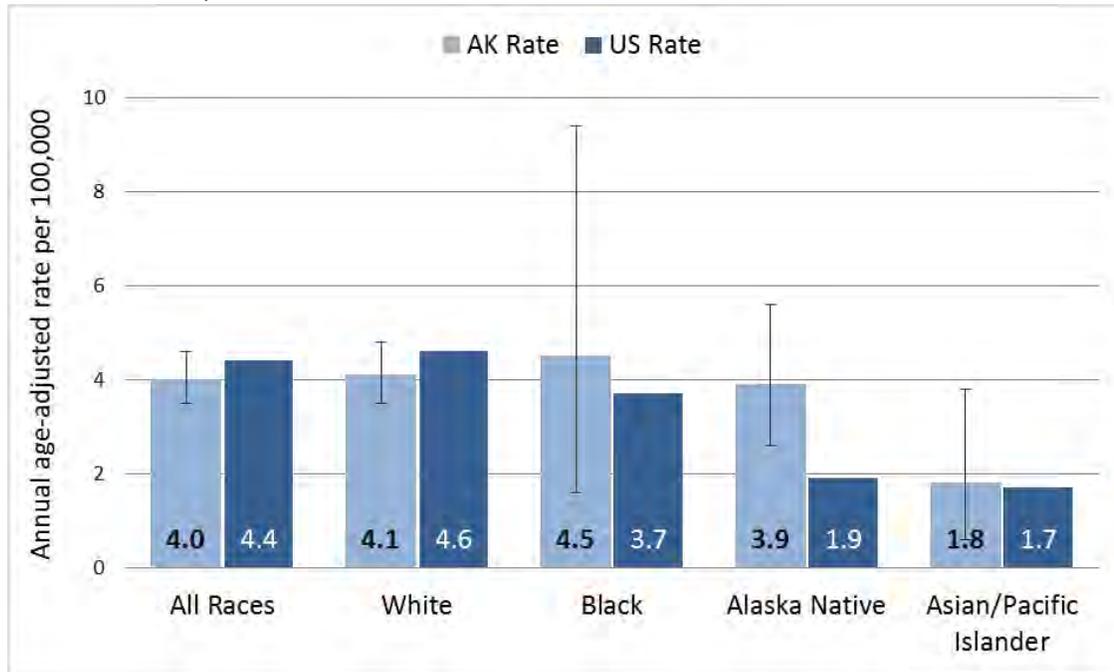
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>4.0</b>	<b>3.5</b>	<b>4.6</b>	<b>232</b>	<b>4.4</b>
Male	6.6	5.5	7.7	175	7.7
Female	1.9	1.4	2.5	57	2.2

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Bladder Cancer - Mortality

**By Race**

**Bladder cancer, mortality rate by race**  
Alaska and U.S., 2000-2014



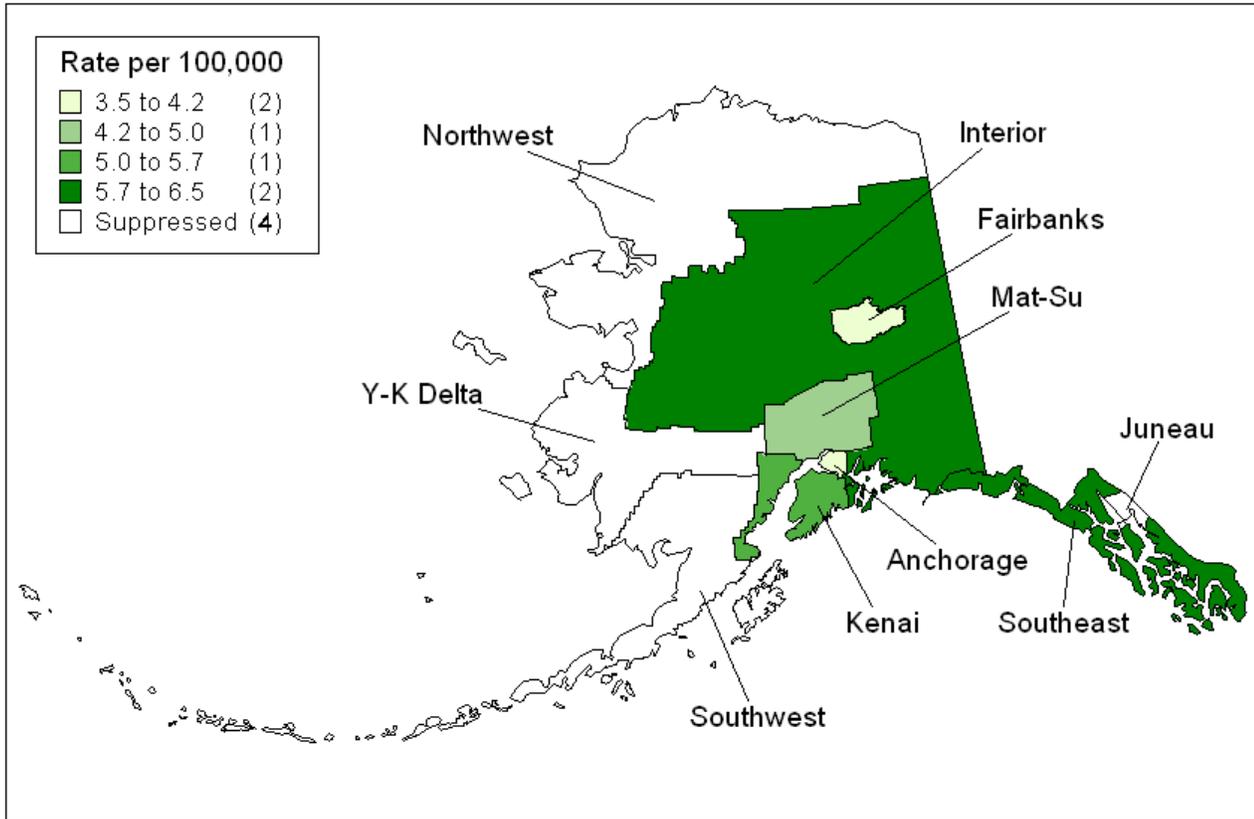
**Bladder cancer, mortality rate by race**  
Alaska and U.S., 2000-2014

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>4.0</b>	<b>3.5</b>	<b>4.6</b>	<b>232</b>	<b>4.4</b>
White	4.1	3.5	4.8	186	4.6
Black	4.5	1.6	9.4	6	3.7
American Indian/Alaska Native	3.9	2.6	5.6	32	1.9
Asian/Pacific Islander	1.8	0.6	3.8	7	1.7

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

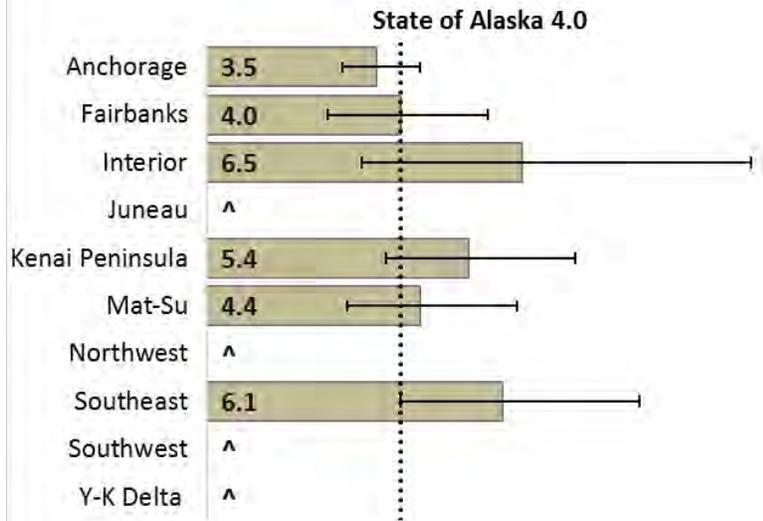
**By Behavioral Health Systems Region**

**Bladder cancer, mortality rate by Behavioral Health Systems Region**  
Alaska residents, 2000-2014



**Bladder cancer, mortality rate by Behavioral Health Systems Region**  
Alaska residents, 2000-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>4.0</b>	<b>3.5</b>	<b>4.6</b>	<b>232</b>
Anchorage	3.5	2.8	4.4	83
Fairbanks	4.0	2.5	5.8	28
Interior	6.5	3.2	11.2	12
Juneau	^	^	^	^
Kenai Peninsula	5.4	3.7	7.6	36
Mat-Su	4.4	2.9	6.4	31
Northwest	^	^	^	^
Southeast	6.1	4.0	8.9	26
Southwest	^	^	^	^
Y-K Delta	^	^	^	^



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

Bladder Cancer - Mortality

**By Borough/Census Area**

**Bladder cancer, mortality rate by Borough/Census Area**

Alaska residents, 2000-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>4.0</b>	<b>3.5</b>	<b>4.6</b>	<b>232</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	3.5	2.8	4.4	83	
Bethel Census Area	^	^	^	^	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	^	^	^	^	
Fairbanks North Star Borough	4.0	2.5	5.8	28	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	^	^	^	^	
Kenai Peninsula Borough	5.4	3.7	7.6	36	
Ketchikan Gateway Borough	6.5	2.9	12.0	9	
Kodiak Island Borough	^	^	^	^	
Kusilvak Census Area	^	^	^	^	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	4.4	2.9	6.4	31	
Nome Census Area	^	^	^	^	
North Slope Borough	^	^	^	^	
Northwest Arctic Borough	^	^	^	^	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	^	^	^	^	
Prince of Wales-Outer Ketchikan Census Area	^	^	^	^	
Sitka Borough	5.7	2.0	12.1	6	
Skagway Municipality	^	^	^	^	
Skagway-Hoonah-Angoon Census Area	^	^	^	^	
Southeast Fairbanks Census Area	^	^	^	^	
Valdez-Cordova Census Area	^	^	^	^	
Wrangell Borough	^	^	^	^	

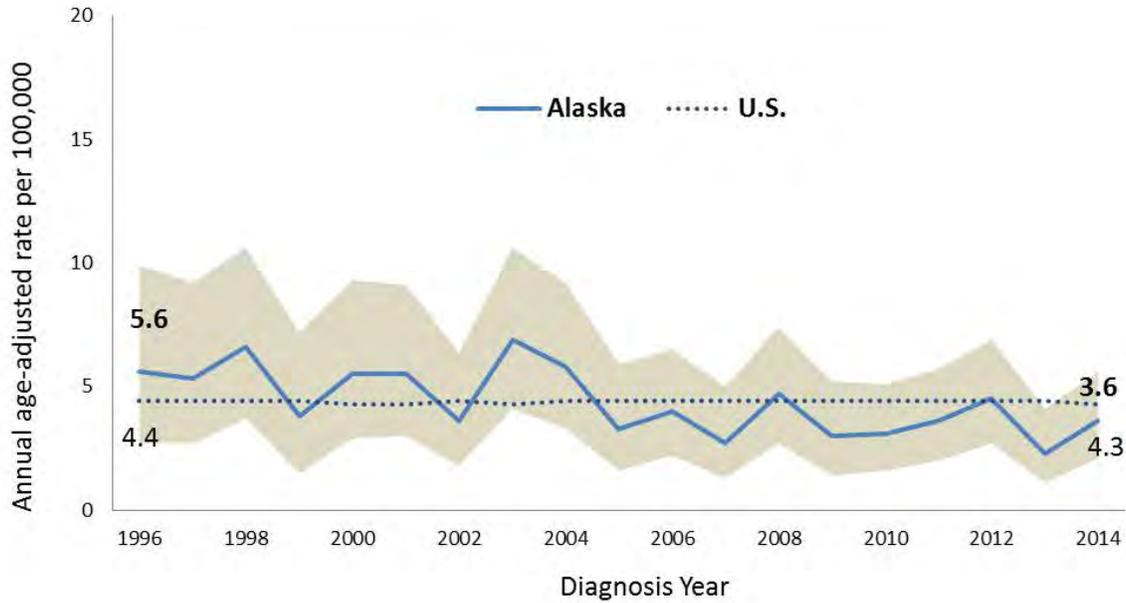
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

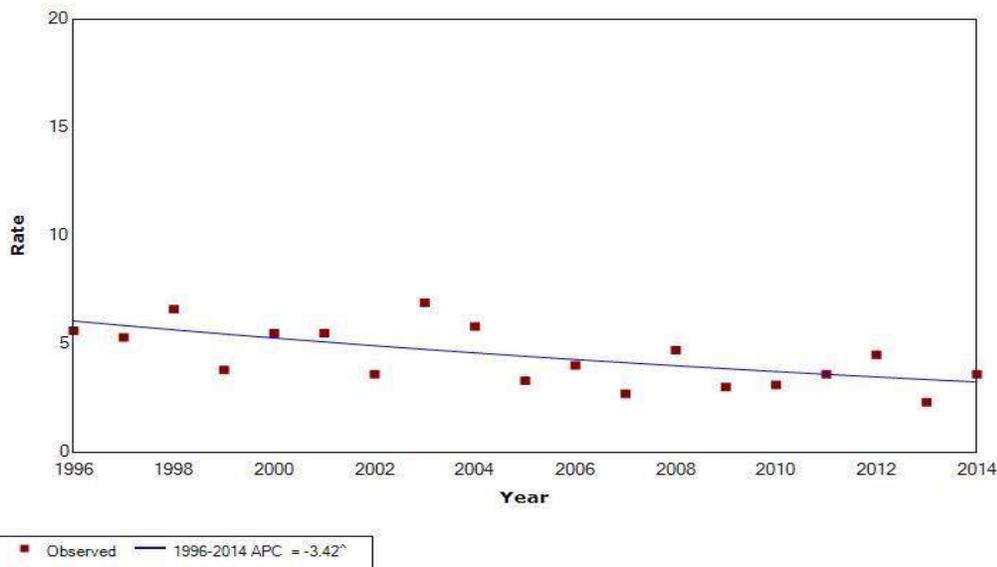
**Bladder cancer, mortality rate**  
Alaska and U.S., 1996-2014



Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1. Rates are per 100,000 and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Bladder cancer, mortality rate trend and change in trend**  
Alaska residents, 1996-2014



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

Bladder Cancer - Mortality

**Bladder cancer, mortality rate**

Alaska and U.S., 1996-2014

Year	Alaska			Count	U.S.	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate		
1996	5.6	2.7	9.9	12	4.4	27%	
1997	5.3	2.7	9.2	13	4.4	20%	
1998	6.6	3.7	10.6	18	4.4	50%	
1999	3.8	1.5	7.2	8	4.4	-14%	
2000	5.5	2.9	9.3	13	4.3	28%	
2001	5.5	3.0	9.1	14	4.3	28%	
2002	3.6	1.8	6.4	11	4.4	-18%	
2003	6.9	4.1	10.6	21	4.3	60%	
2004	5.8	3.3	9.2	17	4.4	32%	
2005	3.3	1.6	5.9	12	4.4	-25%	
2006	4.0	2.2	6.5	17	4.4	-9%	
2007	2.7	1.3	5.0	10	4.4	-39%	
2008	4.7	2.7	7.4	19	4.4	7%	
2009	3.0	1.4	5.2	11	4.4	-32%	
2010	3.1	1.6	5.1	15	4.4	-30%	
2011	3.6	2.0	5.7	18	4.4	-18%	
2012	4.5	2.7	6.9	21	4.4	2%	
2013	2.3	1.1	4.1	12	4.4	-48%	–
2014	3.6	2.1	5.6	21	4.3	-16%	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

## Breast Cancer (Female)

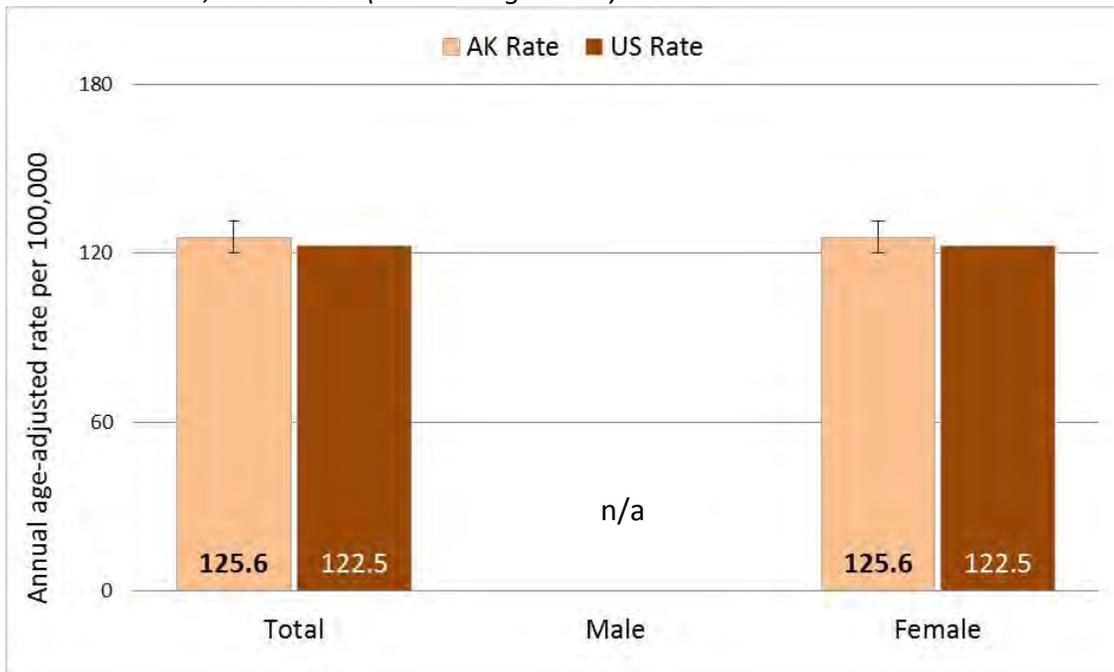
### Incidence (2010-2014)

- Alaska’s breast cancer incidence rate during the 5 most recent years was 125.6 per 100,000. This rate is only for breast cancer among women.
- The rate and trend for female breast cancer in Alaska were similar to the U.S. rate and trend during most recent years.
- The rate of breast cancer incidence was lower among Asian/Pacific Islander women than other races in Alaska, but similar among other Alaska race groups. The rate of breast cancer incidence among Alaska Native women was higher than for American Indian and Alaska Native women in the U.S.
- Rates of breast cancer incidence were lower among women in the Y-K Delta, and specifically in the Bethel and Dillingham census areas, in comparison to other regions of Alaska.
- The rate of breast cancer incidence in Alaska has declined between 1996 and 2014, by an average of 0.8% per year.

### Total and by Gender

#### Female breast cancer, incidence rate overall and by sex

Alaska and U.S., 2010-2014 (U.S. through 2013)



#### Female breast cancer, incidence rate overall and by sex

Alaska and U.S., 2010-2014 (U.S. through 2013)

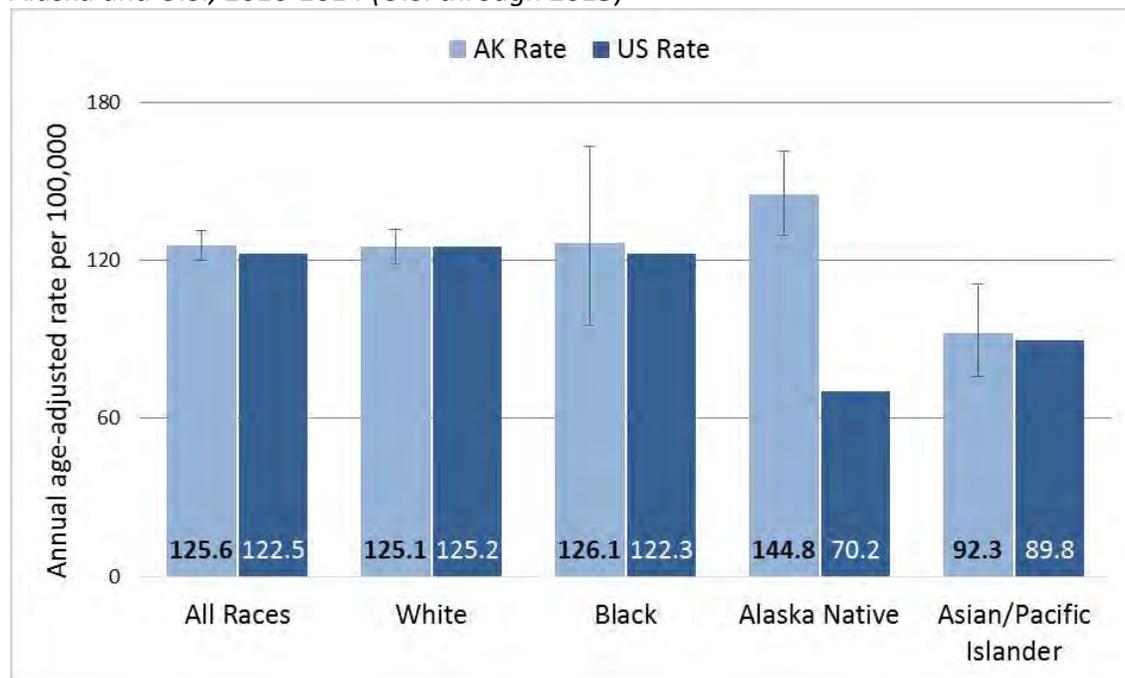
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>125.6</b>	<b>120.0</b>	<b>131.4</b>	<b>2,088</b>	<b>122.5</b>
Male	n/a			n/a	
Female	125.6	120.0	131.4	2,088	122.5

Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).  
n/a Statistic not applicable (females only)

**By Race**

**Female breast cancer, incidence rate by race**

Alaska and U.S., 2010-2014 (U.S. through 2013)



**Female breast cancer, incidence rate by race**

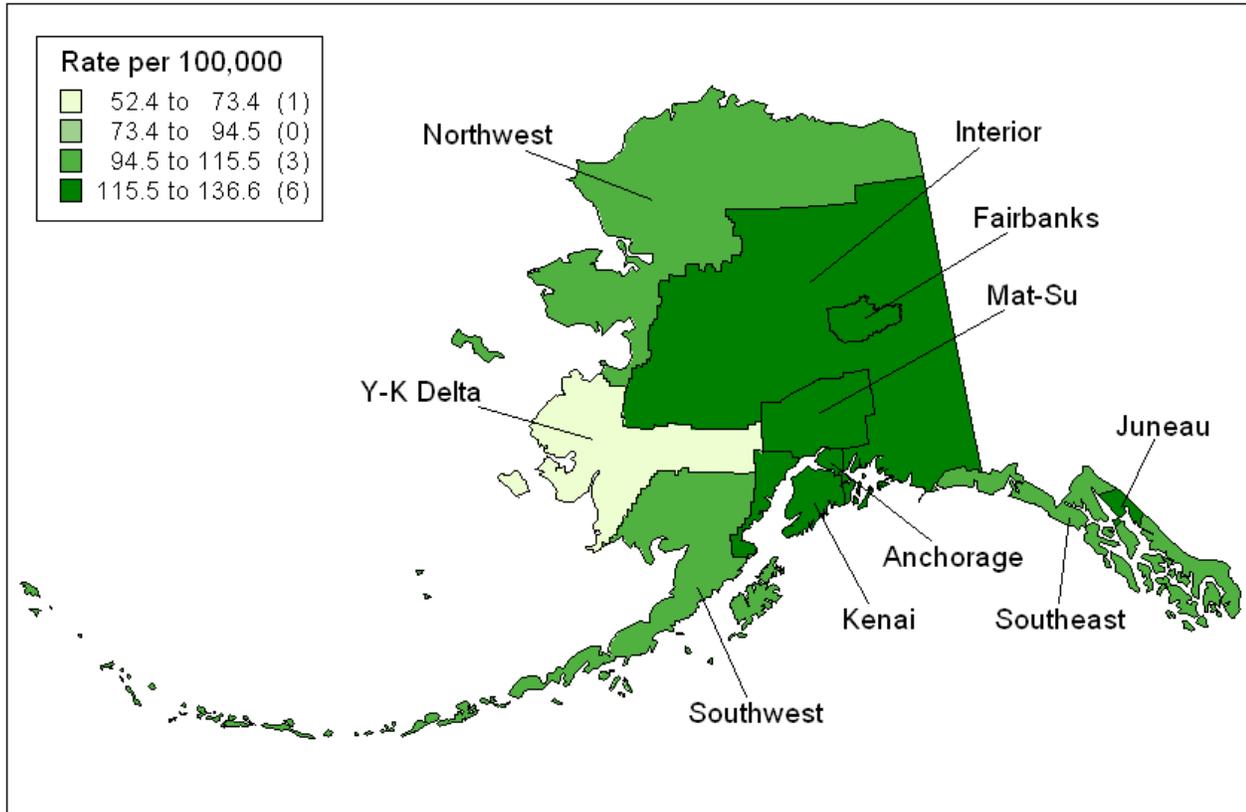
Alaska and U.S., 2010-2014 (U.S. through 2013)

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>125.6</b>	<b>120.0</b>	<b>131.4</b>	<b>2,088</b>	<b>122.5</b>
White	125.1	118.6	131.9	1,561	125.2
Black	126.1	95.1	163.4	61	122.3
American Indian/Alaska Native	144.8	129.3	161.6	343	70.2
Asian/Pacific Islander	92.3	75.9	111.1	120	89.8

Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

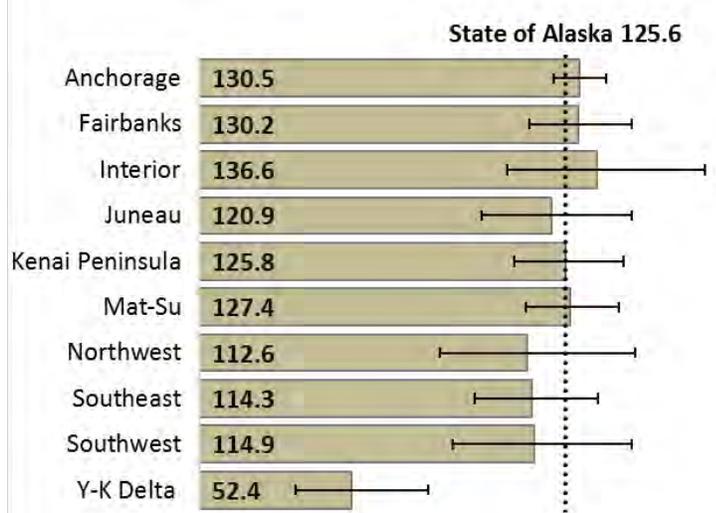
**By Behavioral Health Systems Region**

**Female breast cancer, incidence rate by Behavioral Health Systems Region**  
Alaska residents, 2010-2014



**Female breast cancer, incidence rate by Behavioral Health Systems Region**  
Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>125.6</b>	<b>120.0</b>	<b>131.4</b>	<b>2,088</b>
Anchorage	130.5	121.6	139.9	889
Fairbanks	130.2	113.6	148.4	255
Interior	136.6	105.7	173.6	75
Juneau	120.9	97.2	148.6	102
Kenai Peninsula	125.8	108.1	145.6	201
Mat-Su	127.4	112.1	144.2	285
Northwest	112.6	82.6	149.6	52
Southeast	114.3	94.8	136.8	133
Southwest	114.9	87.2	148.6	72
Y-K Delta	52.4	33.2	78.7	24



Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Breast Cancer - Incidence

**By Borough/Census Area**

**Female breast cancer, incidence rate by Alaska Borough/Census Area**

Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>125.6</b>	<b>120.0</b>	<b>131.4</b>	<b>2,088</b>	
Aleutians East Borough	126.5	33.8	318.5	6	
Aleutians West Census Area	49.8	19.8	139.5	7	
Municipality of Anchorage	130.5	121.6	139.9	889	
Bethel Census Area	56.2	33.4	88.7	19	–
Bristol Bay Borough	213.7	68.2	529.4	6	
Denali Borough	^	^	^	^	
Dillingham Census Area	56.5	24.0	119.2	8	–
Fairbanks North Star Borough	130.2	113.6	148.4	255	
Haines Borough	101.3	37.3	222.4	7	
Hoonah-Angoon Census Area	138.4	66.6	275.2	11	
Juneau Borough	120.9	97.2	148.6	102	
Kenai Peninsula Borough	125.8	108.1	145.6	201	
Ketchikan Gateway Borough	129.3	94.3	173.5	51	
Kodiak Island Borough	141.0	98.7	195.0	42	
Kusilvak Census Area	^	^	^	^	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	127.4	112.1	144.2	285	
Nome Census Area	166.7	108.6	243.4	29	
North Slope Borough	72.1	36.1	131.3	12	
Northwest Arctic Borough	85.9	41.9	153.8	11	
Petersburg Borough	84.6	37.2	171.9	9	
Prince of Wales-Hyder Census Area	137.8	74.7	230.3	19	
Sitka Borough	87.3	54.0	134.2	23	
Skagway Municipality	^	^	^	^	
Southeast Fairbanks Census Area	131.1	78.7	205.0	21	
Valdez-Cordova Census Area	128.8	81.0	193.6	27	
Wrangell Borough	120.7	50.0	248.8	8	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	175.8	109.1	268.2	23	

Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

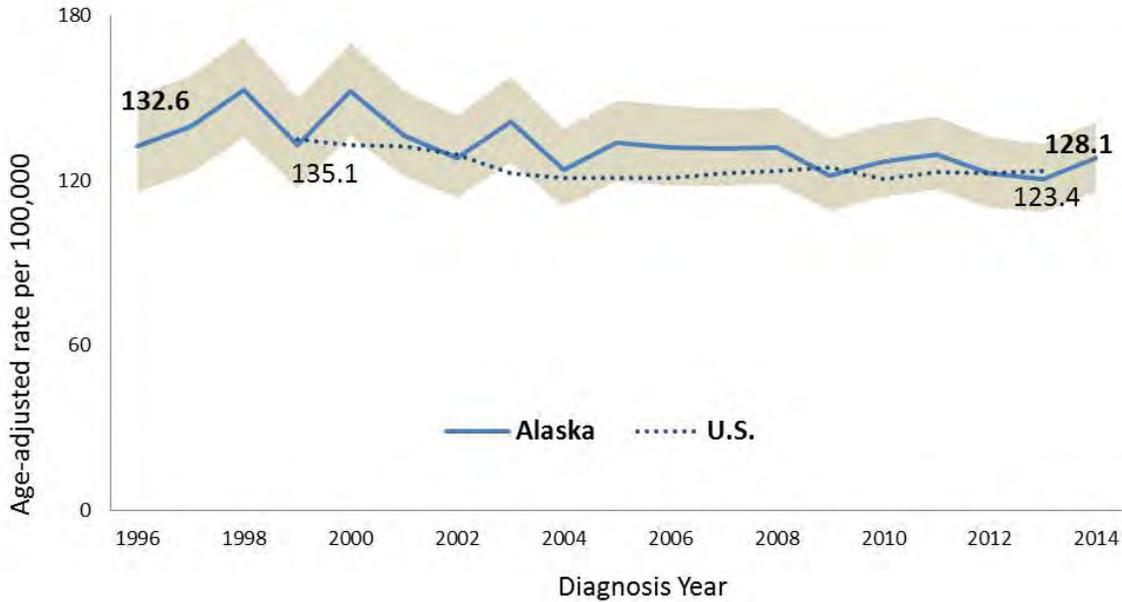
^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

**Female breast cancer, incidence rate**

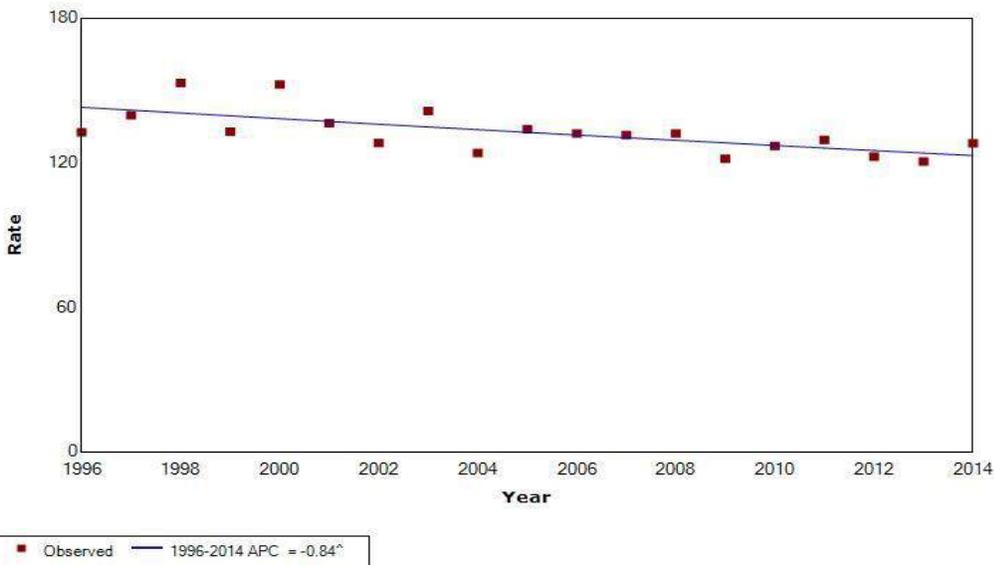
Alaska and U.S., 1996-2014 (U.S. through 2013)



Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1. Rates are per 100,000 (women) and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Female breast cancer, incidence rate trend and change in trend**

Alaska, 1996-2014



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

*Breast Cancer - Incidence*

**Female breast cancer, incidence rate**

*Alaska and U.S., 1996-2014 (U.S. through 2013)*

Year	Alaska			Count	U.S.	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate		
1996	132.6	115.8	151.1	269	**		
1997	139.7	122.9	158.2	290	**		
1998	153.1	135.7	172.1	331	**		
1999	132.9	117.3	149.9	305	135.1	-2%	
2000	152.5	136.2	170.1	359	132.9	15%	+
2001	136.5	121.5	152.8	340	132.3	3%	
2002	128.2	113.8	143.8	325	129.3	-1%	
2003	141.5	126.5	157.7	369	122.5	16%	+
2004	124.1	110.5	138.9	340	121.1	2%	
2005	133.9	119.7	149.2	368	120.8	11%	
2006	132.2	118.2	147.3	371	121.0	9%	
2007	131.5	117.9	146.1	388	122.6	7%	
2008	132.1	118.7	146.5	400	123.7	7%	
2009	121.6	108.9	135.3	378	124.7	-2%	
2010	126.9	114.2	140.6	414	120.7	5%	
2011	129.5	116.7	143.3	420	123.1	5%	
2012	122.5	110.1	135.7	406	122.7	0%	
2013	120.5	108.6	133.4	415	123.4	-2%	
2014	128.1	115.7	141.4	433	**		

Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

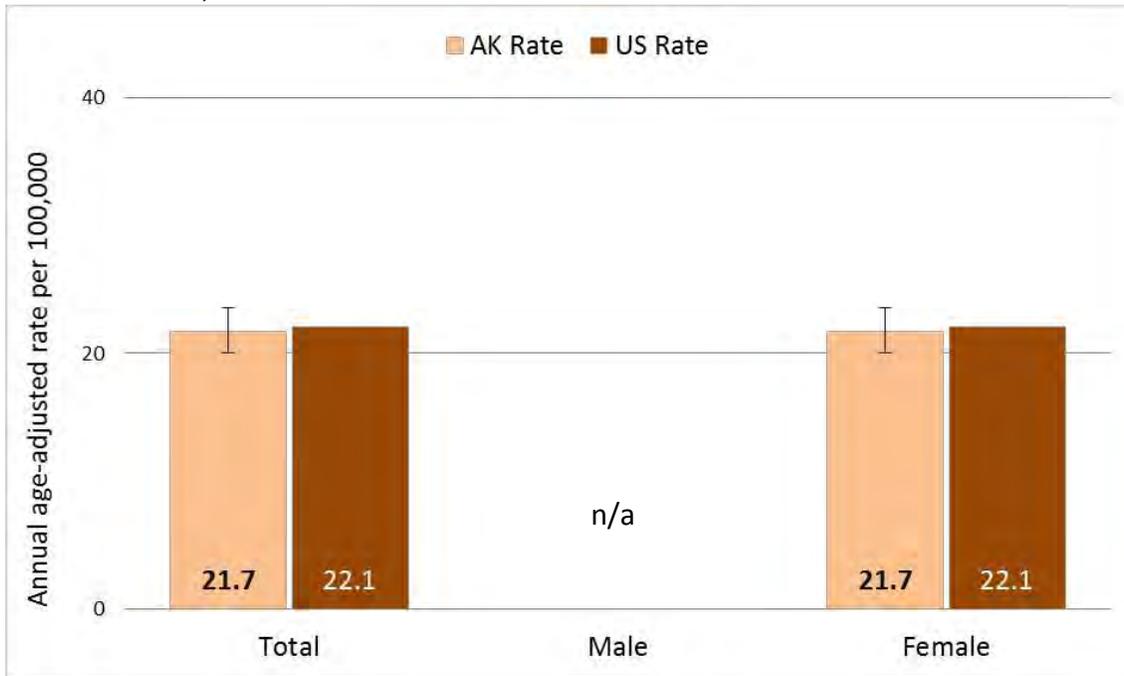
\*\* U.S. data for 1996-1998 are not available; data for 2014 are not yet available.

**Mortality (2005-2014)**

- Alaska’s breast cancer mortality rate during the 10 most recent years was 21.7 per 100,000. This rate is calculated only among women.
- Alaska’s breast cancer mortality rate and trend have been similar to the U.S.
- Breast cancer mortality was lower among Asian/Pacific Islander women than for White women and the state average of Alaska. Alaska Native women had higher breast cancer mortality than American Indian and Alaska Native women in the U.S.
- There were no detectable significant differences in breast cancer mortality within Alaska’s regions.
- There was no significant trend in breast cancer mortality rates in Alaska during 1996-2014.

**Total and by Gender**

**Female breast cancer, mortality rate overall and by sex**  
Alaska and U.S., 2005-2014



**Female breast cancer, mortality rate overall and by sex**  
Alaska and U.S., 2005-2014

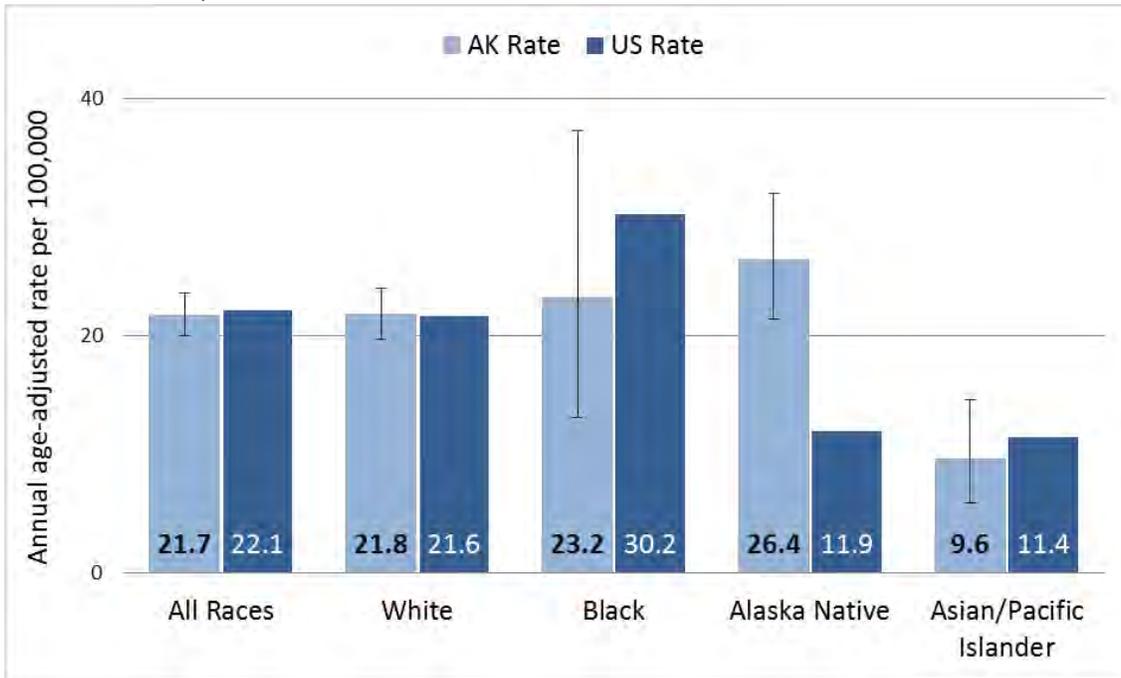
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>21.7</b>	<b>20.0</b>	<b>23.6</b>	<b>615</b>	<b>22.1</b>
Male	n/a			n/a	
Female	21.7	20.0	23.6	615	22.1

Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).  
n/a Statistic not applicable (females only)

**By Race**

**Female breast cancer, mortality rate by race**

Alaska and U.S., 2005-2014



**Female breast cancer, mortality rate by race**

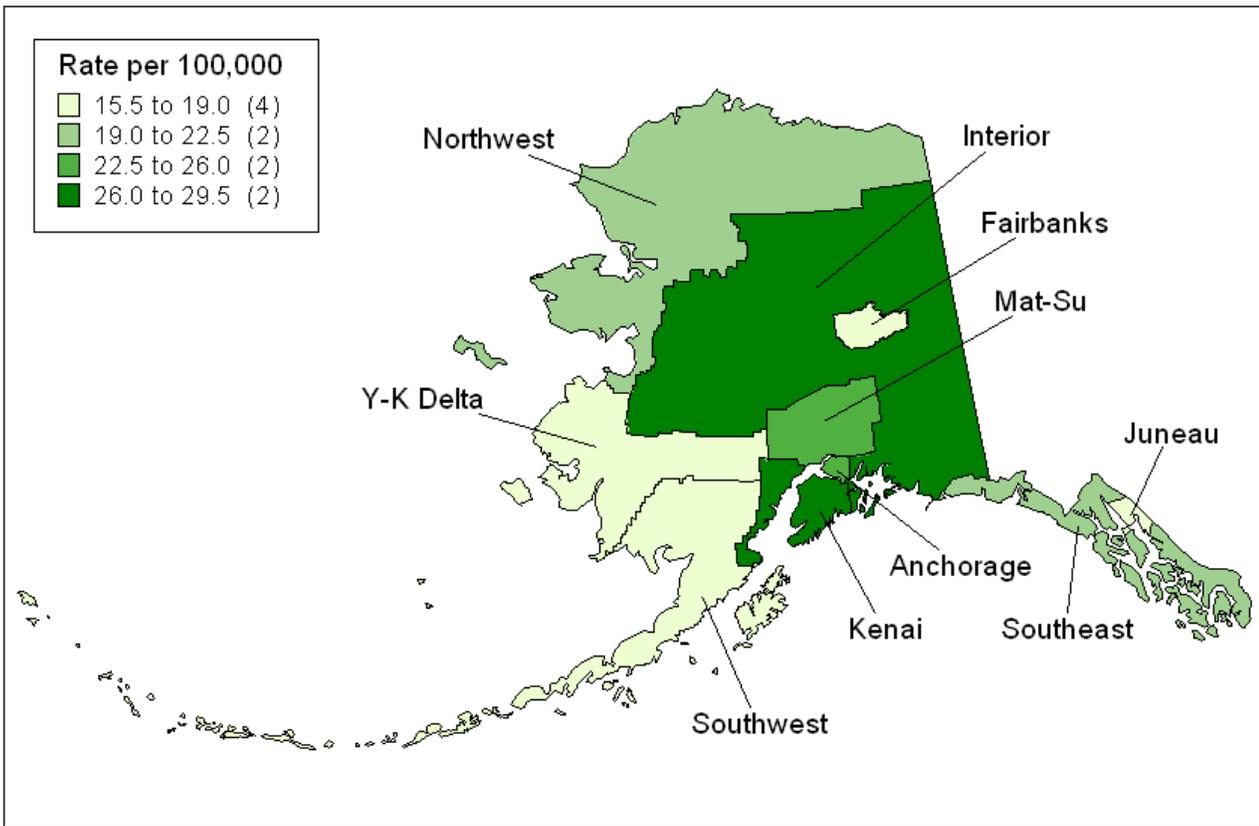
Alaska and U.S., 2005-2014

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>21.7</b>	<b>20.0</b>	<b>23.6</b>	<b>615</b>	<b>22.1</b>
White	21.8	19.7	24.0	460	21.6
Black	23.2	13.1	37.3	18	30.2
American Indian/Alaska Native	26.4	21.4	32.0	109	11.9
Asian/Pacific Islander	9.6	5.9	14.6	23	11.4

Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

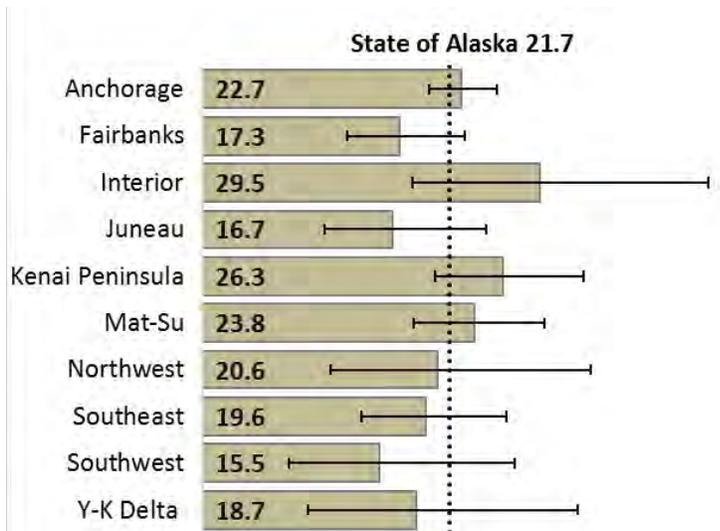
**By Behavioral Health Systems Region**

**Female breast cancer, mortality rate by Behavioral Health Systems Region**  
Alaska residents, 2005-2014



**Female breast cancer, mortality rate by Behavioral Health Systems Region**  
Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>21.7</b>	<b>20.0</b>	<b>23.6</b>	<b>615</b>
Anchorage	22.7	19.9	25.8	269
Fairbanks	17.3	12.7	23.0	53
Interior	29.5	18.4	44.3	26
Juneau	16.7	10.7	24.9	27
Kenai Peninsula	26.3	20.4	33.4	75
Mat-Su	23.8	18.5	30.0	79
Northwest	20.6	11.3	34.0	16
Southeast	19.6	14.0	26.6	44
Southwest	15.5	7.6	27.4	13
Y-K Delta	18.7	9.3	32.9	13



Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Breast Cancer - Mortality

**By Borough/Census Area**

**Female breast cancer, mortality rate by Borough/Census Area**

Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>21.7</b>	<b>20.0</b>	<b>23.6</b>	<b>615</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	22.7	19.9	25.8	269	
Bethel Census Area	20.0	8.5	38.5	10	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	^	^	^	^	
Fairbanks North Star Borough	17.3	12.7	23.0	53	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	16.7	10.7	24.9	27	
Kenai Peninsula Borough	26.3	20.4	33.4	75	
Ketchikan Gateway Borough	18.3	9.7	31.6	14	
Kodiak Island Borough	12.9	4.0	29.4	6	
Kusilvak Census Area	^	^	^	^	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	23.8	18.5	30.0	79	
Nome Census Area	20.1	6.6	44.6	6	
North Slope Borough	^	^	^	^	
Northwest Arctic Borough	26.2	9.3	56.0	6	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	^	^	^	^	
Prince of Wales-Outer Ketchikan Census Area	^	^	^	^	
Sitka Borough	19.2	9.4	35.7	11	
Skagway Municipality	^	^	^	^	
Skagway-Hoonah-Angoon Census Area	^	^	^	^	
Southeast Fairbanks Census Area	34.0	14.7	65.9	9	
Valdez-Cordova Census Area	27.8	11.5	54.5	9	
Wrangell Borough	^	^	^	^	
Wrangell-Petersburg Census Area	36.1	13.0	82.0	6	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	31.2	11.5	66.1	7	

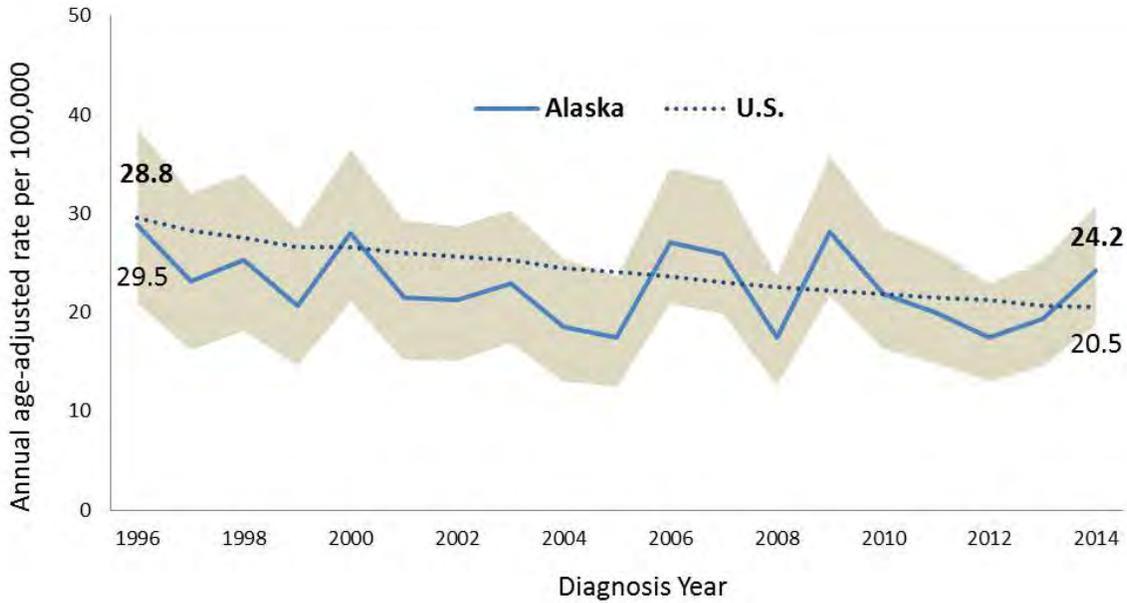
Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

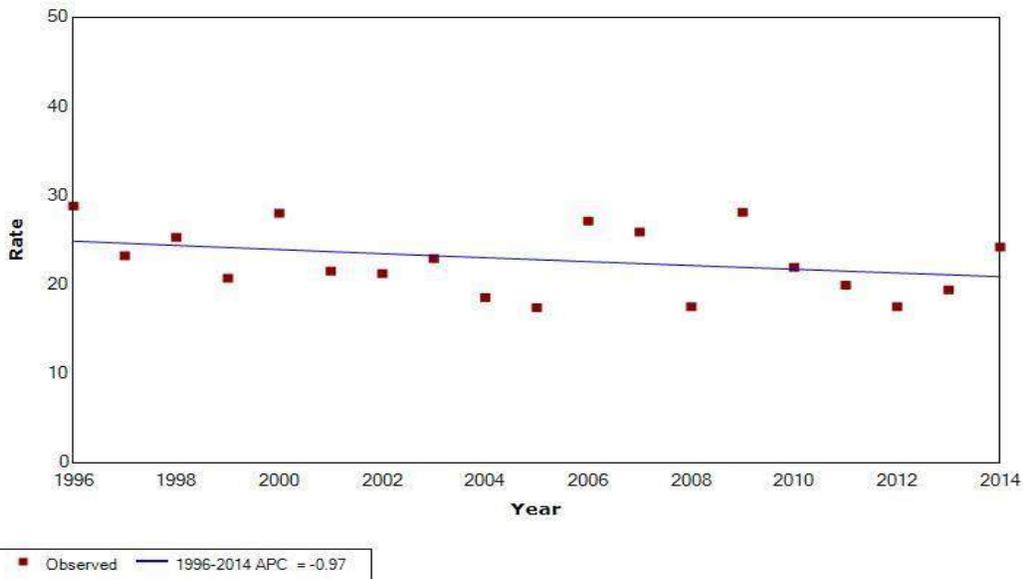
**Female breast cancer, mortality rate  
Alaska and U.S., 1996-2014**



Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about  $\pm 0.1$ . Rates are per 100,000 (women) and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Female breast cancer, mortality rate trend and change in trend,  
Alaska residents, 1996-2014**



Annual percent change is not significantly different from zero; no significant change in trend over time.

