

Annual Report
of the
Cancer Data Registry of Idaho

Cancer in Idaho – 2019

December 2021



IDAHO DEPARTMENT OF
HEALTH & WELFARE

CANCER IN IDAHO – 2019

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IDAHO DEPARTMENT OF
HEALTH & WELFARE

PREFACE

“Cancer in Idaho – 2019,” the forty-third annual report of the Cancer Data Registry of Idaho (CDRI), describes the state of cancer among Idaho residents, with a focus on cancer cases diagnosed during 2019. The data can be used by public health officials, hospital administrators, physicians, the Comprehensive Cancer Alliance for Idaho, and others to effectively plan services, appropriately allocate health resources, develop and measure prevention and intervention strategies, and identify high-risk populations in Idaho.

ACKNOWLEDGMENTS

The Idaho Hospital Association (IHA) contracts with, and receives funding from, the Idaho Department of Health and Welfare, Division of Public Health, to provide a statewide cancer surveillance system.

The statewide cancer registry database is a product of collaboration among many report sources, including hospitals, physicians, surgery centers, pathology laboratories, and other states in which Idaho residents are diagnosed or treated for cancer. Their cooperation in reporting timely, accurate, and complete cancer data is acknowledged and sincerely appreciated.

CDRI also thanks the Division of Public Health, Idaho Department of Health and Welfare, and the Comprehensive Cancer Alliance for Idaho for their continued partnership and for using CDRI data as a tool in cancer control and prevention.

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BACKGROUND

Introduction to the Cancer Data Registry of Idaho (CDRI)

Purpose of the Registry

Population-based cancer registries are essential for assessing the extent of cancer burden in a specified geographic area. The Cancer Data Registry of Idaho (CDRI) is a population-based cancer registry that collects incidence and survival data on all cancer patients who are Idaho residents or patients who are diagnosed with or treated for cancer in the state of Idaho. The goals of CDRI are to:

- ◆ determine the incidence of cancer in the state of Idaho with respect to geographic, demographic, and community characteristics;
- ◆ monitor trends and patterns of cancer incidence over time;
- ◆ identify high-risk populations;
- ◆ serve as a resource for conducting epidemiologic studies; and
- ◆ provide data to assist public health officials, hospital administrators, and physicians to effectively plan services, appropriately allocate health resources, and develop and measure prevention and intervention strategies.

CDRI works closely with the Comprehensive Cancer Alliance for Idaho (CCAI), the Idaho Comprehensive Cancer Control Program, and other organizations to lessen the burden of cancer in Idaho.

History and Funding of the Registry

CDRI was established in 1969 and became population-based in 1971. The Idaho State Legislature has provided guidelines for the establishment, requirements, and funding of the statewide cancer registry. The operations of the registry are mandated by Idaho Code 57-1703 through 57-1707. Funding is appropriated in Idaho Code 57-1701 and 63-2520, which delineates that a portion (less than one percent) of the cigarette tax be dedicated to fund the statewide cancer registry. Through the National Program of

Cancer Registries (NPCR), additional funding has been awarded to CDRI from the Centers for Disease Control and Prevention (CDC) to enhance timely, complete, and accurate data collection, computerization, and reporting of reliable data. In May 2018, the National Cancer Institute (NCI) awarded the Idaho Hospital Association (IHA) a contract to operate CDRI as part of the Surveillance, Epidemiology and End Results (SEER) Program.

Collection of Data

Each Idaho hospital, outpatient surgery center, and pathology laboratory is responsible for the complete ascertainment and reporting of all data on cancer diagnoses and treatments provided in its facility within six months of diagnosis. Sources for identifying eligible cases include:

- ◆ hospitals;
- ◆ outpatient surgery centers;
- ◆ private pathology laboratories;
- ◆ free-standing radiation centers;
- ◆ physicians (for patients not receiving cancer diagnoses or treatment in the above sources);
- ◆ death certificates; and
- ◆ other state cancer registries reporting an Idaho resident with cancer (as negotiated).

When a cancer case is reported from more than one source, the information is consolidated into one record.

Reported cases contain the following data:

- ◆ patient demographics (including geographic place of residence at time of cancer diagnosis);
- ◆ description of cancer (including date of diagnosis, primary site, metastatic sites, histology, extent of disease, etc.);
- ◆ first course treatment; and
- ◆ follow-up data for purposes of calculating survival rates.

Primary site, behavior, grade, and histology were coded according to the *International Classification of Diseases for Oncology, 3rd edition*.¹ Stage of disease variables were coded using SEER's *Summary Staging Manual 2018* and the *AJCC Manual for Staging of Cancer, 8th edition*.^{2,3} All other variables were coded following the rules of the North American Association of Central Cancer Registries (NAACCR), the National Cancer Institute's SEER program, and the American College of Surgeons Commission on Cancer.⁴⁻⁶ Rules for coding multiple primary cases and hematopoietic and lymphoid neoplasms were applied based on the year of diagnosis.^{7,8}

Reportable Cases

All in situ and malignant neoplasms are reportable to CDRI. The database includes all cases of carcinoma, sarcoma, melanoma, lymphoma, and leukemia diagnosed by histology/cytology, radiology, laboratory testing, clinical observation, and autopsy.

Benign tumors of the brain, meninges, spinal cord, any other part of the central nervous system, pineal gland, and pituitary gland are also reportable.

Basal and squamous cell carcinomas of the skin are excluded except when occurring on a mucous membrane.

Under Idaho Code and as recommended by NAACCR, cervix in situ cases are not currently reportable.

Confidentiality of Data

Idaho state law ensures the protection of confidential data and restricts the release of identifying data. Only aggregate data are published. The same law protects report sources from any liability for reporting confidential data to CDRI. Persons with access to confidential data are required to sign a pledge of confidentiality and are subject

to penalty if they, through negligence or willful misconduct, disclose confidential data.

Quality Assurance

To assure validity and reliability of data presented, CDRI has many mechanisms in place to check data for quality and completeness. CDRI uses SEER*DMS, SEER*Edits, and GenEDITS Plus software, which apply algorithms that check the values of data fields against an encoded set of acceptable possible values and flags the acceptability of coded data. Edits include field edits, inter-field edits, and inter-record edits. Edits check for unlikely sex/site, site/histology, and site/age combinations. Records are also routinely checked for duplicate entries using manual and probabilistic record linkage methods.

CDRI has met SEER and NPCR program standards and is recognized as a "gold standard registry" for data quality, completeness, and timeliness as designated by NAACCR. These designations allow Idaho data to be included in United States Cancer Statistics and all NAACCR volumes of "Cancer Incidence in North America." Idaho data have been included in SEER-21 statistics published by NCI since April 2019.