Breast Cancer - Mortality

**Female breast cancer, mortality rate**

Alaska and U.S., 1996-2014

Year	Alaska			Count	U.S.		+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate	% difference (AK from U.S. rate)	
1996	28.8	20.9	38.6	53	29.5	-2%	
1997	23.2	16.2	32.1	41	28.2	-18%	
1998	25.3	18.1	34.0	49	27.5	-8%	
1999	20.7	14.6	28.4	43	26.6	-22%	
2000	28.0	21.0	36.5	61	26.6	5%	
2001	21.5	15.2	29.3	45	26.0	-17%	
2002	21.2	15.1	28.7	47	25.6	-17%	
2003	22.9	16.9	30.3	54	25.3	-9%	
2004	18.5	13.0	25.4	43	24.5	-24%	
2005	17.4	12.5	23.6	46	24.1	-28%	–
2006	27.1	20.9	34.6	73	23.6	15%	
2007	25.9	19.8	33.3	68	23.0	13%	
2008	17.5	12.6	23.7	47	22.6	-23%	
2009	28.1	21.7	35.8	72	22.2	27%	
2010	21.9	16.3	28.6	59	21.9	0%	
2011	19.9	14.8	26.2	57	21.5	-7%	
2012	17.5	13.0	22.9	58	21.3	-18%	
2013	19.4	14.6	25.3	61	20.7	-6%	
2014	24.2	18.8	30.8	74	20.5	18%	

Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

## Cervical Cancer

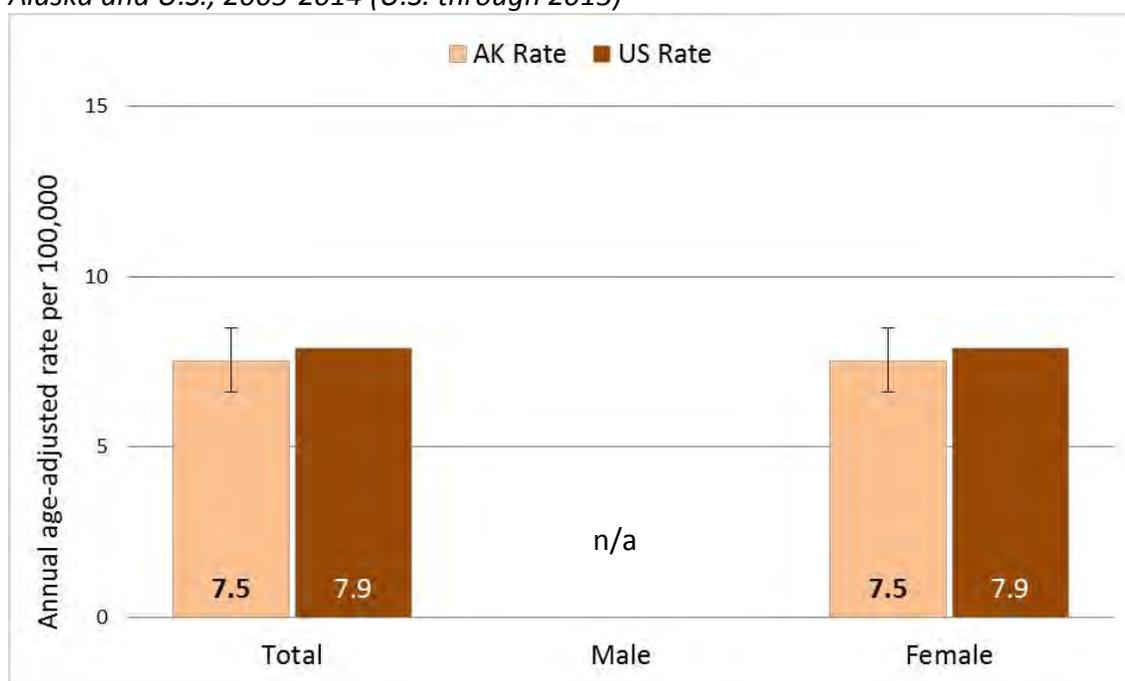
### Incidence (2005-2014)

- Alaska’s cervical cancer incidence rate during the most recent 10 years was 7.5 per 100,000 women.
- Alaska’s incidence rate and trend have been similar to the U.S. rate and trend.
- Alaska Native women had a higher rate of cervical cancer incidence than White women in Alaska and American Indian and Alaska Native women in the U.S. There were not significant differences between Asian/Pacific Islander and White women in Alaska. Rates for Black women were not available.
- There were no detectable differences in cervical cancer incidence among women by Alaska’s regions.
- From 1996 to 2014, Alaska’s cervical cancer incidence rates decreased by an average of 2.4% per year.

### Total and by Gender

#### Cervical cancer, incidence rate overall and by sex

Alaska and U.S., 2005-2014 (U.S. through 2013)



#### Cervical cancer, incidence rate overall and by sex

Alaska and U.S., 2005-2014 (U.S. through 2013)

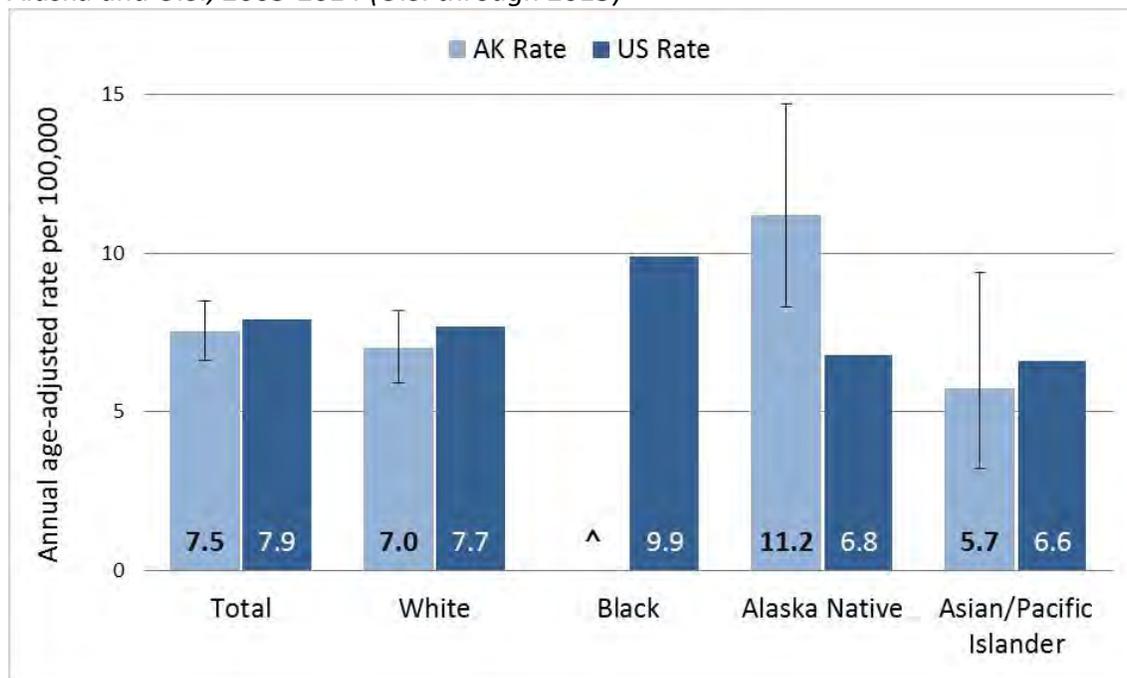
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>7.5</b>	<b>6.6</b>	<b>8.5</b>	<b>246</b>	<b>7.9</b>
Male	n/a			n/a	
Female	7.5	6.6	8.5	246	7.9

Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).  
 n/a Statistic not applicable (cervical cancer is only possible among females)

### By Race

#### Cervical cancer, incidence rate by race

Alaska and U.S., 2005-2014 (U.S. through 2013)



#### Cervical cancer, incidence rate by race

Alaska and U.S., 2005-2014 (U.S. through 2013)

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>7.5</b>	<b>6.6</b>	<b>8.5</b>	<b>246</b>	<b>7.9</b>
White	7.0	5.9	8.2	168	7.7
Black	^	^	^	^	9.9
American Indian/Alaska Native	11.2	8.3	14.7	56	6.8
Asian/Pacific Islander	5.7	3.2	9.4	16	6.6

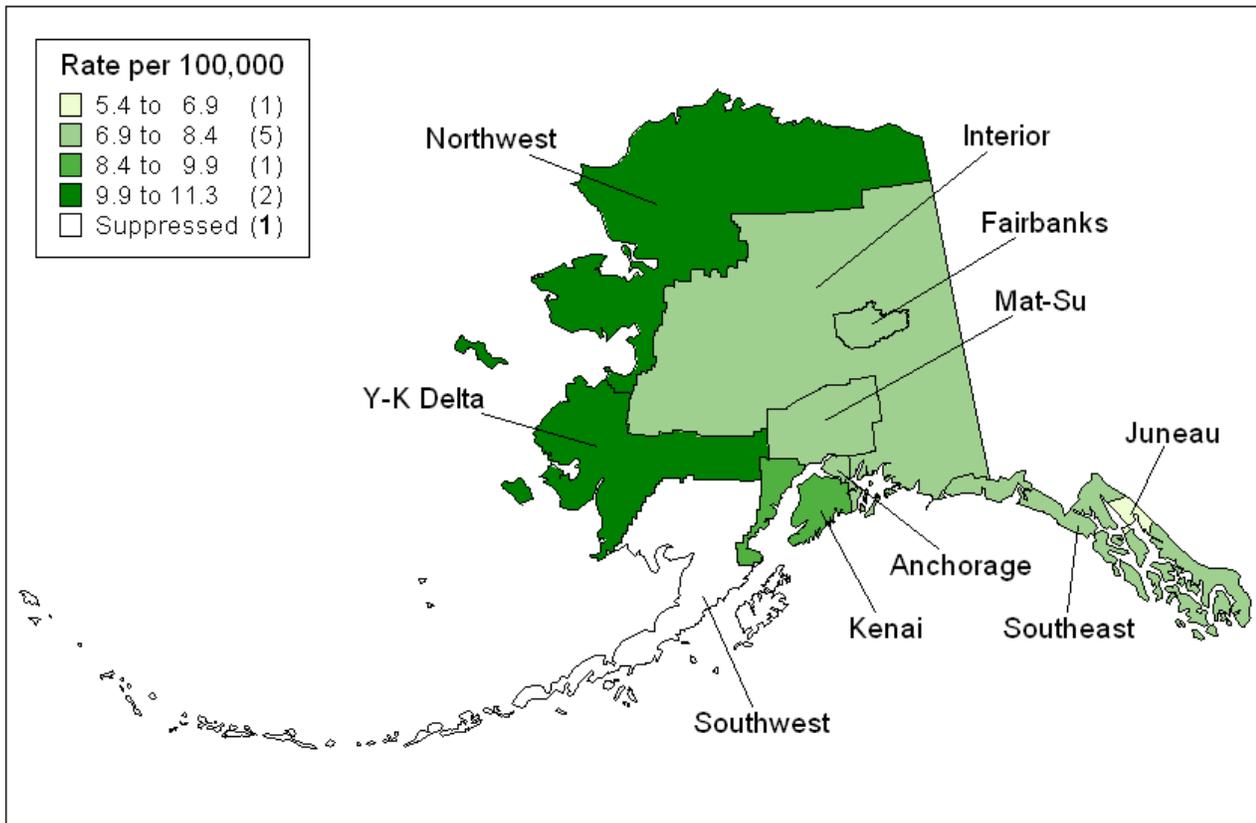
Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

**By Behavioral Health Systems Region**

**Cervical cancer, incidence rate by Behavioral Health Systems Region**

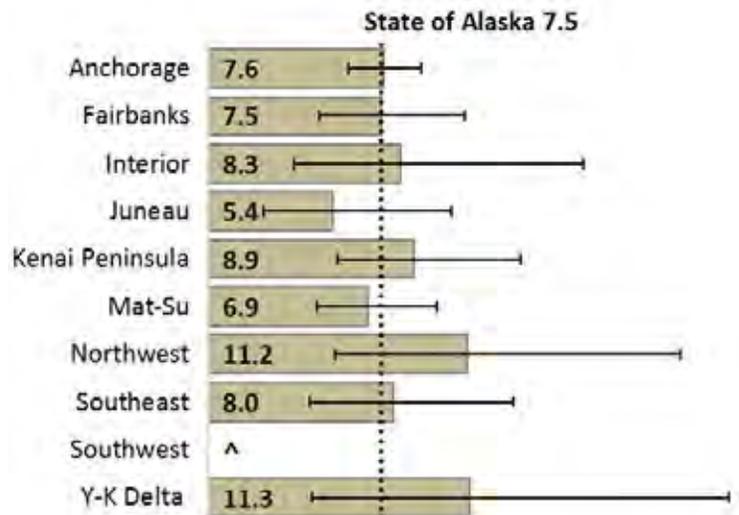
Alaska residents, 2005-2014



**Cervical cancer, incidence rate by Behavioral Health Systems Region**

Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>7.5</b>	<b>6.6</b>	<b>8.5</b>	<b>246</b>
Anchorage	7.6	6.1	9.2	104
Fairbanks	7.5	4.8	11.1	27
Interior	8.3	3.7	16.2	9
Juneau	5.4	2.4	10.5	9
Kenai Peninsula	8.9	5.6	13.5	24
Mat-Su	6.9	4.7	9.9	32
Northwest	11.2	5.5	20.4	12
Southeast	8.0	4.4	13.2	16
Southwest	^	^	^	^
Y-K Delta	11.3	4.5	22.5	9



Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

**By Borough/Census Area****Cervical cancer, incidence rate by Alaska Borough/Census Area**

Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>7.4</b>	<b>6.5</b>	<b>8.4</b>	<b>241</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	7.6	6.1	9.2	104	
Bethel Census Area	^	^	^	^	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	^	^	^	^	
Fairbanks North Star Borough	7.5	4.8	11.1	27	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	5.4	2.4	10.5	9	
Kenai Peninsula Borough	8.9	5.6	13.5	24	
Ketchikan Gateway Borough	10.8	4.4	22.2	8	
Kodiak Island Borough	^	^	^	^	
Kusilvak Census Area	^	^	^	^	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	6.9	4.7	9.9	32	
Nome Census Area	^	^	^	^	
North Slope Borough	13.9	5.1	34.9	6	
Northwest Arctic Borough	^	^	^	^	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	^	^	^	^	
Sitka Borough	^	^	^	^	
Skagway Municipality	^	^	^	^	
Southeast Fairbanks Census Area	^	^	^	^	
Valdez-Cordova Census Area	^	^	^	^	
Wrangell Borough	^	^	^	^	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	^	^	^	^	

Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

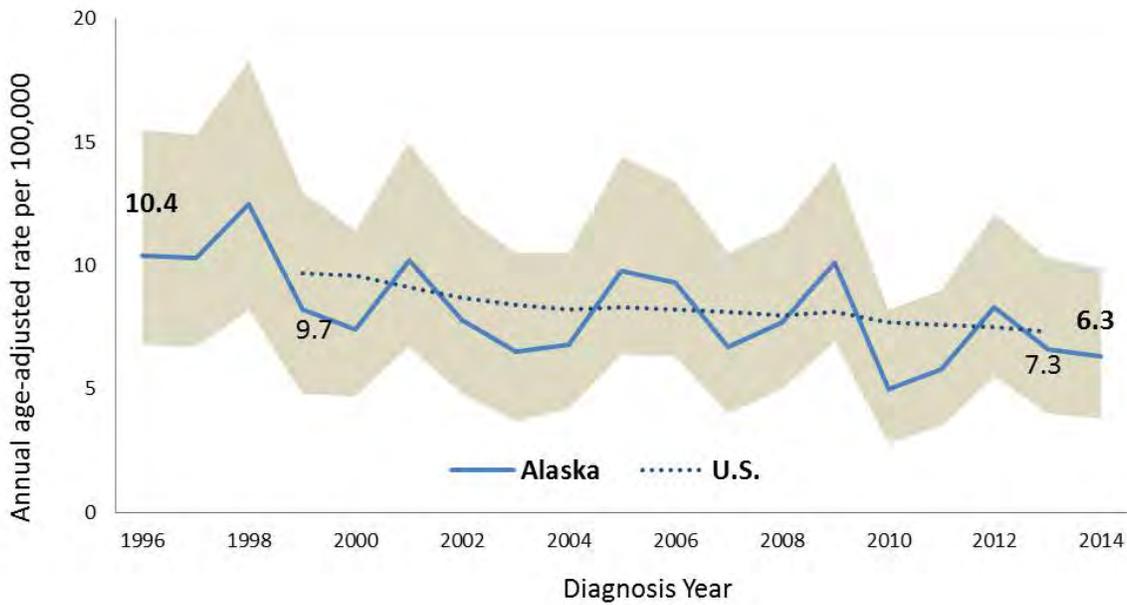
^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

**Cervical cancer, incidence rate**

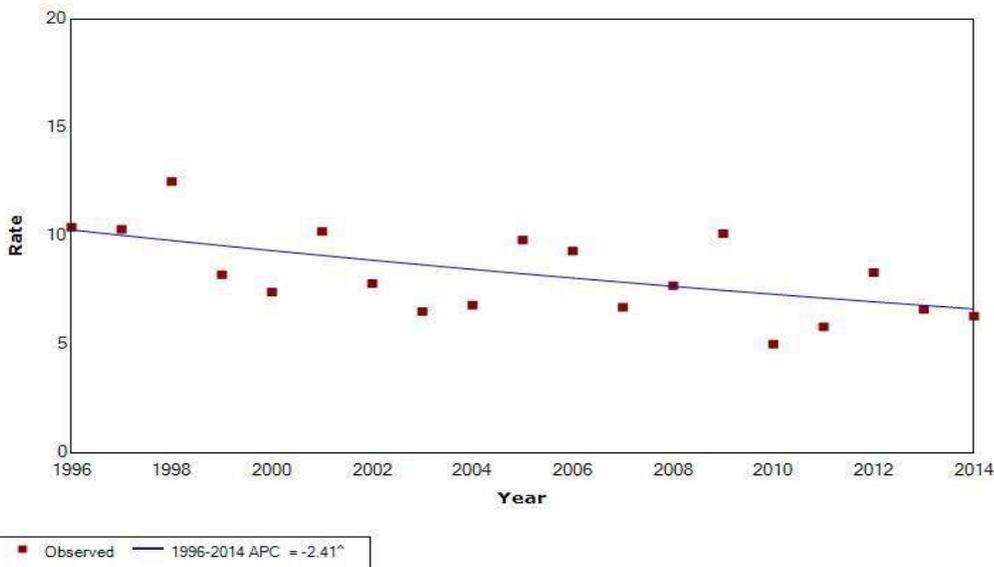
Alaska and U.S., 1996-2014 (U.S. through 2013)



Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1. Rates are per 100,000 (women) and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Cervical cancer, incidence rate trend and change in trend**

Alaska residents, 1996-2014



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

**Cervical cancer, incidence rate**

Alaska and U.S., 1996-2014 (U.S. through 2013)

Year	Alaska			Count	U.S.	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate		
1996	10.4	6.8	15.5	28	**		
1997	10.3	6.7	15.3	28	**		
1998	12.5	8.2	18.3	32	**		
1999	8.2	4.8	13.0	21	9.7	-15%	
2000	7.4	4.7	11.4	23	9.6	-23%	
2001	10.2	6.7	15.0	29	9.1	12%	
2002	7.8	4.8	12.1	23	8.7	-10%	
2003	6.5	3.7	10.5	18	8.4	-23%	
2004	6.8	4.2	10.5	21	8.2	-17%	
2005	9.8	6.4	14.4	28	8.3	18%	
2006	9.3	6.3	13.4	32	8.2	13%	
2007	6.7	4.0	10.5	20	8.1	-17%	
2008	7.7	5.0	11.5	26	8.0	-4%	
2009	10.1	6.9	14.2	34	8.1	25%	
2010	5.0	2.8	8.2	16	7.7	-35%	
2011	5.8	3.5	9.0	21	7.6	-24%	
2012	8.3	5.5	12.1	29	7.5	11%	
2013	6.6	4.0	10.3	20	7.3	-10%	
2014	6.3	3.8	9.9	20	**		

Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm 0.5\%$  outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

\*\* U.S. data for 1996-1998 are not available; data for 2014 are not yet available.

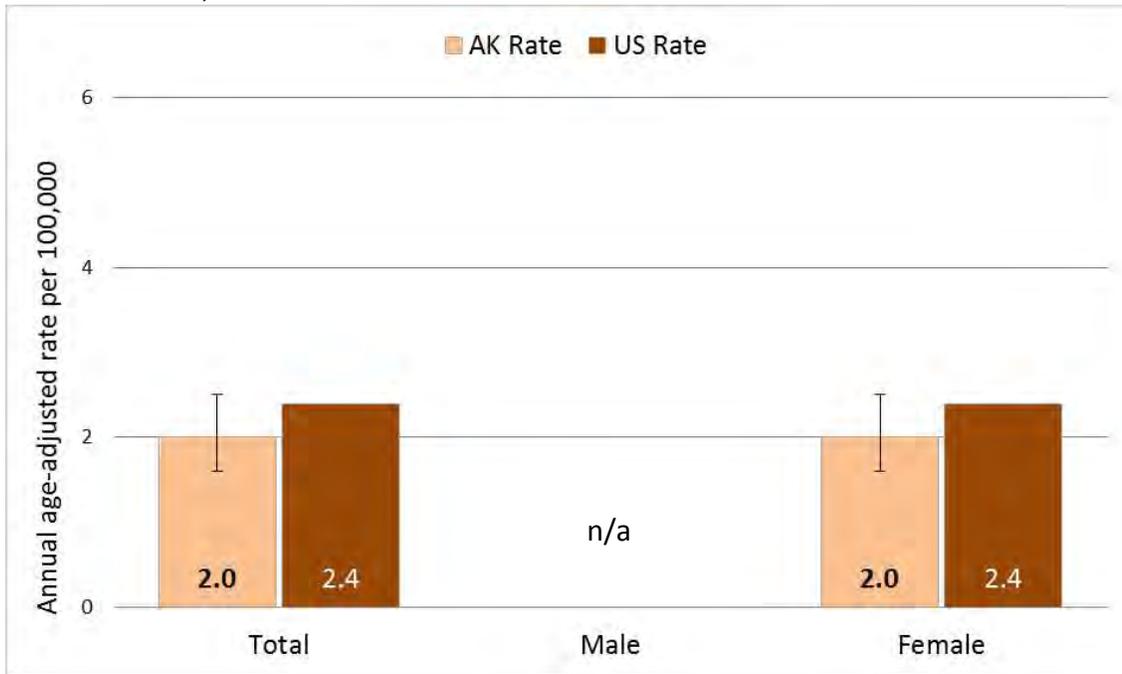
**Mortality (2000-2014)**

- Alaska’s cervical cancer mortality rate during the most recent 15 years was 2.0 per 100,000 women.
- Alaska’s cervical cancer mortality rate and trend have been similar to the U.S. rate and trend.
- There were no significant differences in cervical cancer mortality rate among Alaska women by race, though rates for Blacks and Asians/Pacific Islanders were not available.
- Due to the relative rarity of cervical cancer deaths, many regions did not have sufficient data to report. Cervical cancer mortality was higher among women in the Y-K Delta region than the state rate. There were no other significant differences by Alaska geographic areas.
- From 1996 to 2014, Alaska’s rate did not change significantly.

**Total and by Gender**

**Cervical cancer, mortality rate overall and by sex**

Alaska and U.S., 2000-2014



**Cervical cancer, mortality rate overall and by sex**

Alaska and U.S., 2000-2014

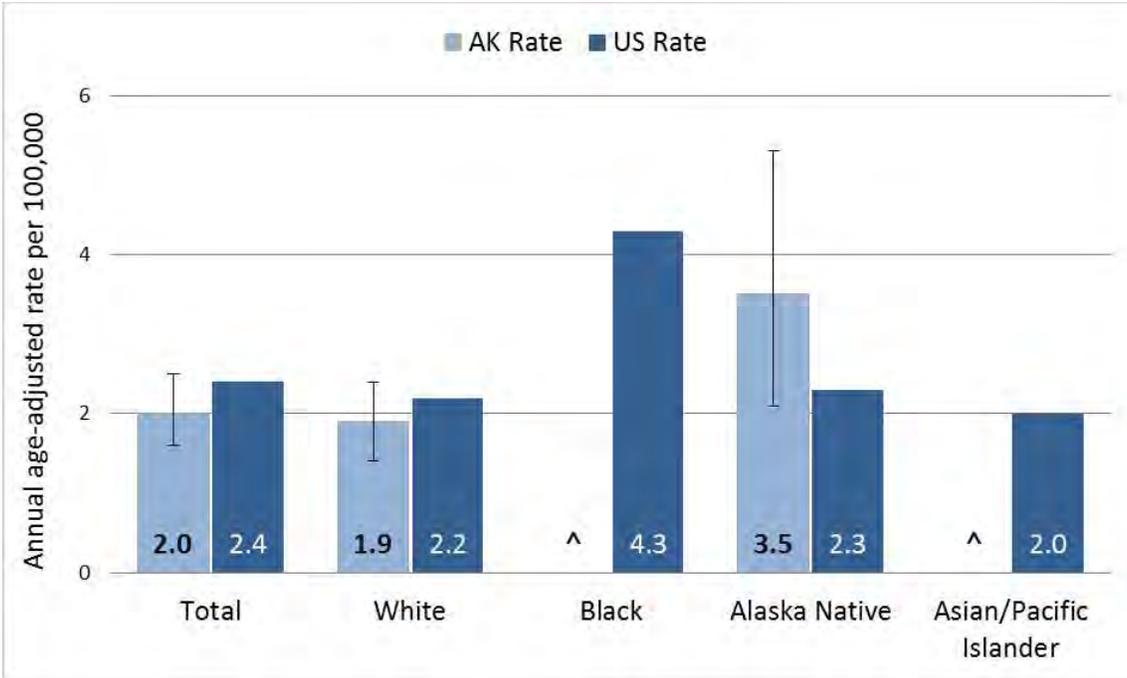
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>2.0</b>	<b>1.6</b>	<b>2.5</b>	<b>91</b>	<b>2.4</b>
Male	n/a			n/a	
Female	2.0	1.6	2.5	91	2.4

Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).  
 n/a Statistic not applicable (cervical cancer is only possible among females)

**By Race**

**Cervical cancer, mortality rate by race**

Alaska and U.S., 2000-2014



**Cervical cancer, mortality rate by race**

Alaska and U.S., 2000-2014

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>2.0</b>	<b>1.6</b>	<b>2.5</b>	<b>91</b>	<b>2.4</b>
White	1.9	1.4	2.4	63	2.2
Black	^	^	^	^	4.3
American Indian/Alaska Native	3.5	2.1	5.3	22	2.3
Asian/Pacific Islander	^	^	^	^	2.0

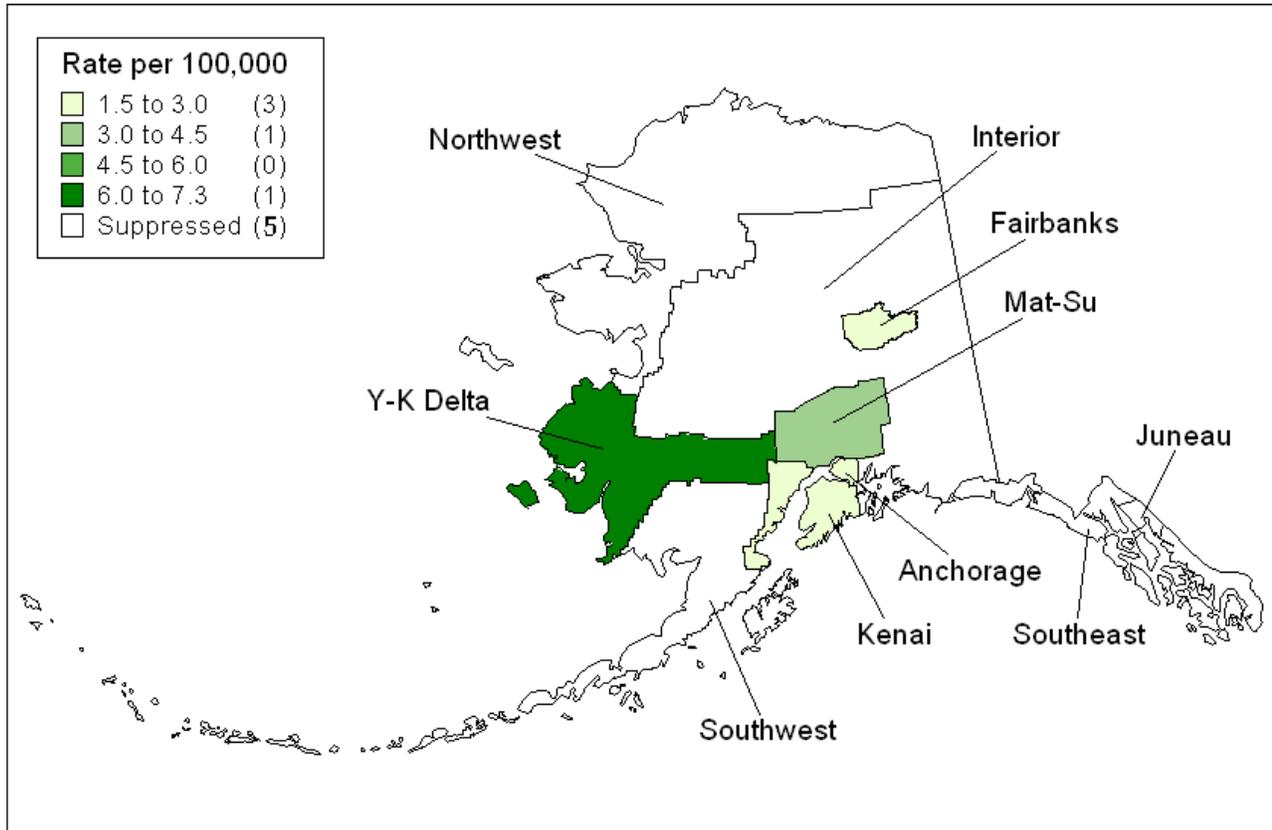
Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

**By Behavioral Health Systems Region**

**Cervical cancer, mortality rate by Behavioral Health Systems Region**

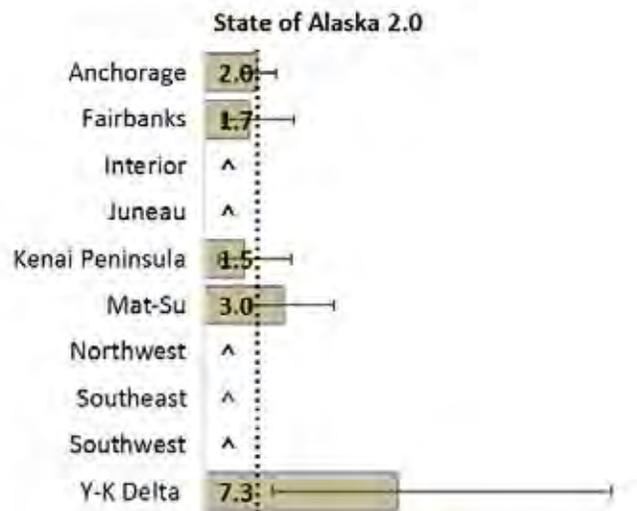
Alaska residents, 2000-2014



**Cervical cancer, mortality rate by Behavioral Health Systems Region**

Alaska residents, 2000-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>2.0</b>	<b>1.6</b>	<b>2.5</b>	<b>91</b>
Anchorage	2.0	1.4	2.7	37
Fairbanks	1.7	0.7	3.4	8
Interior	^	^	^	^
Juneau	^	^	^	^
Kenai Peninsula	1.5	0.6	3.3	7
Mat-Su	3.0	1.7	4.9	17
Northwest	^	^	^	^
Southeast	^	^	^	^
Southwest	^	^	^	^
Y-K Delta	7.3	2.6	15.4	7



Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

Cervical Cancer – Mortality

**By Borough/Census Area**

**Cervical cancer, mortality rate by Borough/Census Area**

Alaska residents, 2000-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>2.0</b>	<b>1.6</b>	<b>2.5</b>	<b>91</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	2.0	1.4	2.7	37	
Bethel Census Area	^	^	^	^	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	^	^	^	^	
Fairbanks North Star Borough	1.7	0.7	3.4	8	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	^	^	^	^	
Kenai Peninsula Borough	1.5	0.6	3.3	7	
Ketchikan Gateway Borough	^	^	^	^	
Kodiak Island Borough	^	^	^	^	
Kusilvak Census Area	^	^	^	^	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	3.0	1.7	4.9	17	
Nome Census Area	^	^	^	^	
North Slope Borough	^	^	^	^	
Northwest Arctic Borough	^	^	^	^	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	^	^	^	^	
Prince of Wales-Outer Ketchikan Census Area	^	^	^	^	
Sitka Borough	^	^	^	^	
Skagway Municipality	^	^	^	^	
Skagway-Hoonah-Angoon Census Area	^	^	^	^	
Southeast Fairbanks Census Area	^	^	^	^	
Valdez-Cordova Census Area	^	^	^	^	
Wrangell Borough	^	^	^	^	
Wrangell-Petersburg Census Area	^	^	^	^	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	^	^	^	^	

Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

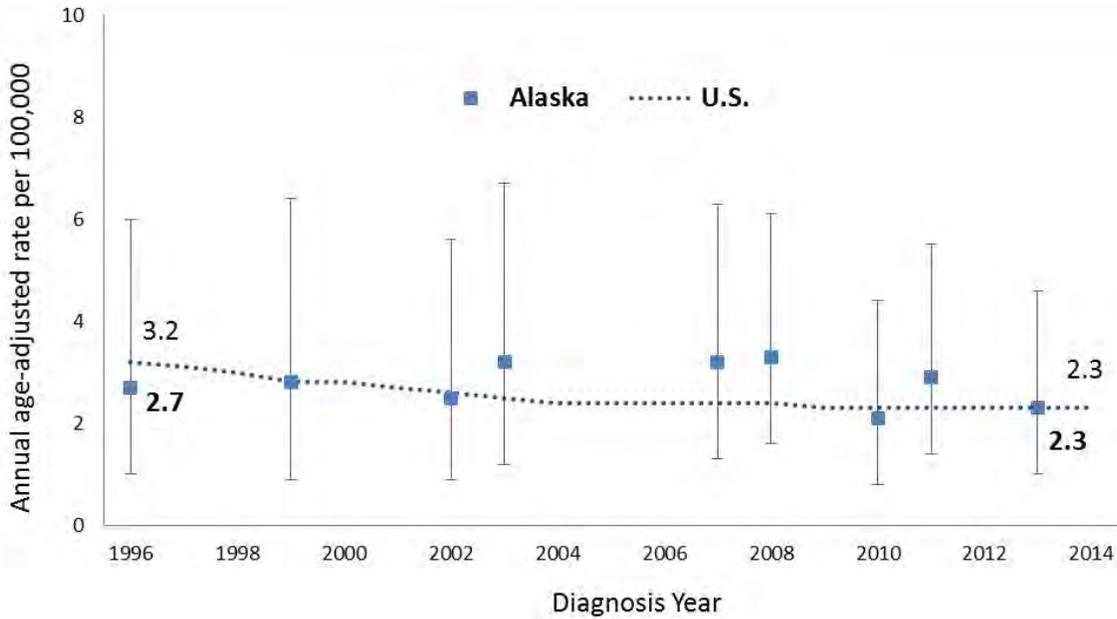
^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

**Cervical cancer mortality trend**

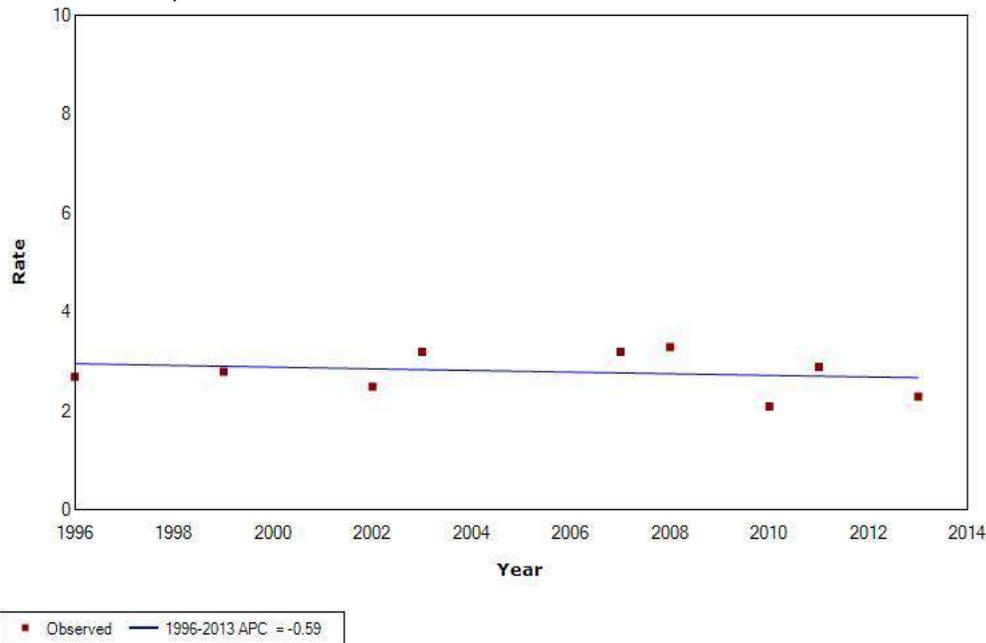
Alaska and U.S., 1996-2014



Bars show 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about  $\pm 0.1$ . Rates are suppressed for years with fewer than 6 cases. Rates are per 100,000 (women) and age-adjusted to the 2000 U.S. Population. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Cervical cancer mortality trend and change in trend**

Alaska residents, 1996-2014



Annual percent change (APC) is not significantly different from zero; no significant change in trend over time.

*Cervical Cancer – Mortality*

***Cervical cancer, mortality rate***

*Alaska and U.S., 1996-2014*

Year	Alaska			Count	U.S.	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate		
1996	2.7	1.0	6.0	6	3.2	-16%	
1997	^	^	^	^	3.1		
1998	^	^	^	^	3.0		
1999	2.8	0.9	6.4	6	2.8	0%	
2000	^	^	^	^	2.8		
2001	^	^	^	^	2.7		
2002	2.5	0.9	5.6	6	2.6	-4%	
2003	3.2	1.2	6.7	7	2.5	28%	
2004	^	^	^	^	2.4		
2005	^	^	^	^	2.4		
2006	^	^	^	^	2.4		
2007	3.2	1.3	6.3	8	2.4	33%	
2008	3.3	1.6	6.1	11	2.4	38%	
2009	^	^	^	^	2.3		
2010	2.1	0.8	4.4	7	2.3	-9%	
2011	2.9	1.4	5.5	10	2.3	26%	
2012	^	^	^	^	2.3		
2013	2.3	1.0	4.6	9	2.3	0%	
2014	^	^	^	^	2.3		

Rates are per 100,000 women only and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is ± 0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

## Colorectal Cancer

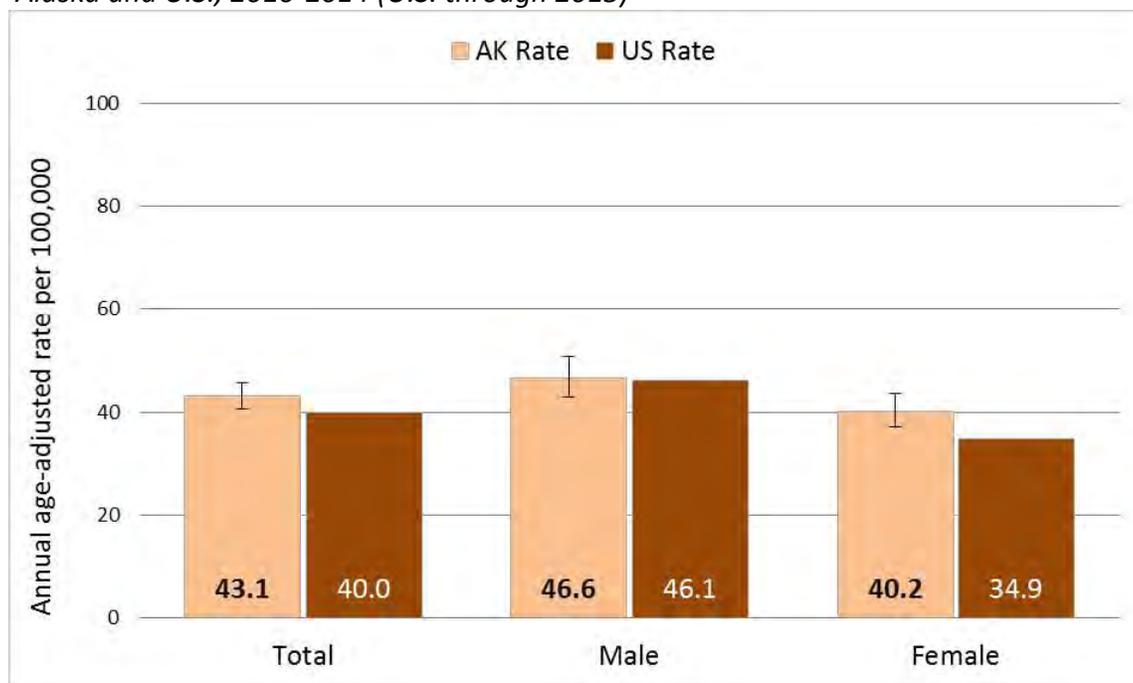
### Incidence (2010-2014)

- Alaska’s colorectal cancer incidence rate during the most recent 5 years was 43.1 per 100,000.
- Alaska’s rate is higher than the U.S.; trends have been similar to the U.S. during most recent years.
- Colorectal cancer incidence rates were not statistically different between men and women in Alaska. The rate among Alaska women was higher than the U.S. women’s rate.
- Alaska Native people had a significantly higher rate of colorectal cancer incidence in comparison to other races in Alaska, and also in comparison to the U.S. rate among American Indian and Alaska Native people.
- Colorectal cancer incidence rates were higher in the Northwest and Y-K Delta regions, as well as in some specific borough and census regions, in comparison to the state rates.
- From 1996-2014, Alaska’s colorectal cancer incidence rates decreased by an average of 2.37% per year.

### Total and by Gender

#### Colorectal cancer, incidence rate overall and by sex

Alaska and U.S., 2010-2014 (U.S. through 2013)



#### Colorectal cancer, incidence rate overall and by sex

Alaska and U.S., 2010-2014 (U.S. through 2013)

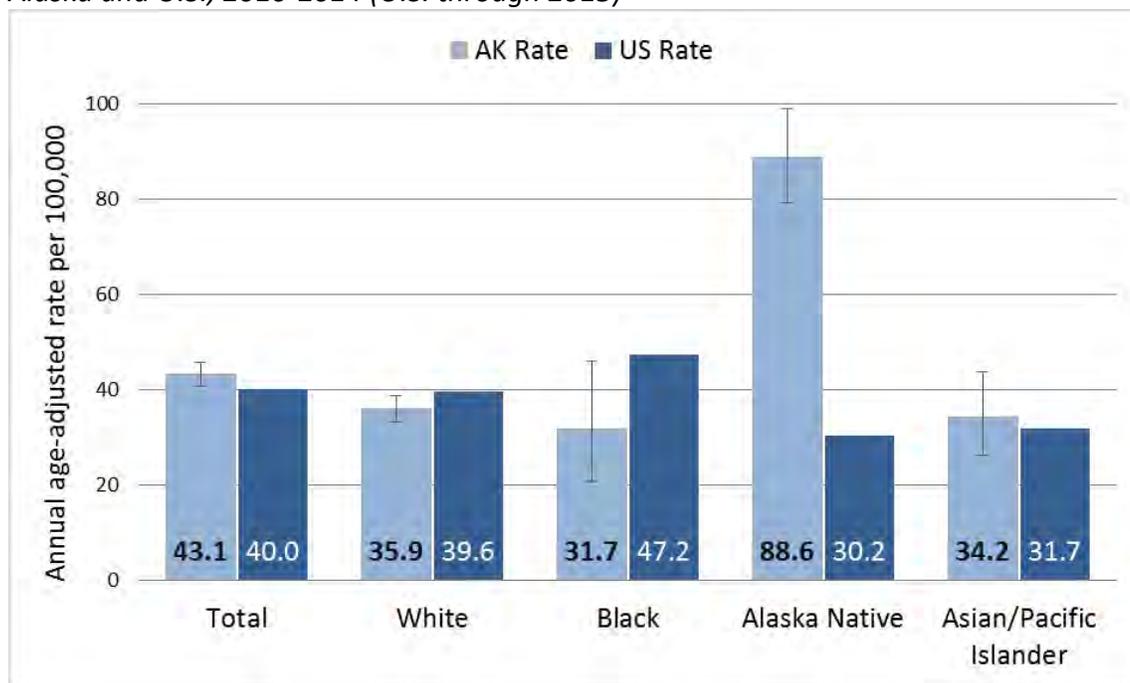
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>43.1</b>	<b>40.6</b>	<b>45.7</b>	<b>1,327</b>	<b>40.0</b>
Male	46.6	42.8	50.7	707	46.1
Female	40.2	37.0	43.7	620	34.9

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Race**

**Colorectal cancer, incidence rate by race**

Alaska and U.S., 2010-2014 (U.S. through 2013)



**Colorectal cancer, incidence rate by race**

Alaska and U.S., 2010-2014 (U.S. through 2013)

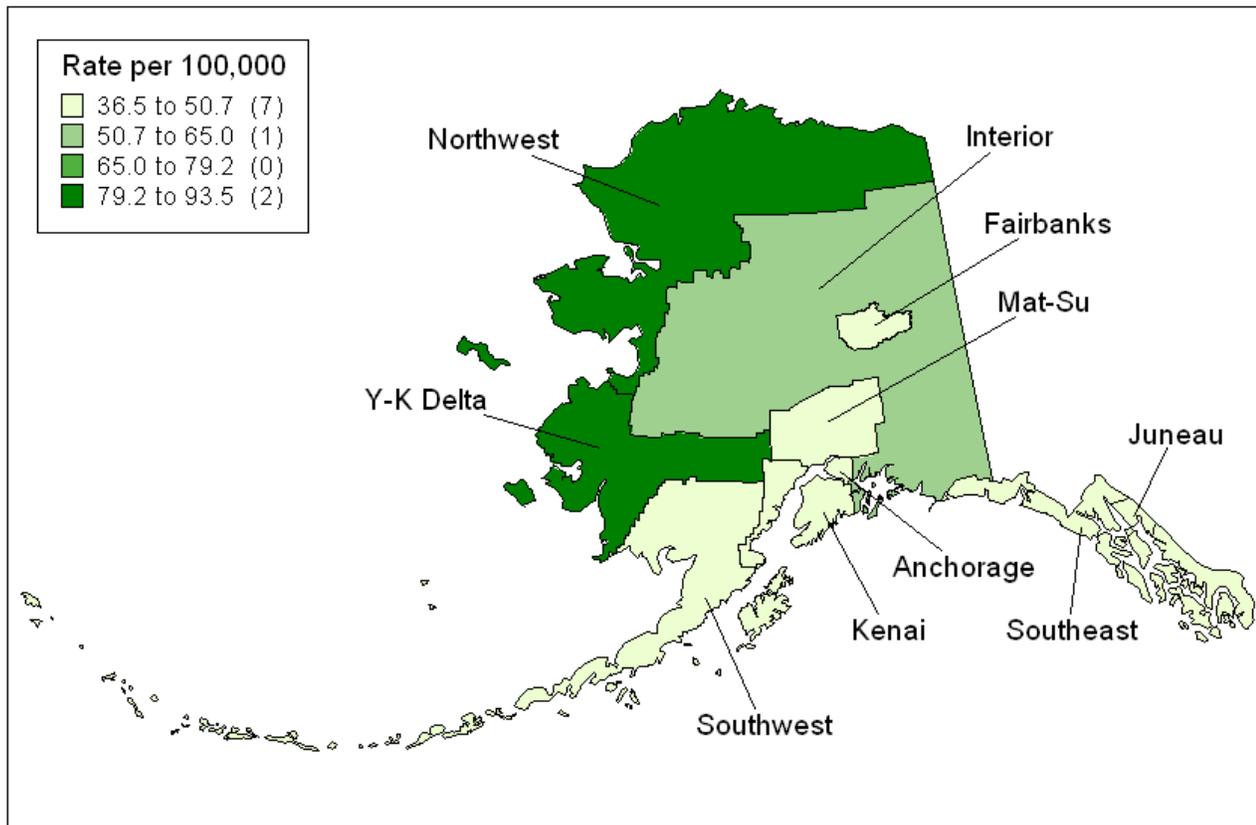
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>43.1</b>	<b>40.6</b>	<b>45.7</b>	<b>1,327</b>	<b>40.0</b>
White	35.9	33.3	38.6	853	39.6
Black	31.7	20.7	46.0	33	47.2
American Indian/Alaska Native	88.6	79.1	98.8	362	30.2
Asian/Pacific Islander	34.2	26.2	43.7	73	31.7

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Behavioral Health Systems Region**

**Colorectal cancer, incidence rate by Behavioral Health Systems Region**

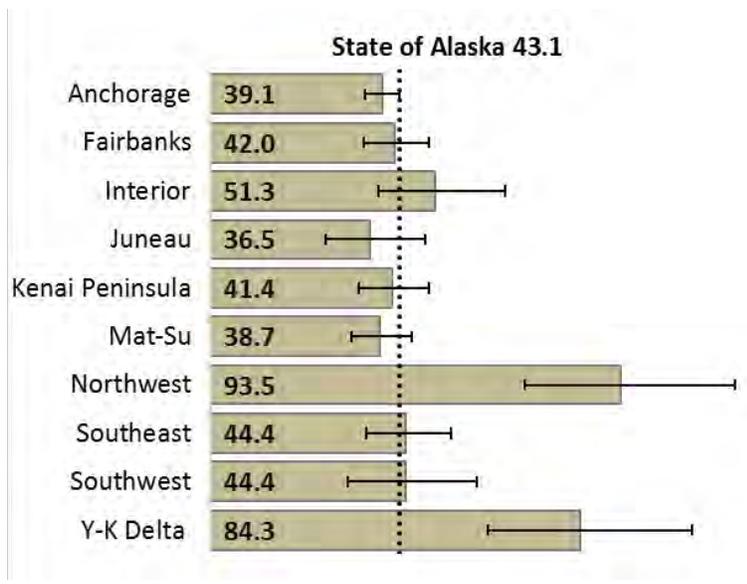
Alaska residents, 2010-2014



**Colorectal cancer, incidence rate by Behavioral Health Systems Region**

Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>43.1</b>	<b>40.6</b>	<b>45.7</b>	<b>1,327</b>
Anchorage	39.1	35.4	43.0	488
Fairbanks	42.0	34.9	49.9	151
Interior	51.3	38.4	67.1	64
Juneau	36.5	26.5	48.9	52
Kenai Peninsula	41.4	34.0	49.9	128
Mat-Su	38.7	32.2	46.0	155
Northwest	93.5	71.5	119.5	77
Southeast	44.4	35.6	54.8	98
Southwest	44.4	31.4	60.6	52
Y-K Delta	84.3	63.2	109.6	62



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Borough/Census Area****Colorectal cancer, incidence rate by Alaska Borough/Census Area**

Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>43.1</b>	<b>40.6</b>	<b>45.7</b>	<b>1,327</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	39.1	35.4	43.0	488	
Bethel Census Area	85.6	60.6	116.6	45	+
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	73.9	39.0	126.0	15	
Fairbanks North Star Borough	42.0	34.9	49.9	151	
Haines Borough	57.9	27.5	113.2	11	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	36.5	26.5	48.9	52	
Kenai Peninsula Borough	41.4	34.0	49.9	128	
Ketchikan Gateway Borough	47.8	32.2	68.3	33	
Kodiak Island Borough	41.6	24.8	65.0	23	
Kusilvak Census Area	82.5	46.3	133.9	17	+
Lake and Peninsula Borough	107.7	33.4	244.9	6	
Matanuska-Susitna Borough	38.7	32.2	46.0	155	
Nome Census Area	76.9	46.8	117.5	24	+
North Slope Borough	116.2	72.6	174.1	32	+
Northwest Arctic Borough	95.9	57.6	147.7	21	+
Petersburg Borough	76.5	37.4	138.2	12	
Prince of Wales-Hyder Census Area	36.9	19.6	65.4	15	
Sitka Borough	26.3	13.3	46.7	12	
Skagway Municipality	^	^	^	^	
Southeast Fairbanks Census Area	32.7	16.7	58.4	13	
Valdez-Cordova Census Area	45.9	26.1	74.4	22	
Wrangell Borough	54.6	24.3	111.3	9	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	89.9	58.1	133.3	27	+

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

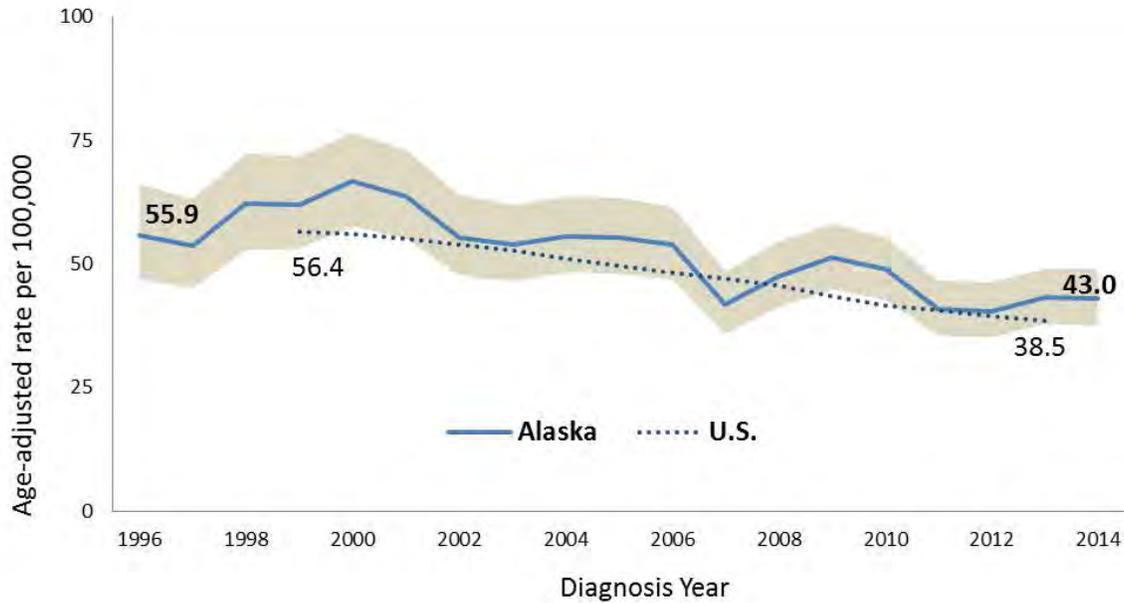
^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

**Colorectal cancer, incidence rate**

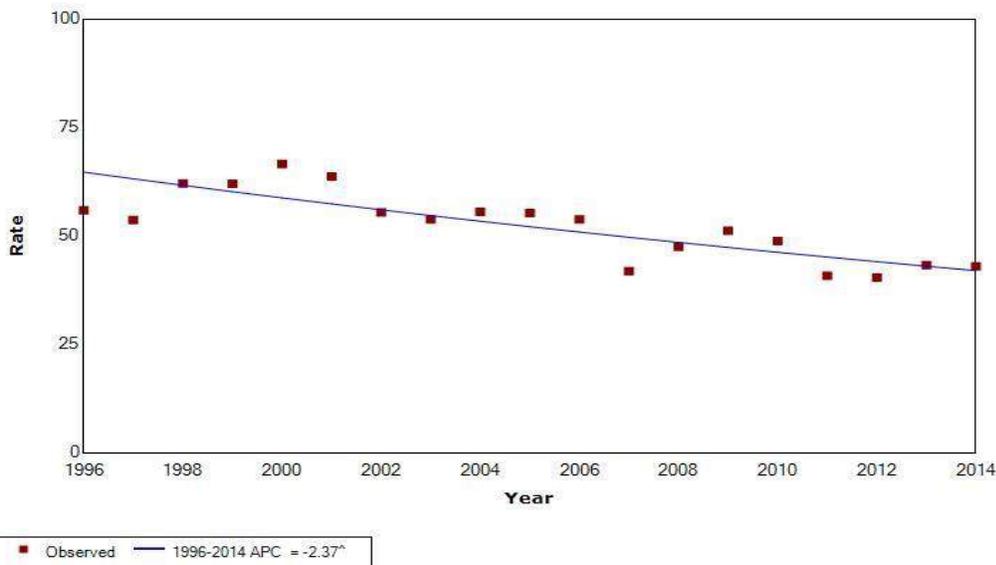
Alaska and U.S., 1996-2014 (U.S. through 2013)



Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1. Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Colorectal cancer, incidence rate trend and change in trend**

Alaska residents, 2010-2014



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

**Colorectal cancer, incidence rate**

Alaska and U.S., 1996-2014 (U.S. through 2013)

Year	Alaska			Count	U.S.		
	Annual rate	Lower CI	Upper CI		Annual rate	% difference (AK from U.S. rate)	
1996	55.9	46.8	66.1	171	**		
1997	53.7	45.2	63.1	179	**		
1998	62.1	52.8	72.3	197	**		
1999	62.0	53.1	71.8	209	56.4	10%	
2000	66.6	57.6	76.5	232	56.0	19%	+
2001	63.7	55.2	73.1	238	55.1	16%	+
2002	55.4	47.7	64.0	215	53.8	3%	
2003	53.8	46.4	61.9	226	52.6	2%	
2004	55.6	48.3	63.6	248	51.0	9%	
2005	55.3	48.0	63.4	241	49.6	11%	
2006	53.8	46.9	61.5	255	48.1	12%	
2007	41.9	35.9	48.5	210	46.9	-11%	
2008	47.5	41.2	54.5	244	45.7	4%	
2009	51.2	44.9	58.1	286	43.5	18%	+
2010	48.8	42.7	55.5	281	41.5	18%	+
2011	40.8	35.5	46.6	259	40.6	0%	
2012	40.4	35.1	46.3	247	39.4	3%	
2013	43.3	37.9	49.1	274	38.5	12%	
2014	43.0	37.5	48.9	266	**		

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

\*\* U.S. data for 1996-1998 are not available; data for 2014 are not yet available.

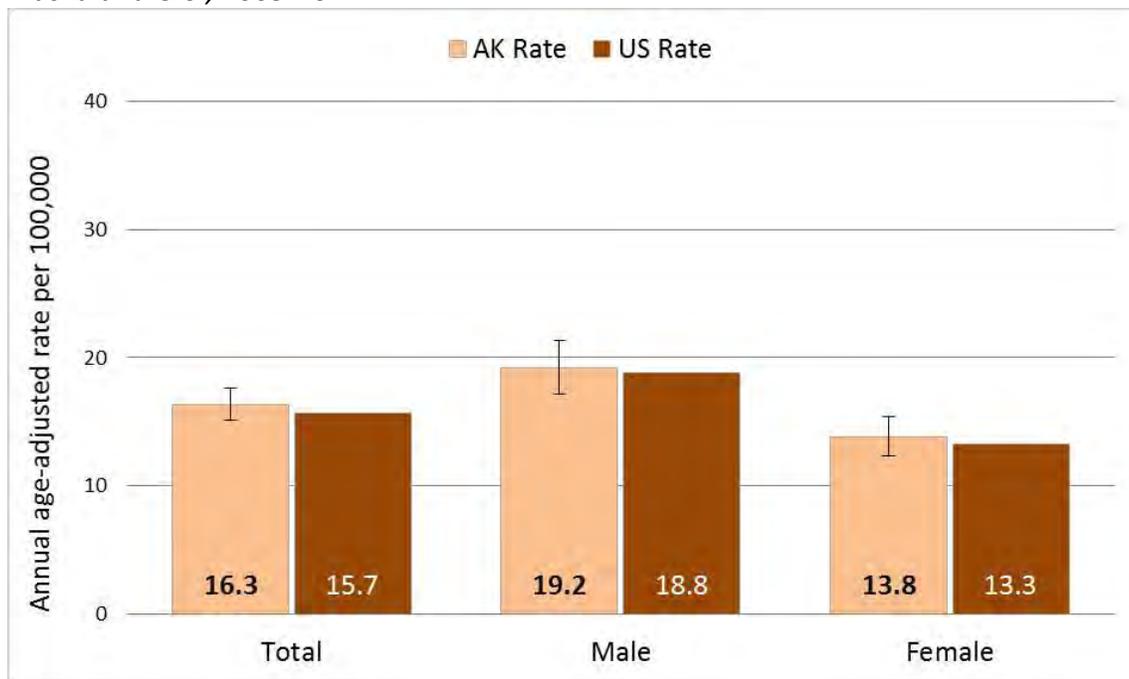
### Mortality (2005-2014)

- Alaska’s colorectal cancer mortality rate during the most recent 10 years was 16.3 per 100,000.
- Alaska’s rate and trend have been similar to the U.S. rate and trend during recent years.
- The rate of colorectal cancer mortality was higher among men than women in Alaska.
- Colorectal cancer mortality rates were higher among Alaska Native people than among other race groups in Alaska; the rate was also higher among Alaska Native people than among American Indian and Alaska Native people in the U.S.
- Colorectal cancer mortality rates were higher in the Northwest and Y-K Delta regions, and some borough/census areas in these regions, than in other areas of Alaska. Rates in the Anchorage region were lower than the state average rate.
- Between 1996 and 2014 the rate of colorectal cancer mortality declined in Alaska, by an average of 1.9% per year.

### Total and by Gender

#### Colorectal cancer, mortality rate overall and by sex

Alaska and U.S., 2005-2014



#### Colorectal cancer, mortality rate overall and by sex

Alaska and U.S., 2005-2014

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>16.3</b>	<b>15.1</b>	<b>17.6</b>	<b>795</b>	<b>15.7</b>
Male	19.2	17.2	21.3	448	18.8
Female	13.8	12.3	15.4	347	13.3

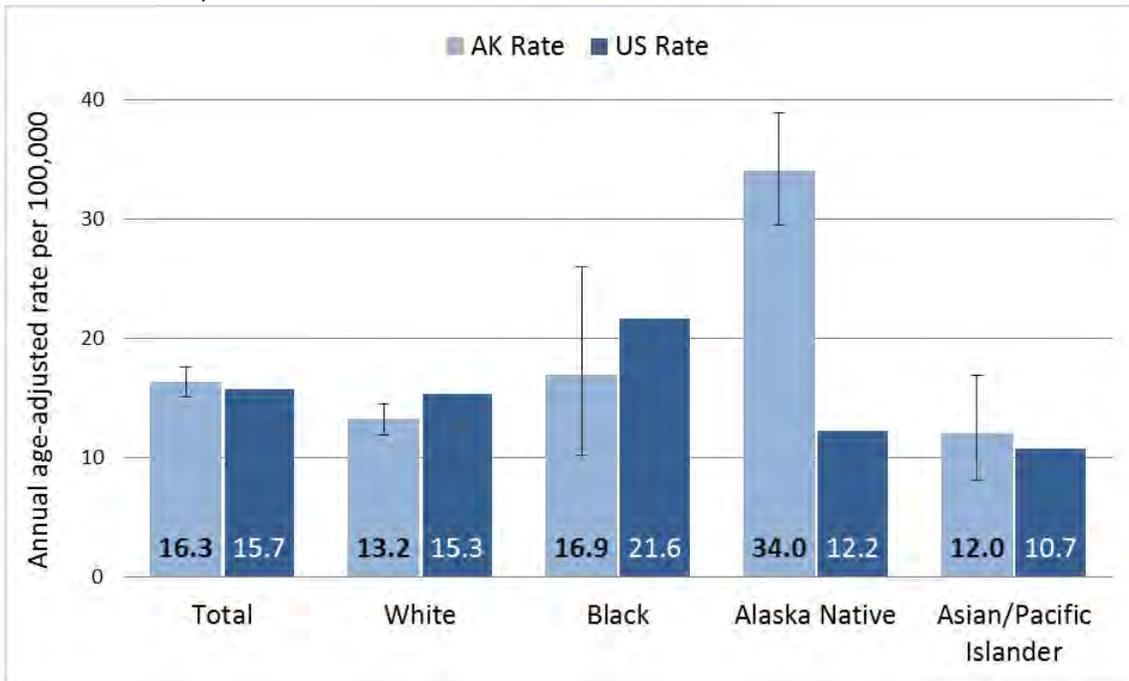
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Colorectal Cancer - Mortality

**By Race**

**Colorectal cancer, mortality rate by race**

Alaska and U.S., 2005-2014



**Colorectal cancer, mortality rate by race**

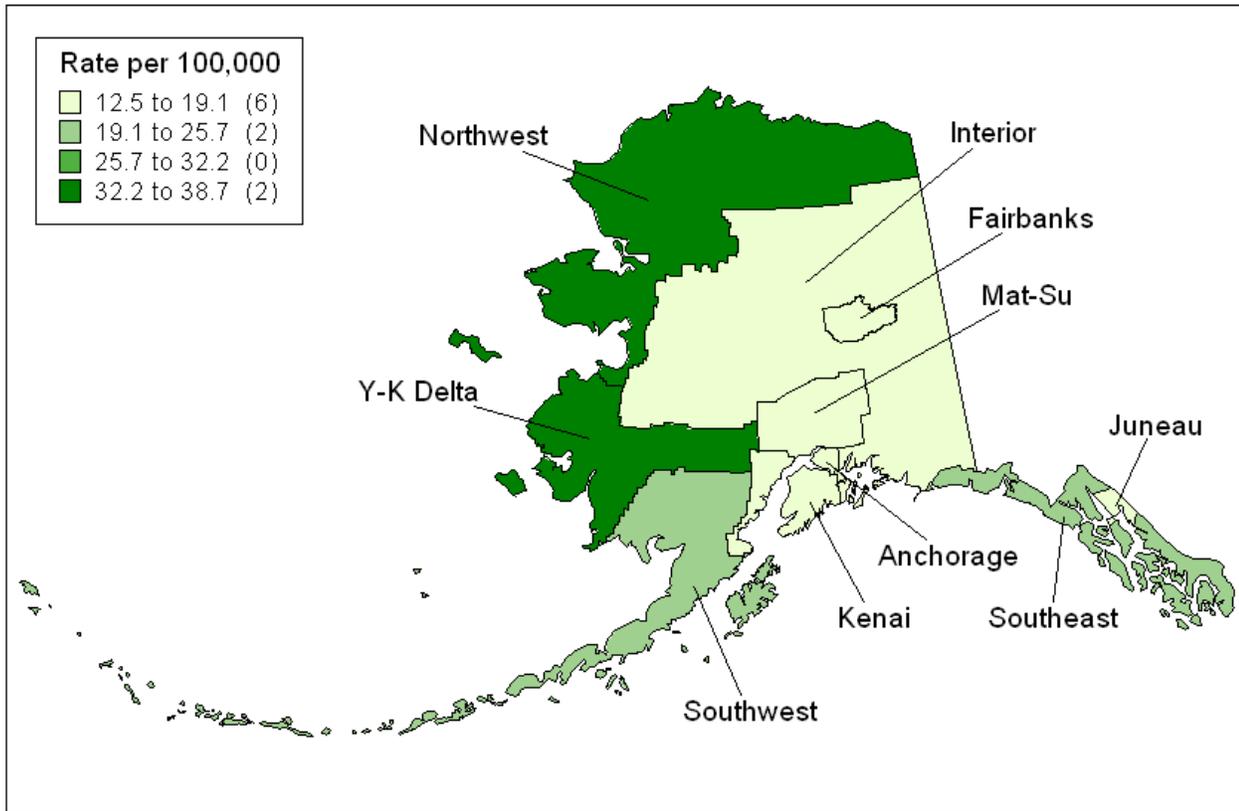
Alaska and U.S., 2005-2014

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>16.3</b>	<b>15.1</b>	<b>17.6</b>	<b>795</b>	<b>15.7</b>
White	13.2	11.9	14.5	486	15.3
Black	16.9	10.2	26.0	24	21.6
American Indian/Alaska Native	34.0	29.5	38.9	238	12.2
Asian/Pacific Islander	12.0	8.1	16.9	38	10.7

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

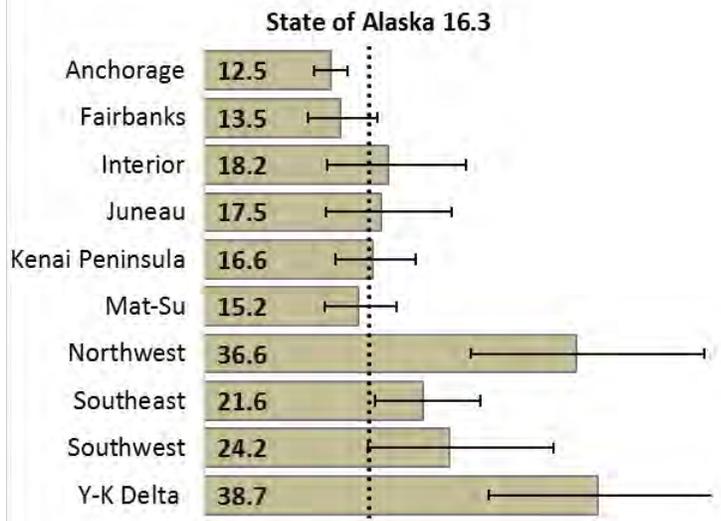
**By Behavioral Health Systems Region**

**Colorectal cancer, mortality rate by Behavioral Health Systems Region**  
Alaska residents, 2005-2014



**Colorectal cancer, mortality rate by Behavioral Health Systems Region**  
Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>16.3</b>	<b>15.1</b>	<b>17.6</b>	<b>795</b>
Anchorage	12.5	10.9	14.2	252
Fairbanks	13.5	10.3	17.1	75
Interior	18.2	12.2	25.8	36
Juneau	17.5	12.0	24.4	38
Kenai Peninsula	16.6	13.0	20.9	83
Mat-Su	15.2	11.9	19.0	89
Northwest	36.6	26.3	49.2	54
Southeast	21.6	16.9	27.2	77
Southwest	24.2	16.2	34.4	38
Y-K Delta	38.7	28.1	51.5	53



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Colorectal Cancer - Mortality

**By Borough/Census Area**

**Colorectal cancer, mortality rate by Borough/Census Area**

Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>43.1</b>	<b>40.6</b>	<b>45.7</b>	<b>1,327</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	39.1	35.4	43.0	488	
Bethel Census Area	85.6	60.6	116.6	45	+
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	73.9	39.0	126.0	15	
Fairbanks North Star Borough	42.0	34.9	49.9	151	
Haines Borough	57.9	27.5	113.2	11	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	36.5	26.5	48.9	52	
Kenai Peninsula Borough	41.4	34.0	49.9	128	
Ketchikan Gateway Borough	47.8	32.2	68.3	33	
Kodiak Island Borough	41.6	24.8	65.0	23	
Kusilvak Census Area	82.5	46.3	133.9	17	+
Lake and Peninsula Borough	107.7	33.4	244.9	6	
Matanuska-Susitna Borough	38.7	32.2	46.0	155	
Nome Census Area	76.9	46.8	117.5	24	+
North Slope Borough	116.2	72.6	174.1	32	+
Northwest Arctic Borough	95.9	57.6	147.7	21	+
Petersburg Borough	76.5	37.4	138.2	12	
Prince of Wales-Hyder Census Area	36.9	19.6	65.4	15	
Sitka Borough	26.3	13.3	46.7	12	
Skagway Municipality	^	^	^	^	
Southeast Fairbanks Census Area	32.7	16.7	58.4	13	
Valdez-Cordova Census Area	45.9	26.1	74.4	22	
Wrangell Borough	54.6	24.3	111.3	9	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	89.9	58.1	133.3	27	+

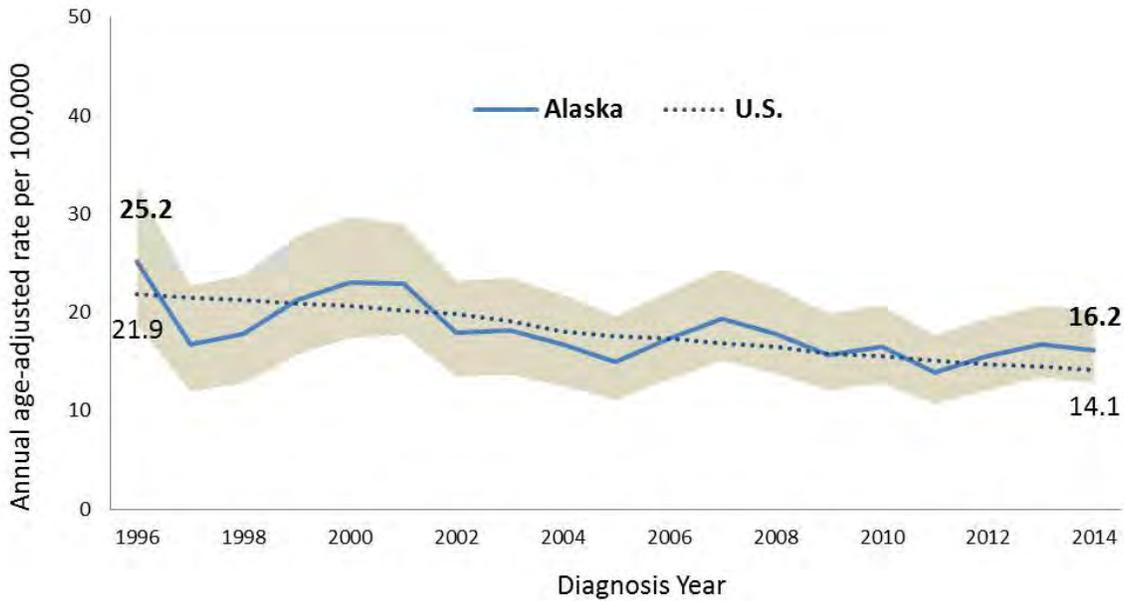
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

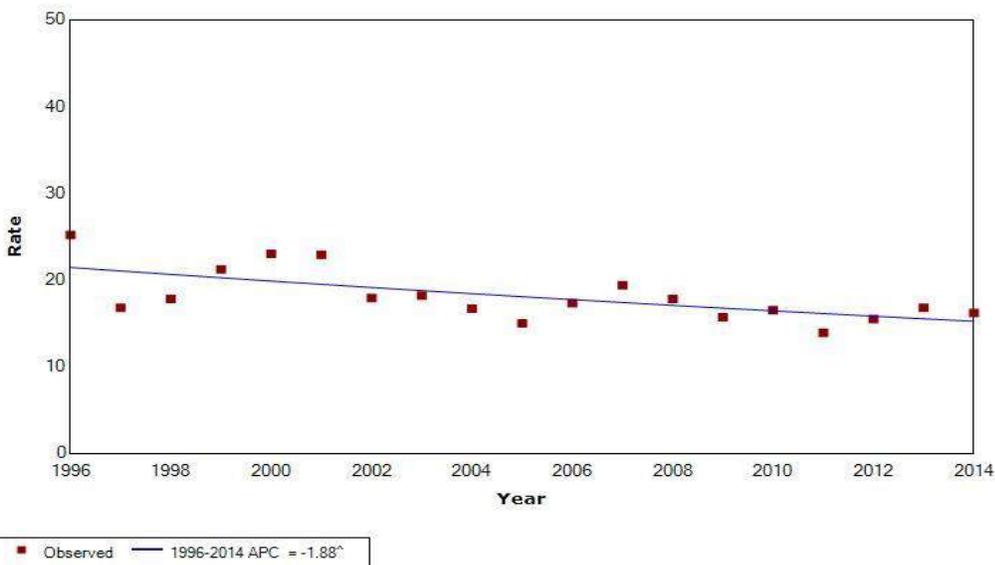
**Trend over time, Alaska and U.S.**

**Colorectal cancer, mortality rate**  
Alaska and U.S., 1996-2014



Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about  $\pm 0.1$ . Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Colorectal cancer, mortality rate trend and change in trend**  
Alaska residents, 1996-2014



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

Colorectal Cancer - Mortality

**Colorectal cancer, mortality rate**

Alaska and U.S., 1996-2014

Year	Alaska			Count	U.S.	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate		
1996	25.2	18.7	32.9	62	21.9	15%	
1997	16.8	12.0	22.7	52	21.5	-22%	
1998	17.8	12.8	23.8	52	21.2	-16%	
1999	21.2	15.7	27.8	61	20.9	1%	
2000	23.0	17.4	29.7	64	20.7	11%	
2001	22.9	17.7	29.0	78	20.2	13%	
2002	17.9	13.5	23.2	66	19.8	-10%	
2003	18.2	13.7	23.5	65	19.1	-5%	
2004	16.7	12.5	21.8	59	18.1	-8%	
2005	15.0	11.1	19.6	59	17.6	-15%	
2006	17.3	13.2	22.1	69	17.3	0%	
2007	19.4	15.1	24.5	81	16.9	15%	
2008	17.8	13.8	22.5	77	16.5	8%	
2009	15.7	12.1	19.9	76	15.8	-1%	
2010	16.5	12.8	20.7	84	15.5	6%	
2011	13.9	10.7	17.7	74	15.1	-8%	
2012	15.5	12.1	19.4	86	14.7	5%	
2013	16.8	13.4	20.7	100	14.5	16%	
2014	16.2	12.8	20.2	89	14.1	15%	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

## Kidney and Renal Pelvis Cancer

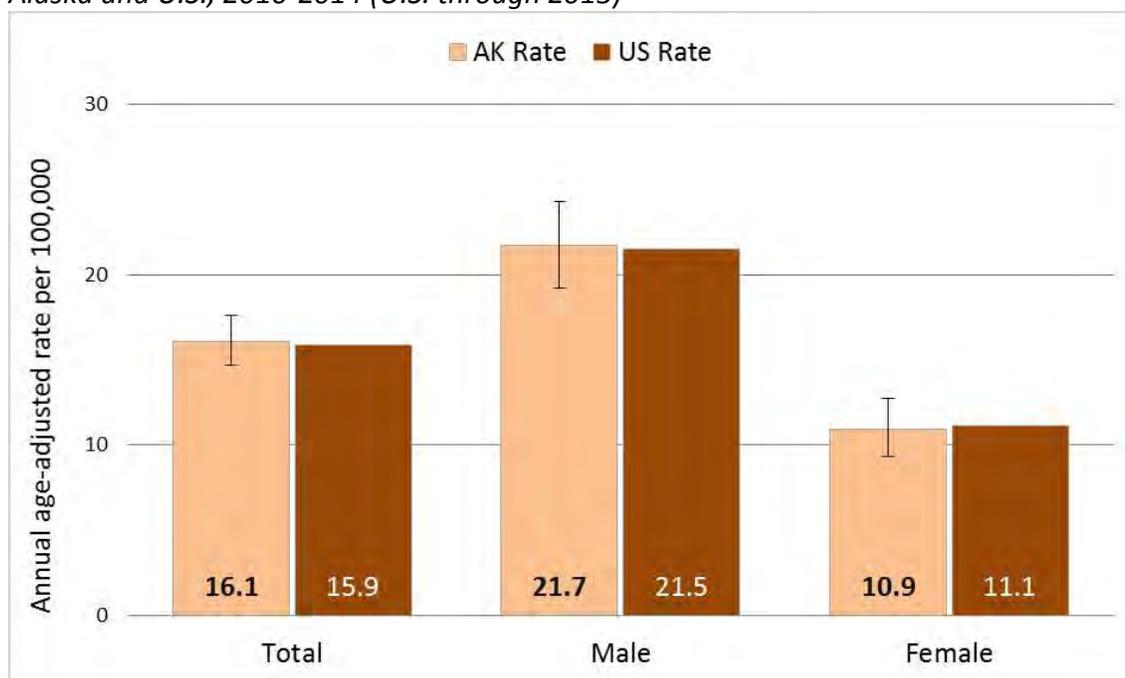
### Incidence (2010-2014)

- Alaska’s kidney and renal pelvis cancer incidence rate during the most recent 5 years was 16.1 per 100,000.
- Alaska’s rate and trend have been similar to the U.S. rate and trend during recent years.
- The rate of kidney and renal pelvis cancer incidence was higher among men than women in Alaska.
- Rates were higher among Alaska Native people in comparison to Whites; rates among Alaska Native people were also higher than for American Indian and Alaska Native people in the U.S.
- Rates of kidney and renal pelvis cancer incidence were not significantly different by Alaska region.
- Between 1996 and 2014 the rate of kidney and renal pelvis cancer incidence increased in Alaska, by an average of 1.2% per year. Rates also appeared to increase in the U.S.

### Total and by Gender

#### Kidney and renal pelvis cancer, incidence rate overall and by sex

Alaska and U.S., 2010-2014 (U.S. through 2013)



#### Kidney and renal pelvis cancer, incidence rate overall and by sex

Alaska and U.S., 2010-2014 (U.S. through 2013)

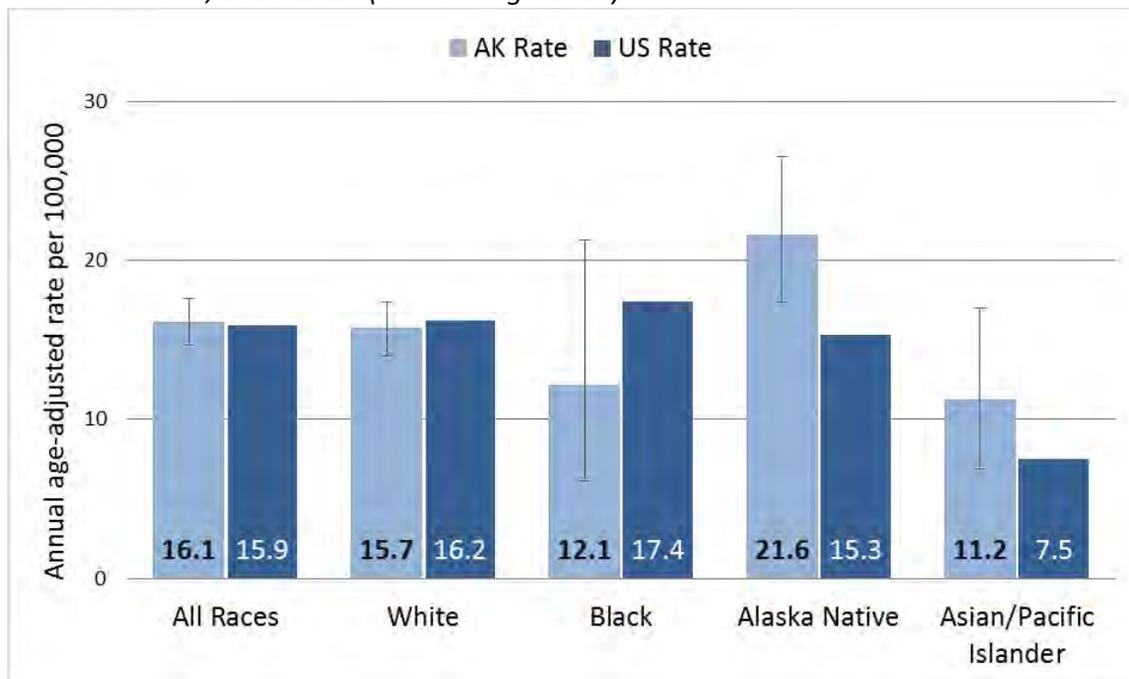
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>16.1</b>	<b>14.7</b>	<b>17.6</b>	<b>539</b>	<b>15.9</b>
Male	21.7	19.2	24.3	355	21.5
Female	10.9	9.3	12.7	184	11.1

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Race**

**Kidney and renal pelvis cancer, incidence rate by race**

Alaska and U.S., 2010-2014 (U.S. through 2013)



**Kidney and renal pelvis cancer, incidence rate by race**

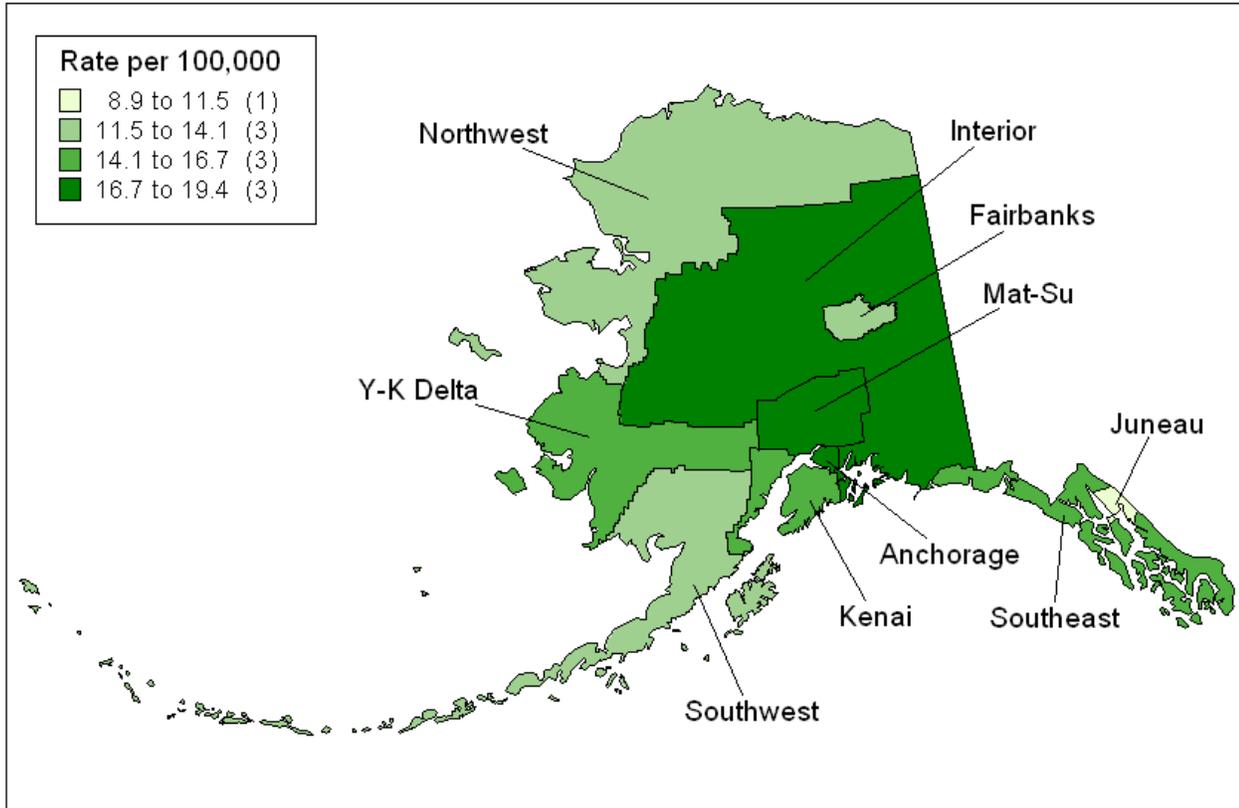
Alaska and U.S., 2010-2014 (U.S. through 2013)

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>16.1</b>	<b>14.7</b>	<b>17.6</b>	<b>539</b>	<b>15.9</b>
White	15.7	14.0	17.4	399	16.2
Black	12.1	6.1	21.3	14	17.4
American Indian/Alaska Native	21.6	17.4	26.5	102	15.3
Asian/Pacific Islander	11.2	6.9	17.0	24	7.5

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

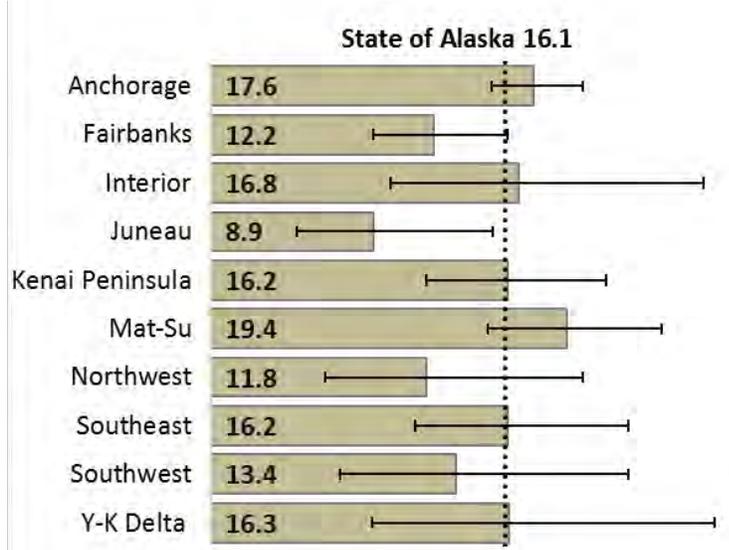
**By Behavioral Health Systems Region**

**Kidney and renal pelvis cancer, incidence rate by Behavioral Health Systems Region**  
Alaska residents, 2010-2014



**Kidney and renal pelvis cancer, incidence rate by Behavioral Health Systems Region**  
Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>16.1</b>	<b>14.7</b>	<b>17.6</b>	<b>539</b>
Anchorage	17.6	15.3	20.3	231
Fairbanks	12.2	8.9	16.2	54
Interior	16.8	9.8	26.9	21
Juneau	8.9	4.7	15.4	15
Kenai Peninsula	16.2	11.8	21.6	53
Mat-Su	19.4	15.1	24.6	80
Northwest	11.8	6.3	20.3	15
Southeast	16.2	11.2	22.8	37
Southwest	13.4	7.1	22.8	17
Y-K Delta	16.3	8.8	27.5	16



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Kidney/Renal Pelvis Cancer - Incidence

**By Borough/Census Area**

**Kidney and renal pelvis cancer, incidence rate by Alaska Borough/Census Area**

Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>16.1</b>	<b>15.0</b>	<b>17.6</b>	<b>539</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	17.6	15.0	20.3	231	
Bethel Census Area	20.1	10.3	35	14	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	^	^	^	^	
Fairbanks North Star Borough	12.2	9	16.2	54	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	8.9	4.7	15.4	15	
Kenai Peninsula Borough	16.2	12.0	21.6	53	
Ketchikan Gateway Borough	20.3	10.6	35.2	14	
Kodiak Island Borough	11.1	4.3	23.9	7	
Kusilvak Census Area	^	^	^	^	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	19.4	15.0	24.6	80	
Nome Census Area	^	^	^	^	
North Slope Borough	^	^	^	^	
Northwest Arctic Borough	17.7	6.3	40.0	6	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	24.8	10.8	50.7	9	
Sitka Borough	14.6	5.6	30.9	7	
Skagway Municipality	^	^	^	^	
Southeast Fairbanks Census Area	24.3	8.5	52.4	7	
Valdez-Cordova Census Area	^	^	^	^	
Wrangell Borough	^	^	^	^	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	18.9	7.4	41.5	7	

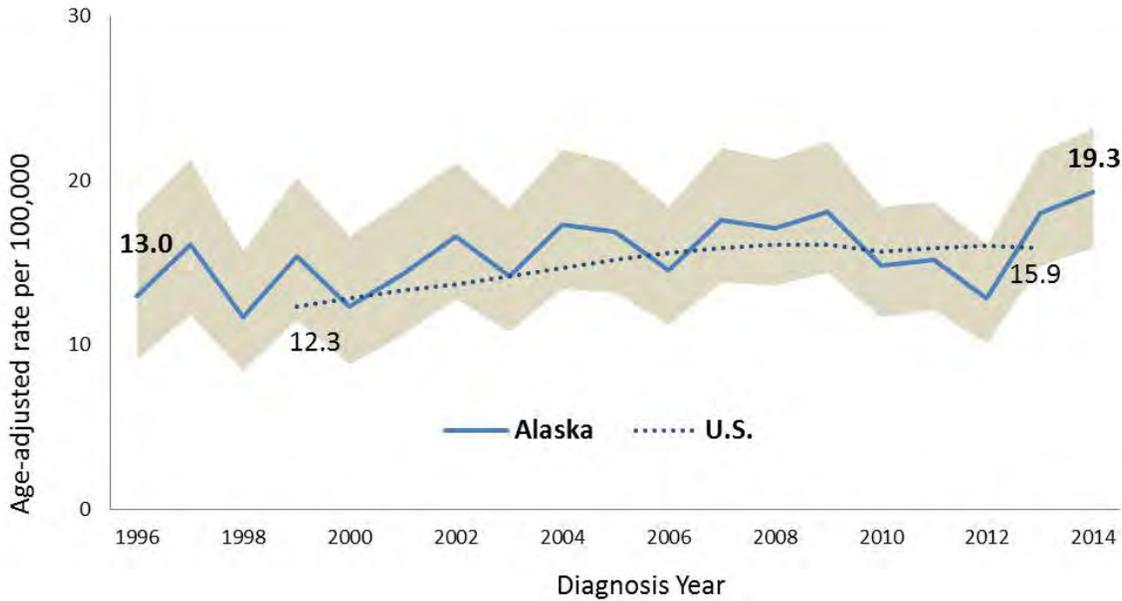
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

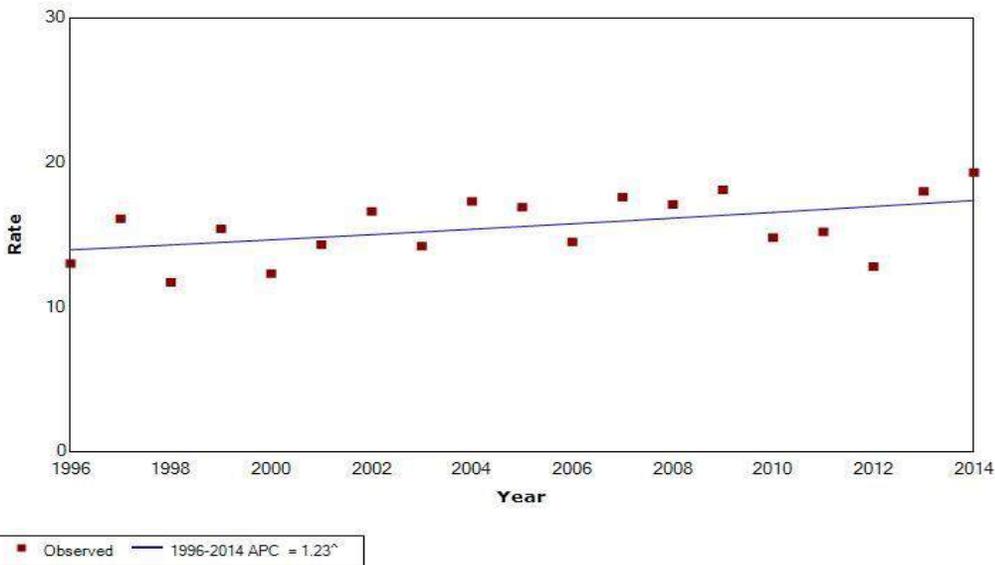
**Trend over time, Alaska and U.S.**

**Kidney and renal pelvis cancer, incidence rate  
Alaska and U.S., 1996-2014 (U.S. through 2013)**



Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1. Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Kidney and renal pelvis cancer, incidence rate trend and change in trend  
Alaska residents, 1996-2014**



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

Kidney/Renal Pelvis Cancer - Incidence

**Kidney and renal pelvis cancer, incidence rate**

Alaska and U.S., 1996-2014 (U.S. through 2013)

Year	Alaska				U.S.	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI	Count	Annual rate		
1996	13.0	9.1	18.0	43	**		
1997	16.1	11.8	21.3	59	**		
1998	11.7	8.4	15.7	52	**		
1999	15.4	11.5	20.2	65	12.3	25%	
2000	12.3	8.8	16.6	49	12.8	-4%	
2001	14.3	10.6	18.8	58	13.3	8%	
2002	16.6	12.8	21.1	78	13.7	21%	
2003	14.2	10.8	18.3	72	14.2	0%	
2004	17.3	13.4	21.9	79	14.7	18%	
2005	16.9	13.2	21.1	87	15.2	11%	
2006	14.5	11.2	18.4	80	15.6	-7%	
2007	17.6	13.8	22.0	90	15.9	11%	
2008	17.1	13.6	21.3	99	16.1	6%	
2009	18.1	14.4	22.4	101	16.1	12%	
2010	14.8	11.7	18.4	93	15.7	-6%	
2011	15.2	12.1	18.7	101	15.9	-4%	
2012	12.8	10.1	16.1	87	16.0	-20%	
2013	18.0	14.8	21.7	127	15.9	13%	
2014	19.3	15.9	23.2	131	**		

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm 0.5\%$  outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

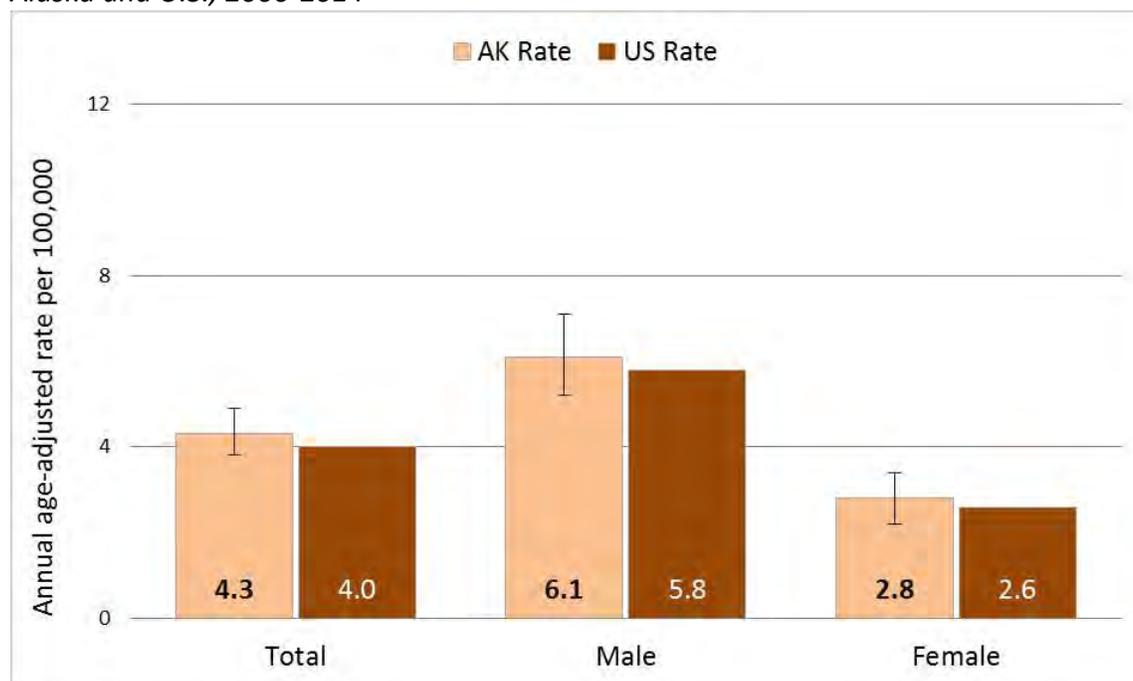
\*\* U.S. data for 1996-1998 are not available; data for 2014 are not yet available.

## Mortality (2000-2014)

- Alaska’s kidney and renal pelvis cancer mortality rate during the most recent 15 years was 4.3 per 100,000.
- Alaska’s rate and trend have been similar to the U.S. rate and trend during recent years.
- The rate of kidney and renal pelvis cancer mortality was higher among men than women in Alaska.
- Alaska Native people had higher rates of kidney and renal pelvis cancer mortality than Whites in Alaska; Alaska Native people also had higher rates than American Indian and Alaska Native people in the U.S.
- Rates were higher than the state average in the Y-K Delta region, and the Wrangell-Petersburg Borough.
- Between 1996 and 2014 the rate of kidney and renal pelvis cancer mortality did not change significantly in Alaska.