Executive Summary

Data Presentation

This report is composed of ten sections. Section I focuses on the 23 most common cancer sites and all sites combined and presents age-adjusted incidence rates, numbers of cases, numbers of deaths, case counts by county, stage of disease at time of diagnosis, risk factors, special notes, age-adjusted incidence rate comparisons by health district, and age-specific rates by gender. Comparison rates from United States Cancer Statistics (USCS) are provided, which are combined from SEER and the Centers for Disease Control and Prevention's National Program of Cancer Registries (NPCR).⁹ Only registries whose data meet specified data quality criteria are included in USCS statistics. For the latest USCS data (2018 incidence), all areas of the U.S. besides Nevada are included. Section II describes incidence data by site, subsite, and gender for invasive and in situ cases. For completeness, site groups include categories for mesothelioma and Kaposi sarcoma histologies. Section III describes mortality data by site and gender. Section IV contains a table of age-specific cancer rates by site and gender for 2015–2019. Section V contains a table of observed versus expected numbers of cancer cases by health district.[‡] Section VI contains tables of age-specific risks of being diagnosed with and dying from cancer for males and females. Section VII shows cancer incidence trends in Idaho for the period 1975–2019. Section VIII shows cancer incidence rates by race and ethnicity for the period 2015–2019. Section IX shows cancer survival statistics for Idahoans diagnosed during the period 2012–2018 with follow-up through 2019. Section X shows maps and charts of cancer incidence and mortality rates by county for the period 2015–2019.

Descriptive Summary by Gender and Race and Ethnicity

The data presented in this report cover cancer cases diagnosed among Idaho residents from January 1, 2019 to December 31, 2019, inclusive. During this period, there were 10,400 cases of in situ and invasive cancer diagnosed among Idaho residents (5,397 among males and 5,003 among females). By race and ethnicity, there were 9,581 cases among non-Hispanic Whites, 437 among Hispanic Whites, 39 cases among Blacks, 109 cases among Native Americans, 95 cases among Asians/Pacific Islanders, and 139 cases of other or unknown race. The number of cancer cases treated in outpatient settings and reported only by pathology laboratories has increased over the last several years; these cases are more likely to have missing race and ethnicity information. To improve the accuracy of race information collected on Native Americans, CDRI has conducted matches with the Indian Health Service and Northwest Portland Area Indian Health Board. To improve the accuracy of ethnicity information, CDRI uses the NAACCR Hispanic Identification Algorithm to identify Hispanics by birthplace/race/surname. For more detailed statistics by race and ethnicity, see Section VIII of this report and *Cancer in North America: 2013-2018, Volume Two*.¹⁰

Trends

From 2018 to 2019, there was a 2.7% increase in the age-adjusted cancer incidence rates in Idaho as published in CDRI's 2018 and 2019 annual reports. Changes in health policy and screening recommendations may have impacted cancer incidence since 2013. In May 2012,

[‡]For more detailed statistics by county, see Section X and CDRI's *County Cancer Profiles* at <https://www.idcancer.org/ContentFiles/special/CountyProfiles/CountyMap.htm>.

the United States Preventive Service Task Force issued a recommendation against Prostate Specific Antigen (PSA)-based screening for prostate cancer in all age groups. During 2007–2014, prostate cancer incidence rates decreased about 8% per year in Idaho — similar to national trends — but rebounded during 2015–2019. Low-dose CT (LDCT) screening for lung cancer among persons at higher risk due to smoking history was recommended by the United States Preventive Services Task Force in December 2013 and is expected to reduce lung cancer-related deaths. The incidence rates of Hodgkin lymphoma and cancers of the larynx, ovary, and stomach, which fluctuate annually due to relatively small case counts, rebounded from 2018. See [Section VII](#) for more detailed long-term trends in cancer incidence.

Population Description

The population of the state of Idaho on July 1, 2019, was estimated to be 1,787,065 (895,928 males and 891,137 females). Population estimates were obtained from the National Center for Health Statistics.¹¹ Idaho is composed of 44 counties, which are grouped into seven health districts. The composition of the health districts and their population estimates by gender as used in this report are shown below:

<u>Health District</u>	<u>Counties</u>	<u>Male</u>	<u>Female</u>
District 1	Benewah, Bonner, Boundary, Kootenai, Shoshone	122,239	123,622
District 2	Clearwater, Latah, Lewis, Idaho, Nez Perce	55,814	53,963
District 3	Adams, Canyon, Gem, Owyhee, Payette, Washington	148,490	149,733
District 4	Ada, Boise, Elmore, Valley	265,535	262,786
District 5	Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, Twin Falls	100,706	100,325
District 6	Bannock, Bear Lake, Bingham, Butte, Caribou, Franklin, Oneida, Power	88,266	88,318
District 7	Bonneville, Clark, Custer, Fremont, Jefferson, Lemhi, Madison, Teton	114,878	112,390

A map of Idaho counties and health districts can be found in **Appendix A**.

SUMMARY MEASURES OF CANCER BURDEN IN IDAHO — 2019

Primary Site	Incident Cases	Deaths	Median Age at Diagnosis	Median Age at Death	Estimated 10-Year Limited Duration Prevalence Count	Total Number of YPLL Before Age 75	Average Number per Death, Persons Aged < 75 Years	% Change Incidence Rate, 2018 to 2019
All Sites	9,383	2,928	68.0	74.0	46,600	17,583	10.8	2.7%
Bladder	454	108	74.0	80.0	2,500	326	8.2	8.7%
Brain	138	117	62.0	66.0	400	1,673	18.2	-3.2%
Breast	1,381	206	66.0	72.0	9,300	1,639	13.3	-1.9%
Cervix	70	18	49.0	63.5	400	309	18.1	-2.5%
Colorectal	712	252	68.0	71.0	3,500	2,009	13.6	-3.5%
Corpus Uteri	277	30	64.0	69.5	1,900	189	8.6	6.7%
Esophagus	101	89	67.0	72.0	200	575	9.6	-5.4%
Hodgkin Lymphoma	49	5	41.0	-	300	-	-	41.6%
Kidney and Renal Pelvis	414	65	67.0	75.0	1,900	282	8.0	27.8%
Larynx	46	14	67.0	80.5	200	61	10.2	17.3%
Leukemia	327	126	70.0	76.5	1,700	835	13.9	-2.6%
Liver and Bile Duct	158	118	67.0	69.0	300	819	9.1	2.8%
Lung and Bronchus	981	572	72.0	74.0	2,200	2,469	7.6	-1.9%
Melanoma of Skin	610	59	66.5	74.0	3,800	440	13.3	5.7%
Myeloma	129	56	70.0	76.0	600	139	5.3	-8.5%
Non-Hodgkin Lymphoma	394	105	68.0	76.0	2,100	570	11.0	7.1%
Oral Cavity and Pharynx	260	55	65.0	72.0	1,400	367	10.8	8.1%
Ovary	108	65	65.0	74.0	500	346	9.9	-13.7%
Pancreas	287	225	71.0	72.0	400	1,200	8.7	17.1%
Prostate	1,402	182	68.0	79.0	9,100	417	6.2	11.3%
Stomach	84	35	70.0	68.0	300	275	11.9	-12.6%
Testis	53	1	34.0	-	500	-	-	-2.3%
Thyroid	230	12	51.0	69.0	2,300	106	13.3	-1.6%

Notes:

Incidence cases include all invasive and bladder in situ cases newly diagnosed among Idaho residents in 2019.

Years of potential life lost (YPLL) is a statistic used to measure the number of years of life lost in a population when persons in that population die prematurely (standard of 75 years of age used for this table).

Mortality-related statistics are suppressed for Hodgkin lymphoma and testis primary sites due to small number of deaths.

Technical Notes

National Program of Cancer Registries

The Centers for Disease Control and Prevention's National Program of Cancer Registries (NPCR) supports central cancer registries in 46 states (including Idaho), the District of Columbia, Puerto Rico, the U.S. Pacific Island Jurisdictions, and the U.S. Virgin Islands. These data represent 97% of the U.S. population.

Surveillance, Epidemiology and End Results Program

Part of the National Cancer Institute, the Surveillance, Epidemiology, and End Results (SEER) Program consists of several U.S. population-based cancer registries (including Idaho). SEER cancer statistics are designed to be representative of the U.S. population. SEER data used to calculate USCS statistics in Section I included data from 21 registries; statistics were calculated using SEER*Stat.¹²

Cancer Case Definition

A "cancer case" is defined by the primary cancer site (where the cancer started), not a metastatic cancer site (where the cancer spread to). Since an individual can have more than one primary cancer during their lifetime, the number of incident cancer cases is greater than the number of persons who are diagnosed with cancer.

Standard Site Analyses Categories

To facilitate interpretation of data and comparisons across registries, CDRI uses standardized groupings of site analysis categories. These groupings are consistent with those used by the SEER Program and NPCR, and are adopted by NAACCR.^{4,5} Most neoplasms are grouped by the organ where

they occur. Neoplasms of the lymphatic, hematopoietic, and reticuloendothelial systems are grouped by their histology (e.g. leukemias, lymphomas) and not by the anatomic site where they occurred. Melanoma of the skin is a combination of both anatomic site and histologic type. See <https://seer.cancer.gov/siterecode/> for groupings of codes.

Stage at Time of Diagnosis

Staging measures the extent of disease at the time of initial diagnosis. Summary staging attempts to group cases with similar prognoses into categories of:

- ◆ in situ (non-invasive);
- ◆ localized (cancer confined to the primary site);
- ◆ regional (direct extension of tumor to adjacent organs, tissues, or lymph nodes);
- ◆ distant (metastasis to tissues or lymph nodes remote from the primary site); or
- ◆ unstaged.

Age-specific Incidence Rates

Age-adjusted incidence rates published in this report were calculated using the direct method and standardized to the age distribution of the 2000 U.S. population (see **Appendix B**). Incidence rates represent the average number of new cases diagnosed annually per 100,000 persons. Age adjustment allows rates from one geographic area or time period to be compared with rates from other geographic areas or time periods that may have differences in age distributions. Any observed differences in age-adjusted incidence rates between populations are not due to differing age structures.

Because the 2000 U.S. standard population was used to age adjust rates, the age-adjusted rates published in this report are not comparable with age-adjusted rates published in CDRI annual reports for incident years prior to 1999.

Rate calculation requires reliable estimates of the population at risk by five-year age groups and gender during the time period being studied. Population figures used in this report were obtained from the National Center for Health Statistics (NCHS; see **Appendix C**).¹¹

In conformity with NPCR and SEER Program guidelines, the incidence rates excluded the following:

- ◆ in situ cases, except bladder;
- ◆ basal and squamous cell skin cancers;
- ◆ cases with unknown age; and
- ◆ cases with unknown gender.

Of the total number of invasive and in situ cases for 2019 (10,400), 9,383 cases (9,180 invasive and 203 bladder in situ) were used to calculate age-adjusted incidence rates. Of the 9,383 cases, 4,963 occurred among males and 4,420 occurred among females.

Age-specific Incidence Rates

Age-specific rates are calculated by dividing the number of cases for a given age group by the total population of that age group and are expressed as an average annual rate per 100,000 population by age group. Age-specific rates exclude the same types of cases that are excluded from age-adjusted incidence rates.

Observed vs. Expected Numbers of Cases

The expected numbers of cases were calculated using the indirect method of age adjustment. For each health district, the expected numbers of cases were calculated using rates for the remainder of Idaho. The

observed and expected numbers exclude in situ cases (except bladder), basal and squamous cell skin cancers, and cases with unknown age or sex. Cases with unknown county of residence are not included in these analyses; there were no cases with unknown county in 2019. Statistically significant differences between numbers of observed and expected cases (standardized incidence ratios) were marked (+) for $p < 0.05$ and (*) for $p < 0.01$. Because statistically significant differences in observed versus expected cases can occur as a result of multiple factors, including chance, statistically significant differences do not necessarily imply that public or other health interventions are warranted.

Confidence Intervals

Confidence intervals, which are estimated from available data, provide a range of values that are likely to include the true and unknown population value. The width of a confidence interval is a measure of variability, with wider confidence intervals connoting less reliable estimates.

Mean/Median

Measures of central tendency are helpful to describe a group of individual values in a simple and concise manner.

Mean, also known as the arithmetic average, is the sum of all observations divided by the number of observations.

Median is the middle value when the observations are ranked in order from the smallest to the largest.

Factors Associated with Cancer Incidence

The “Factors Associated with Cancer Incidence” subsections in Section I were developed from extracts of *Cancer Epidemiology and Prevention*, cancer

information from the National Cancer Institute, and the International Agency for Research on Cancer.¹³⁻¹⁵

Limitations to Data Interpretation and Comparison

Rates based on population estimates: In non-Census years, state and county population figures are estimates. Errors in these estimates will impact the rates.

Rate comparisons: Age-adjusted incidence rates and age-specific rates based on small numbers (< 10) of cases may be unstable. In comparing rates among geographic areas (counties, health districts, or states), factors such as the absolute numbers of cases and differences in demographics should be considered. Interpretations of rates without consideration of these factors may be misleading or inaccurate.