### Total and by Gender

**Kidney and renal pelvis cancer, mortality rate overall and by sex**  
Alaska and U.S., 2000-2014



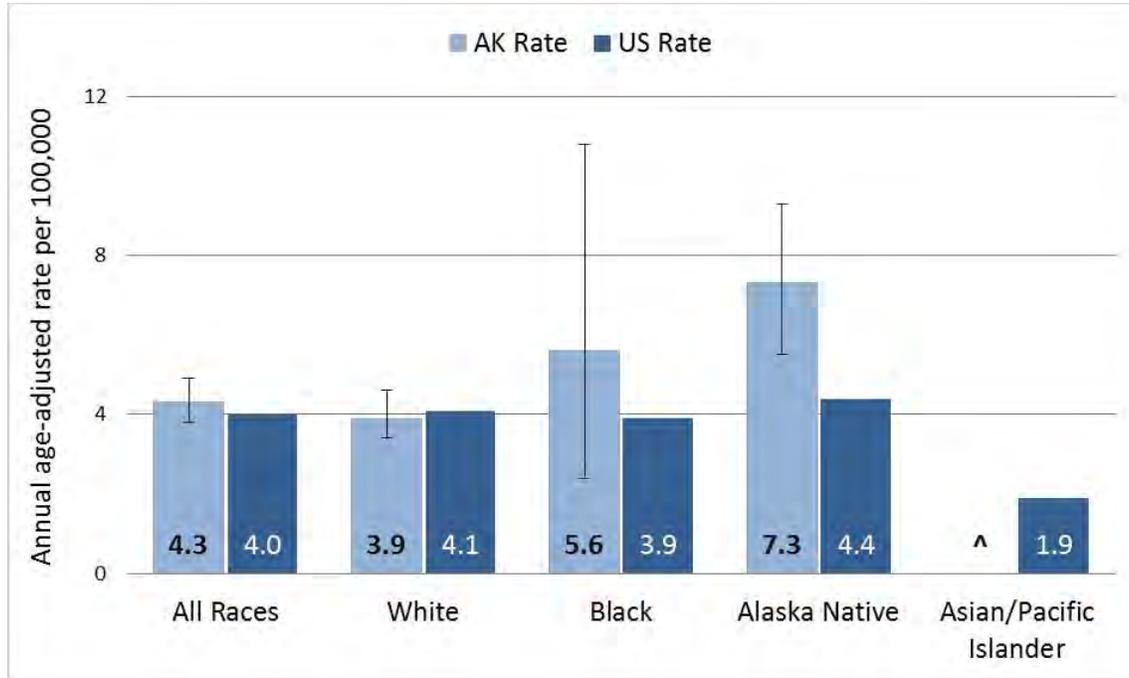
**Kidney and renal pelvis cancer, mortality rate overall and by sex**  
Alaska and U.S., 2000-2014

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>4.3</b>	<b>3.8</b>	<b>4.9</b>	<b>298</b>	<b>4.0</b>
Male	6.1	5.2	7.1	203	5.8
Female	2.8	2.2	3.4	95	2.6

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Race**

**Kidney and renal pelvis cancer, mortality rate by race**  
Alaska and U.S., 2000-2014



**Kidney and renal pelvis cancer, mortality rate by race**  
Alaska and U.S., 2000-2014

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>4.3</b>	<b>3.8</b>	<b>4.9</b>	<b>298</b>	<b>4.0</b>
White	3.9	3.4	4.6	213	4.1
Black	5.6	2.4	10.8	9	3.9
American Indian/Alaska Native	7.3	5.5	9.3	65	4.4
Asian/Pacific Islander	^	^	^	^	1.9

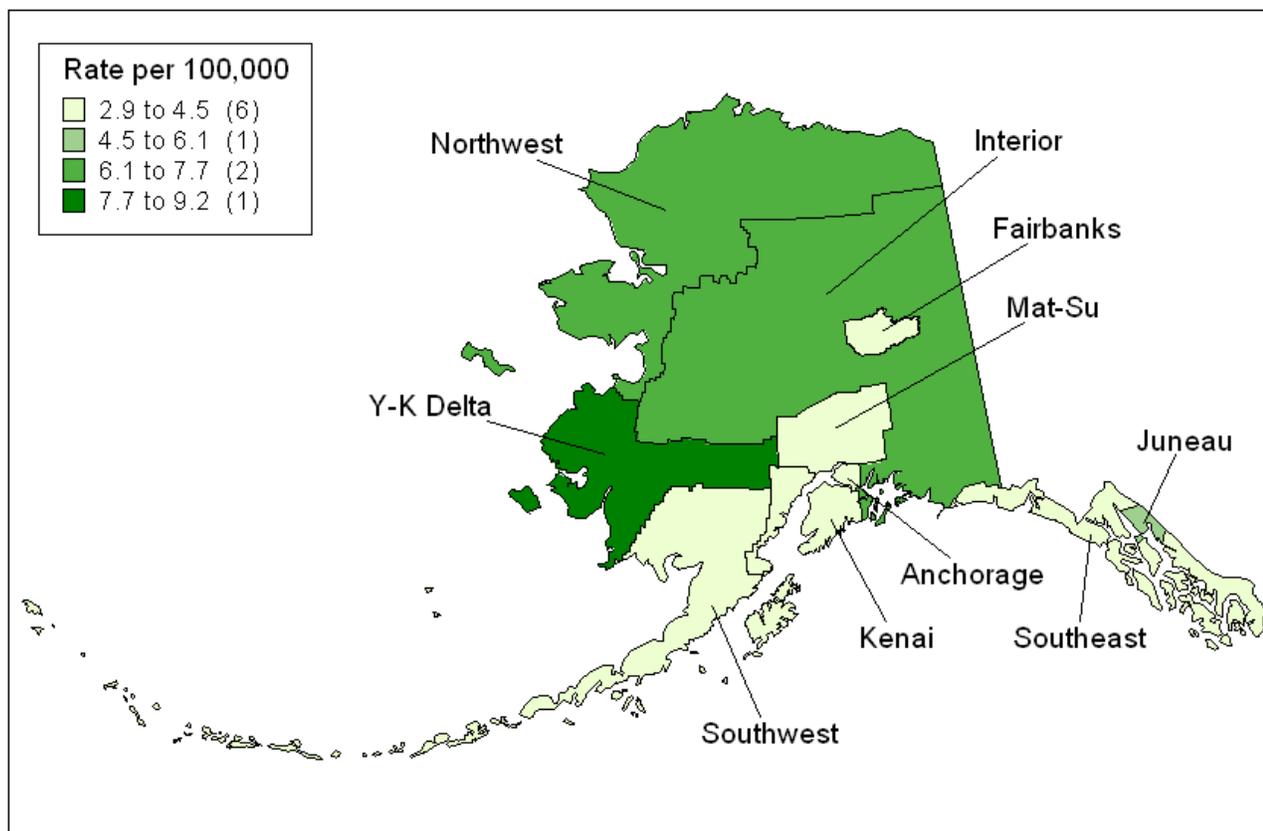
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

### By Behavioral Health Systems Region

#### Kidney and renal pelvis cancer, mortality rate by Behavioral Health Systems Region

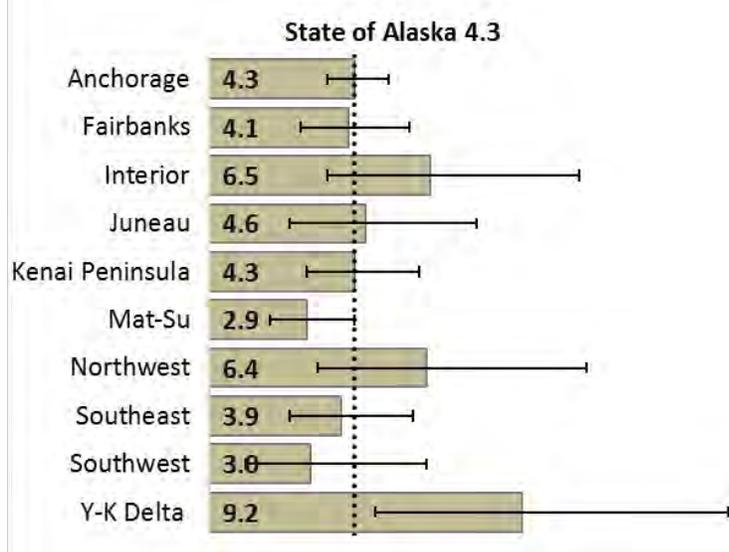
Alaska residents, 2000-2014



#### Kidney and renal pelvis cancer, mortality rate by Behavioral Health Systems Region

Alaska residents, 2000-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>4.3</b>	<b>3.8</b>	<b>4.9</b>	<b>298</b>
Anchorage	4.3	3.5	5.3	117
Fairbanks	4.1	2.7	5.9	34
Interior	6.5	3.5	10.9	16
Juneau	4.6	2.4	7.9	14
Kenai Peninsula	4.3	2.9	6.2	32
Mat-Su	2.9	1.8	4.3	28
Northwest	6.4	3.2	11.1	13
Southeast	3.9	2.4	6.0	22
Southwest	3.0	1.1	6.4	7
Y-K Delta	9.2	4.9	15.3	15



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Kidney/Renal Pelvis Cancer - Mortality

**By Borough/Census Area**

**Kidney and renal pelvis cancer, mortality rate by Borough/Census Area**

Alaska residents, 2000-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>4.3</b>	<b>3.8</b>	<b>4.9</b>	<b>298</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	4.3	3.5	5.3	117	
Bethel Census Area	9.2	4.3	16.7	11	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	^	^	^	^	
Fairbanks North Star Borough	4.1	2.7	5.9	34	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	4.6	2.4	7.9	14	
Kenai Peninsula Borough	4.3	2.9	6.2	32	
Ketchikan Gateway Borough	^	^	^	^	
Kodiak Island Borough	^	^	^	^	
Kusilvak Census Area	^	^	^	^	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	2.9	1.8	4.3	28	
Nome Census Area	8.0	2.8	17.1	6	
North Slope Borough	^	^	^	^	
Northwest Arctic Borough	^	^	^	^	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	^	^	^	^	
Prince of Wales-Outer Ketchikan Census Area	^	^	^	^	
Sitka Borough	^	^	^	^	
Skagway Municipality	^	^	^	^	
Skagway-Hoonah-Angoon Census Area	^	^	^	^	
Southeast Fairbanks Census Area	^	^	^	^	
Valdez-Cordova Census Area	5.1	1.5	12.0	6	
Wrangell Borough	^	^	^	^	
Wrangell-Petersburg Census Area	13.0	5.2	26.8	7	+
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	10.5	3.7	22.4	6	

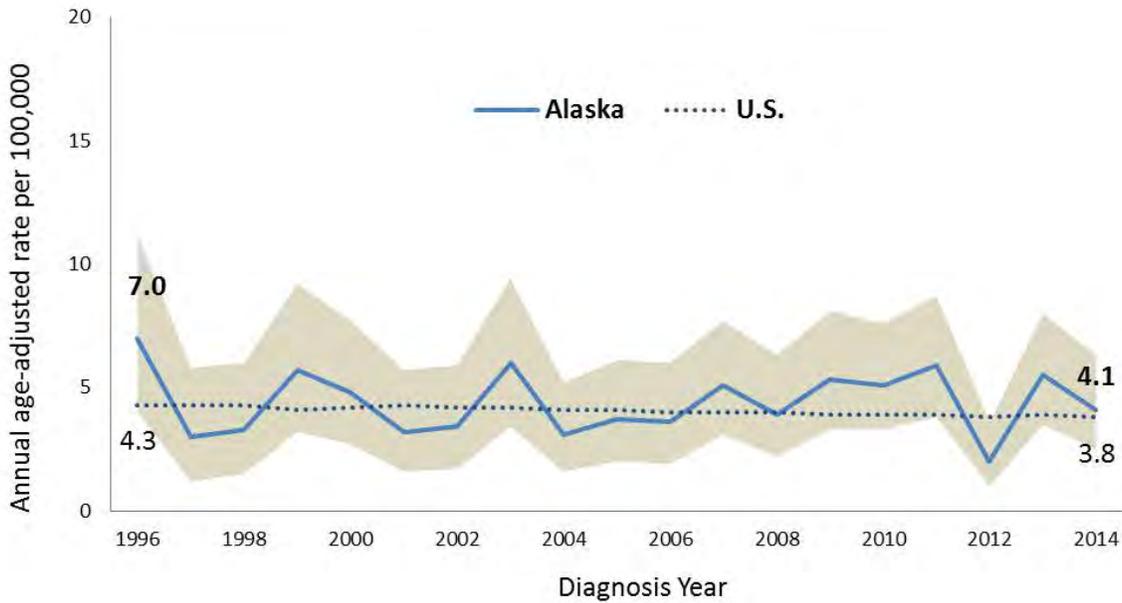
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

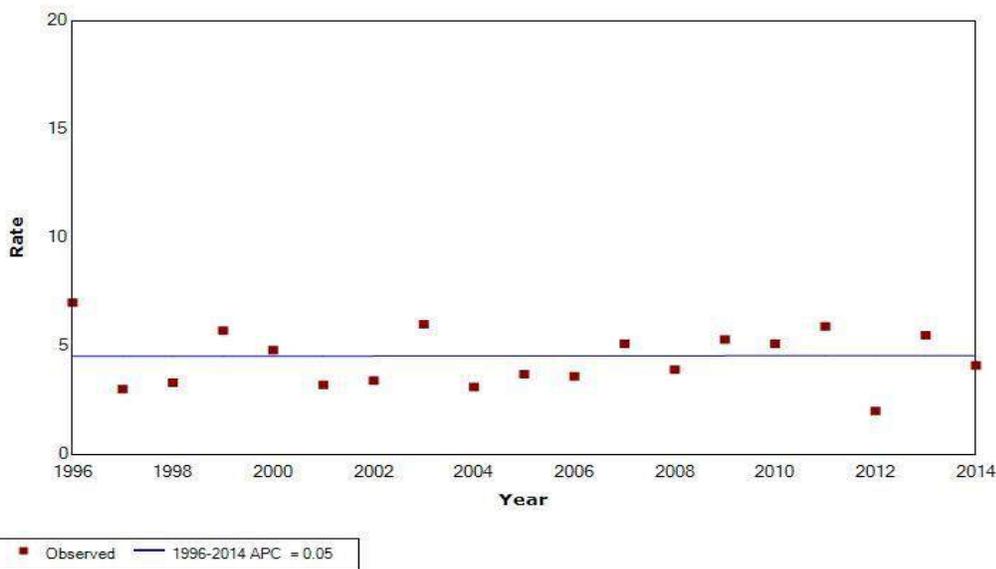
**Trend over time, Alaska and U.S.**

**Kidney and renal pelvis cancer, mortality rate  
Alaska and U.S., 1996-2014**



Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1. Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Kidney and renal pelvis cancer, mortality rate trend and change in trend  
Alaska residents, 1996-2014**



Annual percent change is not significantly different from zero; no significant change in trend over time.

Kidney/Renal Pelvis Cancer - Mortality

**Kidney and renal pelvis cancer, mortality rate**

Alaska and U.S., 1996-2014

Year	Alaska			Count	U.S.		+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate	% difference (AK from U.S. rate)	
1996	7.0	4.0	11.2	19	4.3	63%	
1997	3.0	1.2	5.8	10	4.3	-30%	
1998	3.3	1.5	6.0	11	4.3	-23%	
1999	5.7	3.2	9.2	17	4.1	39%	
2000	4.8	2.7	7.7	19	4.2	14%	
2001	3.2	1.6	5.7	13	4.3	-26%	
2002	3.4	1.7	5.9	13	4.2	-19%	
2003	6.0	3.4	9.4	19	4.2	43%	
2004	3.1	1.6	5.2	15	4.1	-24%	
2005	3.7	2.0	6.1	17	4.1	-10%	
2006	3.6	1.9	6.0	14	4	-10%	
2007	5.1	3.1	7.7	22	4	28%	
2008	3.9	2.2	6.3	19	4	-3%	
2009	5.3	3.3	8.1	24	3.9	36%	
2010	5.1	3.3	7.6	29	3.9	31%	
2011	5.9	3.8	8.7	28	3.9	51%	
2012	2.0	1.0	3.6	14	3.8	-47%	–
2013	5.5	3.5	8.0	28	3.9	41%	
2014	4.1	2.5	6.3	24	3.8	8%	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

## Leukemia

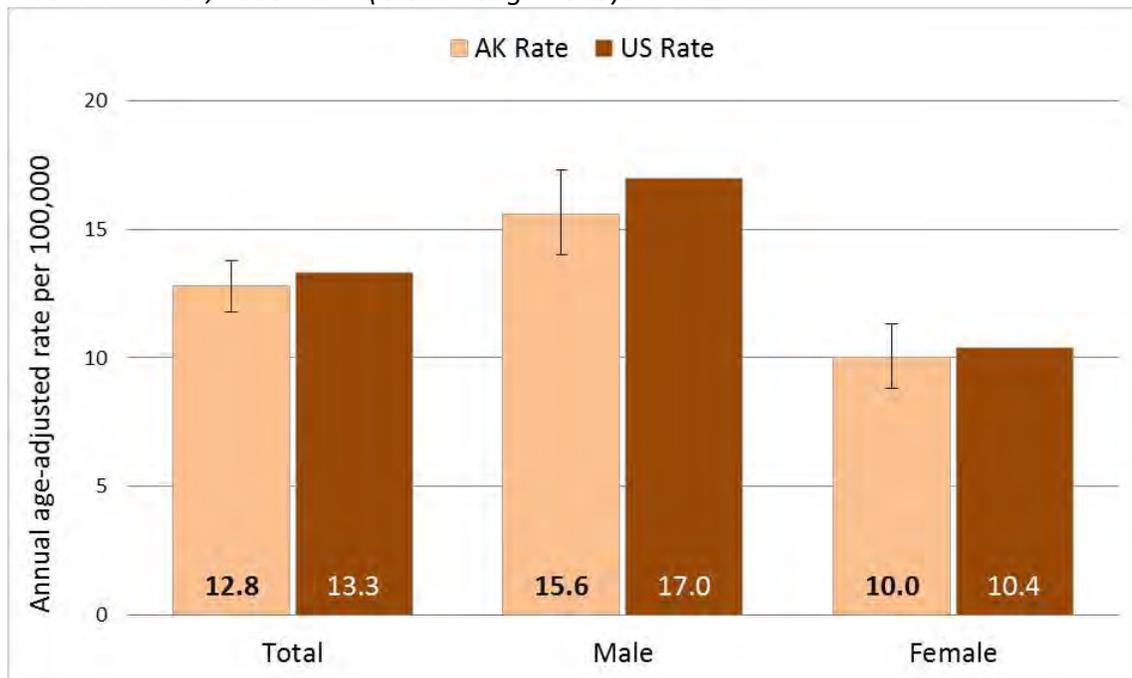
### Incidence (2005-2014)

- Alaska’s leukemia incidence rate during the most recent 10 years was 12.8 per 100,000.
- Alaska’s rate and trend have been similar to the U.S. rate and trend during recent years.
- The rate of leukemia incidence was higher among men than women in Alaska.
- There were no significant differences in leukemia incidence rate by race in Alaska. However, the rate was higher among Alaska Native people than among American Indian and Alaska Native people in the U.S.
- Leukemia incidence was lower in the Northwest region, in comparison to the Alaska state average.
- Between 1996 and 2014 the rate of leukemia incidence declined in Alaska, by an average of 1.7% per year.

### Total and by Gender

#### Leukemia, incidence rate overall and by sex

Alaska and U.S., 2005-2014 (U.S. through 2013)



#### Leukemia, incidence rate overall and by sex

Alaska and U.S., 2005-2014 (U.S. through 2013)

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>12.8</b>	<b>11.8</b>	<b>13.8</b>	<b>730</b>	<b>13.3</b>
Male	15.6	14.0	17.3	439	17.0
Female	10.0	8.8	11.3	291	10.4

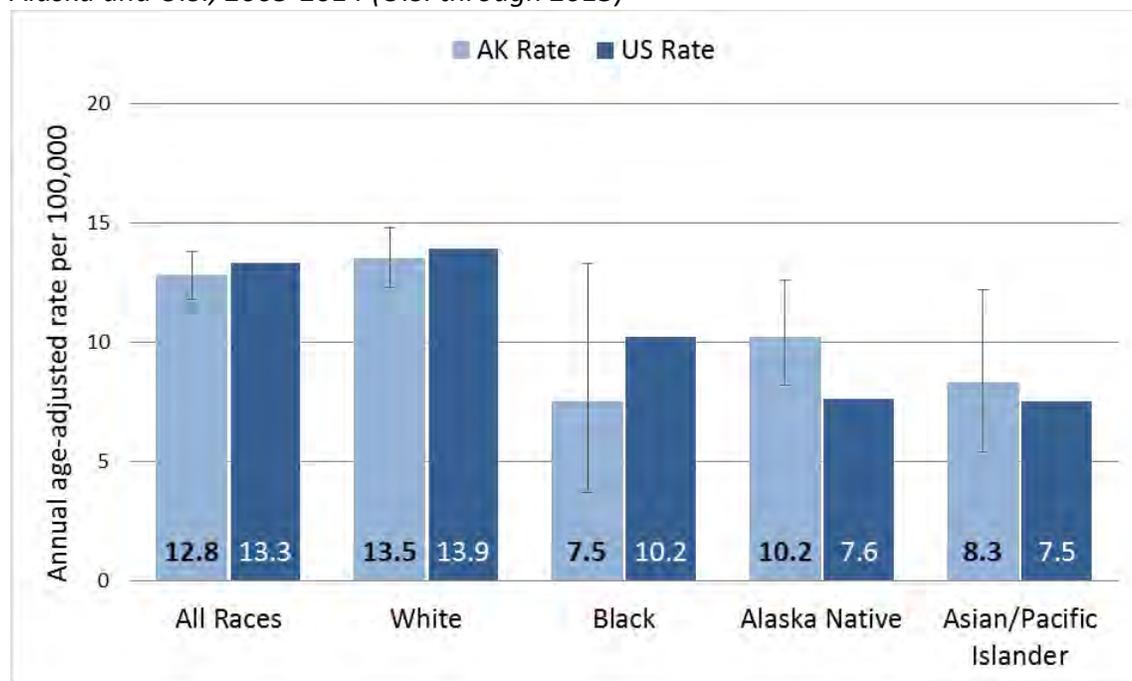
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

## Leukemia - Incidence

### By Race

#### Leukemia, incidence rate by race

Alaska and U.S., 2005-2014 (U.S. through 2013)



#### Leukemia, incidence rate by race

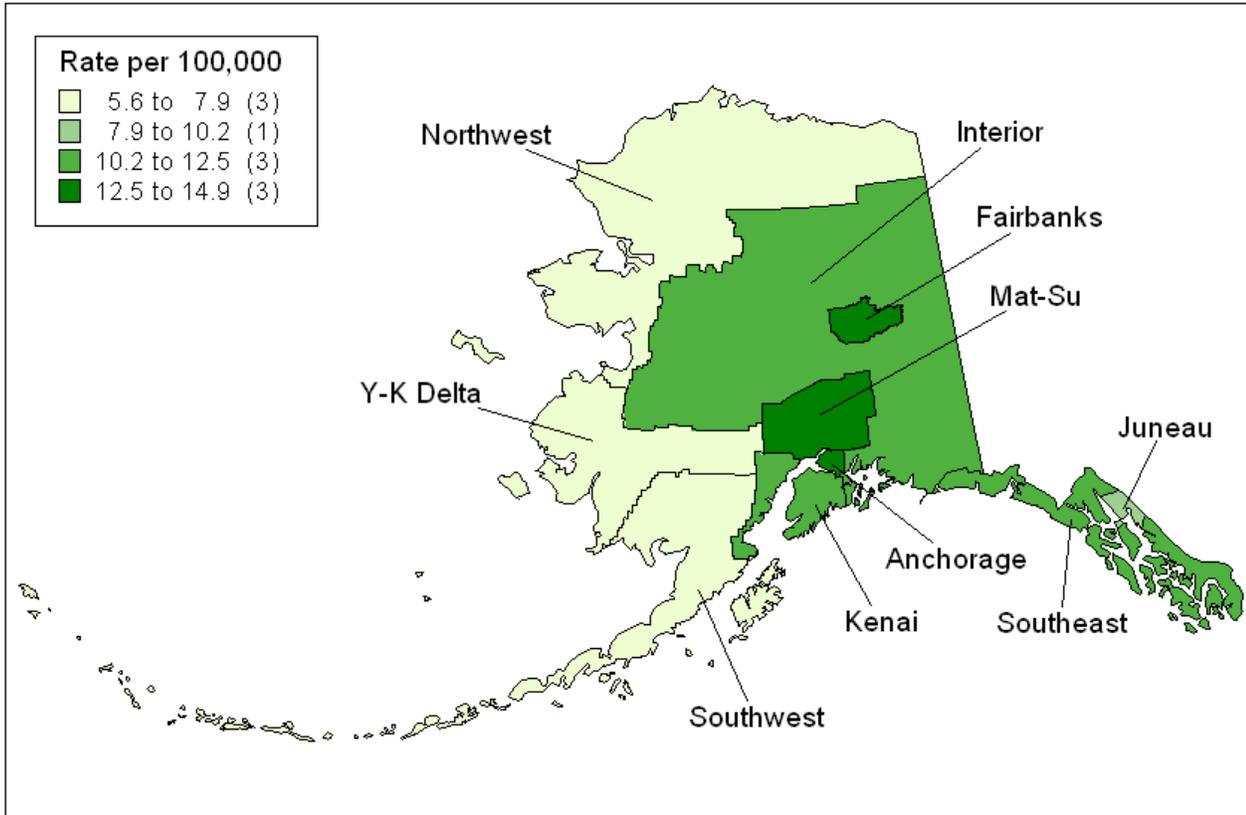
Alaska and U.S., 2005-2014 (U.S. through 2013)

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>12.8</b>	<b>11.8</b>	<b>13.8</b>	<b>730</b>	<b>13.3</b>
White	13.5	12.3	14.8	570	13.9
Black	7.5	3.7	13.3	16	10.2
American Indian/Alaska Native	10.2	8.2	12.6	105	7.6
Asian/Pacific Islander	8.3	5.4	12.2	32	7.5

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

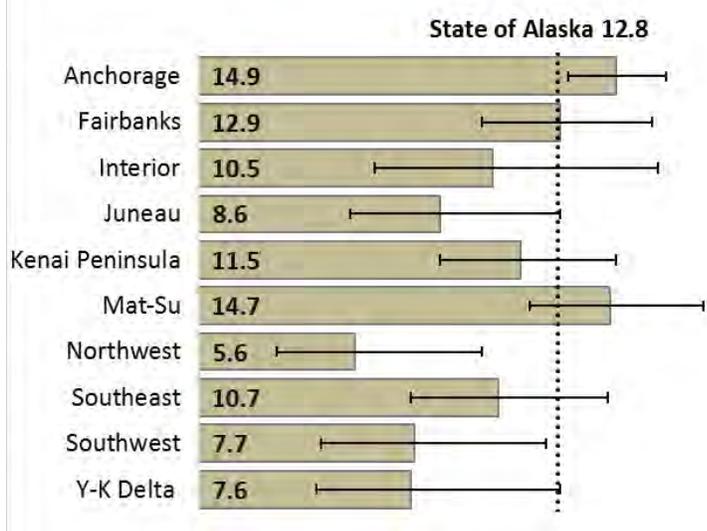
**By Behavioral Health Systems Region**

**Leukemia, incidence rate by Behavioral Health Systems Region**  
Alaska residents, 2005-2014



**Leukemia, incidence rate by Behavioral Health Systems Region**  
Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>12.8</b>	<b>11.8</b>	<b>13.8</b>	<b>730</b>
Anchorage	14.9	13.2	16.7	327
Fairbanks	12.9	10.1	16.2	88
Interior	10.5	6.3	16.4	22
Juneau	8.6	5.4	12.9	27
Kenai Peninsula	11.5	8.6	14.9	64
Mat-Su	14.7	11.8	18.0	108
Northwest	5.6	2.8	10.1	14
Southeast	10.7	7.6	14.6	43
Southwest	7.7	4.4	12.4	20
Y-K Delta	7.6	4.2	12.9	17



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Leukemia - Incidence

**By Borough/Census Area**

**Leukemia, incidence rate by Alaska Borough/Census Area**

Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>12.8</b>	<b>11.8</b>	<b>13.8</b>	<b>722</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	14.9	13.2	16.7	327	
Bethel Census Area	8.1	4.0	14.7	13	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	^	^	^	^	
Fairbanks North Star Borough	12.9	10.1	16.2	88	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	8.6	5.4	12.9	27	
Kenai Peninsula Borough	11.5	8.6	14.9	64	
Ketchikan Gateway Borough	9.3	4.8	16.3	13	
Kodiak Island Borough	7.8	3.2	15.8	9	
Kusilvak Census Area	^	^	^	^	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	14.7	11.8	18.0	108	
Nome Census Area	6.3	2.2	14.8	6	
North Slope Borough	8.9	2.1	23.5	6	
Northwest Arctic Borough	^	^	^	^	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	^	^	^	^	
Sitka Borough	12.4	6.0	22.6	11	
Skagway Municipality	^	^	^	^	
Southeast Fairbanks Census Area	9.7	3.8	21.0	7	
Valdez-Cordova Census Area	11.6	5.0	22.8	10	
Wrangell Borough	^	^	^	^	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	^	^	^	^	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

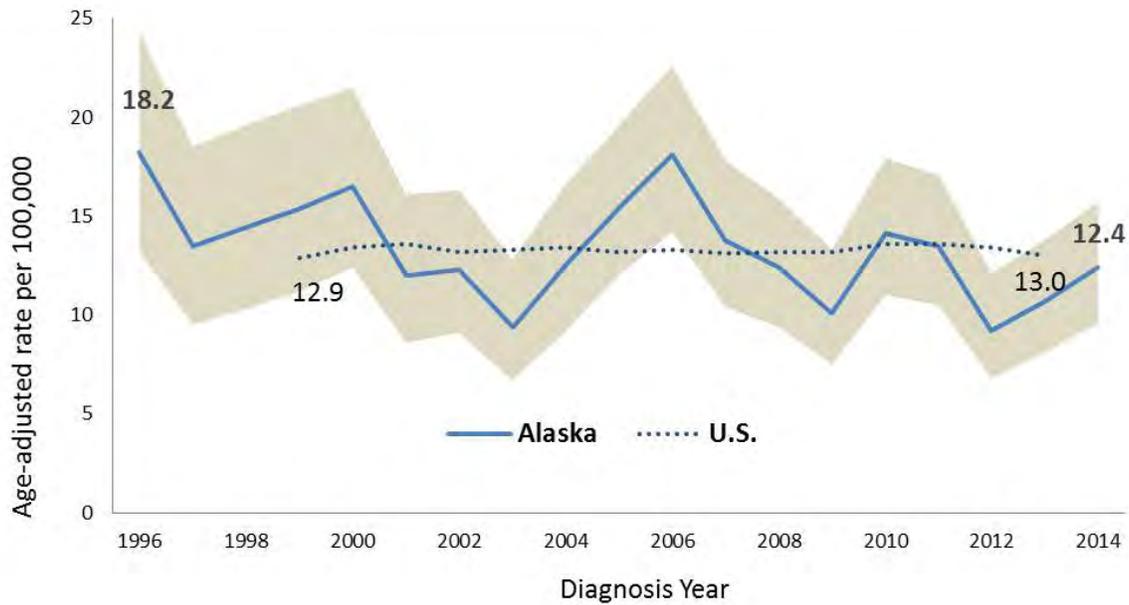
^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

**Leukemia, incidence rate**

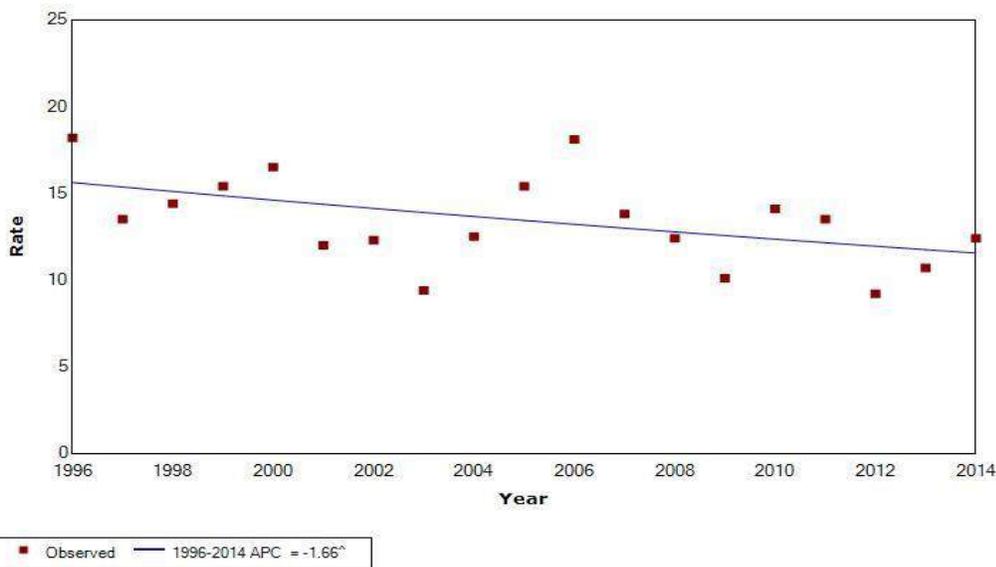
Alaska and U.S., 1996-2014 (U.S. through 2013)



Shading shows 95% confidence interval for Alaska's annual rates. 95% confidence interval for U.S. rates is about  $\pm 0.1$ . Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Leukemia, incidence rate trend and change in trend**

Alaska residents, 1996-2014



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

Leukemia - Incidence

**Leukemia, incidence rate**

Alaska and U.S., 1996-2014 (U.S. through 2013)

Year	Alaska			Count	U.S.		+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate	% difference (AK from U.S. rate)	
1996	18.2	13.2	24.3	58	**		
1997	13.5	9.5	18.5	52	**		
1998	14.4	10.3	19.6	51	**		
1999	15.4	11.2	20.6	59	12.9	19%	
2000	16.5	12.4	21.5	68	13.4	23%	
2001	12.0	8.6	16.1	52	13.6	-12%	
2002	12.3	9.1	16.3	59	13.2	-7%	
2003	9.4	6.7	12.8	47	13.3	-29%	–
2004	12.5	9.2	16.6	57	13.4	-7%	
2005	15.4	12.0	19.6	81	13.2	17%	
2006	18.1	14.2	22.6	89	13.3	36%	+
2007	13.8	10.4	17.8	68	13.1	5%	
2008	12.4	9.4	15.9	70	13.2	-6%	
2009	10.1	7.5	13.3	61	13.2	-23%	
2010	14.1	11.0	17.9	80	13.6	4%	
2011	13.5	10.5	17.1	79	13.6	-1%	
2012	9.2	6.8	12.1	59	13.4	-31%	–
2013	10.7	8.1	13.8	67	13.0	-18%	
2014	12.4	9.6	15.7	76	**		

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm 0.5\%$  outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

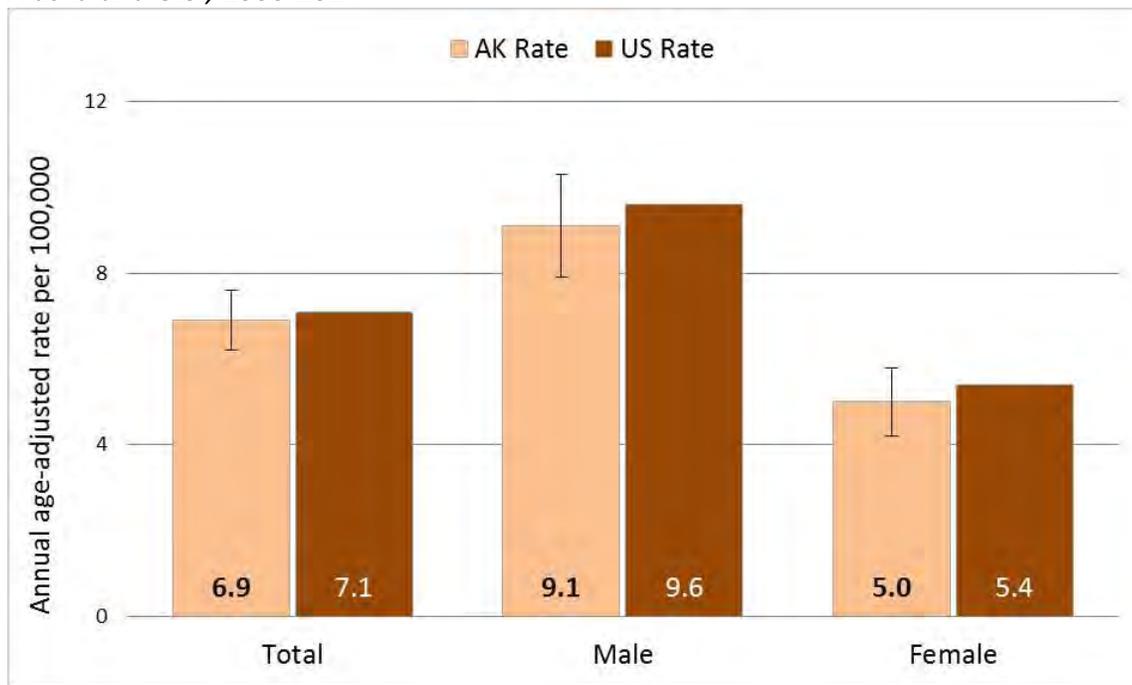
\*\* U.S. data for 1996-1998 are not available; data for 2014 are not yet available.

### Mortality (2000-2014)

- Alaska’s leukemia mortality rate during the most recent 15 years was 6.9 per 100,000.
- Alaska’s rate and trend have been similar to the U.S. rate and trend during recent years.
- The rate of leukemia mortality was higher among men than women in Alaska.
- Leukemia mortality rates were lower among Alaska Native people than Whites in Alaska; other race groups were similar to one another.
- There were no detectable significant differences in leukemia mortality by region in Alaska.
- Between 1996 and 2014 the rate of leukemia mortality did not change significantly in Alaska.

### Total and by Gender

**Leukemia, mortality rate overall and by sex**  
Alaska and U.S., 2000-2014



**Leukemia, mortality rate overall and by sex**  
Alaska and U.S., 2000-2014

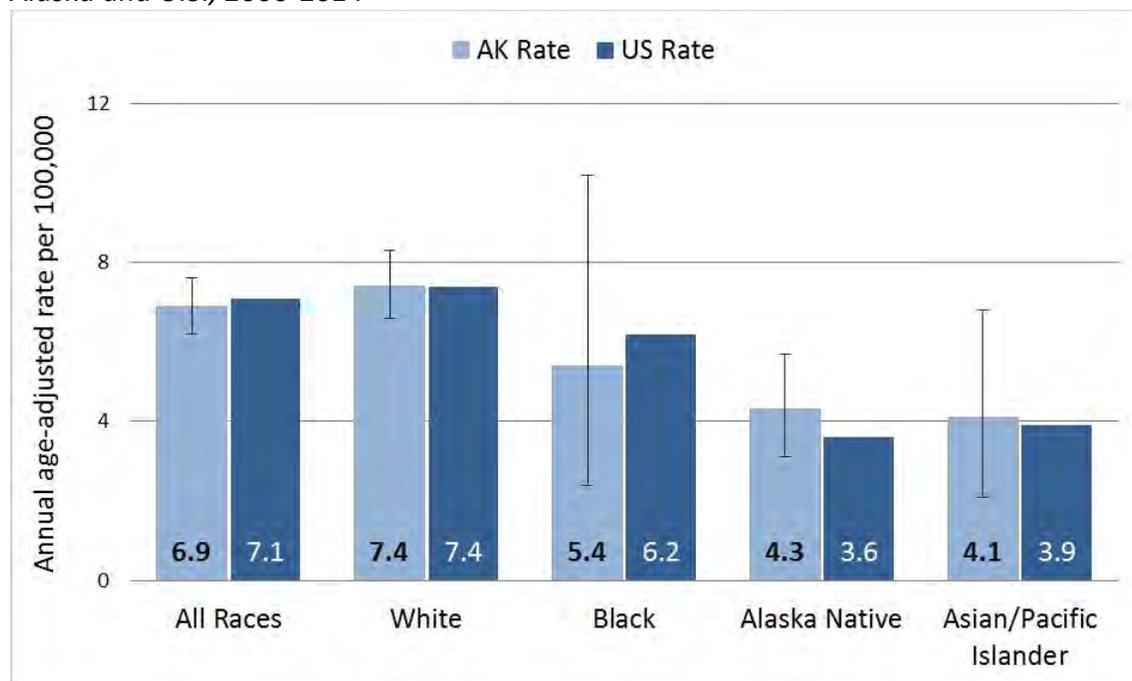
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>6.9</b>	<b>6.2</b>	<b>7.6</b>	<b>442</b>	<b>7.1</b>
Male	9.1	7.9	10.3	276	9.6
Female	5.0	4.2	5.8	166	5.4

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Race**

**Leukemia, mortality rate by race**

Alaska and U.S., 2000-2014



**Leukemia, mortality rate by race**

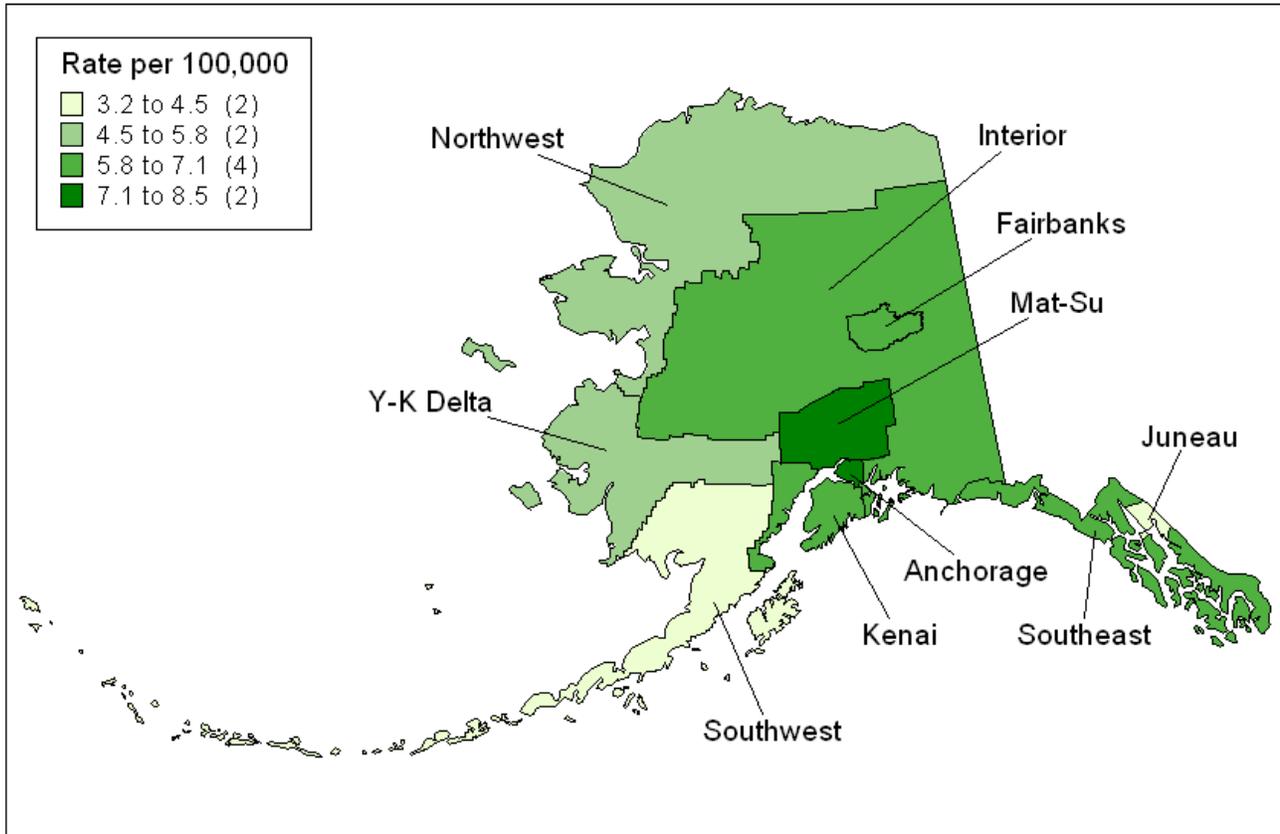
Alaska and U.S., 2000-2014

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>6.9</b>	<b>6.2</b>	<b>7.6</b>	<b>442</b>	<b>7.1</b>
White	7.4	6.6	8.3	351	7.4
Black	5.4	2.4	10.2	11	6.2
American Indian/Alaska Native	4.3	3.1	5.7	54	3.6
Asian/Pacific Islander	4.1	2.1	6.8	16	3.9

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

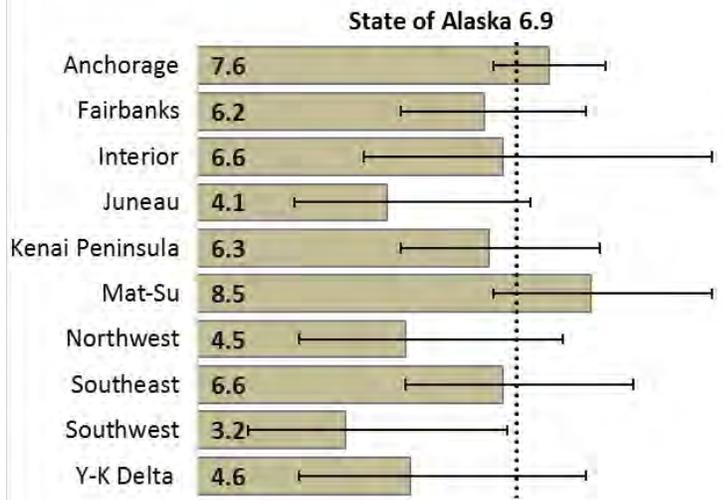
**By Behavioral Health Systems Region**

**Leukemia, mortality rate by Behavioral Health Systems Region**  
Alaska residents, 2000-2014



**Leukemia, mortality rate by Behavioral Health Systems Region**  
Alaska residents, 2000-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>6.9</b>	<b>6.2</b>	<b>7.6</b>	<b>442</b>
Anchorage	7.6	6.4	8.8	195
Fairbanks	6.2	4.4	8.4	46
Interior	6.6	3.6	11.1	16
Juneau	4.1	2.1	7.2	12
Kenai Peninsula	6.3	4.4	8.7	41
Mat-Su	8.5	6.4	11.1	65
Northwest	4.5	2.2	7.9	14
Southeast	6.6	4.5	9.4	33
Southwest	3.2	1.1	6.7	8
Y-K Delta	4.6	2.2	8.4	12



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Leukemia - Mortality

**By Borough/Census Area**

**Leukemia, mortality rate by Borough/Census Area**

Alaska residents, 2000-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>6.9</b>	<b>6.2</b>	<b>7.6</b>	<b>442</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	7.6	6.4	8.8	195	
Bethel Census Area	4.9	2.2	9.6	10	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	^	^	^	^	
Fairbanks North Star Borough	6.2	4.4	8.4	46	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	4.1	2.1	7.2	12	
Kenai Peninsula Borough	6.3	4.4	8.7	41	
Ketchikan Gateway Borough	6.6	3.3	11.7	12	
Kodiak Island Borough	^	^	^	^	
Kusilvak Census Area	^	^	^	^	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	8.5	6.4	11.1	65	
Nome Census Area	4.0	1.4	9.5	6	
North Slope Borough	^	^	^	^	
Northwest Arctic Borough	^	^	^	^	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	^	^	^	^	
Prince of Wales-Outer Ketchikan Census Area	^	^	^	^	
Sitka Borough	6.8	2.9	13.4	8	
Skagway Municipality	^	^	^	^	
Skagway-Hoonah-Angoon Census Area	^	^	^	^	
Southeast Fairbanks Census Area	^	^	^	^	
Valdez-Cordova Census Area	10.5	4.5	20.0	10	
Wrangell Borough	^	^	^	^	
Wrangell-Petersburg Census Area	^	^	^	^	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	^	^	^	^	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

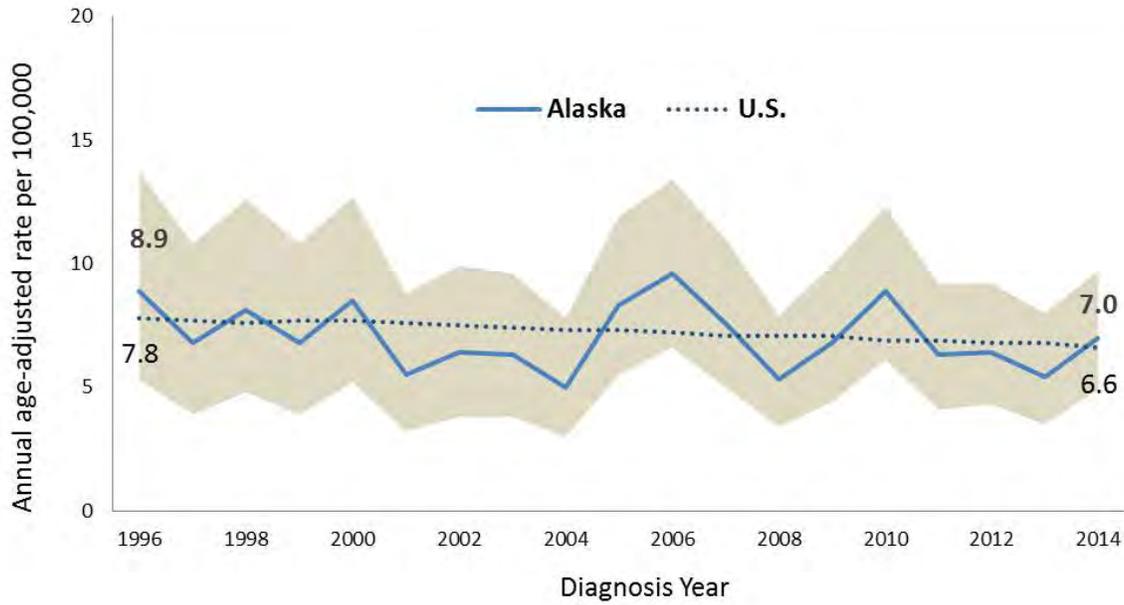
^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

**Leukemia, mortality rate**

Alaska and U.S., 1996-2014



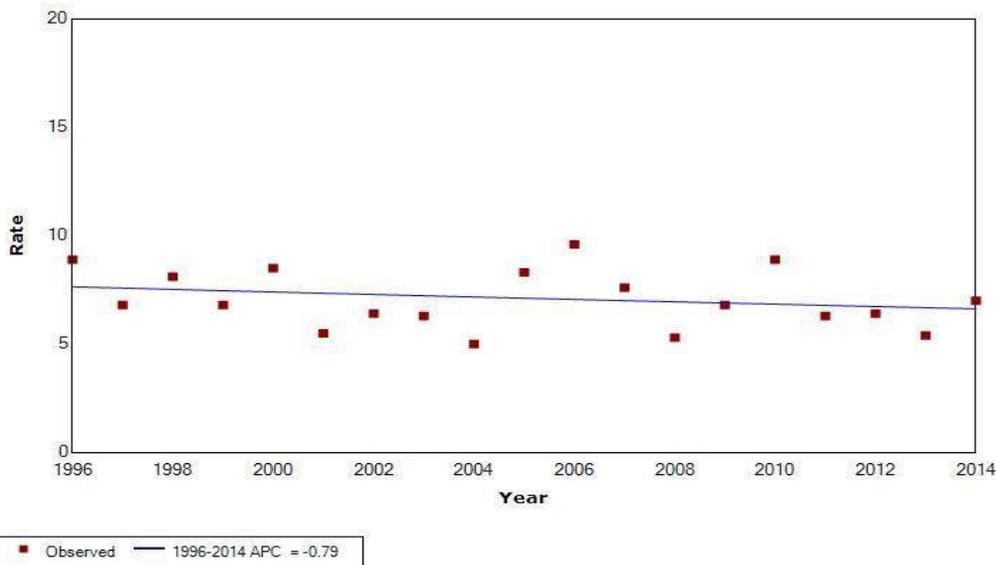
Shading shows 95% confidence interval for Alaska's annual rates. 95% confidence interval for U.S. rates is about ± 0.1.

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Leukemia, mortality rate trend and change in trend**

Alaska residents, 1996-2014



Annual percent change is not significantly different from zero; no significant change in trend over time.

Leukemia - Mortality

**Leukemia, mortality rate**

Alaska and U.S., 1996-2014

Year	Alaska				U.S.	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI	Count	Annual rate		
1996	8.9	5.3	13.7	26	7.8	14%	
1997	6.8	3.9	10.8	23	7.7	-12%	
1998	8.1	4.8	12.6	24	7.6	7%	
1999	6.8	3.9	10.8	21	7.7	-12%	
2000	8.5	5.2	12.7	26	7.7	10%	
2001	5.5	3.2	8.8	19	7.6	-28%	
2002	6.4	3.8	9.9	22	7.5	-15%	
2003	6.3	3.8	9.6	24	7.4	-15%	
2004	5.0	3.0	7.8	22	7.3	-32%	
2005	8.3	5.5	11.9	34	7.3	14%	
2006	9.6	6.6	13.4	39	7.2	33%	
2007	7.6	5.0	11.0	31	7.1	7%	
2008	5.3	3.4	7.9	27	7.1	-25%	
2009	6.8	4.4	9.9	30	7.1	-4%	
2010	8.9	6.1	12.3	39	6.9	29%	
2011	6.3	4.1	9.2	28	6.9	-9%	
2012	6.4	4.3	9.2	34	6.8	-6%	
2013	5.4	3.5	8.0	28	6.8	-21%	
2014	7.0	4.9	9.7	39	6.6	6%	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

## Liver Cancer

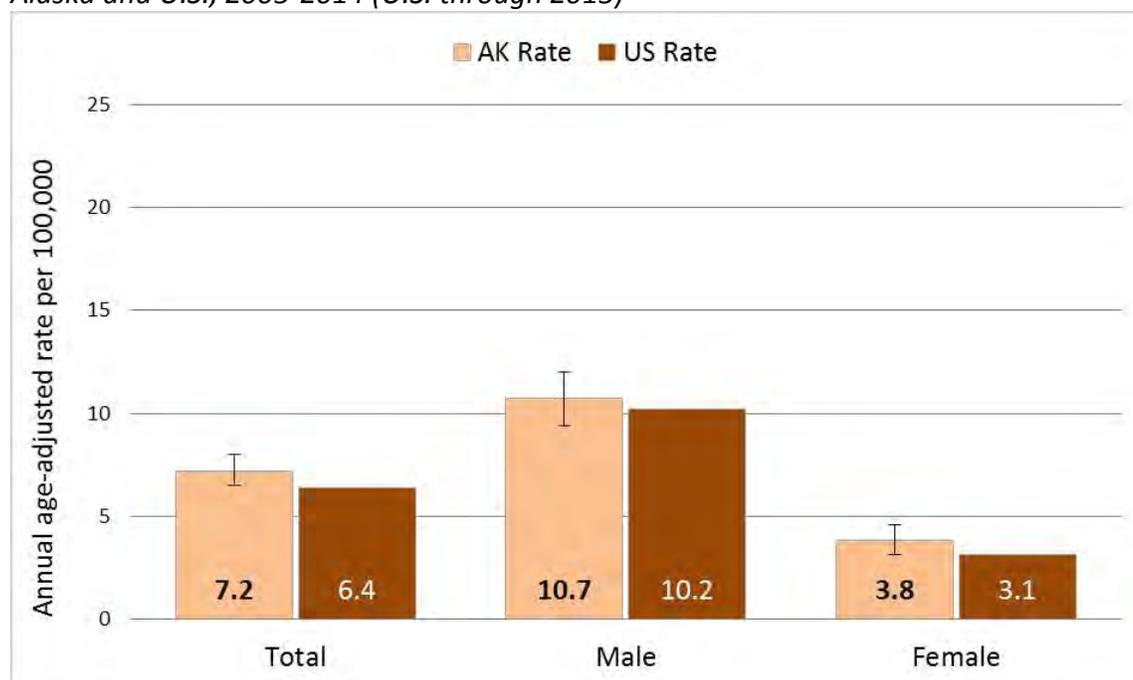
### Incidence (2005-2014)

- Alaska’s liver cancer incidence rate during the most recent 10 years was 7.2 per 100,000.
- Alaska’s rate was higher than the U.S. for recent years; trends have been similar to the U.S.
- The rate of liver cancer incidence was higher among men than women in Alaska.
- Asians/Pacific Islanders had higher rates of liver cancer than the state average; other race groups were similar to one another and the state overall.
- Mat-Su Region had a lower liver cancer incidence rate than the state average; other regions were not statistically different from the state.
- Between 1996 and 2014 the rate of liver cancer incidence increased in Alaska, by an average of 1.6% per year. The rate has also been increasing in the U.S.

### Total and by Gender

#### Liver cancer, incidence rate overall and by sex

Alaska and U.S., 2005-2014 (U.S. through 2013)



#### Liver cancer, incidence rate overall and by sex

Alaska and U.S., 2005-2014 (U.S. through 2013)

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>7.2</b>	<b>6.5</b>	<b>8.0</b>	<b>474</b>	<b>6.4</b>
Male	10.7	9.4	12.0	360	10.2
Female	3.8	3.1	4.6	114	3.1

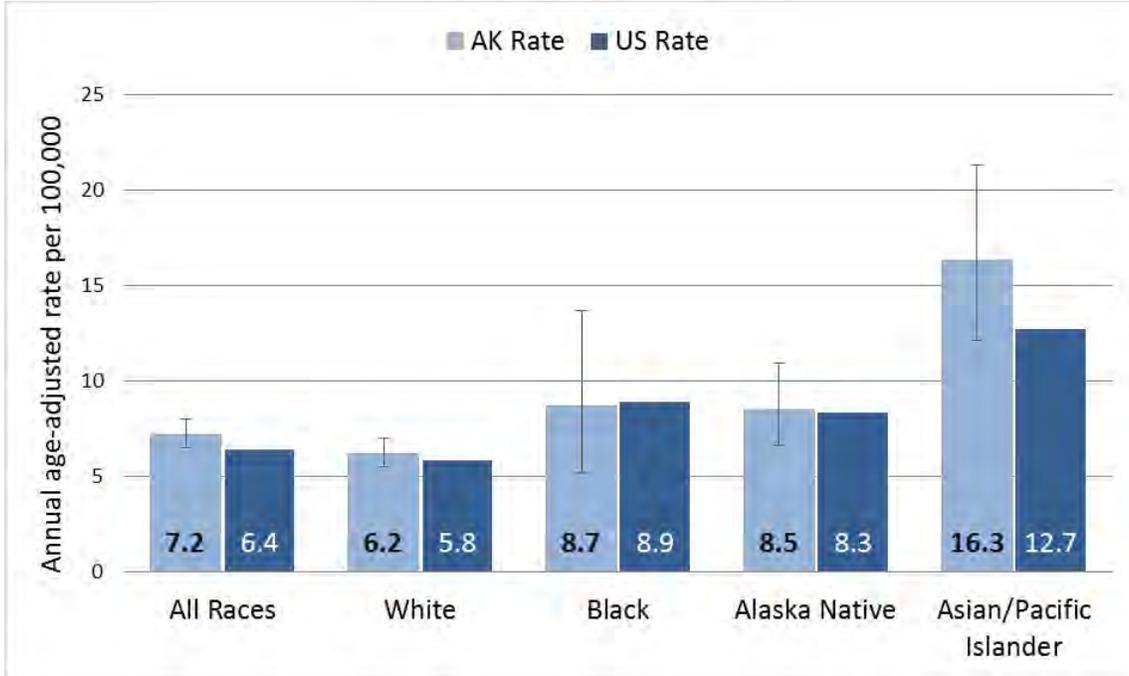
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Liver Cancer - Incidence

**By Race**

**Liver cancer, incidence rate by race**

Alaska and U.S., 2005-2014 (U.S. through 2013)



**Liver cancer, incidence rate by race**

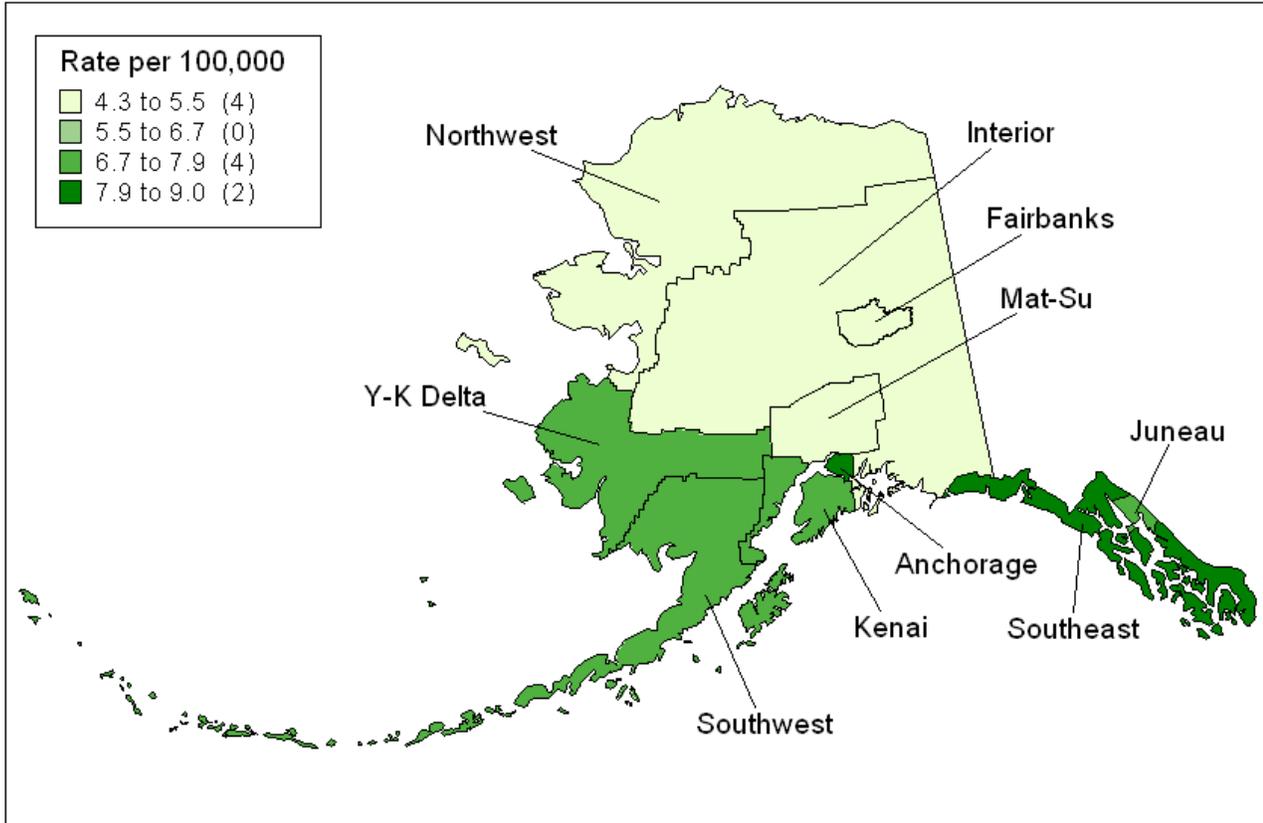
Alaska and U.S., 2005-2014 (U.S. through 2013)

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>7.2</b>	<b>6.5</b>	<b>8.0</b>	<b>474</b>	<b>6.4</b>
White	6.2	5.5	7.0	318	5.8
Black	8.7	5.2	13.7	21	8.9
American Indian/Alaska Native	8.5	6.6	10.9	74	8.3
Asian/Pacific Islander	16.3	12.1	21.3	60	12.7

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

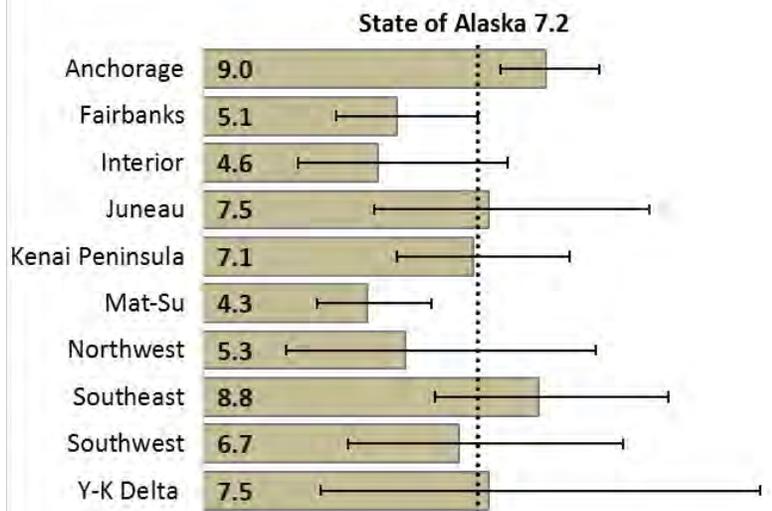
**By Behavioral Health Systems Region**

**Liver cancer, incidence rate by Behavioral Health Systems Region**  
Alaska residents, 2005-2014



**Liver cancer, incidence rate by Behavioral Health Systems Region**  
Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>7.2</b>	<b>6.5</b>	<b>8.0</b>	<b>474</b>
Anchorage	9.0	7.8	10.4	224
Fairbanks	5.1	3.5	7.2	40
Interior	4.6	2.5	8.0	15
Juneau	7.5	4.5	11.7	23
Kenai Peninsula	7.1	5.1	9.6	50
Mat-Su	4.3	3.0	6.0	41
Northwest	5.3	2.2	10.3	10
Southeast	8.8	6.1	12.2	40
Southwest	6.7	3.8	11.0	20
Y-K Delta	7.5	3.1	14.6	11



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Liver Cancer - Incidence

**By Borough/Census Area**

**Liver cancer, incidence rate by Alaska Borough/Census Area**

Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>7.3</b>	<b>6.6</b>	<b>8.1</b>	<b>472</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	9.0	7.8	10.4	224	
Bethel Census Area	^	^	^	^	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	^	^	^	^	
Fairbanks North Star Borough	5.1	3.5	7.2	40	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	7.5	4.5	11.7	23	
Kenai Peninsula Borough	7.1	5.1	9.6	50	
Ketchikan Gateway Borough	10.7	5.7	18.2	15	
Kodiak Island Borough	9.6	4.5	17.8	12	
Kusilvak Census Area	13.0	3.3	32.0	6	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	4.3	3.0	6.0	41	–
Nome Census Area	^	^	^	^	
North Slope Borough	^	^	^	^	
Northwest Arctic Borough	^	^	^	^	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	^	^	^	^	
Sitka Borough	9.2	4.0	18.1	9	
Skagway Municipality	^	^	^	^	
Southeast Fairbanks Census Area	^	^	^	^	
Valdez-Cordova Census Area	4.4	1.6	11.0	6	
Wrangell Borough	^	^	^	^	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	^	^	^	^	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

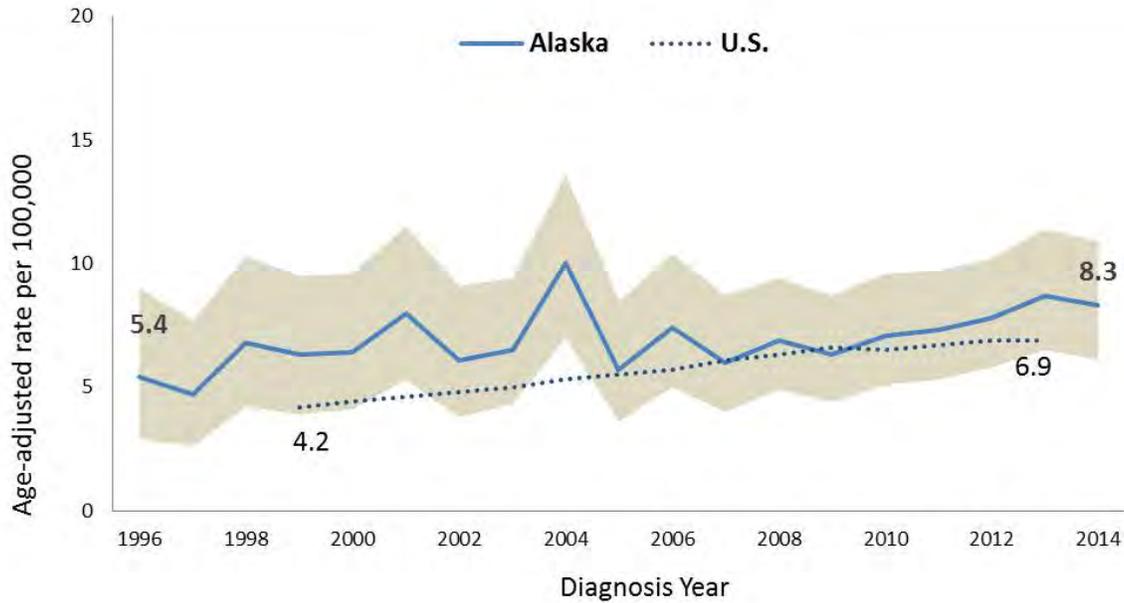
^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

**Liver cancer, incidence rate**

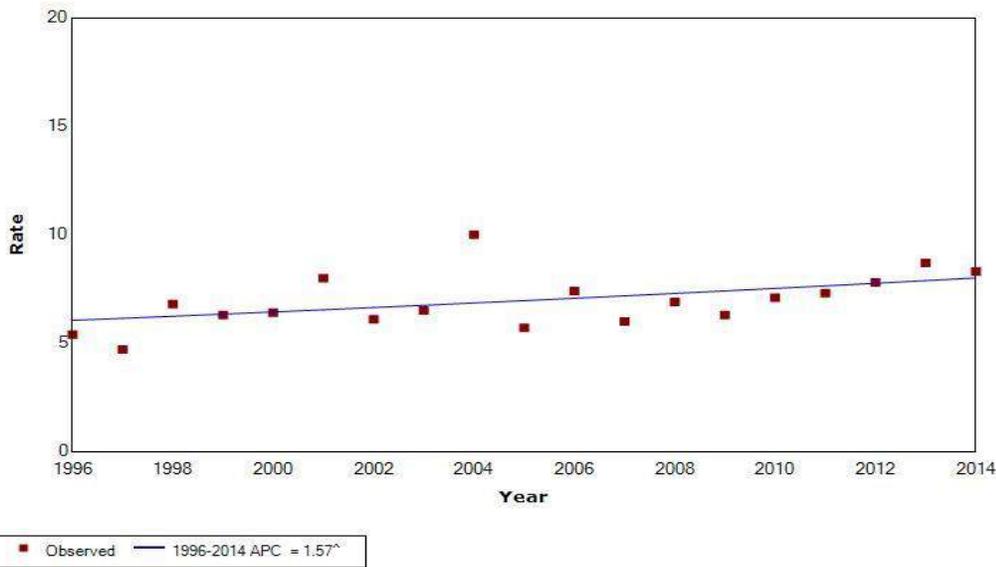
Alaska and U.S., 1996-2014 (U.S. through 2013)



Shading shows 95% confidence interval for Alaska's annual rates. 95% confidence interval for U.S. rates is about  $\pm 0.1$ . Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Liver cancer, incidence rate trend and change in trend**

Alaska residents, 1996-2014



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

Liver Cancer - Incidence

**Liver cancer, incidence rate**

Alaska and U.S., 1996-2014 (U.S. through 2013)

Year	Alaska			Count	U.S.	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate		
1996	5.4	2.9	9.0	15	**		
1997	4.7	2.6	7.7	19	**		
1998	6.8	4.2	10.3	26	**		
1999	6.3	3.9	9.5	26	4.2	50%	
2000	6.4	4.1	9.6	27	4.4	45%	
2001	8.0	5.3	11.5	34	4.6	74%	+
2002	6.1	3.8	9.1	28	4.8	27%	
2003	6.5	4.3	9.4	34	5.0	30%	
2004	10.0	7.0	13.6	47	5.3	89%	+
2005	5.7	3.6	8.5	28	5.5	4%	
2006	7.4	5.0	10.4	40	5.7	30%	
2007	6.0	4.0	8.7	33	6.1	-2%	
2008	6.9	4.9	9.4	45	6.3	10%	
2009	6.3	4.4	8.7	45	6.6	-5%	
2010	7.1	5.1	9.6	49	6.5	9%	
2011	7.3	5.3	9.7	55	6.7	9%	
2012	7.8	5.8	10.2	60	6.9	13%	
2013	8.7	6.5	11.4	62	6.9	26%	
2014	8.3	6.1	10.9	57	**		

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm 0.5\%$  outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

\*\* U.S. data for 1996-1998 are not available; data for 2014 are not yet available.

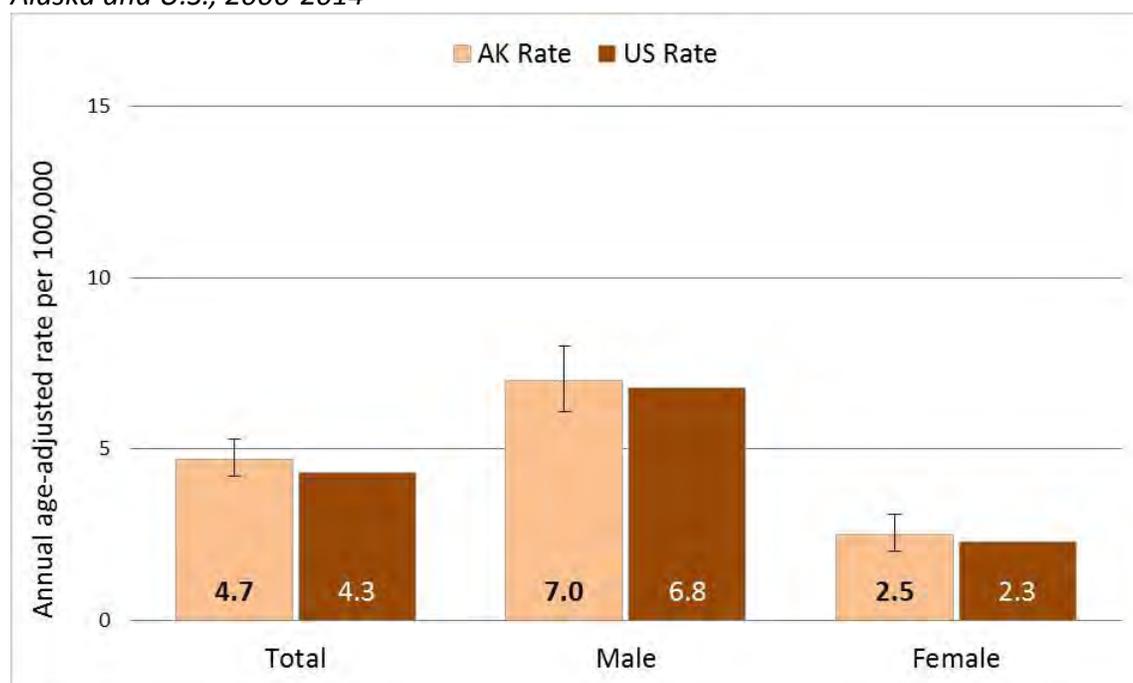
## Mortality (2000-2014)

- Alaska’s liver cancer mortality rate during the most recent 15 years was 4.7 per 100,000.
- Alaska’s rate and trend have been similar to the U.S. rate and trend during recent years.
- The rate of liver cancer mortality was higher among men than women in Alaska.
- Asians/Pacific Islanders and Alaska Native people in Alaska had higher liver cancer mortality rates than Whites.
- There were no detectable significant differences in liver cancer mortality by region in Alaska.
- Between 1996 and 2014 the rate of liver cancer mortality did not change significantly in Alaska.

### Total and by Gender

#### Liver cancer, mortality rate overall and by sex

Alaska and U.S., 2000-2014



#### Liver cancer, mortality rate overall and by sex

Alaska and U.S., 2000-2014

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>4.7</b>	<b>4.2</b>	<b>5.3</b>	<b>382</b>	<b>4.3</b>
Male	7.0	6.1	8.0	292	6.8
Female	2.5	2.0	3.1	90	2.3

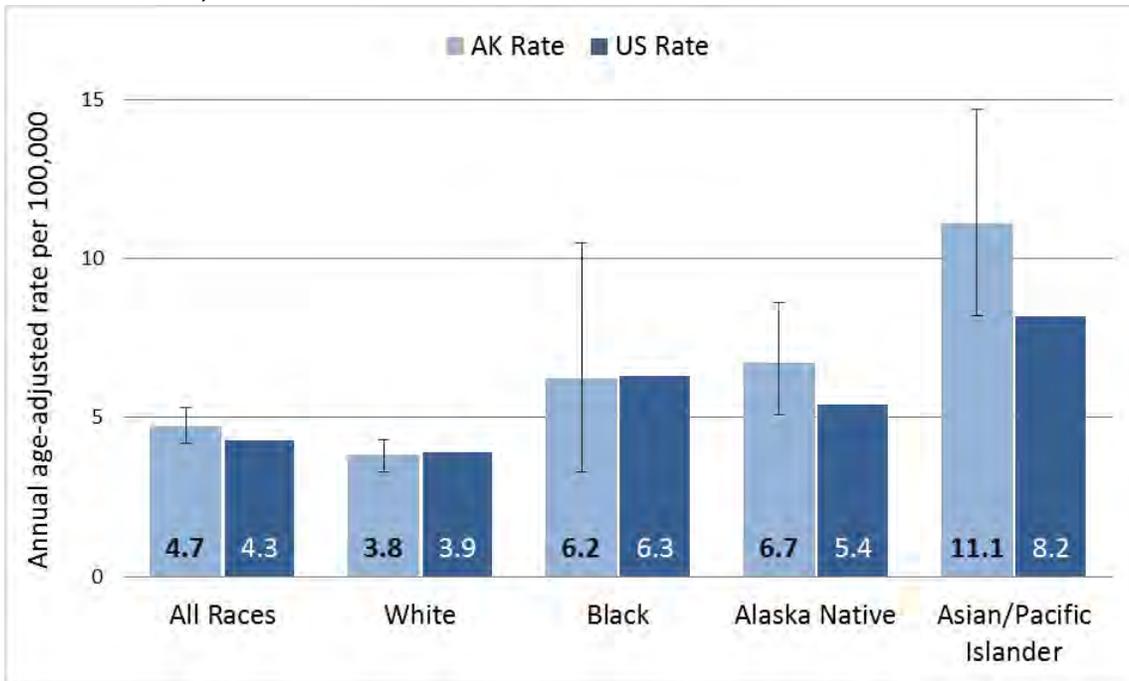
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Liver Cancer - Mortality

**By Race**

**Liver cancer, mortality rate by race**

Alaska and U.S., 2000-2014



**Liver cancer, mortality rate by race**

Alaska and U.S., 2000-2014

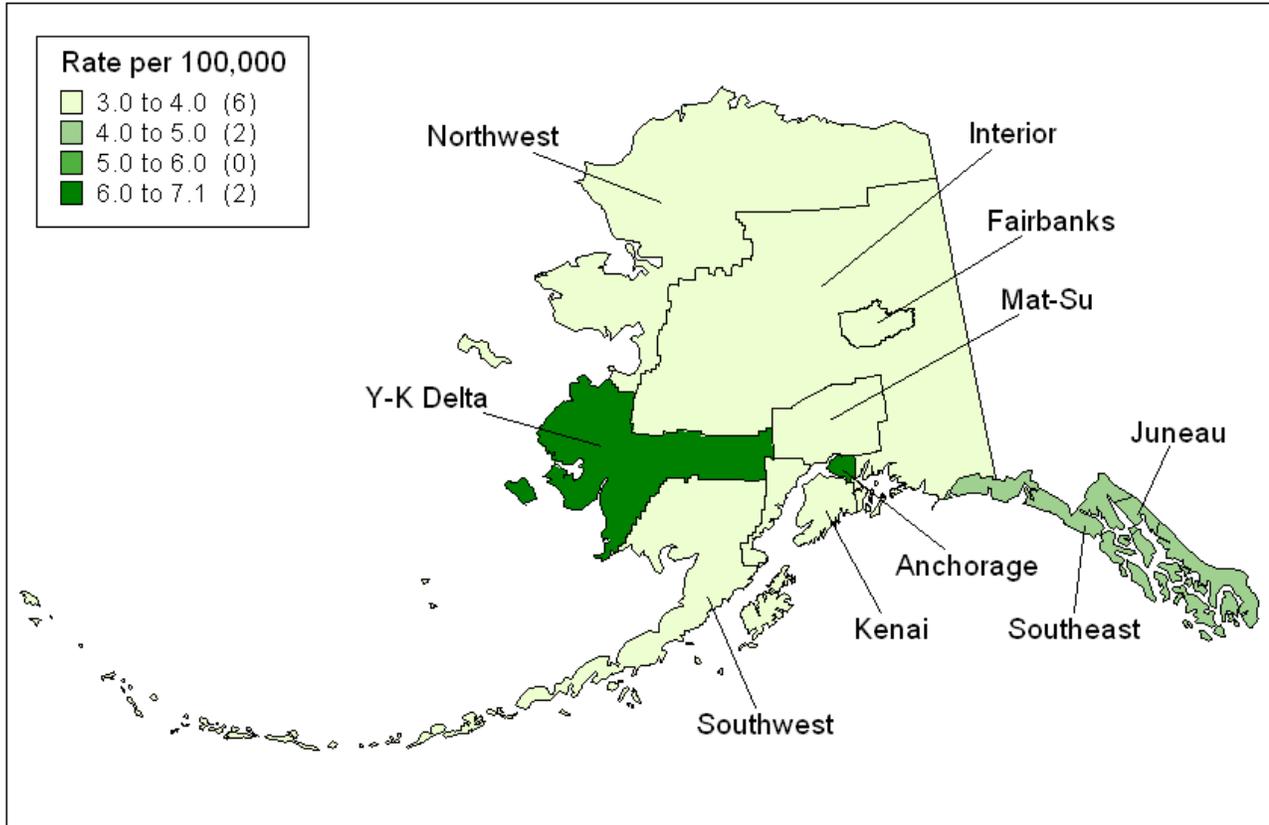
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>4.7</b>	<b>4.2</b>	<b>5.3</b>	<b>382</b>	<b>4.3</b>
White	3.8	3.3	4.3	238	3.9
Black	6.2	3.3	10.5	16	6.3
American Indian/Alaska Native	6.7	5.1	8.6	70	5.4
Asian/Pacific Islander	11.1	8.2	14.7	55	8.2

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Behavioral Health Systems Region**

**Liver cancer, mortality rate by Behavioral Health Systems Region**

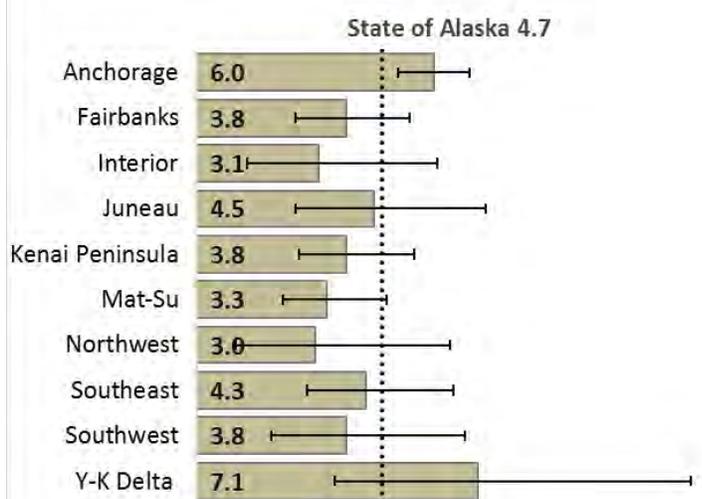
Alaska residents, 2000-2014



**Liver cancer, mortality rate by Behavioral Health Systems Region**

Alaska residents, 2000-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>4.7</b>	<b>4.2</b>	<b>5.3</b>	<b>382</b>
Anchorage	6.0	5.1	6.9	189
Fairbanks	3.8	2.5	5.4	34
Interior	3.1	1.3	6.1	10
Juneau	4.5	2.5	7.3	18
Kenai Peninsula	3.8	2.6	5.5	37
Mat-Su	3.3	2.2	4.8	33
Northwest	3.0	1.0	6.4	7
Southeast	4.3	2.8	6.5	27
Southwest	3.8	1.9	6.8	14
Y-K Delta	7.1	3.5	12.5	13



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Liver Cancer - Mortality

**By Borough/Census Area**

**Liver cancer, mortality rate by Borough/Census Area**

Alaska residents, 2000-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>4.7</b>	<b>4.2</b>	<b>5.3</b>	<b>382</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	6.0	5.1	6.9	189	
Bethel Census Area	6.2	2.5	12.4	9	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	^	^	^	^	
Fairbanks North Star Borough	3.8	2.5	5.4	34	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	4.5	2.5	7.3	18	
Kenai Peninsula Borough	3.8	2.6	5.5	37	
Ketchikan Gateway Borough	5.7	2.7	10.6	11	
Kodiak Island Borough	4.7	1.7	10.3	7	
Kusilvak Census Area	^	^	^	^	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	3.3	2.2	4.8	33	
Nome Census Area	^	^	^	^	
North Slope Borough	^	^	^	^	
Northwest Arctic Borough	^	^	^	^	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	^	^	^	^	
Prince of Wales-Outer Ketchikan Census Area	^	^	^	^	
Sitka Borough	6.4	2.8	12.6	9	
Skagway Municipality	^	^	^	^	
Skagway-Hoonah-Angoon Census Area	^	^	^	^	
Southeast Fairbanks Census Area	^	^	^	^	
Valdez-Cordova Census Area	^	^	^	^	
Wrangell Borough	^	^	^	^	
Wrangell-Petersburg Census Area	^	^	^	^	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	^	^	^	^	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

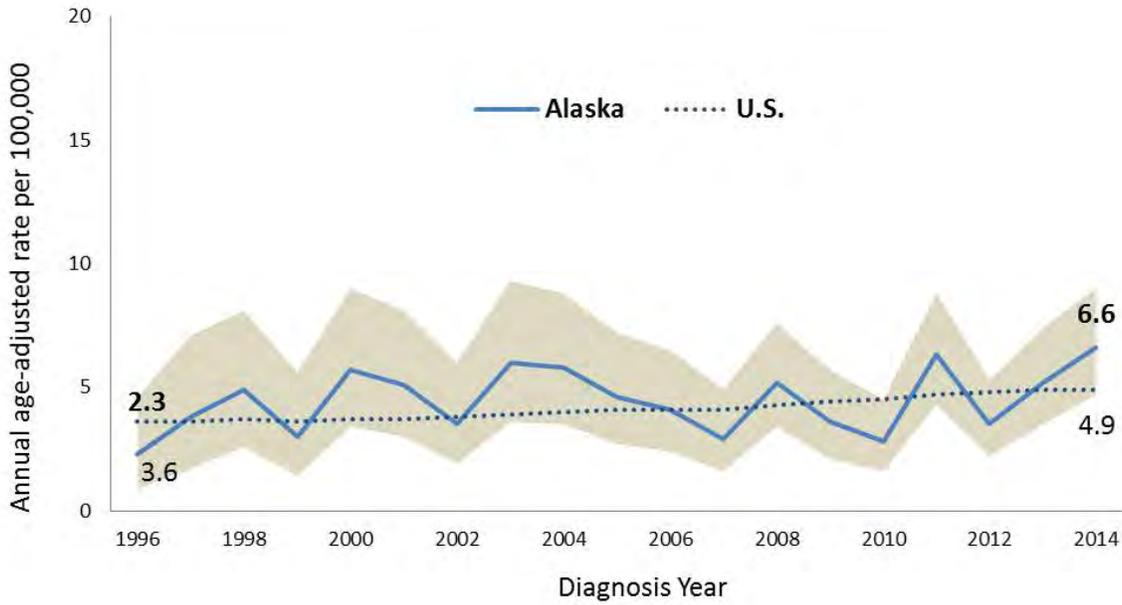
^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

**Liver cancer, mortality rate**

Alaska and U.S., 1996-2014



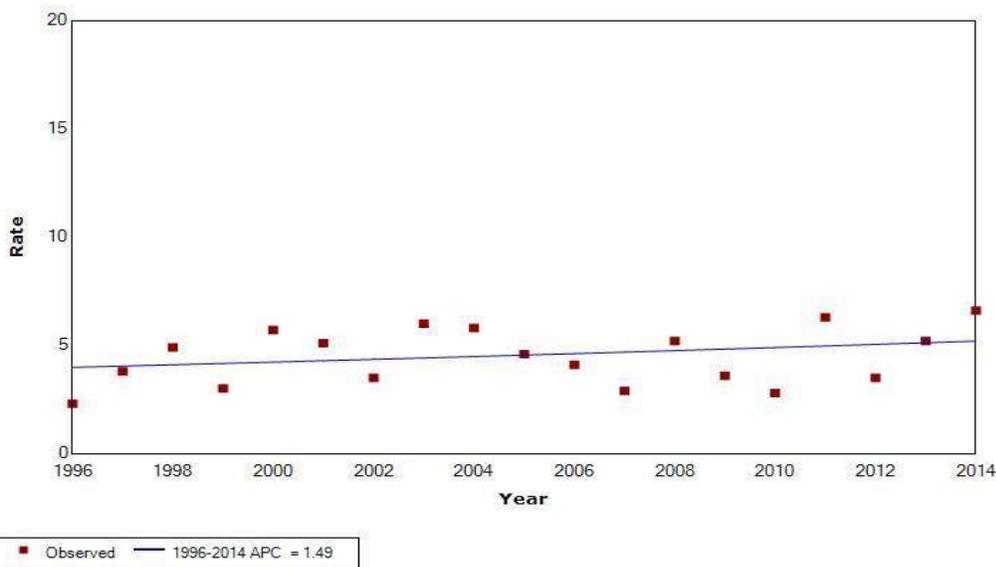
Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1.

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Liver cancer, mortality rate trend and change in trend**

Alaska residents, 1996-2014



Annual percent change is not significantly different from zero; no significant change in trend over time.

Liver Cancer - Mortality

**Liver cancer, mortality rate**

Alaska and U.S., 1996-2014

Year	Alaska			Count	U.S.	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate		
1996	2.3	0.9	4.6	8	3.6	-36%	
1997	3.8	1.7	7.1	11	3.6	6%	
1998	4.9	2.6	8.1	16	3.7	32%	
1999	3.0	1.4	5.6	11	3.6	-17%	
2000	5.7	3.4	9.0	20	3.7	54%	
2001	5.1	3.0	8.1	21	3.7	38%	
2002	3.5	1.9	6.0	16	3.8	-8%	
2003	6.0	3.6	9.3	23	3.9	54%	
2004	5.8	3.5	8.8	24	4.0	45%	
2005	4.6	2.7	7.2	20	4.1	12%	
2006	4.1	2.4	6.5	20	4.1	0%	
2007	2.9	1.6	4.9	17	4.1	-29%	
2008	5.2	3.4	7.6	30	4.3	21%	
2009	3.6	2.1	5.7	23	4.4	-18%	
2010	2.8	1.6	4.5	19	4.5	-38%	
2011	6.3	4.3	8.8	39	4.7	34%	
2012	3.5	2.2	5.3	27	4.8	-27%	
2013	5.2	3.5	7.4	37	4.9	6%	
2014	6.6	4.7	9.0	46	4.9	35%	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

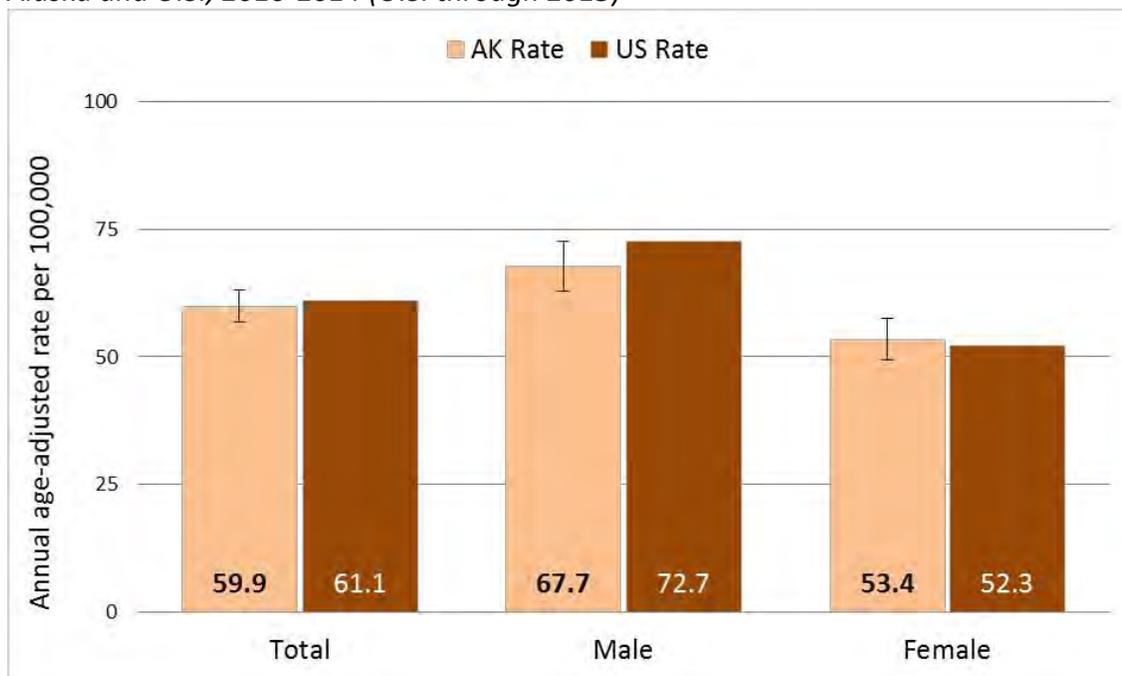
## Lung and Bronchus Cancer

### Incidence (2010-2014)

- Alaska’s lung and bronchus cancer incidence rate during the most recent 5 years was 59.9 per 100,000.
- Alaska’s rate and trend have been similar to the U.S. rate and trend during recent years.
- The rate of lung and bronchus cancer incidence was higher among men than women in Alaska.
- The rate of lung and bronchus cancer incidence was higher among Alaska Native people than among other race groups and the state average in Alaska; the rate among Alaska Native people was also higher than among American Indian and Alaska Native people in the U.S.
- Lung and bronchus cancer incidence is lower in the Juneau region, and higher in the Northwest region, in comparison to the Alaska state rate.
- Between 1996 and 2009 the rate of lung and bronchus cancer incidence decreased by an average of 0.8% per year, and between 2009 and 2014 the rate decreased even further to about 5.9% per year in Alaska.

### Total and by Gender

**Lung and bronchus cancer, incidence rate overall and by sex**  
Alaska and U.S., 2010-2014 (U.S. through 2013)



**Lung and bronchus cancer, incidence rate overall and by sex**  
Alaska and U.S., 2010-2014 (U.S. through 2013)

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>59.9</b>	<b>56.9</b>	<b>63.1</b>	<b>1,713</b>	<b>61.1</b>
Male	67.7	62.9	72.7	939	72.7
Female	53.4	49.5	57.5	774	52.3

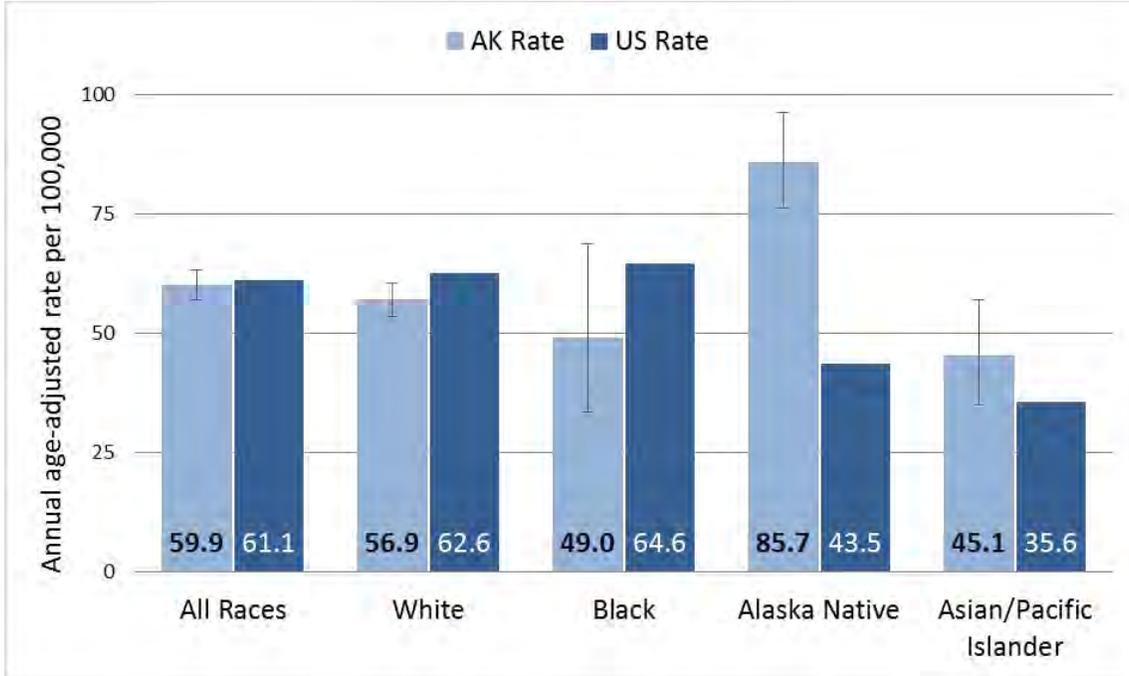
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Lung and Bronchus - Incidence

**By Race**

**Lung and bronchus cancer, incidence rate by race**

Alaska and U.S., 2010-2014 (U.S. through 2013)



**Lung and bronchus cancer, incidence rate by race**

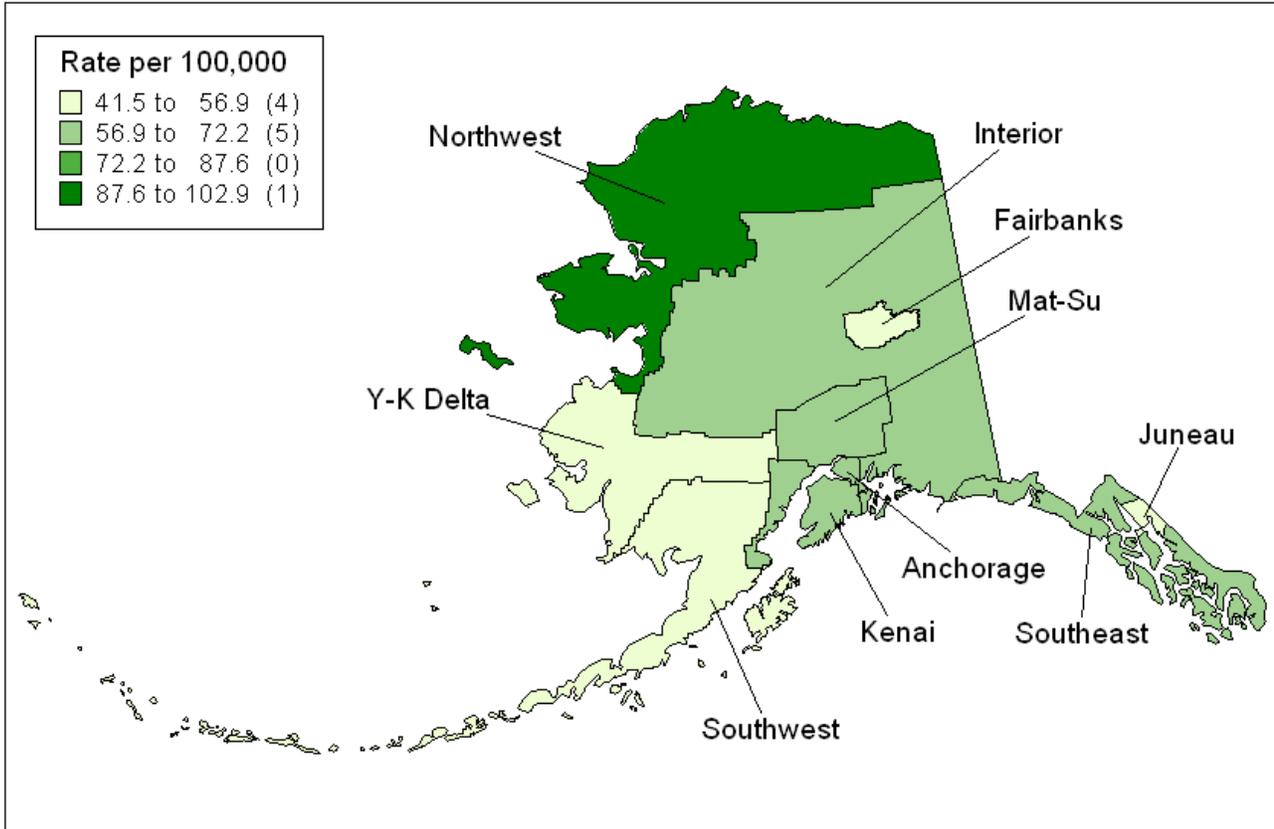
Alaska and U.S., 2010-2014 (U.S. through 2013)

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>59.9</b>	<b>56.9</b>	<b>63.1</b>	<b>1,713</b>	<b>61.1</b>
White	56.9	53.5	60.4	1,268	62.6
Black	49.0	33.4	68.6	38	64.6
American Indian/Alaska Native	85.7	76.1	96.2	322	43.5
Asian/Pacific Islander	45.1	35.0	56.9	81	35.6

**By Behavioral Health Systems Region**

**Lung and bronchus cancer, incidence rate by Behavioral Health Systems Region**

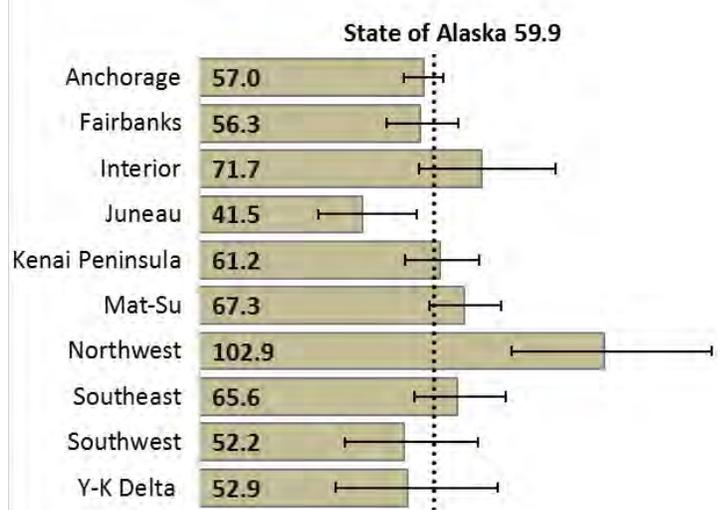
Alaska residents, 2010-2014



**Lung and bronchus cancer, incidence rate by Behavioral Health Systems Region**

Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>59.9</b>	<b>56.9</b>	<b>63.1</b>	<b>1,713</b>
Anchorage	57.0	52.2	62.0	624
Fairbanks	56.3	47.7	65.9	182
Interior	71.7	55.8	90.6	86
Juneau	41.5	30.3	55.3	55
Kenai Peninsula	61.2	52.4	71.2	197
Mat-Su	67.3	58.5	76.9	258
Northwest	102.9	79.5	130.2	81
Southeast	65.6	54.8	78.0	146
Southwest	52.2	37.1	70.8	53
Y-K Delta	52.9	34.9	75.8	31



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Lung and Bronchus - Incidence