Misclassification of race and/or ethnicity: Many source documents used to report cancer misclassify or do not specify the race and/or ethnicity of the patient. For detailed statistics by race and ethnicity, see Section VIII and *Cancer in North America: 2014-2018, Volume Two*.¹⁰

Risks of Developing and Dying from Cancer

Cancer incidence and mortality risks were estimated using DEVCAN Version 6.7.8.5 software.¹⁶ DEVCAN was used to calculate the probability of developing or dying of cancer using Idaho-specific cancer incidence and mortality data for the years 2015-2019. The estimates generated are similar to estimates derived using incidence data from the SEER Program, mortality data from the National Center for Health Statistics, and population estimates from Census data. DEVCAN was developed by Information Management Services, Inc., in consultation with the Applied

Research Branch of the National Cancer Institute.

Prevalence

Cancer prevalence is an estimate of the number of persons with a history of cancer who are alive on a certain date. Ten-year limited-duration prevalence statistics in this report estimate the number of people alive on July 1, 2019 who had a cancer diagnosis within the past 10 years.

Trend Analyses

Joinpoint Version 4.8.0.1 software was used to model trends in age-adjusted cancer incidence rates.¹⁷ For each joinpoint time segment, the estimated annual percent change was calculated by fitting a least squares regression line to the natural logarithm of the rates using calendar year as a covariate. The Weighted Bayesian Information Criterion was used to determine the number of joinpoints (0 to 5) per primary site category and sex. Trend analyses are limited to cases considered to be malignant in both ICD-O-2 and ICD-O-3, and exclude cases only defined as malignant in 2010 or later.

Mortality

Idaho mortality data used throughout this report were provided by the Bureau of Vital Records and Health Statistics, Division of Public Health, Idaho Department of Health and Welfare.¹⁸

Survival

Two tables of survival estimates are included in this annual report: one table for actual prognosis, referred to as “crude” survival in the statistical literature; and one table for cancer survival, referred to as “net” survival in the statistical literature. Crude measures of survival include cancer and other competing causes of death, while net measures of

cancer survival exclude competing causes of death. Both types of survival estimates, crude and net, may be calculated using either information on cause of death or on expected survival. Policy makers, cancer control planners, and others may be interested in net deaths from cancer where the confounding effects of death from other causes are removed, such as when comparing geographic areas or population subgroups that have different background mortality rates. Crude estimates of actual patient survival are useful for cancer patients and health care providers who are interested in estimating the patients' chances of dying from cancer, dying from other competing causes of death, or surviving.¹⁹ For younger and healthier patients, crude and net estimates of survival are similar because competing causes of death are rare. Crude and net estimates of survival may differ substantially for older and sicker patients.

Relative survival is a net measure of excess mortality experienced by cancer patients. It is calculated by dividing the observed survival from all causes of death for the patient cohort by the expected survival in a comparable group not diagnosed with cancer. Because information on cancer-free cohorts is not readily available, general population life tables are used to estimate expected survival. Relative survival based on general life tables, which include people previously diagnosed with cancer, may be overestimated for common cancers, in particular for all sites combined, breast, colorectal, and prostate cancers.²⁰

The SEER cause-specific death classification variable, which provides guidance for which deaths should be attributable to a specific cancer diagnosis, was used to estimate the probabilities of dying of cancer, dying of other competing causes, and survival.²¹

Survival statistics published in this annual report include all invasive and bladder in

situ cases among patients aged 15–99 at diagnosis during 2012–2018 with follow-up/death ascertainment through December 31, 2019. Cases reported solely via death certificates or autopsy were excluded. Using SEER 2007 Multiple Primary and Histology Coding Rules,⁷ multiple primary cancers could be included for each patient, but only one record per patient was included in each survival estimate.

SEER*Stat (version 8.3.9.2) was used to perform survival calculations. The survival duration in months was calculated based on complete dates and alive patients were censored on December 31, 2019 or at their date of last contact if before December 31, 2019. Survival calculations were performed using the actuarial method on monthly intervals. Expected survival was estimated using the Ederer II method from life tables matched to the cancer patients by age, sex, year, race/ethnicity, and county-level socioeconomic status.^{22, 23} Cases were censored at an achieved age of 100 years.

Because the excess mortality due to cancer is often age dependent, and age distributions of cancer patients may differ among comparison groups, net survival estimates were age standardized using the International Cancer Survival Standards (ICSS).²⁴ Crude survival estimates were not age standardized and reflect the actual prognosis of the cohort of Idaho cancer cases.

SECTION I

2019 SUMMARY ON ALL SITES COMBINED AND 23 MOST COMMON SITES

ALL SITES

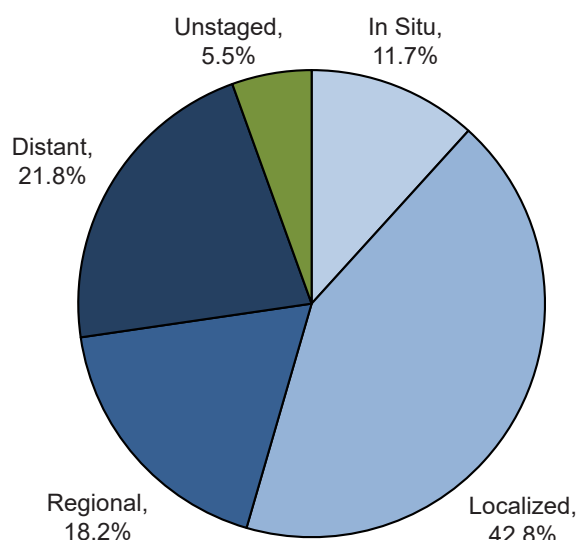
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	441.2	478.7	411.8
# of new invasive cases	9,180	4,790	4,390
# of new in situ cases	1,220	607	613
# of deaths	2,928	1,595	1,333

Total Cases by County

Ada	2,820	Cassia	116	Lewis	39
Adams	35	Clark	1	Lincoln	23
Bannock	380	Clearwater	77	Madison	96
Bear Lake	26	Custer	22	Minidoka	99
Benewah	84	Elmore	158	Nez Perce	273
Bingham	248	Franklin	57	Oneida	31
Blaine	199	Fremont	63	Owyhee	74
Boise	52	Gem	121	Payette	200
Bonner	376	Gooding	77	Power	41
Bonneville	627	Idaho	129	Shoshone	111
Boundary	96	Jefferson	130	Teton	44
Butte	25	Jerome	118	Twin Falls	483
Camas	7	Kootenai	1147	Valley	84
Canyon	1,257	Latah	169	Washington	94
Caribou	35	Lemhi	56		