**By Borough/Census Area**

**Lung and bronchus cancer, incidence rate by Alaska Borough/Census Area**

Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>59.9</b>	<b>57</b>	<b>63.1</b>	<b>1,713</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	57.0	52.2	62.0	624	
Bethel Census Area	45.7	26.6	71.5	19	
Bristol Bay Borough	^	^	^	^	
Denali Borough	50.5	18.3	140.6	7	
Dillingham Census Area	46.6	19.8	91.1	10	
Fairbanks North Star Borough	56.3	47.7	65.9	182	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	44.2	16.7	103.2	7	
Juneau Borough	41.5	30.3	55.3	55	–
Kenai Peninsula Borough	61.2	52.4	71.2	197	
Ketchikan Gateway Borough	80.0	58.7	106.3	52	
Kodiak Island Borough	64.7	41.4	95.2	31	
Kusilvak Census Area	72.1	34.6	128.1	12	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	67.3	58.5	76.9	258	
Nome Census Area	111.1	75.1	156.9	36	+
North Slope Borough	146.1	92.4	215.8	31	+
Northwest Arctic Borough	61.3	32.2	103.7	14	
Petersburg Borough	79.9	39.3	143.2	13	
Prince of Wales-Hyder Census Area	71.6	42.7	112.9	22	
Sitka Borough	58.6	38.4	85.9	29	
Skagway Municipality	^	^	^	^	
Southeast Fairbanks Census Area	85.0	53.8	127.1	28	
Valdez-Cordova Census Area	67.1	42.2	100.7	32	
Wrangell Borough	79.6	43.3	140.4	15	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	63.5	37.3	101.2	19	

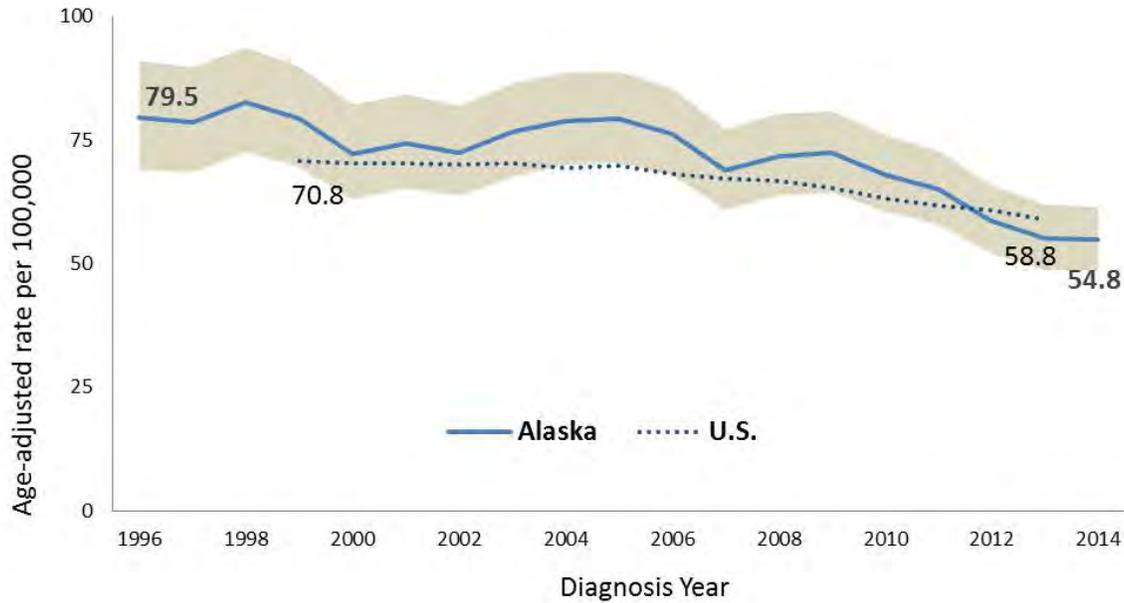
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

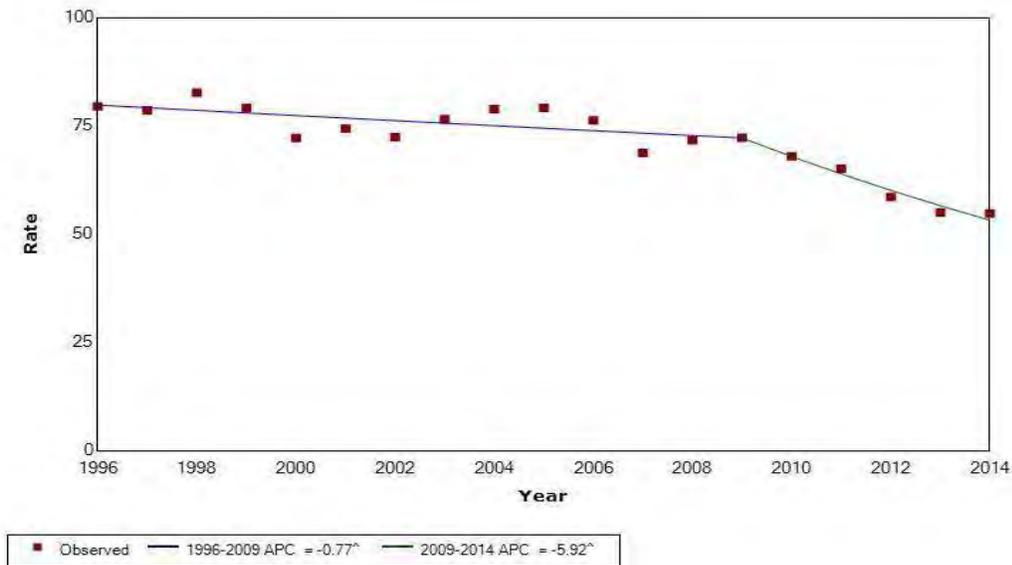
**Trend over time, Alaska and U.S.**

**Lung and bronchus cancer, incidence rate**  
 Alaska and U.S., 1996-2014 (U.S. through 2013)



Shading shows 95% confidence interval for Alaska's annual rates. 95% confidence interval for U.S. rates is about  $\pm 0.1$ . Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Lung and bronchus cancer, incidence rate trend and change in trend**  
 Alaska residents, 1996-2014



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

Lung and Bronchus - Incidence

**Lung and bronchus cancer, incidence rate**  
 Alaska and U.S., 1996-2014 (U.S. through 2013)

Year	Alaska			Count	U.S.	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate		
1996	79.5	69.0	91.0	253	**		
1997	78.6	68.4	89.7	258	**		
1998	82.7	72.6	93.7	280	**		
1999	79.2	69.4	89.8	275	70.8	12%	
2000	72.2	63.0	82.2	260	70.2	3%	
2001	74.4	65.3	84.2	283	70.3	6%	
2002	72.4	63.7	81.9	289	70.0	3%	
2003	76.6	67.5	86.4	299	70.2	9%	
2004	78.9	70.0	88.6	327	69.4	14%	+
2005	79.2	70.4	88.8	337	69.7	14%	+
2006	76.3	67.9	85.4	350	68.1	12%	
2007	68.8	60.9	77.2	330	67.2	2%	
2008	71.7	63.7	80.3	349	66.6	8%	
2009	72.3	64.4	80.8	365	65.4	11%	
2010	68.0	60.5	76.0	361	63.1	8%	
2011	65.1	57.9	72.8	349	61.7	6%	
2012	58.6	52.0	65.8	341	60.7	-3%	
2013	55.0	48.7	61.9	324	58.8	-6%	
2014	54.8	48.7	61.5	338	**		

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

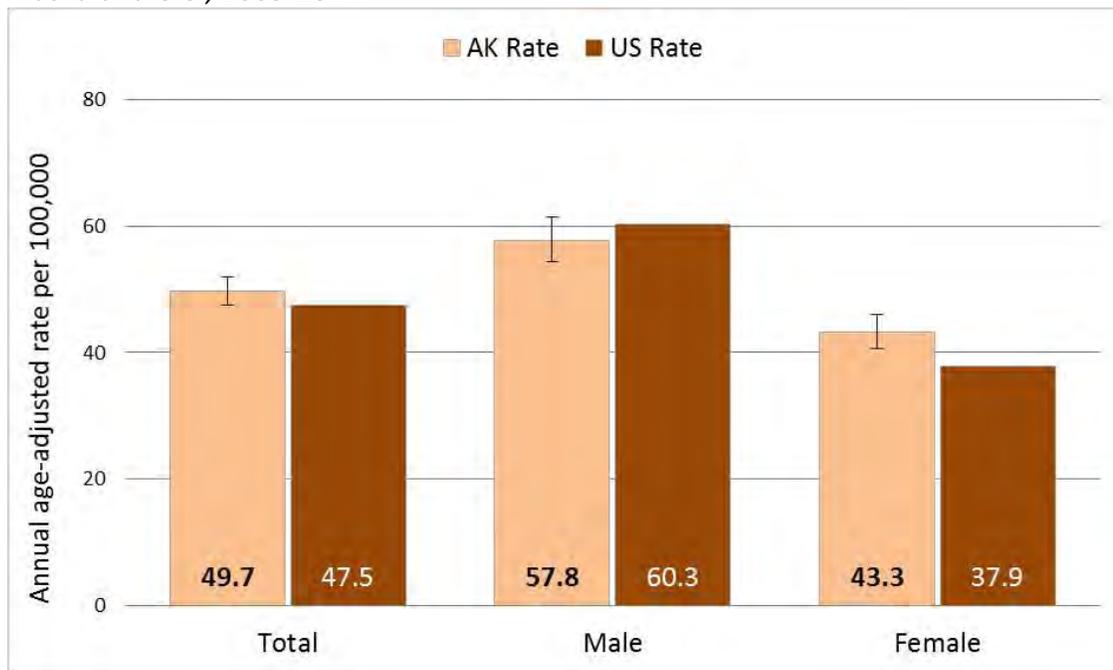
\*\* U.S. data for 1996-1998 are not available; data for 2014 are not yet available.

### Mortality (2005-2014)

- Alaska’s lung and bronchus cancer mortality rate during the most recent 10 years was 49.7 per 100,000.
- Alaska’s rate and trend have been similar to the U.S. rate and trend during recent years.
- The rate of lung and bronchus cancer mortality was higher among men than women in Alaska. The rate was higher for women in Alaska than among women in the U.S.
- Alaska Native people had a higher lung and bronchus cancer mortality rate than Whites and the state average in Alaska, as well as higher mortality than American Indian and Alaska Native people in the U.S. Asians/Pacific Islanders in Alaska had a lower lung and bronchus cancer mortality than Whites and the state average in Alaska, although their rate was higher than for Asians/Pacific Islanders in the U.S.
- The Northwest region of Alaska, and some specific areas within that region, had a higher lung and bronchus cancer mortality rate than the state average; other regions were not statistically different from the state average.
- Between 1996 and 2014 the rate of lung and bronchus cancer mortality decreased in Alaska, by an average of 1.5% per year.

### Total and by Gender

**Lung and bronchus cancer, mortality rate overall and by sex**  
Alaska and U.S., 2005-2014



**Lung and bronchus cancer, mortality rate overall and by sex**  
Alaska and U.S., 2005-2014

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>49.7</b>	<b>47.6</b>	<b>51.9</b>	<b>2,461</b>	<b>47.5</b>
Male	57.8	54.4	61.4	1,366	60.3
Female	43.3	40.6	46.0	1,095	37.9

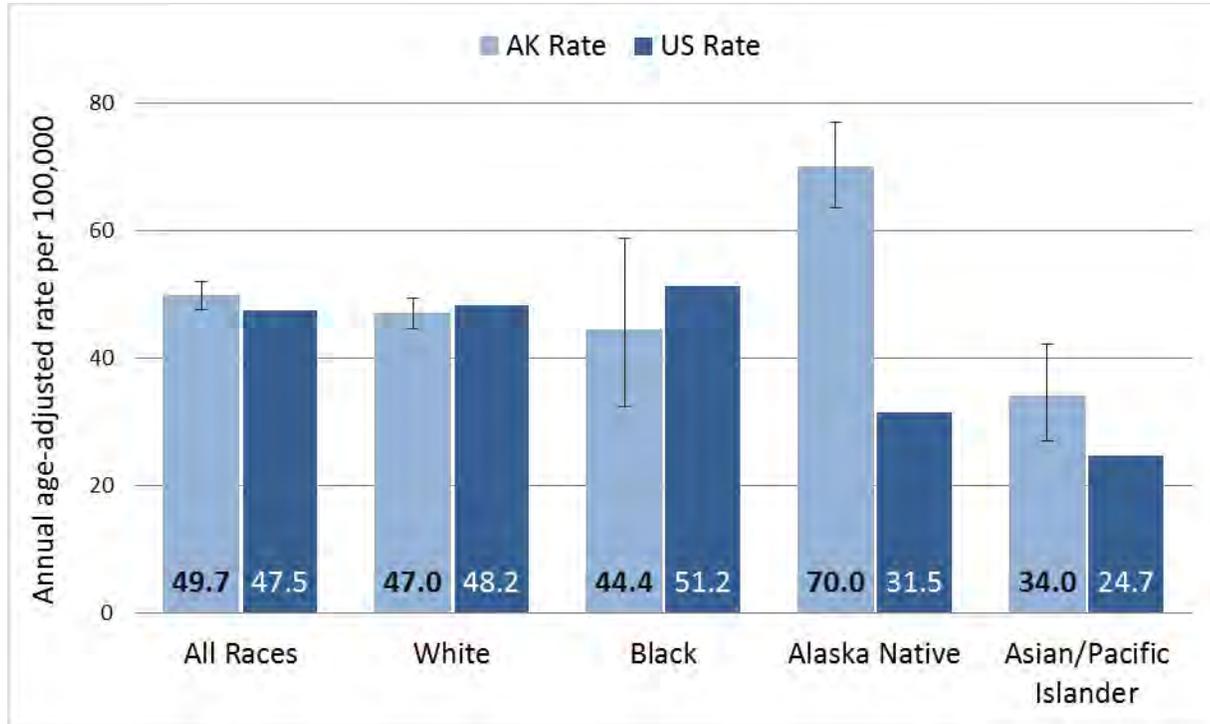
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Lung and Bronchus - Mortality

**By Race**

**Lung and bronchus cancer, mortality rate by race**

Alaska and U.S., 2005-2014



**Lung and bronchus cancer, mortality rate by race**

Alaska and U.S., 2005-2014

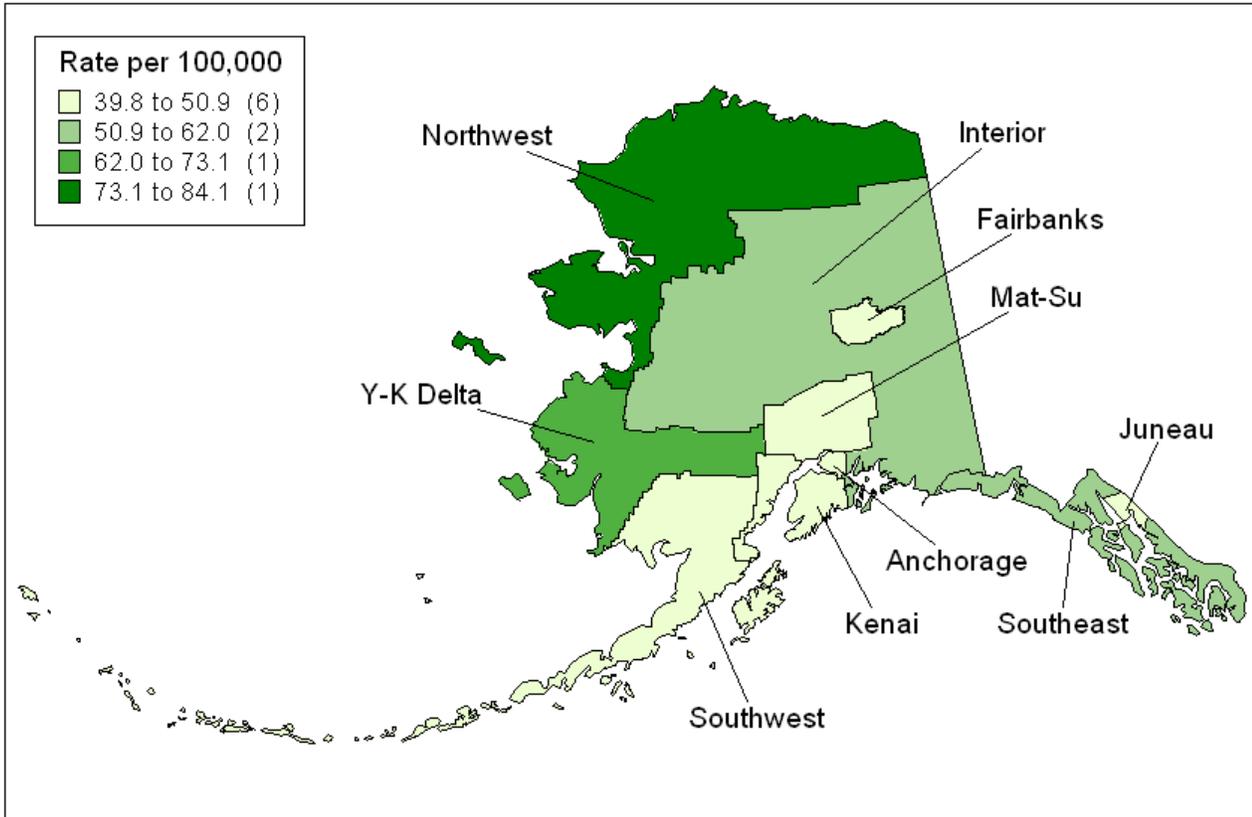
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>49.7</b>	<b>47.6</b>	<b>51.9</b>	<b>2,461</b>	<b>47.5</b>
White	47.0	44.6	49.4	1,810	48.2
Black	44.4	32.4	58.8	55	51.2
American Indian/Alaska Native	70.0	63.5	76.9	479	31.5
Asian/Pacific Islander	34.0	26.9	42.1	96	24.7

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Behavioral Health Systems Region**

**Lung and bronchus cancer, mortality rate by Behavioral Health Systems Region**

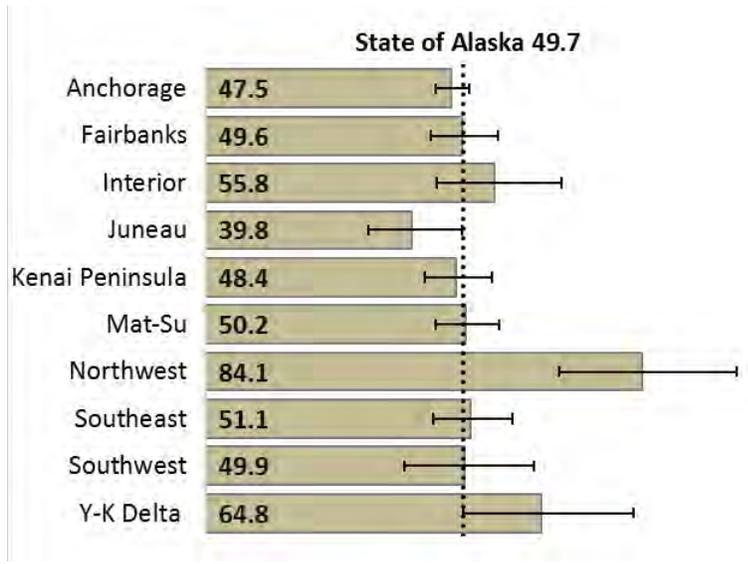
Alaska residents, 2005-2014



**Lung and bronchus cancer, mortality rate by Behavioral Health Systems Region**

Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>49.7</b>	<b>47.6</b>	<b>51.9</b>	<b>2,461</b>
Anchorage	47.5	44.3	50.9	939
Fairbanks	49.6	43.5	56.4	281
Interior	55.8	44.7	68.6	107
Juneau	39.8	31.4	49.5	91
Kenai Peninsula	48.4	42.3	55.2	255
Mat-Su	50.2	44.3	56.6	314
Northwest	84.1	68.2	102.4	114
Southeast	51.1	43.9	59.1	201
Southwest	49.9	38.5	63.4	87
Y-K Delta	64.8	49.8	82.5	72



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Lung and Bronchus - Mortality

**By Borough/Census Area**

**Lung and bronchus cancer, mortality rate by Borough/Census Area**

Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>49.7</b>	<b>48</b>	<b>51.9</b>	<b>2,461</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	73.3	25.8	150.8	11	
Municipality of Anchorage	47.5	44.3	50.9	939	
Bethel Census Area	53.2	37.5	72.6	43	
Bristol Bay Borough	^	^	^	^	
Denali Borough	26.6	8.6	77.3	6	
Dillingham Census Area	38.2	18.2	68.6	12	
Fairbanks North Star Borough	49.6	43.5	56.4	281	
Haines Borough	39.6	19.0	74.2	11	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	39.8	31.4	49.5	91	
Kenai Peninsula Borough	48.4	42.3	55.2	255	
Ketchikan Gateway Borough	66.1	51.7	83.3	80	
Kodiak Island Borough	62.0	44.3	83.6	51	
Kusilvak Census Area	94.2	61.4	136.3	29	+
Lake and Peninsula Borough	48.5	14.8	113.2	6	
Matanuska-Susitna Borough	50.2	44.3	56.6	314	
Nome Census Area	90.0	65.2	120.3	50	+
North Slope Borough	127.0	87.5	175.7	44	+
Northwest Arctic Borough	48.2	28.7	74.5	20	
Petersburg Borough	47.4	17.2	101.9	7	
Prince of Wales-Hyder Census Area	42.7	21.3	76.9	13	
Prince of Wales-Outer Ketchikan Census Area	48.0	22.1	89.9	12	
Sitka Borough	38.6	26.4	54.4	34	
Skagway Municipality	^	^	^	^	
Skagway-Hoonah-Angoon Census Area	33.4	10.7	80.1	6	
Southeast Fairbanks Census Area	71.6	48.2	101.5	37	
Valdez-Cordova Census Area	54.5	36.8	77.0	40	
Wrangell Borough	51.9	23.1	106.8	9	
Wrangell-Petersburg Census Area	66.7	40.3	104.1	21	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	45.9	28.8	69.1	24	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

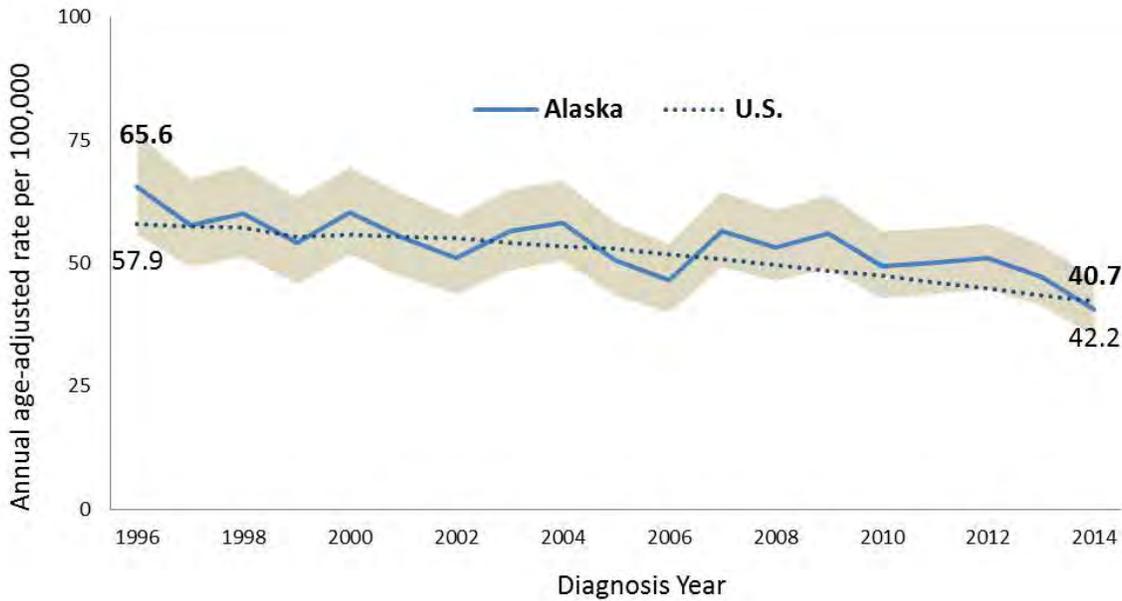
^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

**Lung and bronchus cancer, mortality rate**

Alaska and U.S., 1996-2014

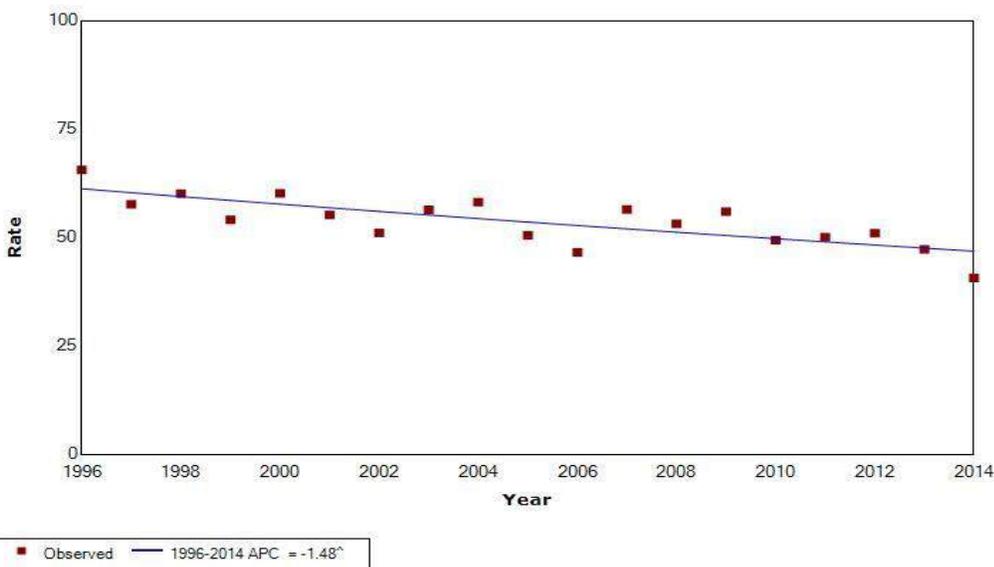


Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1. Rates are per 100,000 and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Lung and bronchus cancer, mortality rate trend and change in trend**

Alaska residents, 1996-2014



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

Lung and Bronchus - Mortality

**Lung and bronchus cancer, mortality rate**

Alaska and U.S., 1996-2014

Year	Alaska				U.S.	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI	Count	Annual rate		
1996	65.6	55.8	76.5	186	57.9	13%	
1997	57.7	49.2	67.1	191	57.5	0%	
1998	60.1	51.3	69.8	195	57.1	5%	
1999	54.1	45.8	63.3	177	55.4	-2%	
2000	60.2	51.7	69.5	205	55.8	8%	
2001	55.2	47.2	64.0	196	55.3	0%	
2002	51.1	43.7	59.4	197	55.0	-7%	
2003	56.4	48.6	65.0	213	54.2	4%	
2004	58.2	50.4	66.7	228	53.4	9%	
2005	50.5	43.4	58.3	212	52.9	-5%	
2006	46.6	40.0	53.9	203	51.7	-10%	
2007	56.5	49.2	64.5	252	50.7	11%	
2008	53.2	46.4	60.8	256	49.6	7%	
2009	56.0	48.9	63.8	263	48.4	16%	+
2010	49.4	42.8	56.6	238	47.4	4%	
2011	50.1	43.8	57.1	266	46.0	9%	
2012	51.0	44.6	58.0	261	44.9	14%	
2013	47.3	41.4	53.8	272	43.4	9%	
2014	40.7	35.3	46.6	238	42.2	-4%	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

## Non-Hodgkin Lymphoma

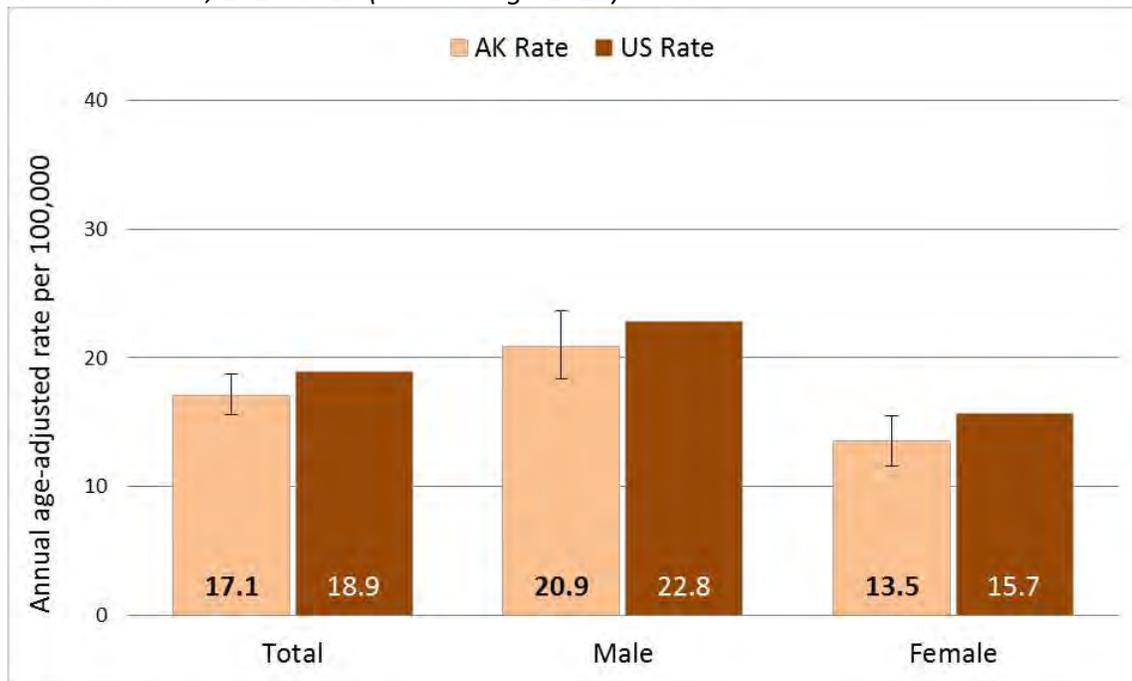
### Incidence (2010-2014)

- Alaska’s non-Hodgkin lymphoma (NHL) incidence rate during the most recent 5 years was 17.1 per 100,000.
- Alaska’s rate was lower than the U.S. for recent years; trends have been similar to the U.S.
- The rate of NHL incidence was higher among men than women in Alaska.
- There were no detectable differences in NHL incidence rate among race groups in Alaska.
- There were no detectable differences in NHL incidence rate for different regions in Alaska.
- Between 1996 and 2014 the rate of NHL incidence decreased in Alaska, by an average of 1.5% per year.

### Total and by Gender

#### Non-Hodgkin lymphoma, incidence rate overall and by sex

Alaska and U.S., 2010-2014 (U.S. through 2013)



#### Non-Hodgkin lymphoma, incidence rate overall and by sex

Alaska and U.S., 2010-2014 (U.S. through 2013)

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>17.1</b>	<b>15.6</b>	<b>18.7</b>	<b>530</b>	<b>18.9</b>
Male	20.9	18.4	23.7	317	22.8
Female	13.5	11.6	15.5	213	15.7

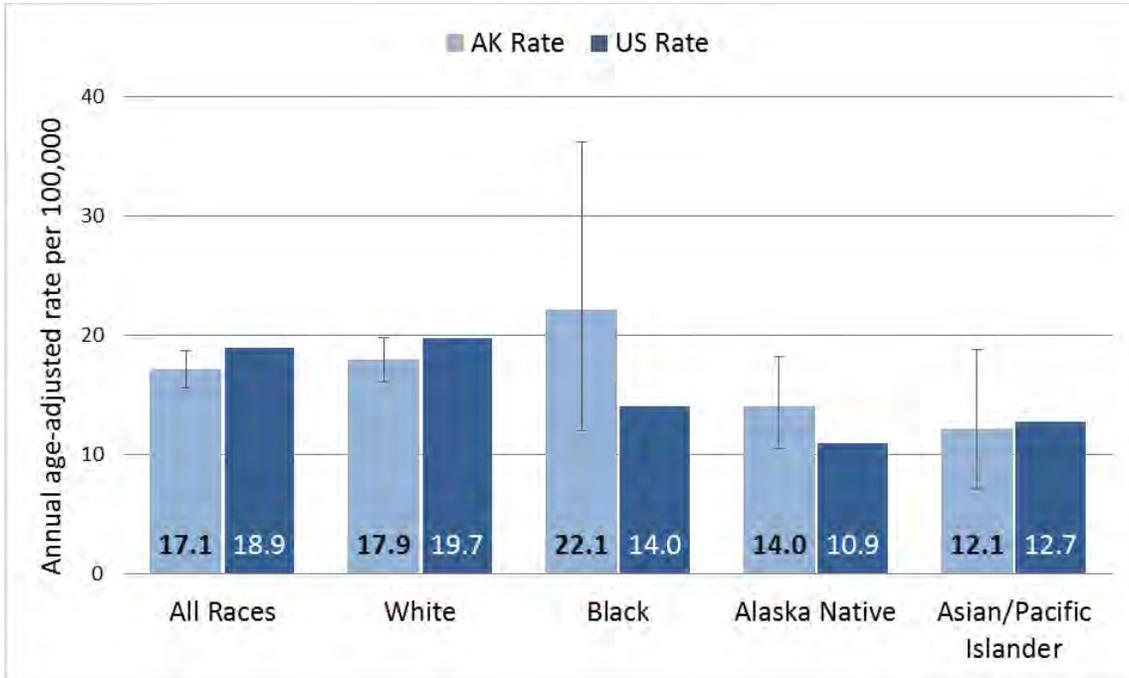
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Non-Hodgkin Lymphoma - Incidence

**By Race**

**Non-Hodgkin lymphoma, incidence rate by race**

Alaska and U.S., 2010-2014 (U.S. through 2013)



**Non-Hodgkin lymphoma, incidence rate by race**

Alaska and U.S., 2010-2014 (U.S. through 2013)

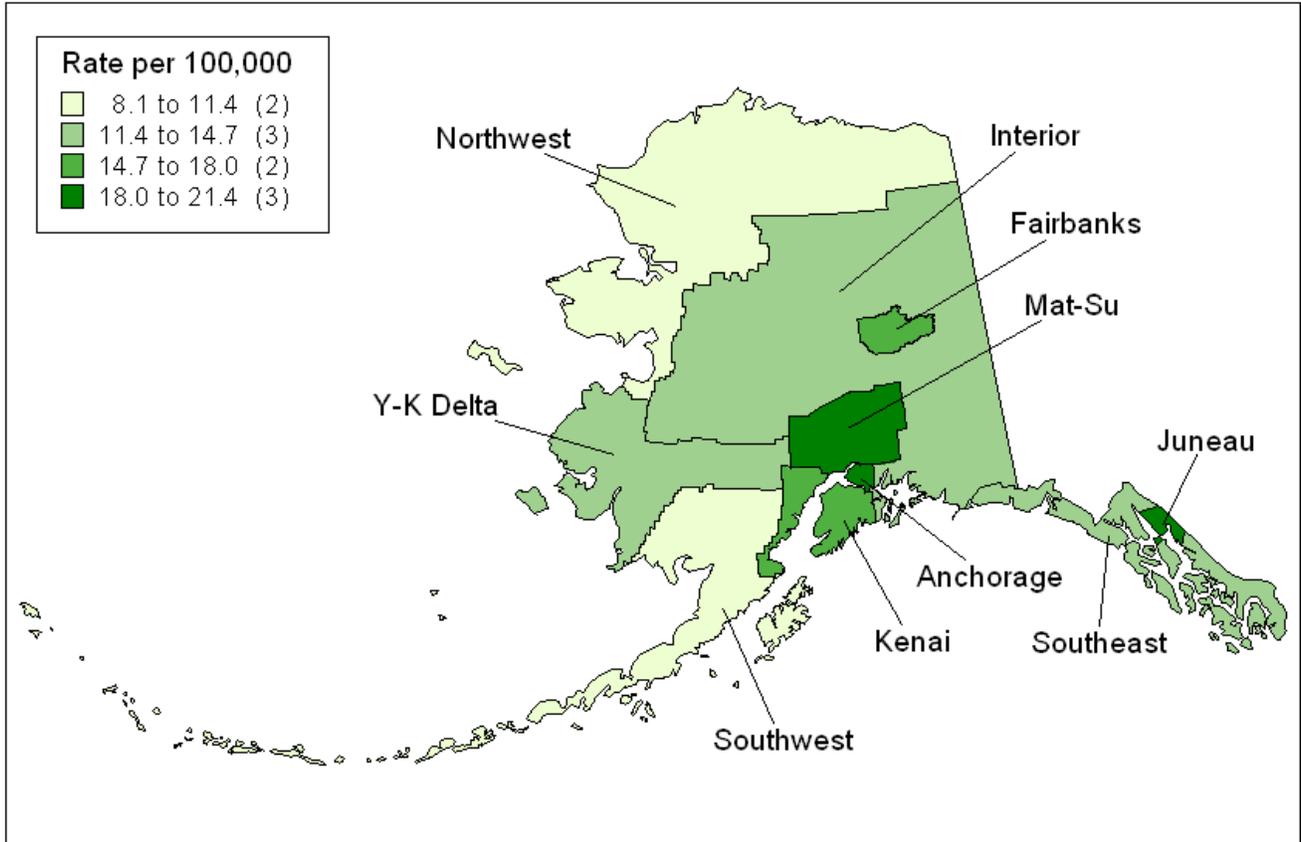
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>17.1</b>	<b>15.6</b>	<b>18.7</b>	<b>530</b>	<b>18.9</b>
White	17.9	16.1	19.8	426	19.7
Black	22.1	12.0	36.2	17	14.0
American Indian/Alaska Native	14.0	10.5	18.2	62	10.9
Asian/Pacific Islander	12.1	7.1	18.8	22	12.7

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Behavioral Health Systems Region**

**Non-Hodgkin lymphoma, incidence rate by Behavioral Health Systems Region**

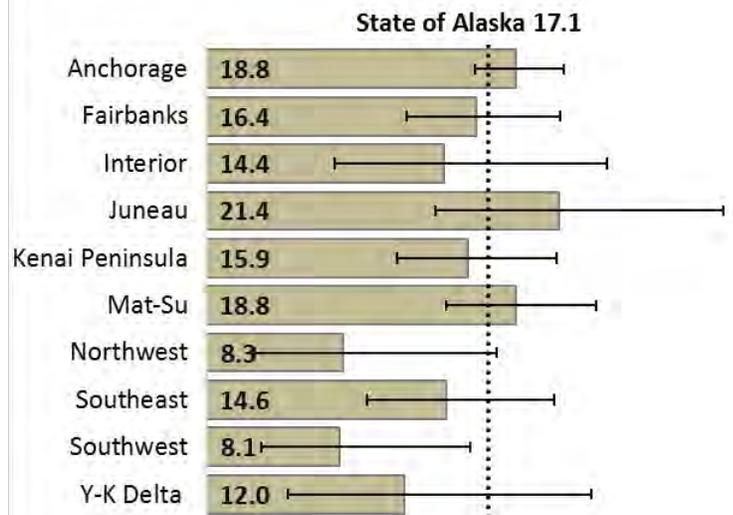
Alaska residents, 2010-2014



**Non-Hodgkin lymphoma, incidence rate by Behavioral Health Systems Region**

Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>17.1</b>	<b>15.6</b>	<b>18.7</b>	<b>530</b>
Anchorage	18.8	16.3	21.7	231
Fairbanks	16.4	12.2	21.5	61
Interior	14.4	7.8	24.3	16
Juneau	21.4	13.9	31.4	31
Kenai Peninsula	15.9	11.6	21.3	53
Mat-Su	18.8	14.6	23.7	79
Northwest	8.3	2.9	17.6	7
Southeast	14.6	9.8	21.1	32
Southwest	8.1	3.4	16.0	10
Y-K Delta	12.0	5.0	23.4	10



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Non-Hodgkin Lymphoma - Incidence

**By Borough/Census Area**

**Non-Hodgkin lymphoma, incidence rate by Alaska Borough/Census Area**

Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>17.1</b>	<b>15.6</b>	<b>18.7</b>	<b>530</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	18.8	16.3	21.7	231	
Bethel Census Area	10.4	3.0	24.3	6	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	^	^	^	^	
Fairbanks North Star Borough	16.4	12.2	21.5	61	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	21.4	13.9	31.4	31	
Kenai Peninsula Borough	15.9	11.6	21.3	53	
Ketchikan Gateway Borough	10.7	4.3	22.4	8	
Kodiak Island Borough	9.8	3.4	22.3	6	
Kusilvak Census Area	^	^	^	^	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	18.8	14.6	23.7	79	
Nome Census Area	^	^	^	^	
North Slope Borough	^	^	^	^	
Northwest Arctic Borough	^	^	^	^	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	^	^	^	^	
Sitka Borough	^	^	^	^	
Skagway Municipality	^	^	^	^	
Southeast Fairbanks Census Area	^	^	^	^	
Valdez-Cordova Census Area	15.9	5.3	35.6	7	
Wrangell Borough	^	^	^	^	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	^	^	^	^	

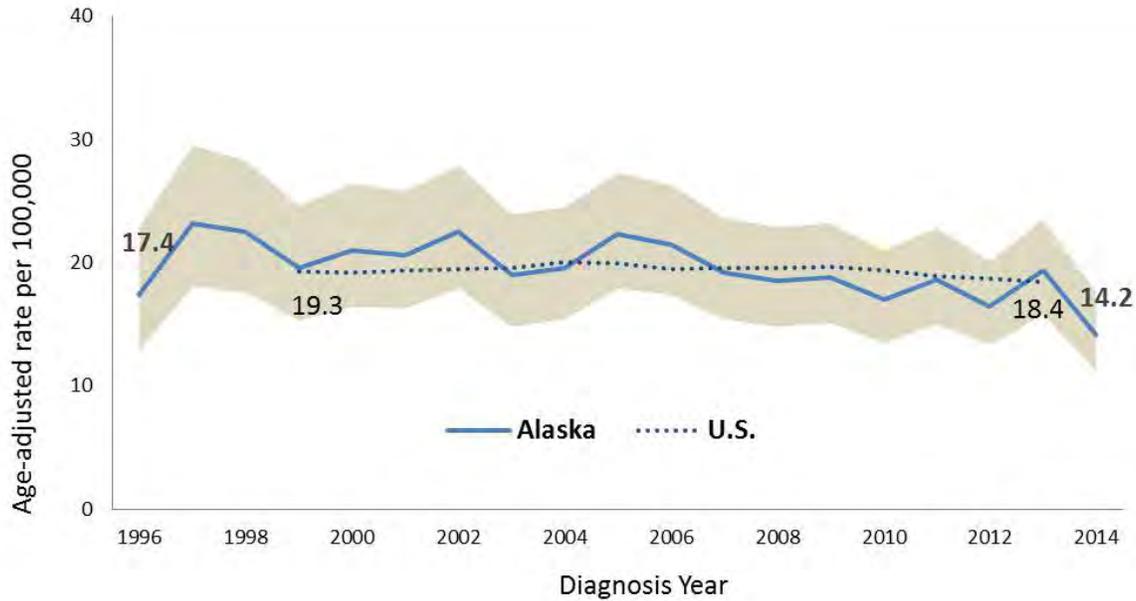
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

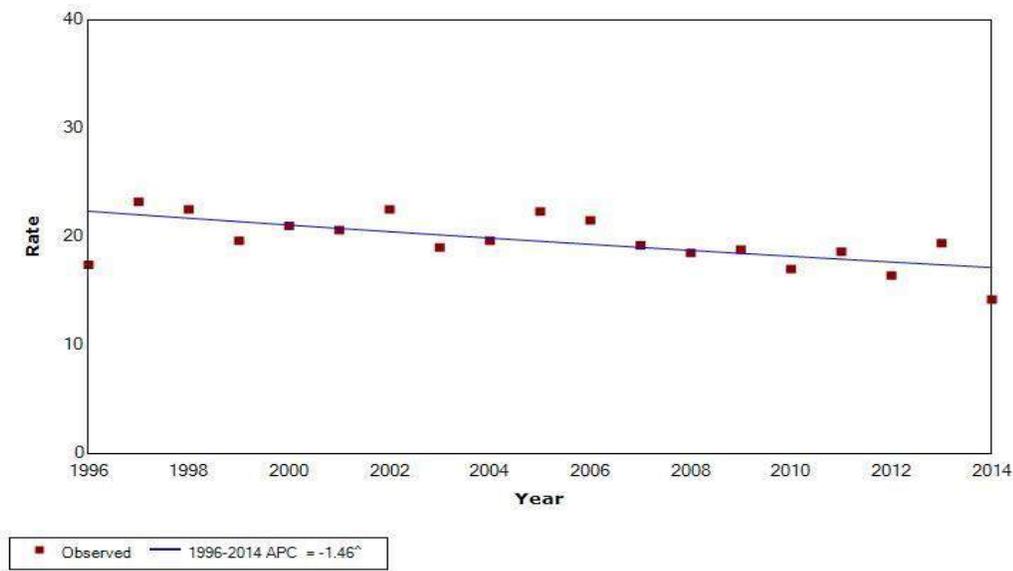
**Trend over time, Alaska and U.S.**

**Non-Hodgkin lymphoma, incidence rate  
Alaska and U.S., 1996-2014 (U.S. through 2013)**



Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1. Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Non-Hodgkin lymphoma, incidence rate trend and change in trend  
Alaska residents, 1996-2014**



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

Non-Hodgkin Lymphoma - Incidence

**Non-Hodgkin lymphoma, incidence rate**

Alaska and U.S., 1996-2014 (U.S. through 2013)

Year	Alaska			Count	U.S.	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate		
1996	17.4	12.9	22.9	65	**		
1997	23.2	18.0	29.5	90	**		
1998	22.5	17.6	28.3	92	**		
1999	19.6	15.3	24.6	90	19.3	2%	
2000	21.0	16.4	26.4	89	19.2	9%	
2001	20.6	16.3	25.8	91	19.4	6%	
2002	22.5	17.9	27.9	99	19.5	15%	
2003	19.0	14.8	23.9	88	19.6	-3%	
2004	19.6	15.4	24.5	90	20.0	-2%	
2005	22.3	17.9	27.3	111	19.9	12%	
2006	21.5	17.4	26.3	112	19.5	10%	
2007	19.2	15.4	23.6	106	19.6	-2%	
2008	18.5	14.8	22.9	102	19.6	-6%	
2009	18.8	15.1	23.2	104	19.7	-5%	
2010	17.0	13.5	21.0	101	19.4	-12%	
2011	18.6	15.0	22.8	110	18.9	-2%	
2012	16.4	13.3	20.1	109	18.7	-12%	
2013	19.4	15.8	23.5	117	18.4	5%	
2014	14.2	11.2	17.6	93	**		

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm 0.5\%$  outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

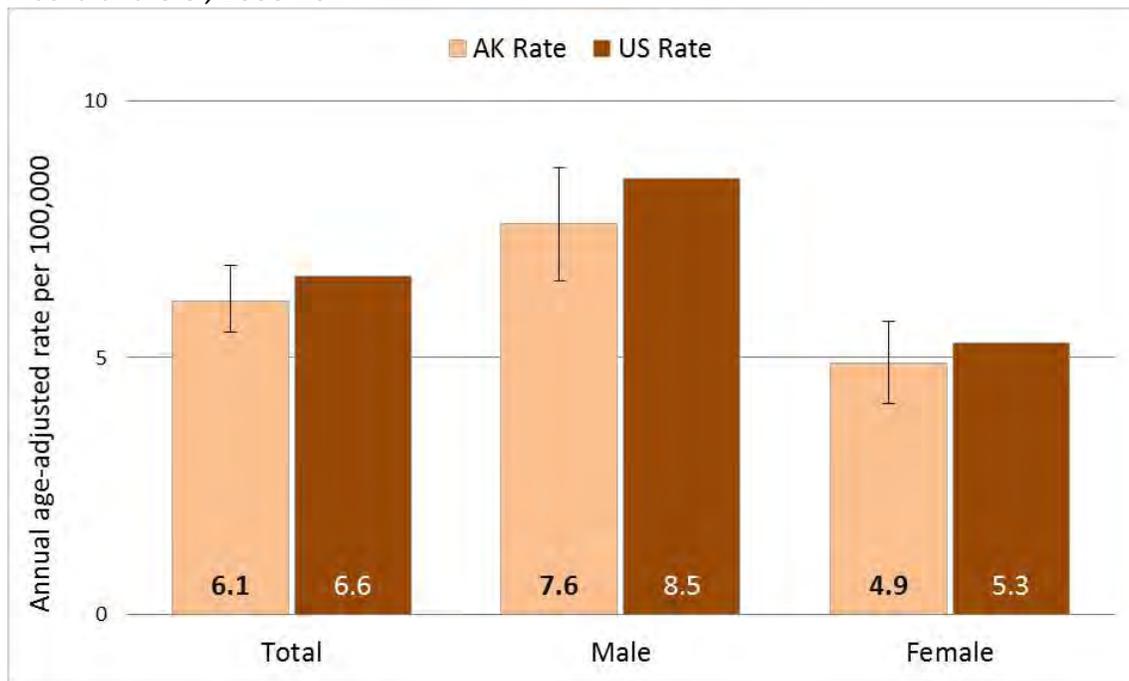
\*\* U.S. data for 1996-1998 are not available; data for 2014 are not yet available.

**Mortality (2000-2014)**

- Alaska’s non-Hodgkin lymphoma (NHL) mortality rate during the most recent 15 years was 6.1 per 100,000.
- Alaska’s rate and trend have been similar to the U.S. rate and trend during recent years.
- The rate of NHL mortality was higher among men than women in Alaska.
- Asians/Pacific Islanders had lower NHL mortality than Whites in Alaska; there were no other detectable significant differences among race groups.
- There were no detectable significant differences in NHL mortality rates by region in Alaska.
- Between 1996 and 2014 the rate of NHL mortality decreased in Alaska, by an average of 3.0% per year.

**Total and by Gender**

**Non-Hodgkin lymphoma, mortality rate overall and by sex**  
Alaska and U.S., 2000-2014



**Non-Hodgkin lymphoma, mortality rate overall and by sex**  
Alaska and U.S., 2000-2014

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>6.1</b>	<b>5.5</b>	<b>6.8</b>	<b>400</b>	<b>6.6</b>
Male	7.6	6.5	8.7	242	8.5
Female	4.9	4.1	5.7	158	5.3

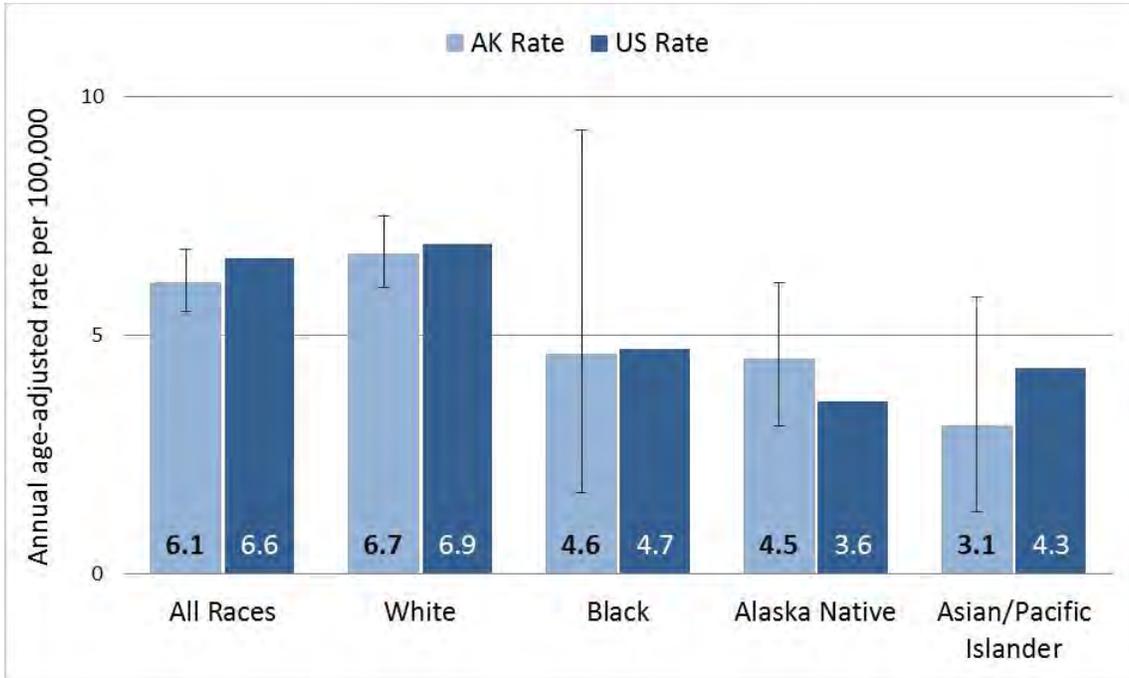
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Non-Hodgkin Lymphoma - Mortality

**By Race**

**Non-Hodgkin lymphoma, mortality rate by race**

Alaska and U.S., 2000-2014



**Non-Hodgkin lymphoma, mortality rate by race**

Alaska and U.S., 2000-2014

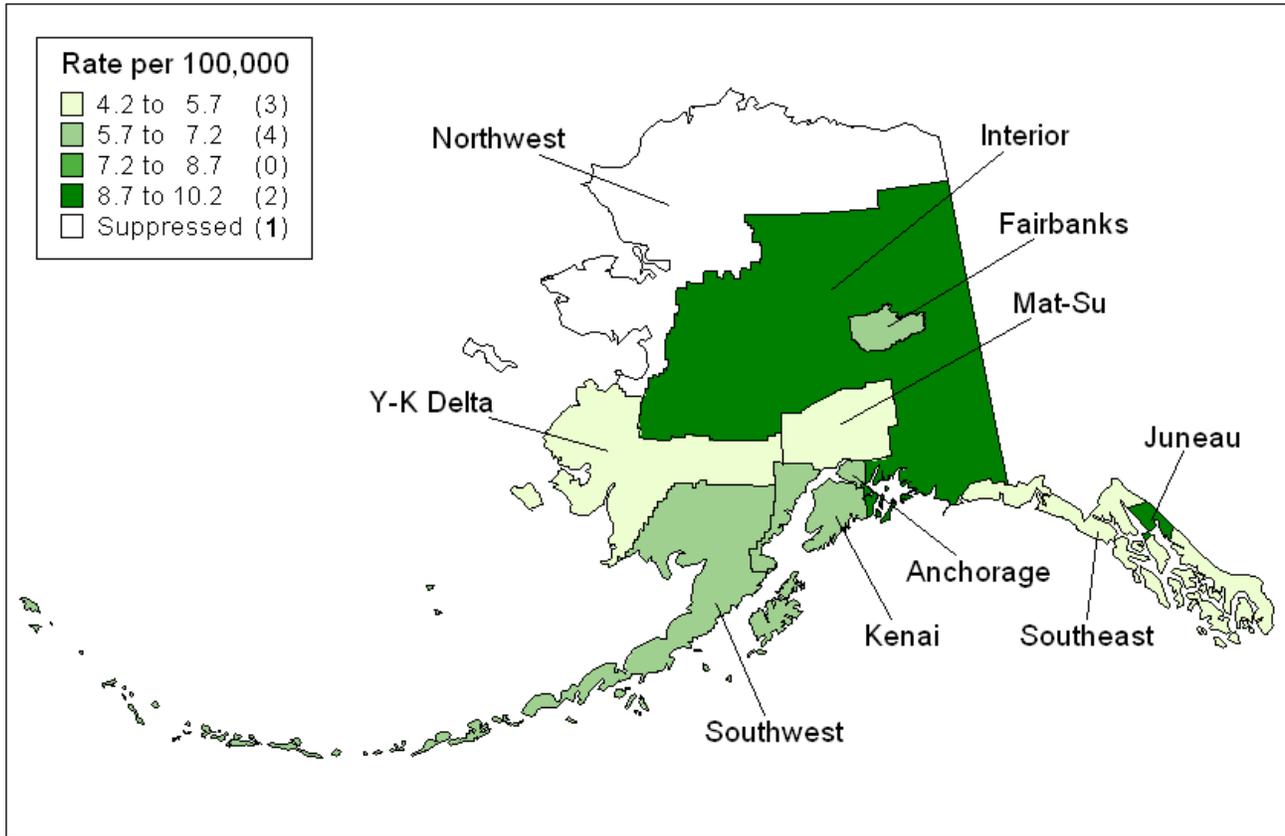
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>6.1</b>	<b>5.5</b>	<b>6.8</b>	<b>400</b>	<b>6.6</b>
White	6.7	6.0	7.5	338	6.9
Black	4.6	1.7	9.3	8	4.7
American Indian/Alaska Native	4.5	3.1	6.1	41	3.6
Asian/Pacific Islander	3.1	1.3	5.8	10	4.3

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Behavioral Health Systems Region**

**Non-Hodgkin lymphoma, mortality rate by Behavioral Health Systems Region**

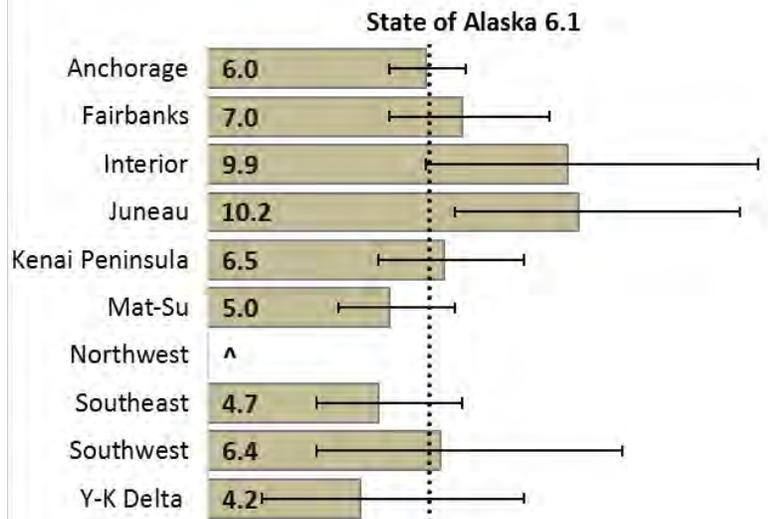
Alaska residents, 2000-2014



**Non-Hodgkin lymphoma, mortality rate by Behavioral Health Systems Region**

Alaska residents, 2000-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>6.1</b>	<b>5.5</b>	<b>6.8</b>	<b>400</b>
Anchorage	6.0	5.0	7.1	153
Fairbanks	7.0	5.0	9.4	49
Interior	9.9	6.0	15.1	23
Juneau	10.2	6.8	14.6	31
Kenai Peninsula	6.5	4.7	8.7	47
Mat-Su	5.0	3.6	6.8	47
Northwest	^	^	^	^
Southeast	4.7	3.0	7.0	25
Southwest	6.4	3.0	11.4	12
Y-K Delta	4.2	1.5	8.7	8



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

Non-Hodgkin Lymphoma - Mortality

**By Borough/Census Area**

**Non-Hodgkin lymphoma, mortality rate by Borough/Census Area**

Alaska residents, 2000-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>6.1</b>	<b>5.5</b>	<b>6.8</b>	<b>400</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	6.0	5.0	7.1	153	
Bethel Census Area	4.8	1.6	10.5	7	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	^	^	^	^	
Fairbanks North Star Borough	7.0	5.0	9.4	49	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	10.2	6.8	14.6	31	
Kenai Peninsula Borough	6.5	4.7	8.7	47	
Ketchikan Gateway Borough	6.6	3.3	11.9	12	
Kodiak Island Borough	^	^	^	^	
Kusilvak Census Area	^	^	^	^	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	5.0	3.6	6.8	47	
Nome Census Area	^	^	^	^	
North Slope Borough	^	^	^	^	
Northwest Arctic Borough	^	^	^	^	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	^	^	^	^	
Prince of Wales-Outer Ketchikan Census Area	^	^	^	^	
Sitka Borough	^	^	^	^	
Skagway Municipality	^	^	^	^	
Skagway-Hoonah-Angoon Census Area	^	^	^	^	
Southeast Fairbanks Census Area	13.5	5.9	25.7	10	
Valdez-Cordova Census Area	^	^	^	^	
Wrangell Borough	^	^	^	^	
Wrangell-Petersburg Census Area	^	^	^	^	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	11.7	4.5	23.8	7	

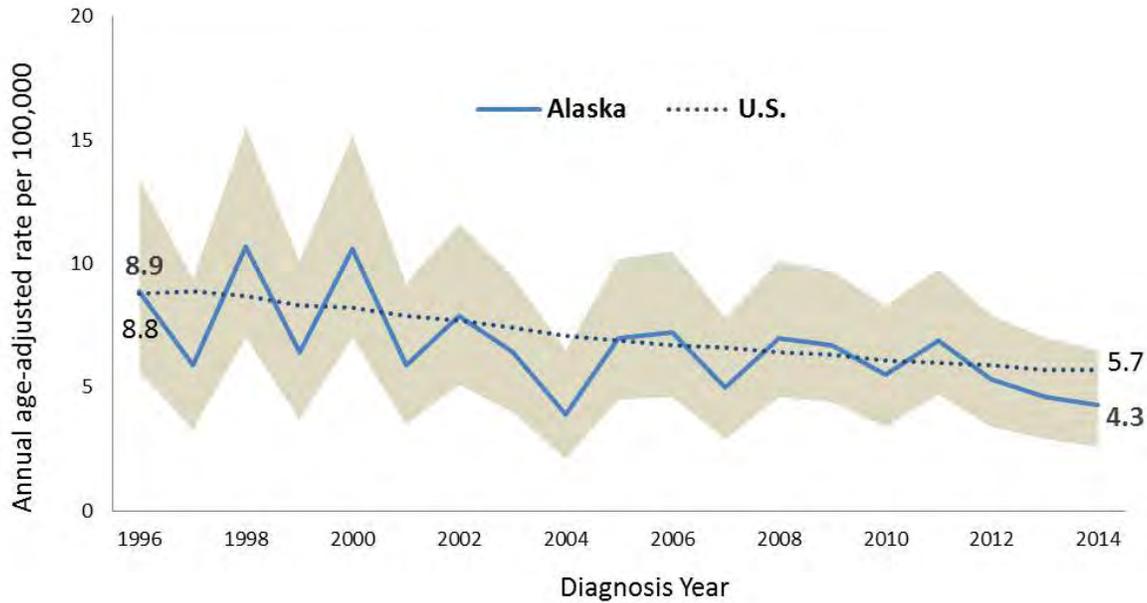
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

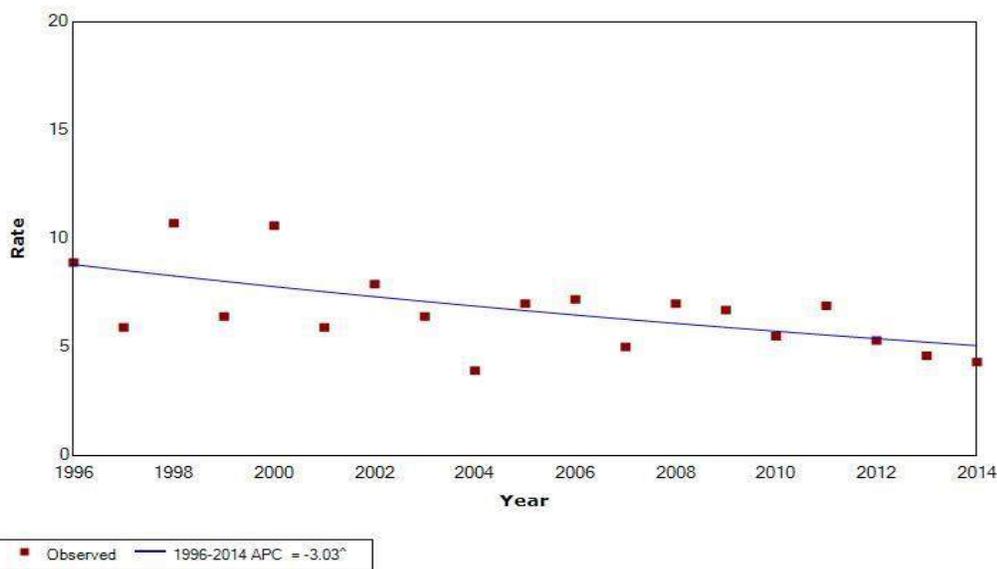
**Trend over time, Alaska and U.S.**

**Non-Hodgkin lymphoma, mortality rate  
Alaska and U.S., 1996-2014**



Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1. Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Non-Hodgkin lymphoma, mortality rate trend and change in trend  
Alaska residents, 1996-2014**



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

Non-Hodgkin Lymphoma - Mortality

**Non-Hodgkin lymphoma, mortality rate**

Alaska and U.S., 1996-2014

Year	Alaska				U.S. Annual rate	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI	Count			
1996	8.9	5.6	13.4	28	8.8	1%	
1997	5.9	3.3	9.4	20	8.9	-34%	
1998	10.7	7.0	15.5	33	8.7	23%	
1999	6.4	3.7	10.1	22	8.3	-23%	
2000	10.6	7.0	15.2	34	8.2	29%	
2001	5.9	3.5	9.2	22	7.9	-25%	
2002	7.9	5.1	11.6	29	7.7	3%	
2003	6.4	4.0	9.5	26	7.4	-14%	
2004	3.9	2.1	6.5	16	7.1	-45%	–
2005	7.0	4.5	10.2	29	6.9	1%	
2006	7.2	4.6	10.5	28	6.7	7%	
2007	5.0	2.9	7.8	21	6.6	-24%	
2008	7.0	4.6	10.1	31	6.4	9%	
2009	6.7	4.4	9.7	31	6.3	6%	
2010	5.5	3.4	8.3	24	6.1	-10%	
2011	6.9	4.7	9.8	35	6.0	15%	
2012	5.3	3.4	7.9	26	5.9	-10%	
2013	4.6	2.9	7.0	24	5.7	-19%	
2014	4.3	2.6	6.5	24	5.7	-25%	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

## Pancreatic Cancer

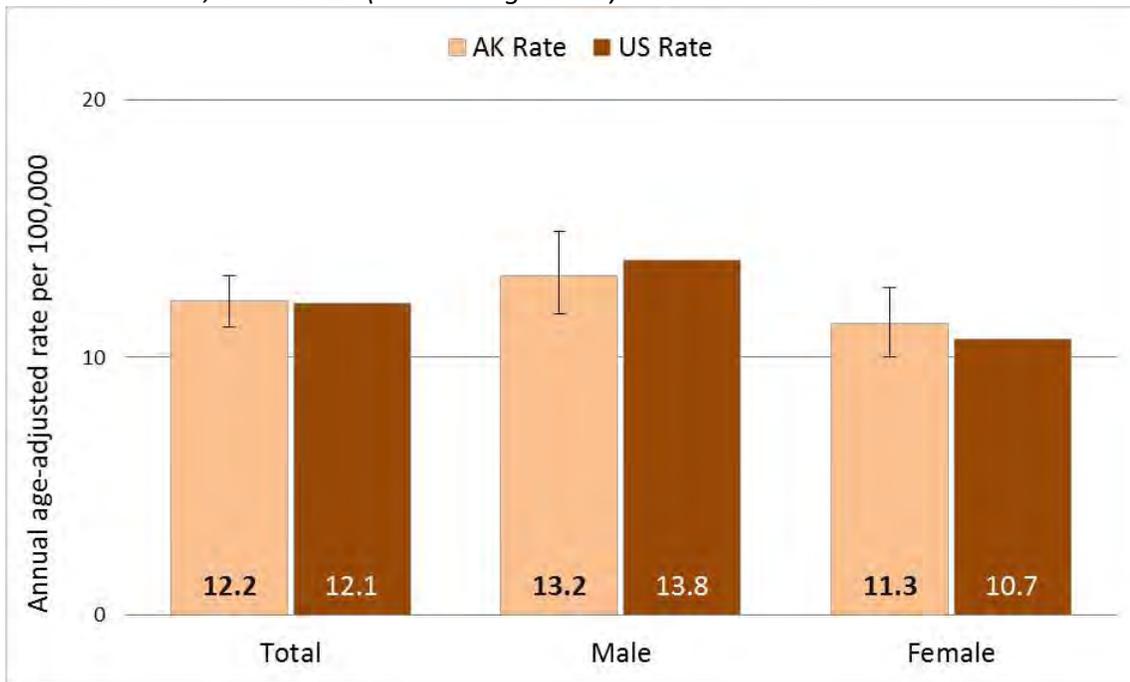
### Incidence (2005-2014)

- Alaska’s pancreatic cancer incidence rate during the most recent 10 years was 12.2 per 100,000.
- Alaska’s rate and trend have been similar to the U.S. rate and trend during recent years.
- Rates of pancreatic cancer incidence were not significantly different among men and women in Alaska.
- Alaska Native people had a higher incidence rate of pancreatic cancer than American Indian and Alaska Native people in the U.S. Blacks in Alaska had a lower rate than U.S. Blacks, as well as than Alaska Native people in Alaska.
- There were no detectable significant differences in pancreatic cancer incidence by region in Alaska.
- Between 1996 and 2014 the rate of pancreatic cancer incidence in Alaska did not change significantly.

### Total and by Gender

#### Pancreatic cancer, incidence rate overall and by sex

Alaska and U.S., 2005-2014 (U.S. through 2013)



#### Pancreatic cancer, incidence rate overall and by sex

Alaska and U.S., 2005-2014 (U.S. through 2013)

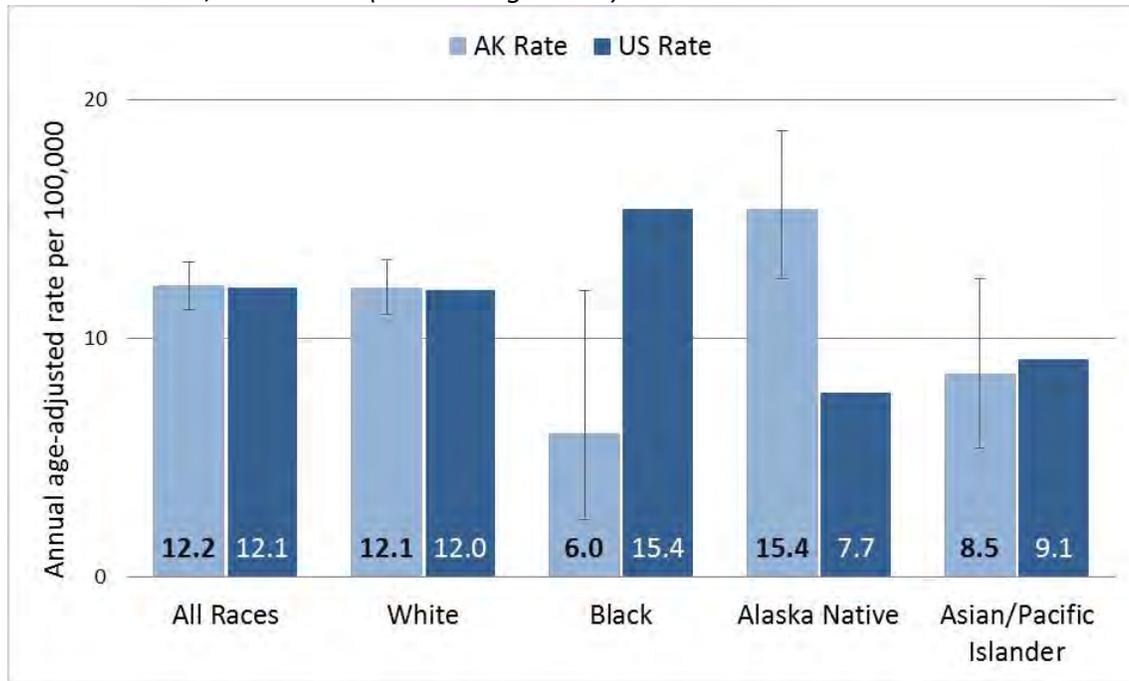
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>12.2</b>	<b>11.2</b>	<b>13.2</b>	<b>648</b>	<b>12.1</b>
Male	13.2	11.7	14.9	346	13.8
Female	11.3	10.0	12.7	302	10.7

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Race**

**Pancreatic cancer, incidence rate by race**

Alaska and U.S., 2005-2014 (U.S. through 2013)



**Pancreatic cancer, incidence rate by race**

Alaska and U.S., 2005-2014 (U.S. through 2013)

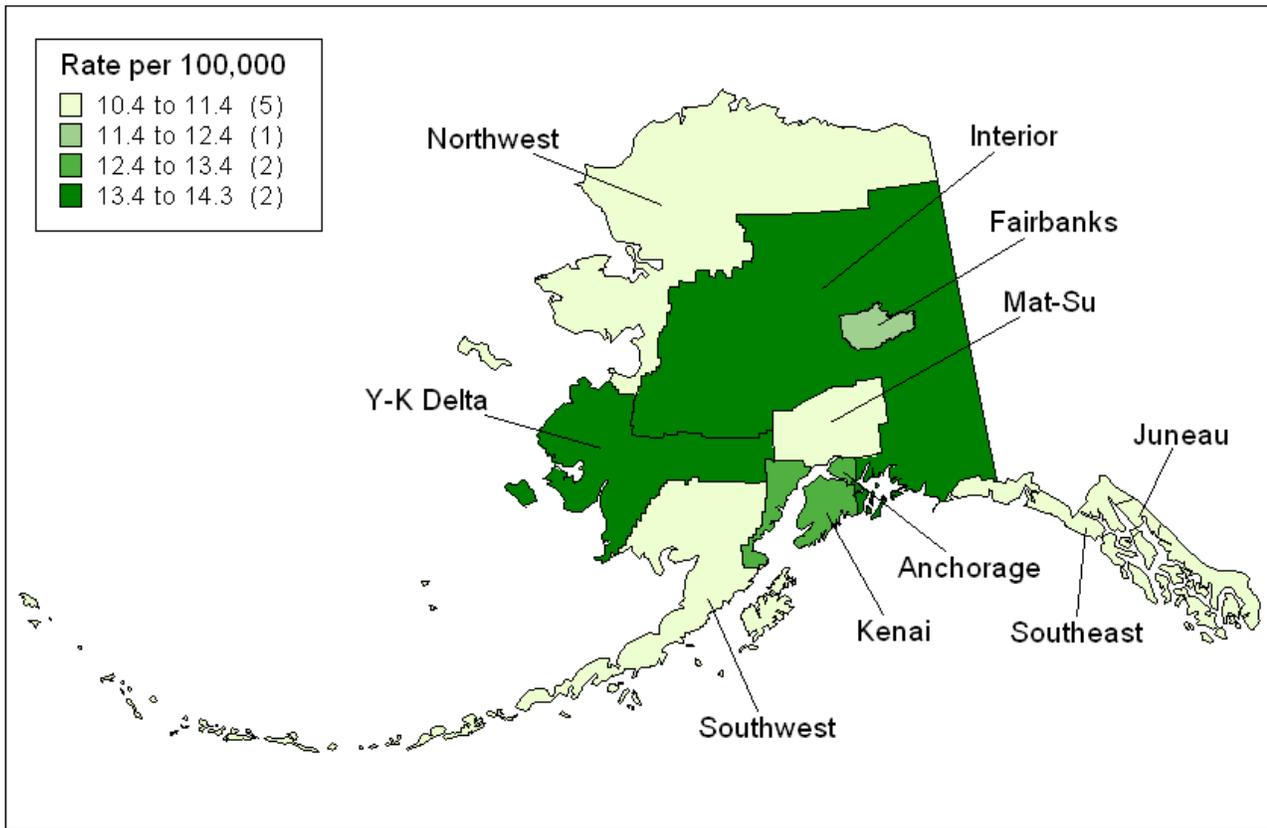
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>12.2</b>	<b>11.2</b>	<b>13.2</b>	<b>648</b>	<b>12.1</b>
White	12.1	11.0	13.3	498	12.0
Black	6.0	2.4	12.0	8	15.4
American Indian/Alaska Native	15.4	12.5	18.7	112	7.7
Asian/Pacific Islander	8.5	5.4	12.5	29	9.1

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Behavioral Health Systems Region**

**Pancreatic cancer, incidence rate by Behavioral Health Systems Region**

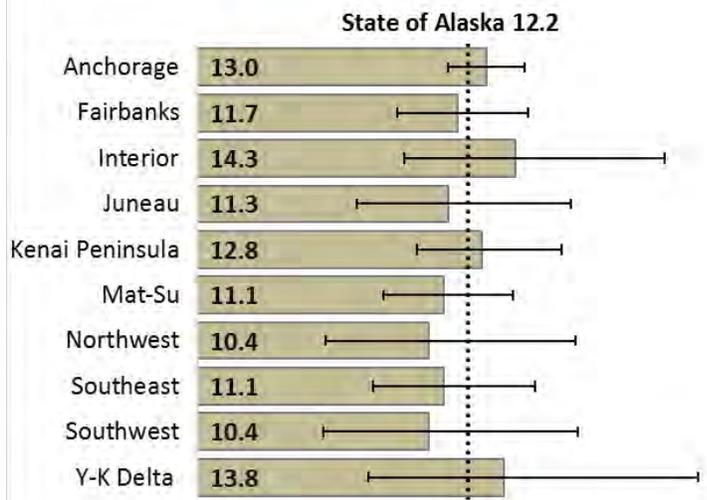
Alaska residents, 2005-2014



**Pancreatic cancer, incidence rate by Behavioral Health Systems Region**

Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>12.2</b>	<b>11.2</b>	<b>13.2</b>	<b>648</b>
Anchorage	13.0	11.3	14.7	266
Fairbanks	11.7	9.0	14.9	77
Interior	14.3	9.3	21.0	33
Juneau	11.3	7.2	16.8	28
Kenai Peninsula	12.8	9.9	16.4	74
Mat-Su	11.1	8.4	14.2	72
Northwest	10.4	5.8	17.0	19
Southeast	11.1	7.9	15.2	43
Southwest	10.4	5.7	17.1	19
Y-K Delta	13.8	7.7	22.5	17



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Pancreatic Cancer - Incidence

**By Borough/Census Area**

**Pancreatic cancer, incidence rate by Alaska Borough/Census Area**

Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>12.3</b>	<b>11.3</b>	<b>13.3</b>	<b>644</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	13.0	11.3	14.7	266	
Bethel Census Area	10.7	4.6	20.4	10	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	17.4	6.0	38.1	6	
Fairbanks North Star Borough	11.7	9.0	14.9	77	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	11.3	7.2	16.8	28	
Kenai Peninsula Borough	12.8	9.9	16.4	74	
Ketchikan Gateway Borough	13.0	7.0	21.8	15	
Kodiak Island Borough	8.0	3.3	16.2	9	
Kusilvak Census Area	21.4	8.4	43.2	7	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	11.1	8.4	14.2	72	
Nome Census Area	16.4	7.6	30.3	11	
North Slope Borough	^	^	^	^	
Northwest Arctic Borough	^	^	^	^	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	^	^	^	^	
Sitka Borough	12.7	6.1	23.1	11	
Skagway Municipality	^	^	^	^	
Southeast Fairbanks Census Area	18.9	8.4	35.7	11	
Valdez-Cordova Census Area	13.3	5.9	25.4	12	
Wrangell Borough	^	^	^	^	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	14.1	6.2	27.9	9	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

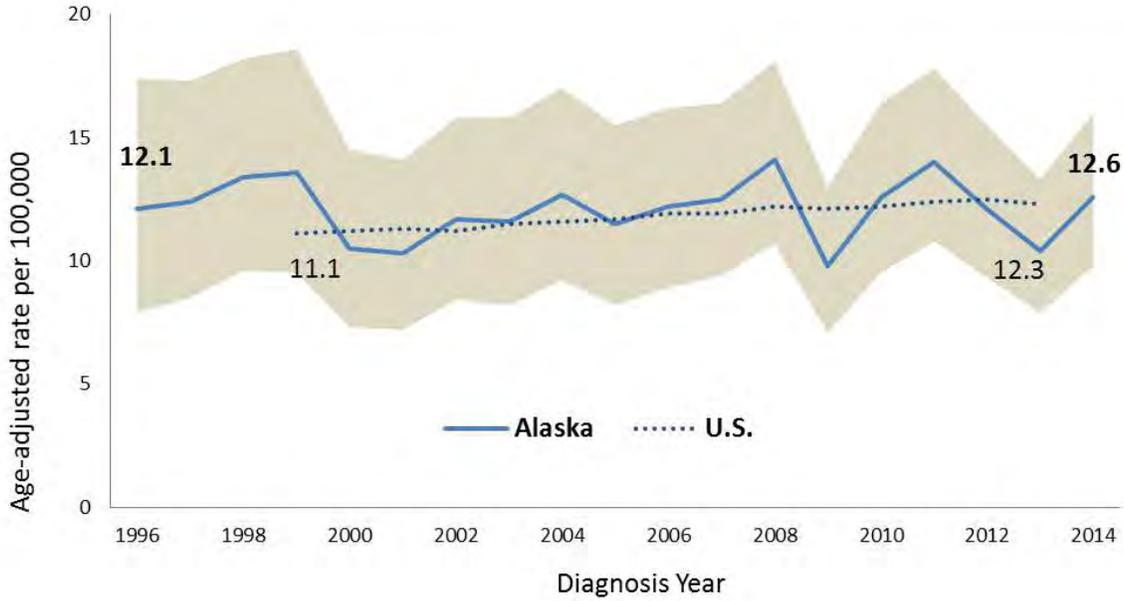
^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

**Pancreatic cancer, incidence rate**

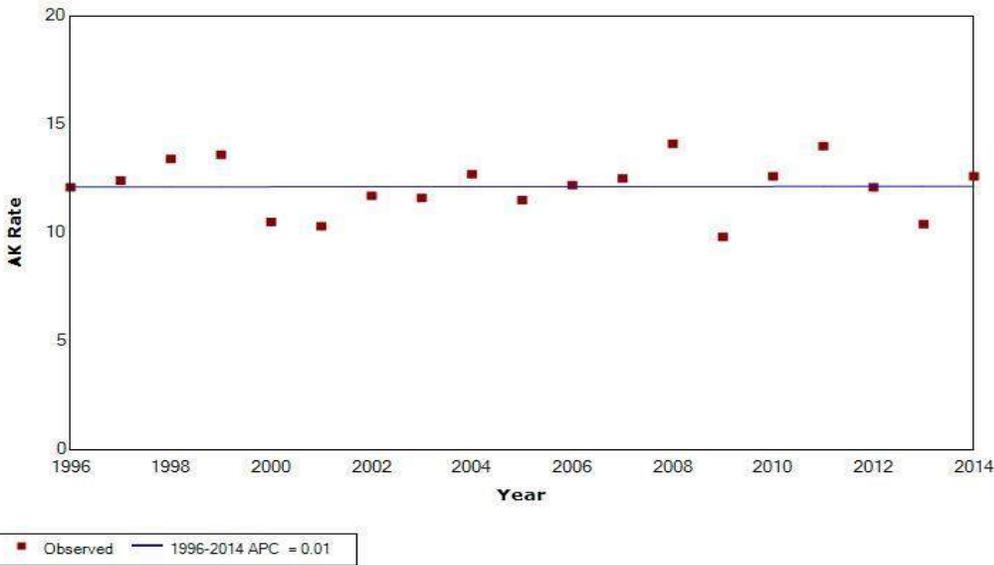
Alaska and U.S., 1996-2014 (U.S. through 2013)



Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about  $\pm 0.1$ . Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Pancreatic cancer, incidence rate trend and change in trend**

Alaska residents, 1996-2014



Annual percent change is not significantly different from zero; no significant change in trend over time.

Pancreatic Cancer - Incidence

**Pancreatic cancer, incidence rate**

Alaska and U.S., 1996-2014 (U.S. through 2013)

Year	Alaska			Count	U.S.		+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate	% difference (AK from U.S. rate)	
1996	12.1	7.9	17.4	35	**		
1997	12.4	8.5	17.3	38	**		
1998	13.4	9.6	18.2	48	**		
1999	13.6	9.5	18.6	44	11.1	23%	
2000	10.5	7.3	14.5	41	11.2	-6%	
2001	10.3	7.2	14.1	41	11.3	-9%	
2002	11.7	8.4	15.8	49	11.2	4%	
2003	11.6	8.2	15.8	47	11.5	1%	
2004	12.7	9.2	17.0	51	11.6	9%	
2005	11.5	8.2	15.5	46	11.7	-2%	
2006	12.2	8.9	16.2	54	11.9	3%	
2007	12.5	9.4	16.4	62	11.9	5%	
2008	14.1	10.7	18.1	70	12.2	16%	
2009	9.8	7.1	13.0	56	12.1	-19%	
2010	12.6	9.5	16.4	66	12.2	3%	
2011	14.0	10.8	17.8	74	12.4	13%	
2012	12.1	9.3	15.5	73	12.5	-3%	
2013	10.4	7.9	13.3	69	12.3	-15%	
2014	12.6	9.8	16.0	78	**		

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm 0.5\%$  outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

\*\* U.S. data for 1996-1998 are not available; data for 2014 are not yet available.

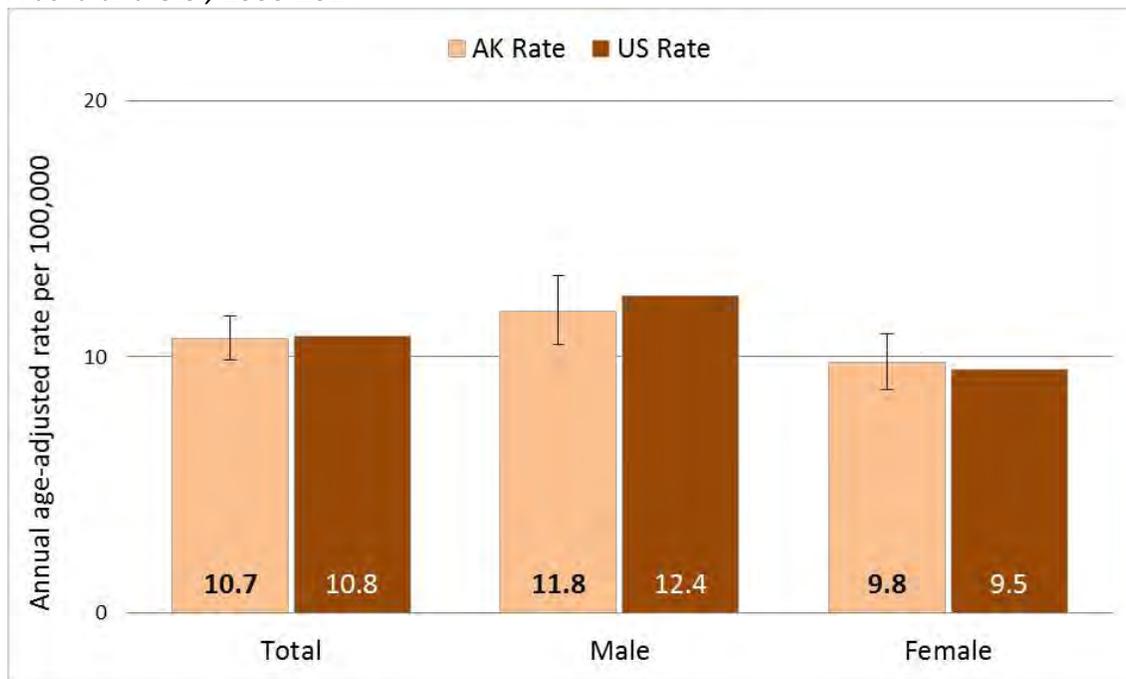
### Mortality (2000-2014)

- Alaska’s pancreatic cancer mortality rate during the most recent 15 years was 10.7 per 100,000.
- Alaska’s rate and trend have been similar to the U.S. rate and trend during recent years.
- Rates of pancreatic cancer mortality were not significantly different for men and women in Alaska.
- Alaska Native people had a higher mortality rate of pancreatic cancer than Blacks and Asian/Pacific Islanders in Alaska; Alaska Native people had a higher rate than American Indian and Alaska Native people in the U.S., and Blacks in Alaska had a lower rate than U.S. Blacks.
- There were no detectable significant differences in pancreatic cancer mortality for Alaska regions.
- Between 1996 and 2014 the rate of pancreatic cancer mortality did not change significantly in Alaska.

### Total and by Gender

#### Pancreatic cancer, mortality rate overall and by sex

Alaska and U.S., 2000-2014



#### Pancreatic cancer, mortality rate overall and by sex

Alaska and U.S., 2000-2014

	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>10.7</b>	<b>9.9</b>	<b>11.6</b>	<b>746</b>	<b>10.8</b>
Male	11.8	10.5	13.2	400	12.4
Female	9.8	8.7	10.9	346	9.5

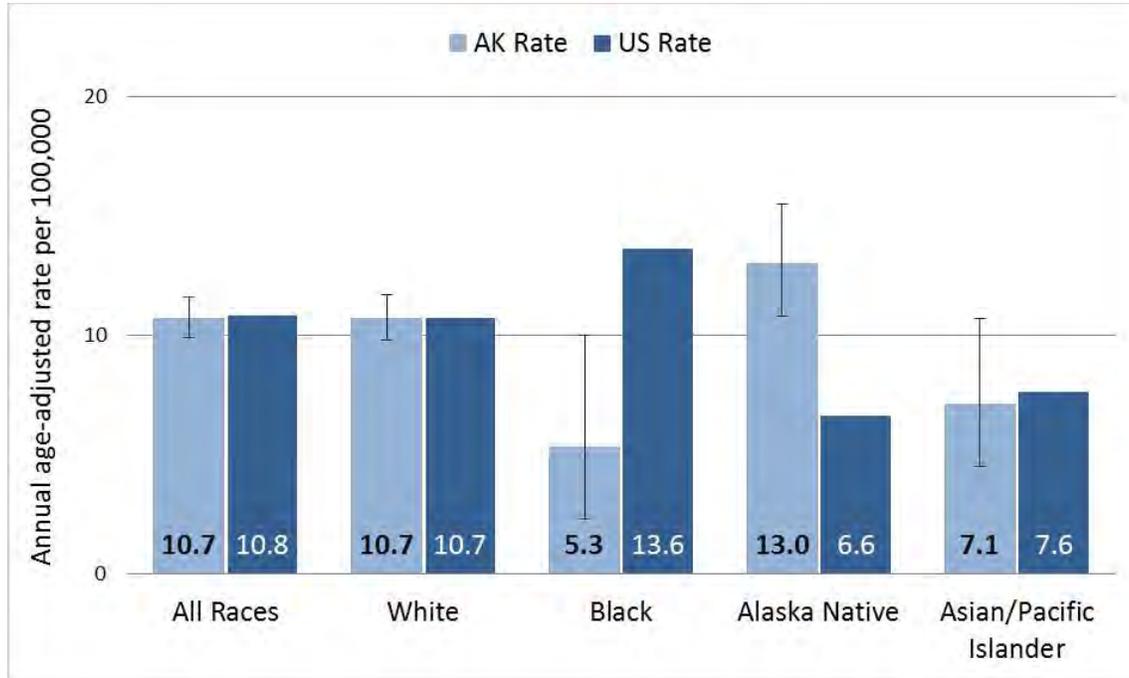
Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Pancreatic Cancer - Mortality

**By Race**

**Pancreatic cancer, mortality rate by race**

Alaska and U.S., 2000-2014



**Pancreatic cancer, mortality rate by race**

Alaska and U.S., 2000-2014

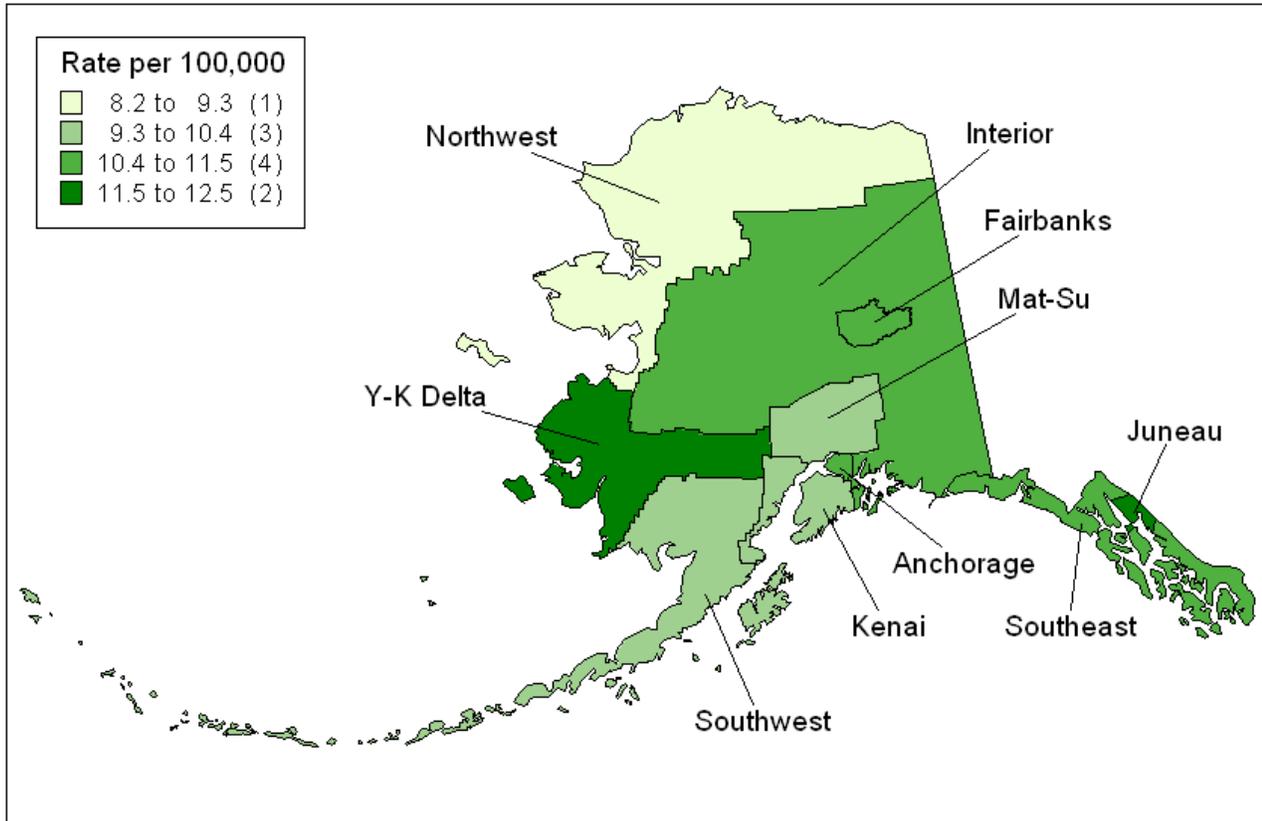
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>10.7</b>	<b>9.9</b>	<b>11.6</b>	<b>746</b>	<b>10.8</b>
White	10.7	9.8	11.7	568	10.7
Black	5.3	2.3	10.0	10	13.6
American Indian/Alaska Native	13.0	10.8	15.5	137	6.6
Asian/Pacific Islander	7.1	4.5	10.7	26	7.6

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Behavioral Health Systems Region**

**Pancreatic cancer, mortality rate by Behavioral Health Systems Region**

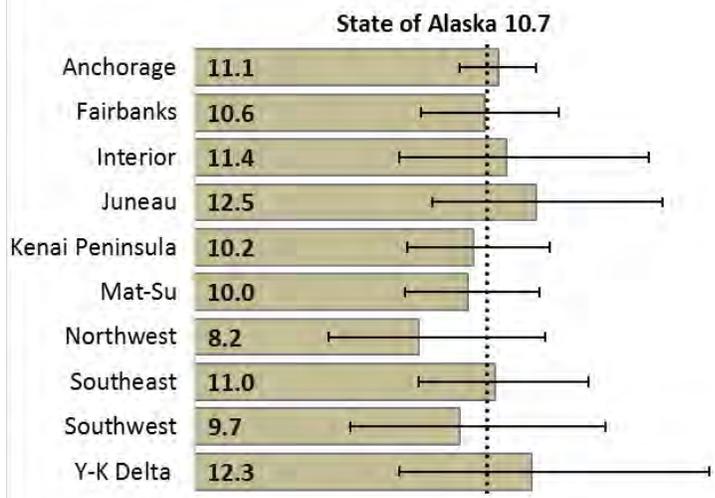
Alaska residents, 2000-2014



**Pancreatic cancer, mortality rate by Behavioral Health Systems Region**

Alaska residents, 2000-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>10.7</b>	<b>9.9</b>	<b>11.6</b>	<b>746</b>
Anchorage	11.1	9.7	12.5	300
Fairbanks	10.6	8.3	13.3	88
Interior	11.4	7.5	16.6	35
Juneau	12.5	8.7	17.1	41
Kenai Peninsula	10.2	7.8	13.0	75
Mat-Su	10.0	7.7	12.6	80
Northwest	8.2	4.9	12.8	23
Southeast	11.0	8.2	14.4	57
Southwest	9.7	5.7	15.0	24
Y-K Delta	12.3	7.5	18.8	23



Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Pancreatic Cancer - Mortality

**By Borough/Census Area**

**Pancreatic cancer, mortality rate by Borough/Census Area**

Alaska residents, 2000-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>10.7</b>	<b>9.9</b>	<b>11.6</b>	<b>746</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	11.1	9.7	12.5	300	
Bethel Census Area	9.9	5.1	17.0	14	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	16.5	7.2	31.9	9	
Fairbanks North Star Borough	10.6	8.3	13.3	88	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	12.5	8.7	17.1	41	
Kenai Peninsula Borough	10.2	7.8	13.0	75	
Ketchikan Gateway Borough	12.0	7.0	18.9	19	
Kodiak Island Borough	7.5	3.2	14.6	9	
Kusilvak Census Area	18.4	8.1	34.8	9	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	10.0	7.7	12.6	80	
Nome Census Area	13.7	7.1	23.6	14	
North Slope Borough	4.6	1.7	11.8	7	
Northwest Arctic Borough	^	^	^	^	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	^	^	^	^	
Prince of Wales-Outer Ketchikan Census Area	^	^	^	^	
Sitka Borough	14.0	7.8	22.8	16	
Skagway Municipality	^	^	^	^	
Skagway-Hoonah-Angoon Census Area	^	^	^	^	
Southeast Fairbanks Census Area	16.8	8.1	30.2	13	
Valdez-Cordova Census Area	9.4	3.7	18.9	9	
Wrangell Borough	^	^	^	^	
Wrangell-Petersburg Census Area	^	^	^	^	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	12.0	6.1	21.8	12	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

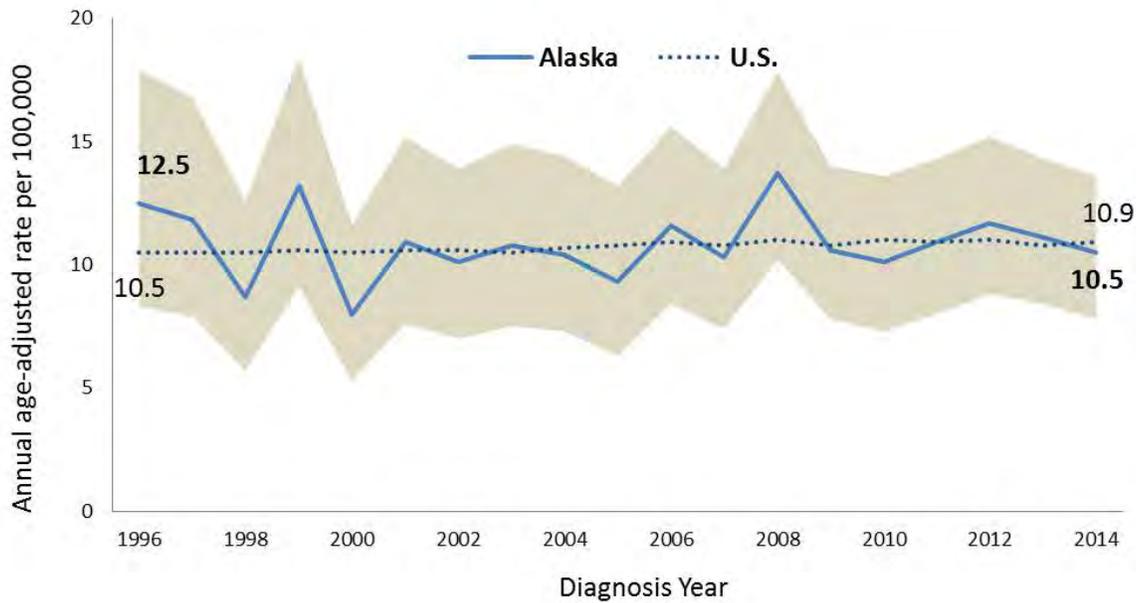
^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

**Pancreatic cancer, mortality rate**

Alaska and U.S., 1996-2014

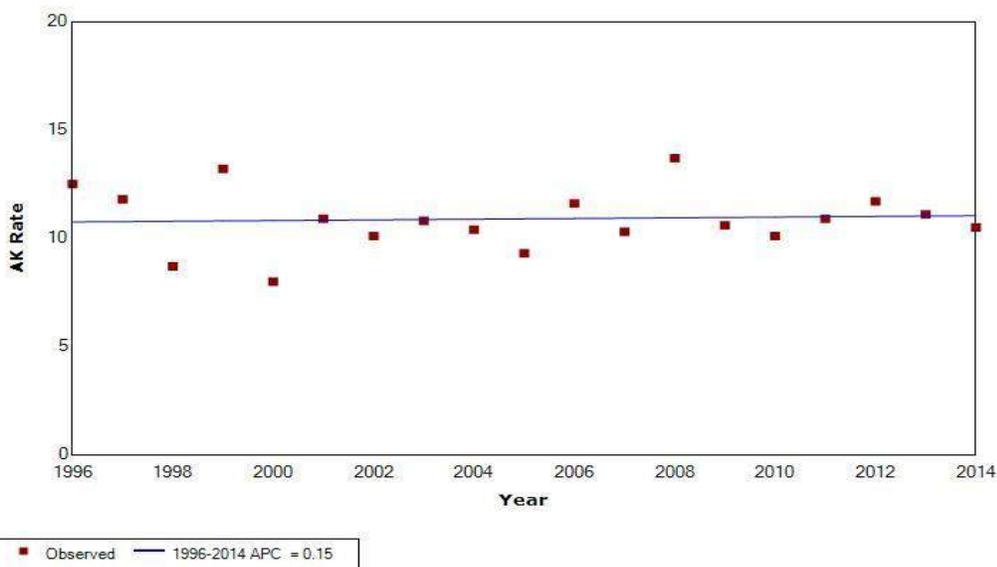


Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1. Rates are per 100,000 and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Pancreatic cancer, mortality rate trend and change in trend**

Alaska residents, 1996-2014



Annual percent change is not significantly different from zero; no significant change in trend over time.