Stage at Diagnosis - All Sites



Factors Associated with Cancer Incidence

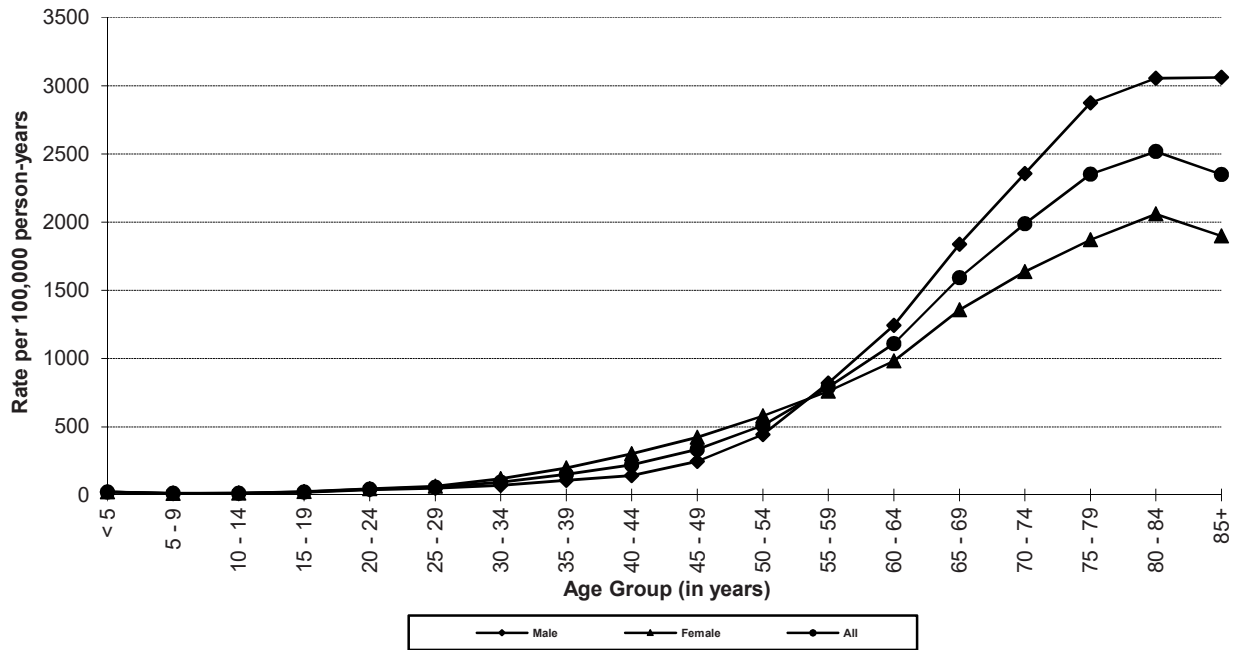
Age & Sex	Rates usually increase with age. Approximately 50% of new cancer cases are diagnosed among people aged 66 and older. Males and females have similar cancer rates through early adulthood. Females have higher rates than males from ages 30 to 54; males have higher rates than females from age 55 onwards. Apart from breast and thyroid, males have higher rates than females for the 10 most common cancers of both sexes.
Race/Ethnicity	Rates among Whites are higher than among American Indians/Alaska Natives, Asians/Pacific Islanders, and Blacks. These rates may, however, be more indicative of access to care than actual risk. Hispanics have lower rates than non-Hispanic Whites.
Occupation	Increased cancer risk is associated with some workplace exposures, such as to vinyl chloride, respirable crystalline silica, asbestos, and radiation.
Diet	Specific dietary items, such as processed meats and alcohol, increase cancer risk.
Other	Tobacco use is the single most important risk factor for cancer incidence and mortality. Obesity, conditions of chronic inflammation, immunosuppression, and infection with certain infectious agents increases risk for certain cancers.

Data Summary

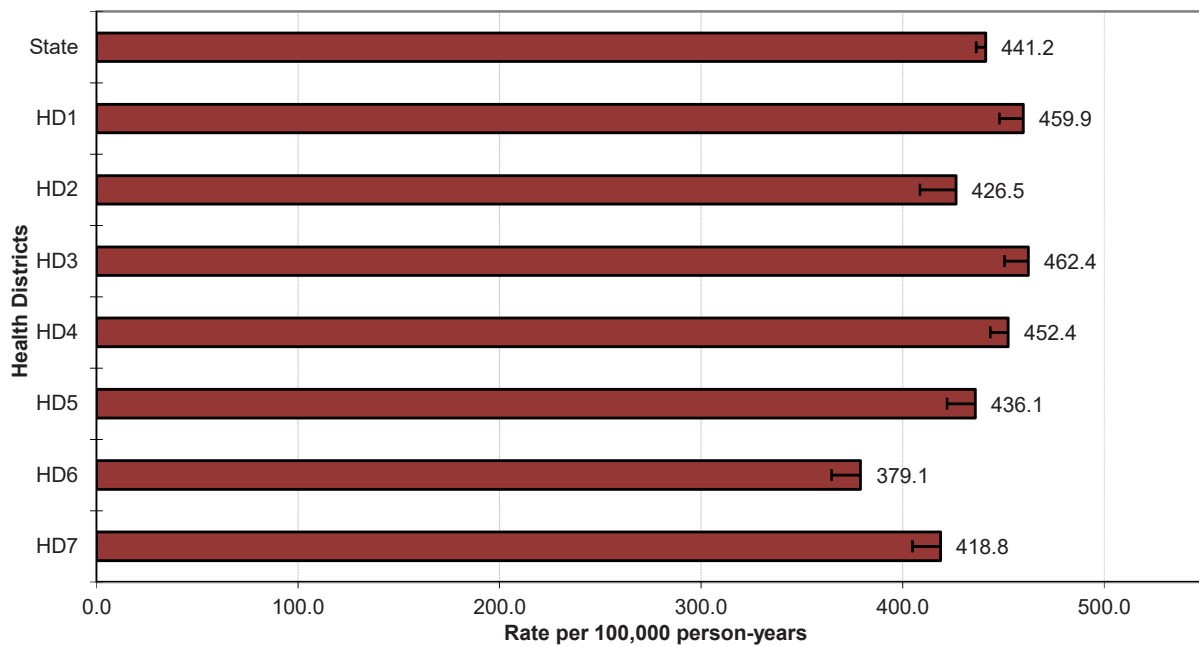
Mean age-adjusted incidence rate across health districts:	433.6
95% confidence interval on the mean age-adjusted incidence rate:	411.9–455.2
Median age-adjusted incidence rate of health districts:	436.1
Range of age-adjusted incidence rate for health districts:	379.1–462.4
USCS rate (2018, all races):	435.8

Incidence rates for all cancers combined are similar for males and females in Idaho until approximately age 60–64, after which rates for males rise dramatically. Rates peak for males and females in the age group 85+ and 80–84, respectively. Among total cases, Health Districts 1 and 3 had statistically significantly more cases of cancer than expected based upon rates for the remainder of Idaho, and Health District 6 had statistically significantly fewer cases than expected. (See Section V for data.)