Pancreatic Cancer - Mortality

**Pancreatic cancer, mortality rate**

Alaska and U.S., 1996-2014

Year	Alaska			Count	U.S.		+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate	% difference (AK from U.S. rate)	
1996	12.5	8.3	17.9	35	10.5	19%	
1997	11.8	7.9	16.8	35	10.5	12%	
1998	8.7	5.7	12.6	31	10.5	-17%	
1999	13.2	9.1	18.4	40	10.6	25%	
2000	8.0	5.3	11.6	31	10.5	-24%	
2001	10.9	7.6	15.2	40	10.6	3%	
2002	10.1	7.0	13.9	42	10.6	-5%	
2003	10.8	7.5	14.9	40	10.5	3%	
2004	10.4	7.3	14.4	41	10.7	-3%	
2005	9.3	6.3	13.2	34	10.8	-14%	
2006	11.6	8.4	15.6	48	10.9	6%	
2007	10.3	7.4	13.9	48	10.8	-5%	
2008	13.7	10.2	17.8	62	11.0	25%	
2009	10.6	7.8	14.0	57	10.8	-2%	
2010	10.1	7.3	13.6	51	11.0	-8%	
2011	10.9	8.0	14.3	58	10.9	0%	
2012	11.7	8.8	15.2	63	11.0	6%	
2013	11.1	8.4	14.3	69	10.8	3%	
2014	10.5	7.8	13.6	62	10.9	-4%	

Rates are per 100,000 and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

## Prostate Cancer

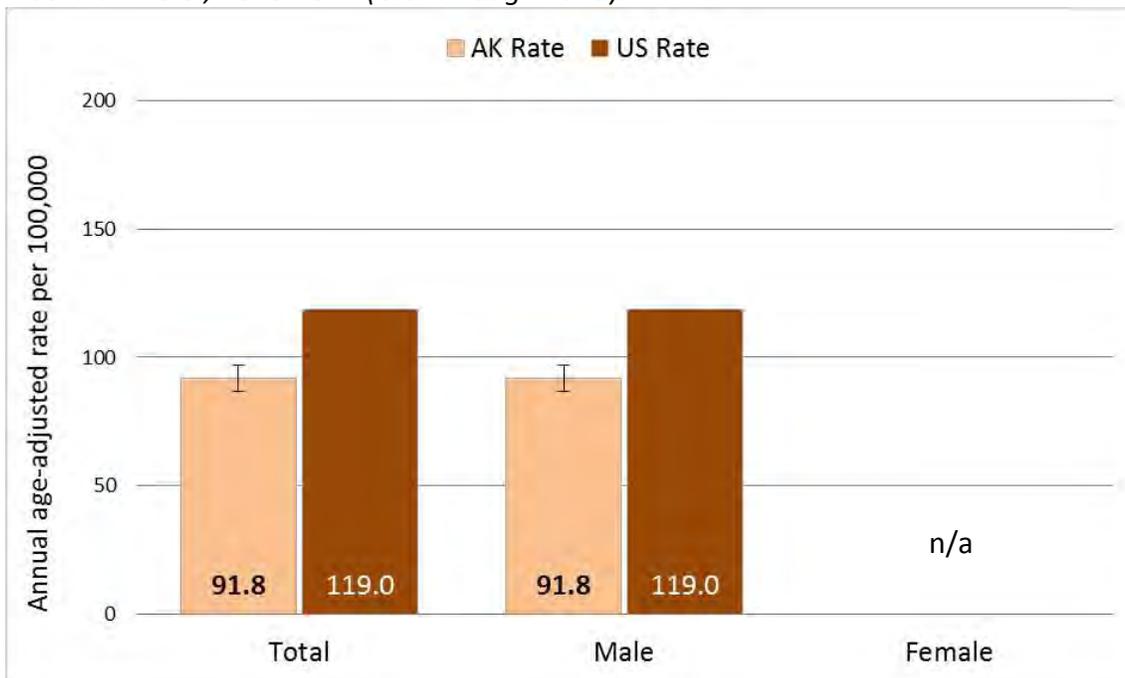
### Incidence (2010-2014)

- Alaska’s prostate cancer incidence rate during the most recent 5 years was 91.8 per 100,000 men.
- Alaska’s rate was lower than the U.S. rate during recent years.
- Black men have higher prostate cancer incidence rates than other race groups in Alaska. Alaska Native men have lower prostate cancer incidence rates than Whites and the state average.
- The Northwest and Y-K Delta regions have lower prostate cancer incidence rates than the state average; Petersburg Borough has a higher prostate cancer incidence rate than the state average.
- Between 1996 and 2007 the rate of prostate cancer incidence in Alaska did not change significantly; between 2007 and 2014 the rate decreased significantly, by an average of 9.9% per year. The U.S. rate has also decreased during recent years.

### Total and by Gender

#### Prostate cancer, incidence rate overall and by sex

Alaska and U.S., 2010-2014 (U.S. through 2013)



#### Prostate cancer, incidence rate overall and by sex

Alaska and U.S., 2010-2014 (U.S. through 2013)

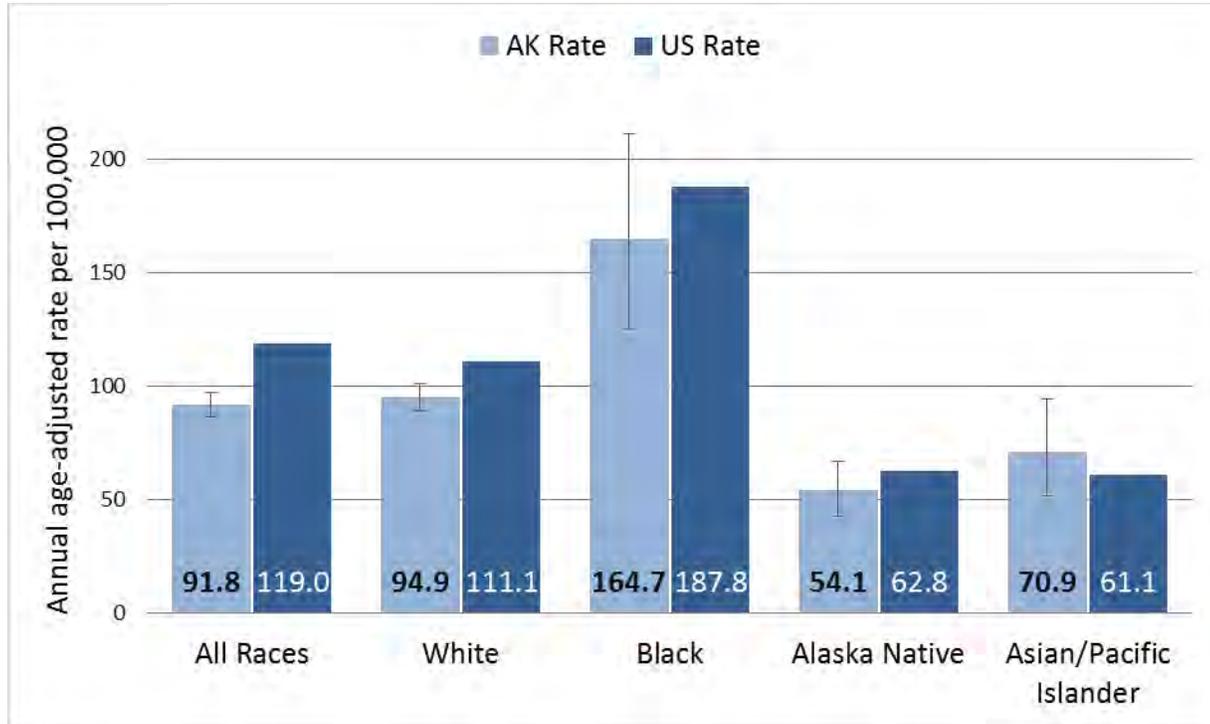
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	91.8	86.7	97.1	1,553	119.0
Male	91.8	86.7	97.1	1,553	119.0
Female	n/a			n/a	

Rates are per 100,000 men only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

n/a Statistic not applicable (prostate cancer is only possible among males)

**By Race**

**Prostate cancer, incidence rate by race**  
Alaska and U.S., 2010-2014 (U.S. through 2013)



**Prostate cancer, incidence rate by race**  
Alaska and U.S., 2010-2014 (U.S. through 2013)

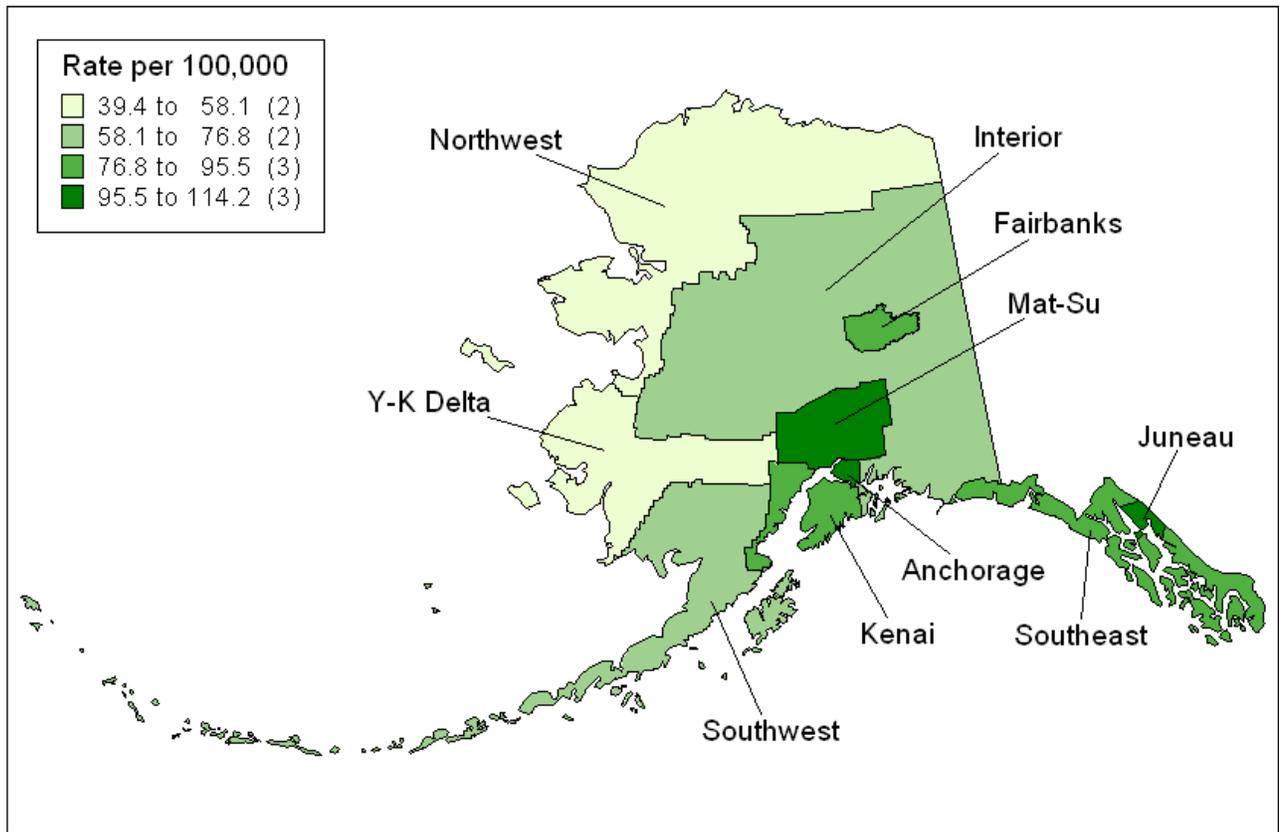
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>91.8</b>	<b>86.7</b>	<b>97.1</b>	<b>1,553</b>	<b>119.0</b>
White	94.9	89.1	100.9	1,294	111.1
Black	164.7	125.5	211.4	88	187.8
American Indian/Alaska Native	54.1	42.9	67.0	99	62.8
Asian/Pacific Islander	70.9	51.7	94.5	56	61.1

Rates are per 100,000 men only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Behavioral Health Systems Region**

**Prostate cancer, incidence rate by Behavioral Health Systems Region**

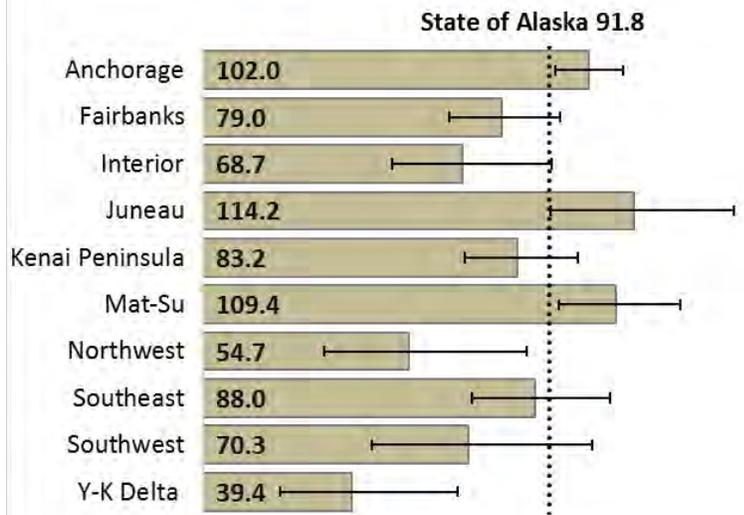
Alaska residents, 2010-2014



**Prostate cancer, incidence rate by Behavioral Health Systems Region**

Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>91.8</b>	<b>86.7</b>	<b>97.1</b>	<b>1,553</b>
Anchorage	102.0	93.4	111.3	644
Fairbanks	79.0	65.2	94.7	157
Interior	68.7	50.2	92.3	54
Juneau	114.2	92.1	140.4	114
Kenai Peninsula	83.2	69.3	99.3	152
Mat-Su	109.4	94.2	126.3	237
Northwest	54.7	32.1	85.9	24
Southeast	88.0	71.3	107.7	116
Southwest	70.3	44.9	103.2	40
Y-K Delta	39.4	20.5	67.4	15



Rates are per 100,000 men only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Prostate Cancer - Incidence

**By Borough/Census Area**

**Prostate cancer, incidence rate by Alaska Borough/Census Area**

Alaska residents, 2010-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>91.8</b>	<b>86.7</b>	<b>97.1</b>	<b>1,553</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	102.0	93.4	111.3	644	
Bethel Census Area	25.0	8.9	53.5	7	–
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	52.1	17.3	119.8	6	
Fairbanks North Star Borough	79.0	65.2	94.7	157	
Haines Borough	180.9	89.7	329.3	15	
Hoonah-Angoon Census Area	84.0	39.5	185.6	10	
Juneau Borough	114.2	92.1	140.4	114	
Kenai Peninsula Borough	83.2	69.3	99.3	152	
Ketchikan Gateway Borough	79.0	51.4	116.4	30	
Kodiak Island Borough	100.3	58.8	157.3	27	
Kusilvak Census Area	79.5	30.4	168.2	8	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	109.4	94.2	126.3	237	
Nome Census Area	80.3	38.3	144.3	12	
North Slope Borough	35.9	12.1	86.1	7	–
Northwest Arctic Borough	^	^	^	^	
Petersburg Borough	168.2	97.2	276.8	20	+
Prince of Wales-Hyder Census Area	49.4	25.7	93.7	13	
Sitka Borough	85.2	50.0	135.5	20	
Skagway Municipality	^	^	^	^	
Southeast Fairbanks Census Area	72.0	41.1	121.0	18	
Valdez-Cordova Census Area	77.4	43.3	128.2	20	
Wrangell Borough	55.2	19.6	146.5	6	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	68.7	35.4	122.5	13	

Rates are per 100,000 men only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

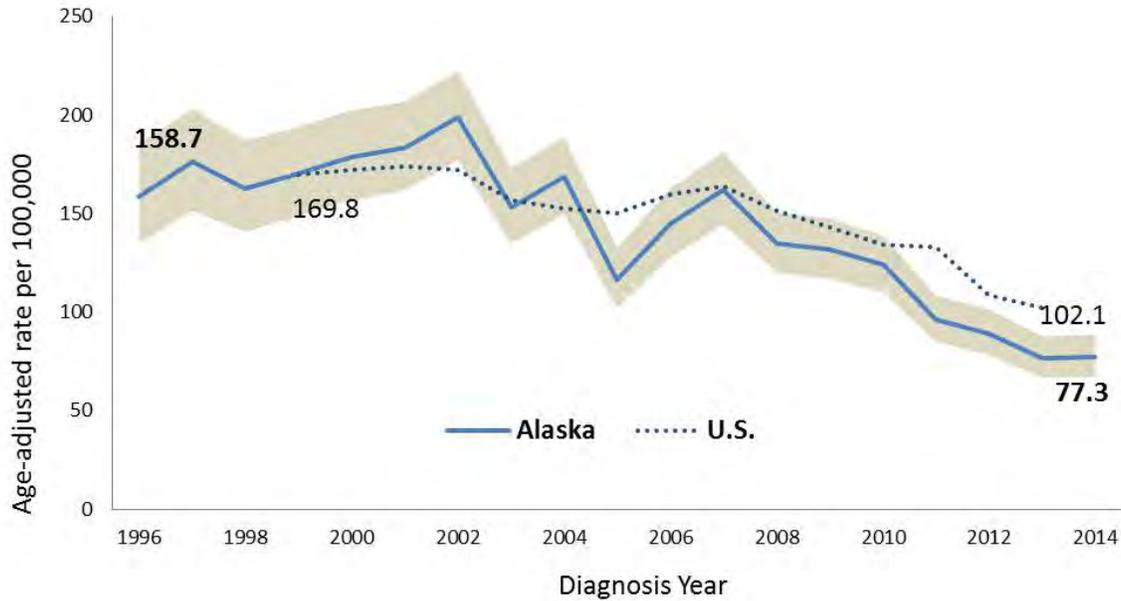
^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

**Prostate cancer, incidence rate**

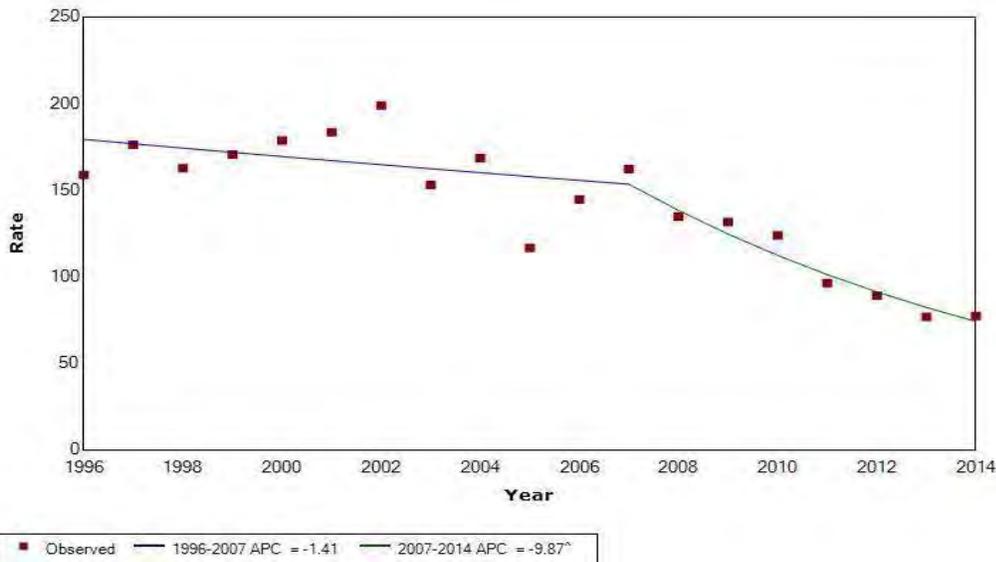
Alaska and U.S., 1996-2014 (U.S. through 2013)



Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1. Rates are per 100,000 (men) and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only. National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Prostate cancer, incidence rate trend and change in trend**

Alaska residents, 1996-2014



^ The Annual Percent Change (APC) is significantly different from zero at alpha=.05

Prostate Cancer - Incidence

**Prostate cancer, incidence rate**

Alaska and U.S., 1996-2014 (U.S. through 2013)

Year	Alaska				U.S.	% difference (AK from U.S. rate)	+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI	Count	Annual rate		
1996	158.7	134.8	185.2	218	**		
1997	176.1	151.5	203.1	243	**		
1998	162.7	140.6	187.0	249	**		
1999	170.5	149.0	194.0	286	169.8	0%	
2000	178.6	156.7	202.3	305	172.1	4%	
2001	183.3	161.7	206.6	340	174.1	5%	
2002	198.8	177.0	222.4	394	172.0	16%	+
2003	153.0	134.7	173.0	319	156.8	-2%	
2004	168.4	149.7	188.7	376	152.5	10%	
2005	116.6	102.0	132.5	292	150.0	-22%	–
2006	144.6	127.8	162.9	359	159.7	-9%	
2007	162.1	144.4	181.2	407	163.8	-1%	
2008	134.7	120.0	150.6	385	151.1	-11%	–
2009	131.6	116.8	147.6	378	143.0	-8%	
2010	123.8	110.0	138.8	384	133.9	-8%	
2011	96.2	84.9	108.5	336	132.9	-28%	–
2012	89.1	78.1	101.3	303	108.9	-18%	–
2013	76.7	66.8	87.7	266	102.1	-25%	–
2014	77.3	67.1	88.6	264	**		

Rates are per 100,000 men only and age-adjusted to the 2000 U.S. Population. Incidence rates are for malignant cases only.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

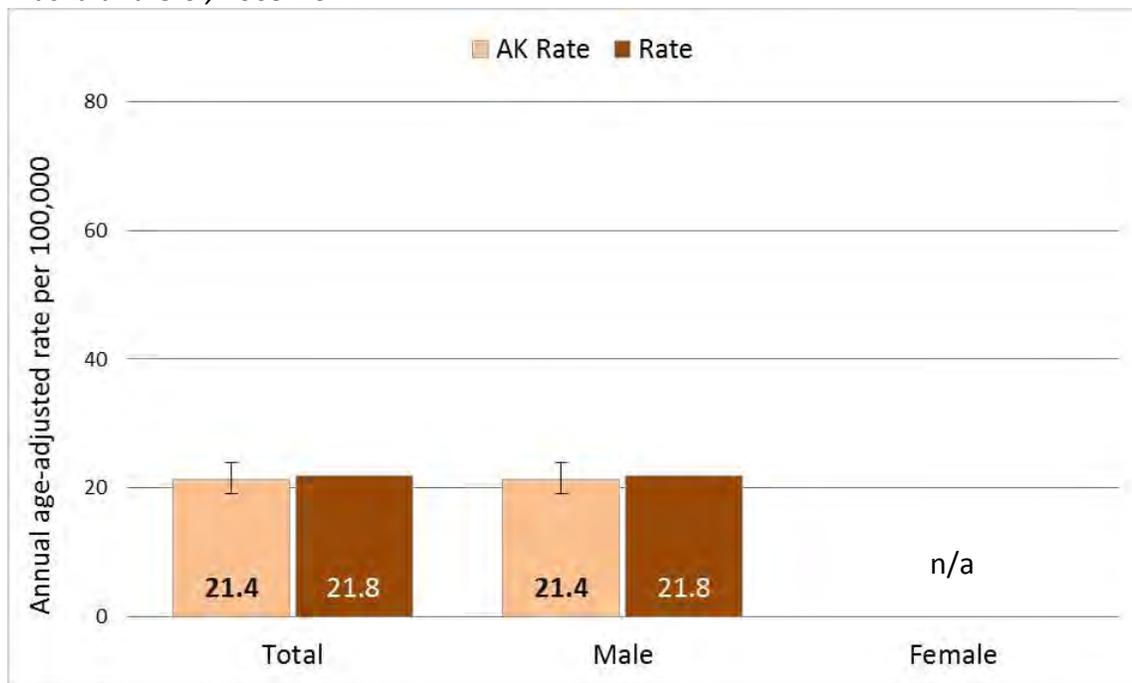
\*\* U.S. data for 1996-1998 are not available; data for 2014 are not yet available.

**Mortality (2005-2014)**

- Alaska’s prostate cancer mortality rate during the most recent 10 years was 21.4 per 100,000 men.
- Alaska’s rate and trend have been similar to the U.S. rate and trend during recent years.
- Black men in Alaska have a higher rate of prostate cancer mortality than other race groups. Asian/Pacific Islander men have a lower rate of prostate cancer mortality than other race groups.
- There were no detectable significant differences in prostate cancer mortality rates by Alaska regions.
- Between 1996 and 2014 the rate of prostate cancer mortality has not changed significantly in Alaska.

**Total and by Gender**

**Prostate cancer, mortality rate overall and by sex**  
Alaska and U.S., 2005-2014



**Prostate cancer, mortality rate overall and by sex**  
Alaska and U.S., 2005-2014

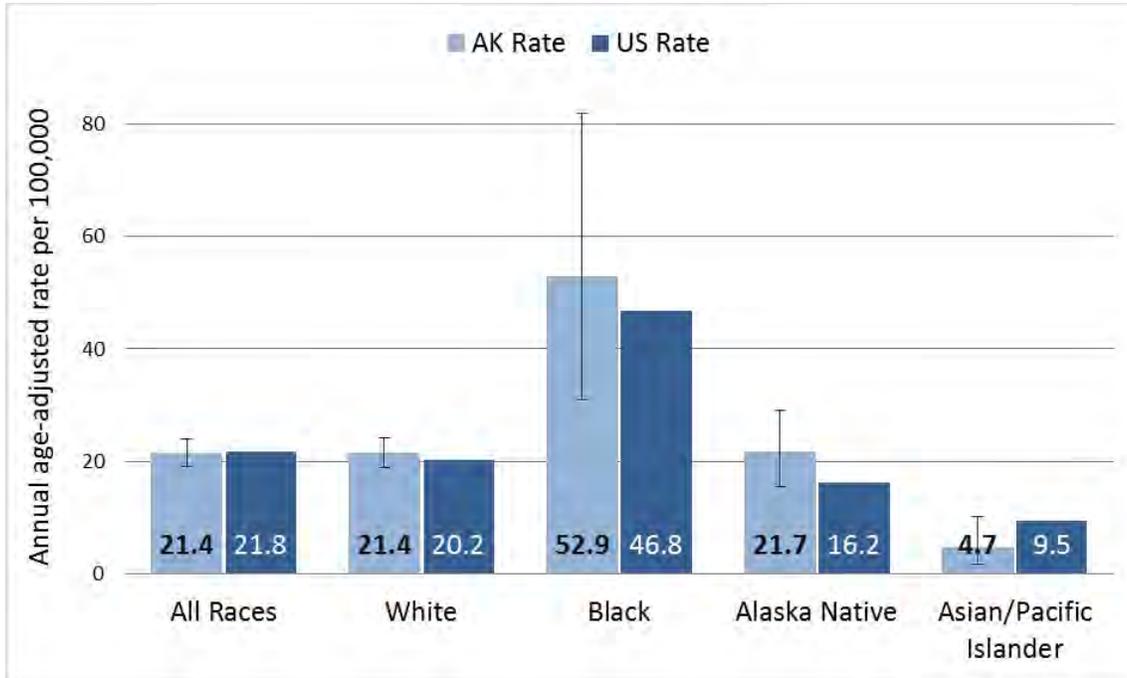
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>21.4</b>	<b>19.1</b>	<b>23.9</b>	<b>375</b>	<b>21.8</b>
Male	21.4	19.1	23.9	375	21.8
Female	n/a			n/a	

Rates are per 100,000 men only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).  
n/a Statistic not applicable (prostate cancer is only possible among males)

**By Race**

**Prostate cancer, mortality rate by race**

Alaska and U.S., 2005-2014



**Prostate cancer, mortality rate by race**

Alaska and U.S., 2005-2014

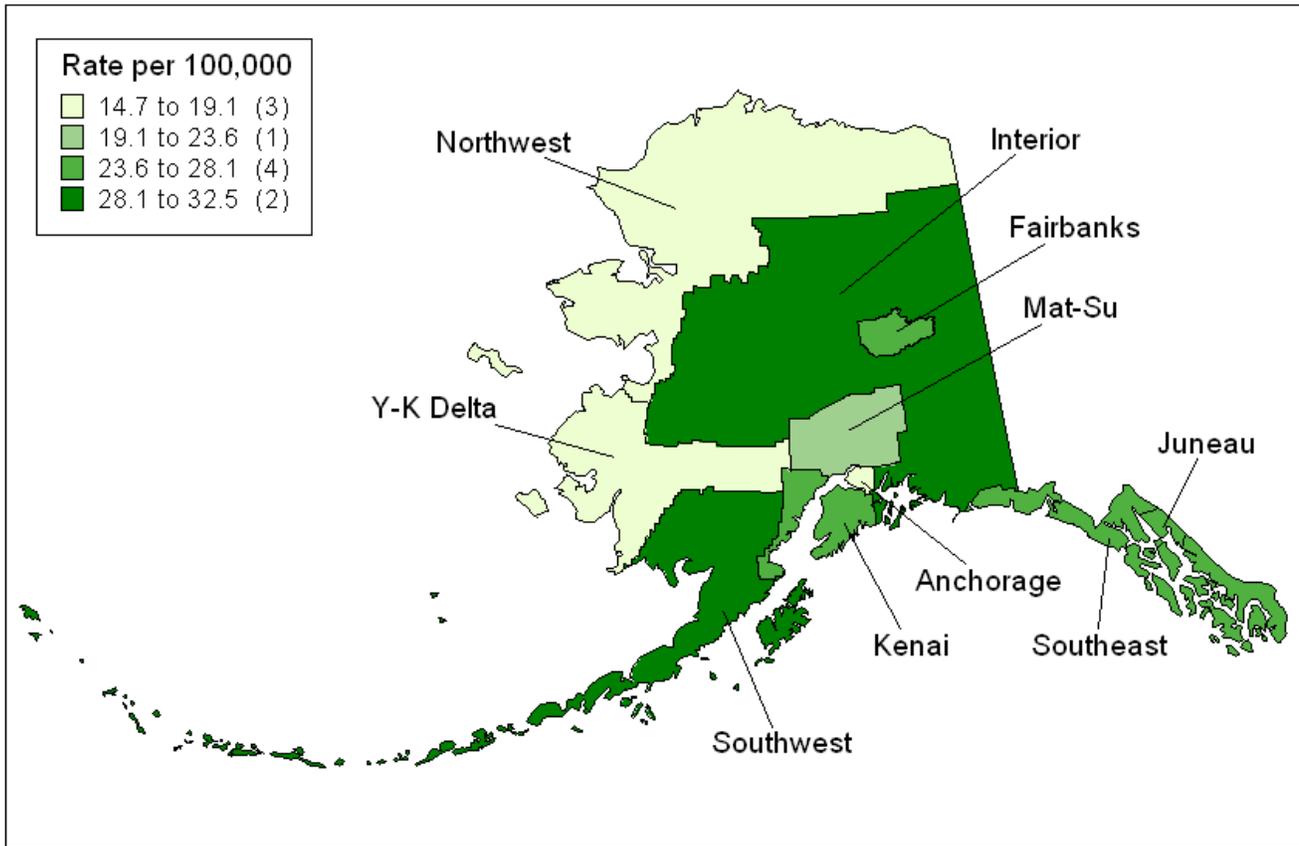
	Alaska				U.S.
	Rate	Lower CI	Upper CI	Count	Rate
<b>Total</b>	<b>21.4</b>	<b>19.1</b>	<b>23.9</b>	<b>375</b>	<b>21.8</b>
White	21.4	18.8	24.1	295	20.2
Black	52.9	31.0	81.9	23	46.8
American Indian/Alaska Native	21.7	15.5	29.1	48	16.2
Asian/Pacific Islander	4.7	1.7	10.1	6	9.5

Rates are per 100,000 men only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

**By Behavioral Health Systems Region**

**Prostate cancer, mortality rate by Behavioral Health Systems Region**

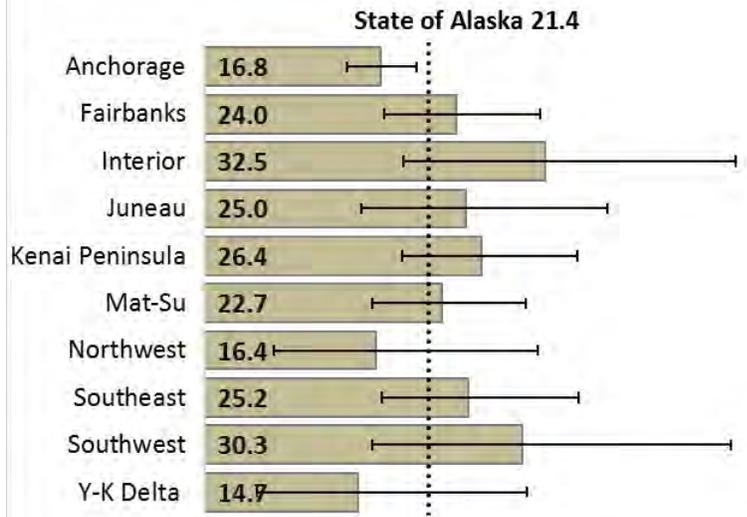
Alaska residents, 2005-2014



**Prostate cancer, mortality rate by Behavioral Health Systems Region**

Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count
<b>State of Alaska</b>	<b>21.4</b>	<b>19.1</b>	<b>23.9</b>	<b>375</b>
Anchorage	16.8	13.7	20.3	121
Fairbanks	24.0	17.2	32.1	50
Interior	32.5	19.0	50.7	24
Juneau	25.0	15.0	38.5	22
Kenai Peninsula	26.4	18.9	35.6	47
Mat-Su	22.7	16.1	30.7	49
Northwest	16.4	6.7	31.8	8
Southeast	25.2	17.0	35.7	33
Southwest	30.3	16.0	50.2	15
Y-K Delta	14.7	5.1	30.8	6



Rates are per 100,000 men only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

Prostate Cancer - Mortality

**By Borough/Census Area**

**Prostate cancer, mortality rate by Borough/Census Area**

Alaska residents, 2005-2014

	Rate	Lower CI	Upper CI	Count	+ BCA region higher than AK – BCA region lower than AK Blank: no significant difference*
<b>State of Alaska</b>	<b>21.4</b>	<b>19.1</b>	<b>23.9</b>	<b>375</b>	
Aleutians East Borough	^	^	^	^	
Aleutians West Census Area	^	^	^	^	
Municipality of Anchorage	16.8	13.7	20.3	121	
Bethel Census Area	^	^	^	^	
Bristol Bay Borough	^	^	^	^	
Denali Borough	^	^	^	^	
Dillingham Census Area	^	^	^	^	
Fairbanks North Star Borough	24.0	17.2	32.1	50	
Haines Borough	^	^	^	^	
Hoonah-Angoon Census Area	^	^	^	^	
Juneau Borough	25.0	15.0	38.5	22	
Kenai Peninsula Borough	26.4	18.9	35.6	47	
Ketchikan Gateway Borough	21.0	8.9	40.2	8	
Kodiak Island Borough	33.2	13.3	64.3	8	
Kusilvak Census Area	^	^	^	^	
Lake and Peninsula Borough	^	^	^	^	
Matanuska-Susitna Borough	22.7	16.1	30.7	49	
Nome Census Area	^	^	^	^	
North Slope Borough	^	^	^	^	
Northwest Arctic Borough	^	^	^	^	
Petersburg Borough	^	^	^	^	
Prince of Wales-Hyder Census Area	^	^	^	^	
Prince of Wales-Outer Ketchikan Census Area	^	^	^	^	
Sitka Borough	35.1	16.0	64.6	9	
Skagway Municipality	^	^	^	^	
Skagway-Hoonah-Angoon Census Area	^	^	^	^	
Southeast Fairbanks Census Area	^	^	^	^	
Valdez-Cordova Census Area	51.4	22.7	94.7	13	
Wrangell Borough	^	^	^	^	
Wrangell-Petersburg Census Area	^	^	^	^	
Yakutat Borough	^	^	^	^	
Yukon-Koyukuk Census Area	24.5	8.2	54.4	6	

Rates are per 100,000 men only and age-adjusted to the 2000 U.S. Standard Population (19 age groups - Census P25-1130).

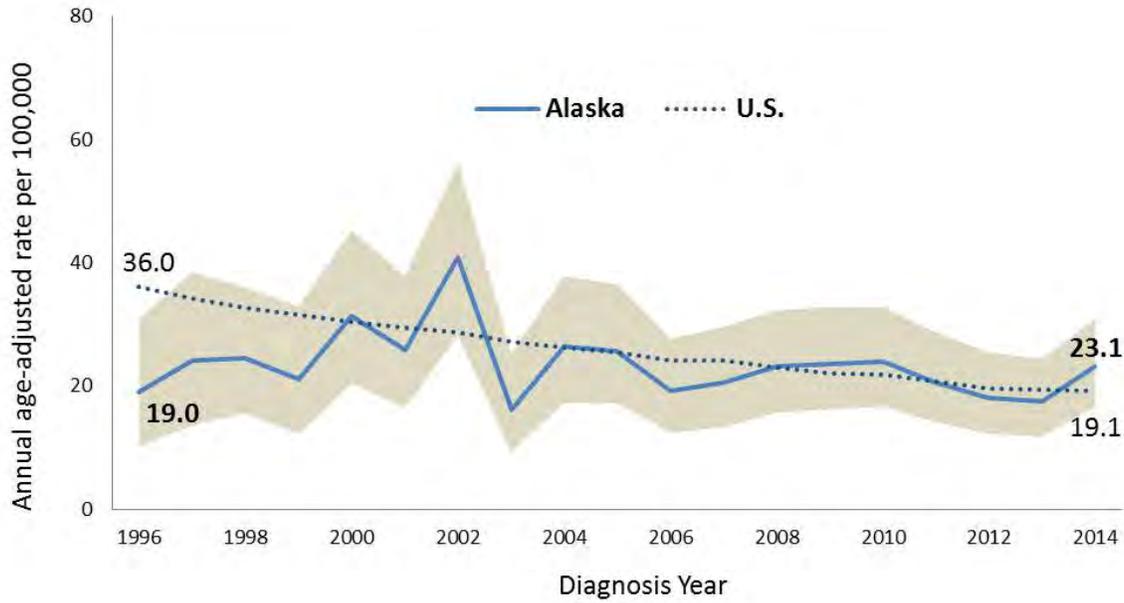
^ Statistic not displayed due to fewer than 6 cases.

\* Borough/Census area (BCA) rates are marked as higher (+) or lower (–) than the Alaska statewide rate if the confidence intervals for the BCA and state estimates do not overlap. If they do overlap, indicating differences are not statistically significant, then this space is blank.

**Trend over time, Alaska and U.S.**

**Prostate cancer, mortality rate**

Alaska and U.S., 1996-2014

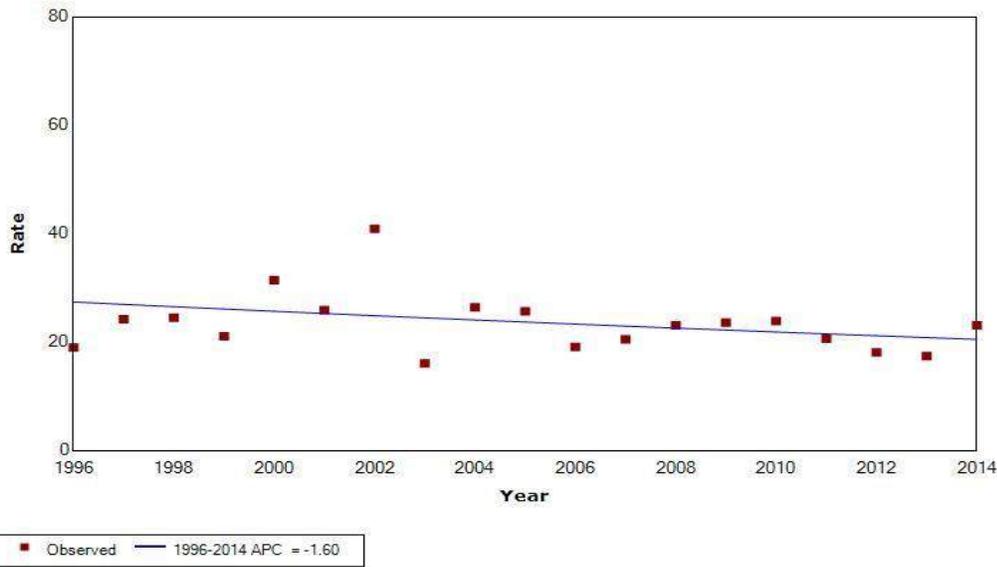


Shading shows 95% confidence interval for Alaska’s annual rates. 95% confidence interval for U.S. rates is about ± 0.1. Rates are per 100,000 (men) and age-adjusted to the 2000 U.S. Population.

National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

**Prostate cancer, mortality rate trend and change in trend**

Alaska residents, 1996-2014



Annual percent change is not significantly different from zero; no significant change in trend over time.

Prostate Cancer - Mortality

**Prostate cancer, mortality rate**

Alaska and U.S., 1996-2014

Year	Alaska			Count	U.S.		+ AK higher than U.S. – AK lower than U.S. Blank: no significant difference*
	Annual rate	Lower CI	Upper CI		Annual rate	% difference (AK from U.S. rate)	
1996	19.0	10.2	31.0	18	36.0	-47%	
1997	24.2	13.6	38.5	21	34.2	-29%	
1998	24.5	15.6	36.0	29	32.6	-25%	
1999	21.1	12.2	32.9	20	31.6	-33%	
2000	31.4	20.4	45.3	31	30.4	3%	
2001	25.9	16.5	37.8	31	29.5	-12%	
2002	40.9	28.2	56.3	39	28.7	43%	
2003	16.1	9.3	25.3	21	27.2	-41%	–
2004	26.4	17.3	37.8	32	26.2	1%	
2005	25.7	17.2	36.5	33	25.4	1%	
2006	19.1	12.4	27.7	28	24.2	-21%	
2007	20.5	13.3	29.6	29	24.2	-15%	
2008	23.1	15.7	32.3	37	23.0	0%	
2009	23.6	16.2	32.8	38	22.1	7%	
2010	23.9	16.7	32.8	43	21.8	10%	
2011	20.6	14.1	28.7	39	20.8	-1%	
2012	18.1	12.2	25.4	36	19.6	-8%	
2013	17.4	11.8	24.5	39	19.3	-10%	
2014	23.1	16.7	30.9	53	19.1	21%	

Rates are per 100,000 men only and age-adjusted to the 2000 U.S. Population.

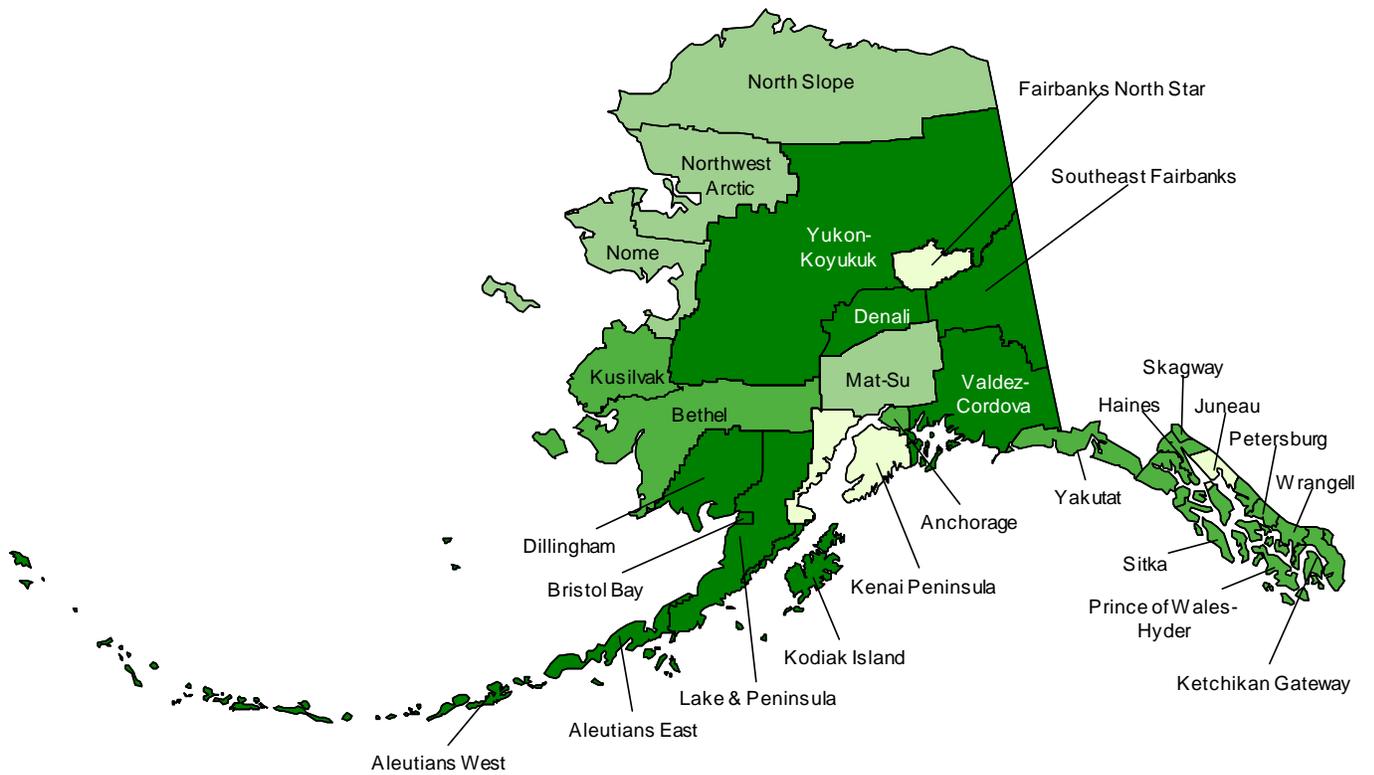
National data source: United States Cancer Statistics (Centers for Disease Control and Prevention [CDC] and the National Cancer Institute [NCI]).

\*Alaska rates are marked as higher (+) or lower (–) than the U.S. if the U.S. rate is  $\pm$  0.5% outside of the CI range for Alaska. If there is no difference of 0.5% or greater, this space is blank.

# Appendix

## Description of Alaska Borough and Census Areas

### *Alaska Borough and Census Areas*



**Alaska Behavioral Health Systems Regions  
with 2014 Alaska Resident Population by Borough/Census Area**

Behavioral Health Systems Region	Boroughs/Census Areas	Population
<b>State of Alaska</b>		<b>737,046</b>
<b>Anchorage</b>	Anchorage Municipality	<b>300,357</b>
<b>Fairbanks</b>	Fairbanks North Star Borough	<b>99,371</b>
<b>Interior</b>	Denali Borough	1,903
	Southeast Fairbanks Census Area	6,978
	Valdez-Cordova Census Area	9,493
	Yukon-Koyukuk Census Area	5,563
<b>Total</b>		<b>23,937</b>
<b>Juneau</b>	Juneau City and Borough	<b>32,625</b>
<b>Kenai Peninsula</b>	Kenai Peninsula Borough	<b>57,638</b>
<b>Mat-Su</b>	Matanuska-Susitna Borough	<b>98,285</b>
<b>Northwest</b>	Nome Census Area	9,833
	North Slope Borough	9,713
	Northwest Arctic Borough	7,748
<b>Total</b>		<b>27,294</b>
<b>Southeast*</b>	Haines Borough	2,566
	Hoonah-Angoon Census Area	2,091
	Ketchikan Gateway Borough	13,781
	Petersburg Borough	3,184
	Prince of Wales-Hyder Census Area	6,384
	Sitka City and Borough	8,881
	Skagway Municipality	1,038
	Wrangell City and Borough	2,360
	Yakutat City and Borough	634
<b>Total</b>		<b>40,919</b>
<b>Southwest</b>	Aleutians East Borough	3,317
	Aleutians West Census Area	5,751
	Bristol Bay Borough	946
	Dillingham Census Area	4,994
	Kodiak Island Borough	14,007
	Lake and Peninsula Borough	1,629
	<b>Total</b>	
<b>Y-K Delta</b>	Bethel Census Area	17,923
	Kusilvak Census Area	8,053
<b>Total</b>		<b>25,976</b>

Vintage 2014. All numbers are based on 2014 geography.

Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section; U.S. Census Bureau; and National Center for Health Statistics

\*Prior to 2010, this region included 3 more borough/census areas: Prince of Wales – Outer Ketchikan Census Area; Skagway-Hoonah-Angoon Census Area; and Wrangell-Petersburg Census Area. At that time it did not include Hoonah-Angoon Census Area, Petersburg Borough, Prince of Wales-Hyder Census Area, Skagway Municipality, and Wrangell Borough.

## Years of Data Included in this Report

This report does not cover one specific period of time. The number of years chosen for each cancer type depended on if the data were incidence or mortality, and if the cancer type was relative common or relatively uncommon. More years of aggregated data were chosen for cancer types with lower numbers of cases. This minimized situations where data for race categories and Behavioral Health Systems Regions had to be suppressed. ACR suppresses data when there are less than 6 cases per category.

5 years = 2010-2014

10 years = 2005-2014

15 years = 2000-2014

### Number of years combined per cancer type for this report

Cancer Type	Incidence					Mortality				
	Total	Gender	Race	Region	Borough	Total	Gender	Race	Region	Borough
All	5	5	5	5	5	10	10	10	10	10
Breast	5	5	5	5	5	10	10	10	10	10
Lung/Bronchus	5	5	5	5	5	10	10	10	10	10
Prostate	5	5	5	5	5	10	10	10	10	10
Colon/Rectum	5	5	5	5	5	10	10	10	10	10
UrinaryBladder	5	5	5	5	5	15	15	15	15	15
Kidney/Renal	5	5	5	5	5	15	15	15	15	15
Pelvis										
Non-Hodgkin	5	5	5	5	5	15	15	15	15	15
Lymphoma										
Pancreas	10	10	10	10	10	15	15	15	15	15
Liver	10	10	10	10	10	15	15	15	15	15
Leukemia	10	10	10	10	10	15	15	15	15	15
Cervix	10	10	10	10	10	15	15	15	15	15

## Resources

### ***Alaska Department of Health and Social Services Cancer Control Programs***

Information about the Alaska Cancer Prevention and Control Program, Alaska Department of Health and Social Services (DHSS), Division of Public Health, is available at <http://dhss.alaska.gov/dph/Chronic/Pages/Cancer/default.aspx>

Information about specific cancer prevention, detection and control programs within the Alaska DHSS can be found at the following sites:

Alaska Cancer Surveillance and Registry

<http://dhss.alaska.gov/dph/Chronic/Pages/Cancer/registry.aspx>

Alaska Comprehensive Cancer Control Program

<http://dhss.alaska.gov/dph/Chronic/Pages/Cancer/comprehensive.aspx>

Alaska Comprehensive Cancer Control Partnership

<http://dhss.alaska.gov/dph/Chronic/Pages/Cancer/partnership/default.aspx>

Breast and Cervical Health Check (BCHC) Program

<http://dhss.alaska.gov/dph/wcfh/Pages/bchc/default.aspx>

### ***Additional Data Resources***

Informed Alaskans is a data visualization initiative to make state, regional and community health data readily accessible.

<http://dhss.alaska.gov/dph/InfoCenter/Pages/ia/default.aspx>

The Indicator-Based Information System for Public Health (AK-IBIS) site provides contextual information on the health status of Alaskans and the state of Alaska's healthcare system.

<http://ibis.dhss.alaska.gov/>

InstantAtlas health profiles make state, regional and community health data readily accessible through health maps.

<http://dhss.alaska.gov/dph/InfoCenter/Pages/ia/instantatlas.aspx>