**State All Cancer Sites Combined
Age-specific Rates 2015–2019**



**All Sites Combined Cancer Incidence
Age-adjusted Rates by Health District**



BLADDER

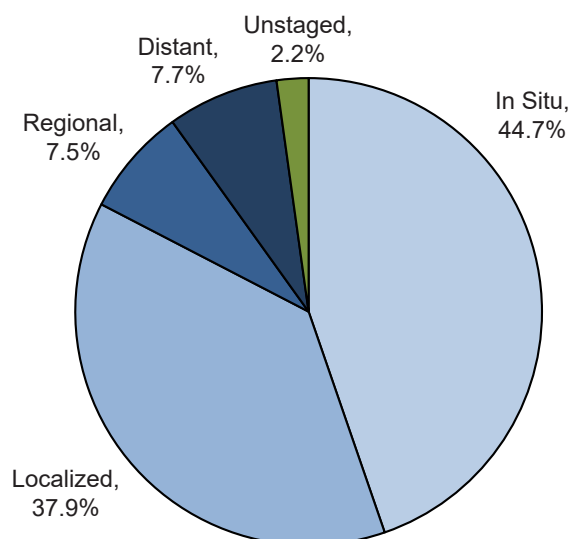
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	21.1	37.4	7.1
# of new invasive cases	251	199	52
# of new in situ cases	203	173	30
# of deaths	108	86	22

Total Cases by County

Ada	117	Cassia	10	Lewis	5
Adams	4	Clark	0	Lincoln	1
Bannock	20	Clearwater	3	Madison	3
Bear Lake	1	Custer	1	Minidoka	2
Benewah	7	Elmore	10	Nez Perce	11
Bingham	6	Franklin	6	Oneida	3
Blaine	8	Fremont	3	Owyhee	0
Boise	4	Gem	4	Payette	4
Bonner	10	Gooding	2	Power	1
Bonneville	33	Idaho	2	Shoshone	1
Boundary	4	Jefferson	5	Teton	0
Butte	-	Jerome	5	Twin Falls	21
Camas	-	Kootenai	60	Valley	5
Canyon	56	Latah	5	Washington	7
Caribou	2	Lemhi	2		

Stage at Diagnosis - Bladder



Factors Associated with Cancer Incidence

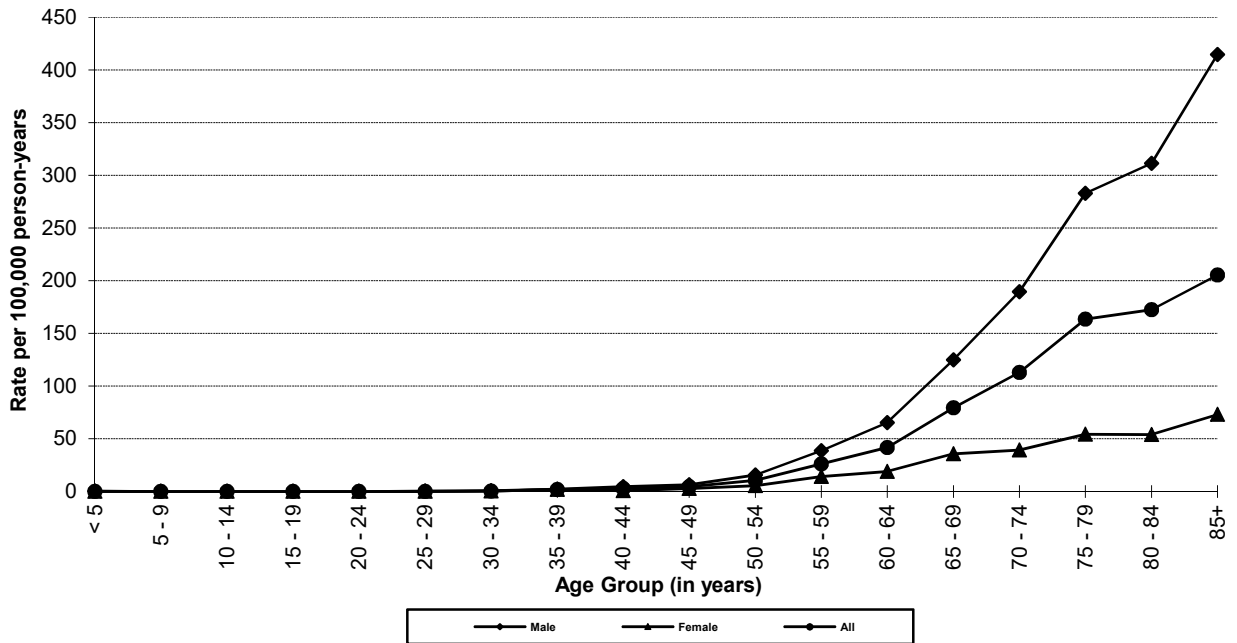
Age	Rates usually increase steadily with age, with particularly marked increases among people 50 years old and older. Rates plateau among people aged 80 years and older.
Sex	Rates are substantially higher in males than females. Males have at least three times the rate of females from age 50 onwards.
Race/Ethnicity	Incidence rates are higher in Whites than in American Indians/Alaska Natives, Asians/Pacific Islanders, or Blacks. Non-Hispanic Whites have consistently higher rates than Hispanics.
Occupation	The following occupational activities or exposures have been linked to increased bladder cancer risk: painting; manufacturing of aluminum, rubber (4-aminobiphenyl, ortho-Toluidine), auramine, magenta, leather, cloth, and paper (benzidine), and certain dyes (ortho-Toluidine, 2-naphthylamine); X-radiation and gamma-radiation.
Other	Tobacco consumption has been associated with a 2- to 5-fold higher incidence of bladder cancer. Arsenic and arsenic compounds – particularly in drinking water – are associated with an increased risk of bladder cancer. The chemotherapeutic agent cyclophosphamide, and parasitic infection with <i>Schistosoma haematobium</i> are associated with an increased risk of bladder cancer.

Special Notes

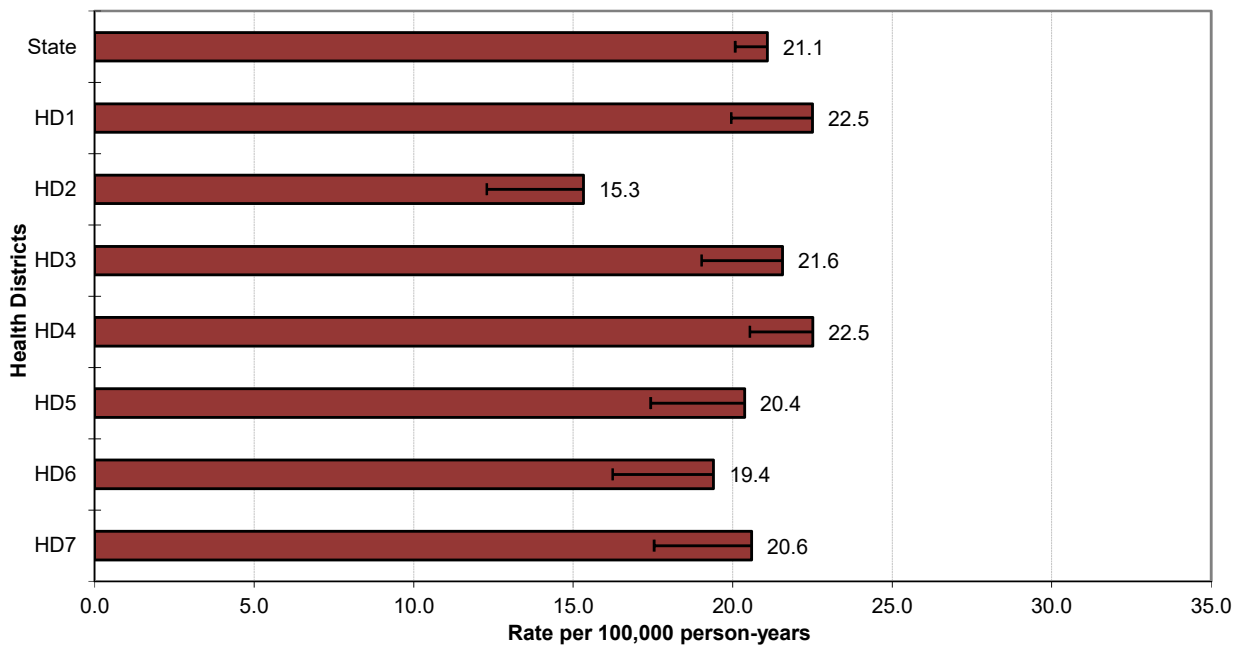
Mean age-adjusted incidence rate across health districts:	20.3
95% confidence interval on the mean age-adjusted incidence rate:	18.5–22.2
Median age-adjusted incidence rate of health districts:	20.6
Range of age-adjusted incidence rate for health districts:	15.3–22.5
USCS rate (2018, all races):	18.4

There are few incident cases of bladder cancer among persons aged less than 50 years. Bladder cancer incidence rates increase with age, peaking in the age group 85+ for males and females. No health district had statistically significantly more, or fewer, cases of bladder cancer than expected based upon rates for the remainder of Idaho. (See Section V for data.)

**State Bladder Cancer Incidence
Age-specific Rates 2015–2019**



**Bladder Cancer Incidence
Age-adjusted Rates by Health District**



BRAIN

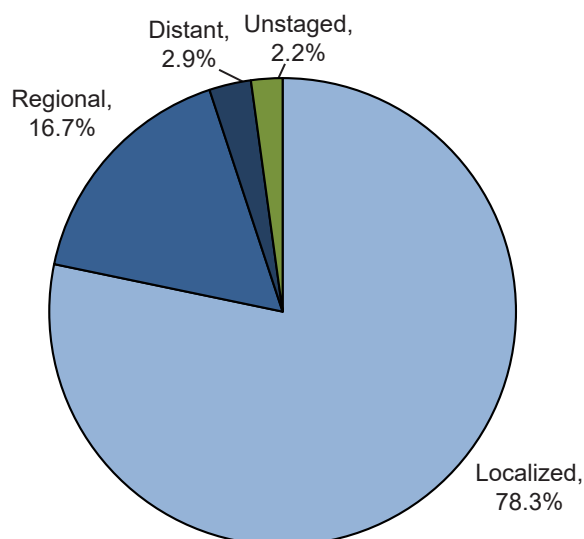
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	6.9	8.3	5.5
# of new invasive cases	138	83	55
# of new in situ cases	0	0	0
# of deaths	117	71	46

Total Cases by County

Ada	33	Cassia	1	Lewis	-
Adams	-	Clark	-	Lincoln	-
Bannock	9	Clearwater	-	Madison	2
Bear Lake	1	Custer	-	Minidoka	3
Benewah	1	Elmore	2	Nez Perce	4
Bingham	3	Franklin	1	Oneida	-
Blaine	2	Fremont	-	Owyhee	-
Boise	-	Gem	2	Payette	2
Bonner	4	Gooding	-	Power	-
Bonneville	14	Idaho	-	Shoshone	-
Boundary	1	Jefferson	5	Teton	-
Butte	1	Jerome	2	Twin Falls	8
Camas	-	Kootenai	16	Valley	-
Canyon	18	Latah	2	Washington	1
Caribou	-	Lemhi	-		

Stage at Diagnosis - Brain



Factors Associated with Cancer Incidence

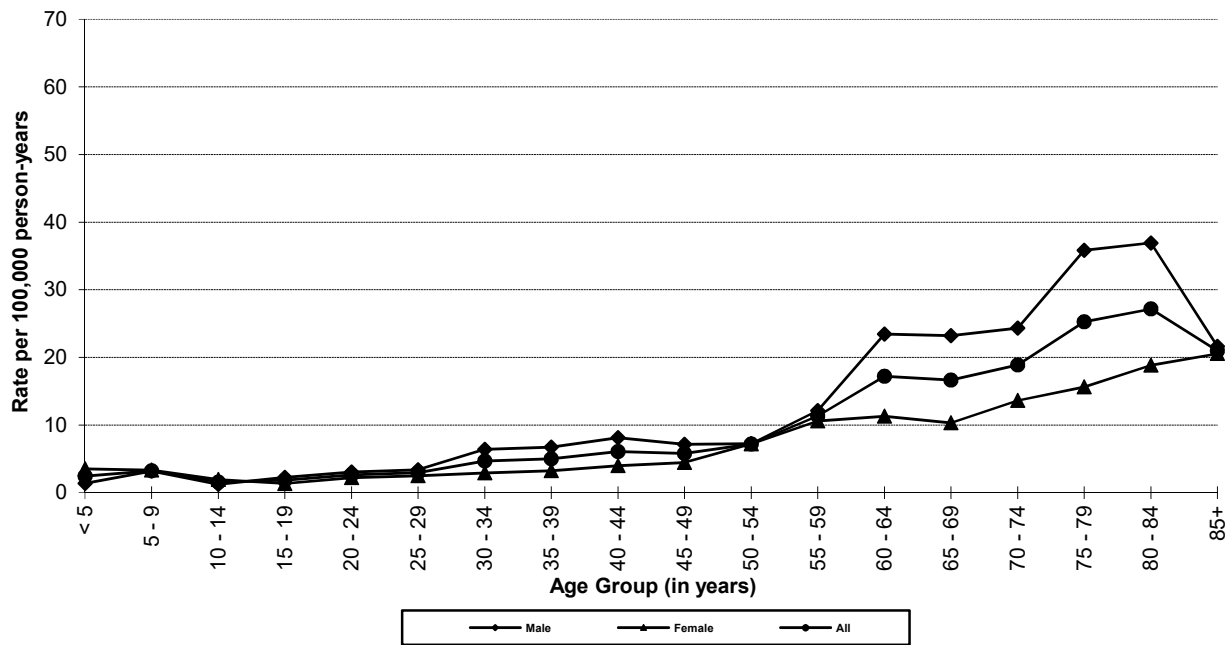
Age	Among children 0–14 years old, brain and central nervous system tumors are the second most common cancer. Incidence demonstrates a small peak in ages 1–4, a decrease and subsequent gradual rise through young adulthood, a steeper increase from age 40 onwards, and a second peak from ages 75–84.
Sex	Males and females have similar rates of brain cancer until age 25, after which males have higher rates than females.
Race/Ethnicity	Incidence is higher among Whites than American Indians/Alaska Natives, Asians/Pacific Islanders, and Blacks — all of which have similar incidence. Hispanics have a lower incidence than non-Hispanic Whites across the life course.
Genetics	Certain genetic syndromes are associated with increased risk for brain tumors, e.g. Li-Fraumeni syndrome, Turcot syndrome type 1 or 2.
Occupation	Vinyl chloride exposure is associated with increased risk for gliomas.
Other	X-radiation and gamma-radiation are both associated with increased risk for brain tumors. Having Epstein-Barr virus, AIDS, or immunosuppression related to organ transplant are associated with increased risk for CNS lymphoma.

Data Summary

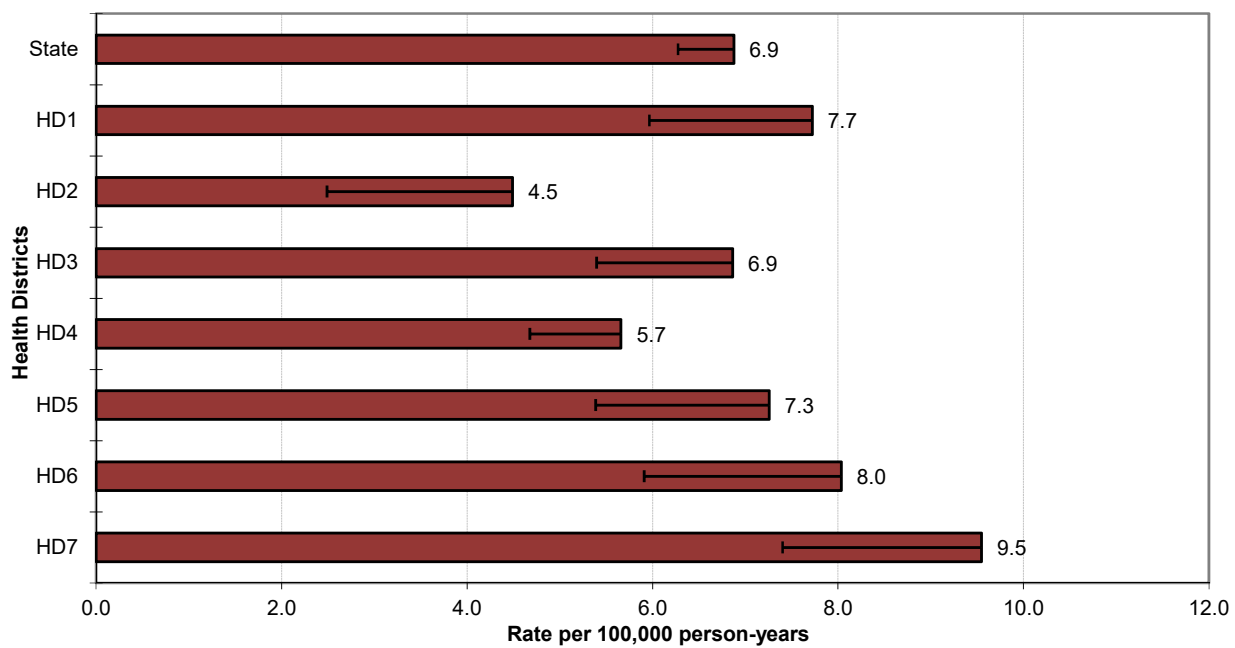
Mean age-adjusted incidence rate across health districts:	7.1
95% confidence interval on the mean age-adjusted incidence rate:	5.9–8.3
Median age-adjusted incidence rate of health districts:	7.3
Range of age-adjusted incidence rate for health districts:	4.5–9.5
USCS rate (2018, all races):	5.9

No health district had statistically significantly more, or fewer, cases of brain cancer than expected based upon rates for the remainder of Idaho. (See Section V for data.)

State Brain Cancer Incidence Age-specific Rates 2015–2019



Brain Cancer Incidence Age-adjusted Rates by Health District



BRAIN & OTHER CNS NON-MALIGNANT

Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	16.2	10.9	21.1
# of new cases	325	105	220

Total Cases by County

Ada	94	Cassia	6	Lewis	1
Adams	-	Clark	0	Lincoln	0
Bannock	8	Clearwater	5	Madison	4
Bear Lake	2	Custer	1	Minidoka	3
Benewah	2	Elmore	8	Nez Perce	5
Bingham	8	Franklin	3	Oneida	0
Blaine	4	Fremont	7	Owyhee	3
Boise	2	Gem	2	Payette	5
Bonner	12	Gooding	5	Power	1
Bonneville	22	Idaho	4	Shoshone	4
Boundary	3	Jefferson	4	Teton	0
Butte	1	Jerome	2	Twin Falls	14
Camas	-	Kootenai	25	Valley	0
Canyon	42	Latah	4	Washington	4
Caribou	3	Lemhi	2		

Factors Associated with Cancer Incidence

Age	A small peak is observed in children < 1 year, who have higher incidence than people aged 1–24 years. Incidence increases steadily throughout the life course.
Sex	Males and females have similar incidence rates of benign and borderline behavior brain tumors until age 25, after which males have higher rates than females.
Race/Ethnicity	There are no differences in incidence by race. Hispanics have a lower incidence than non-Hispanic Whites across the life course.

Special Notes

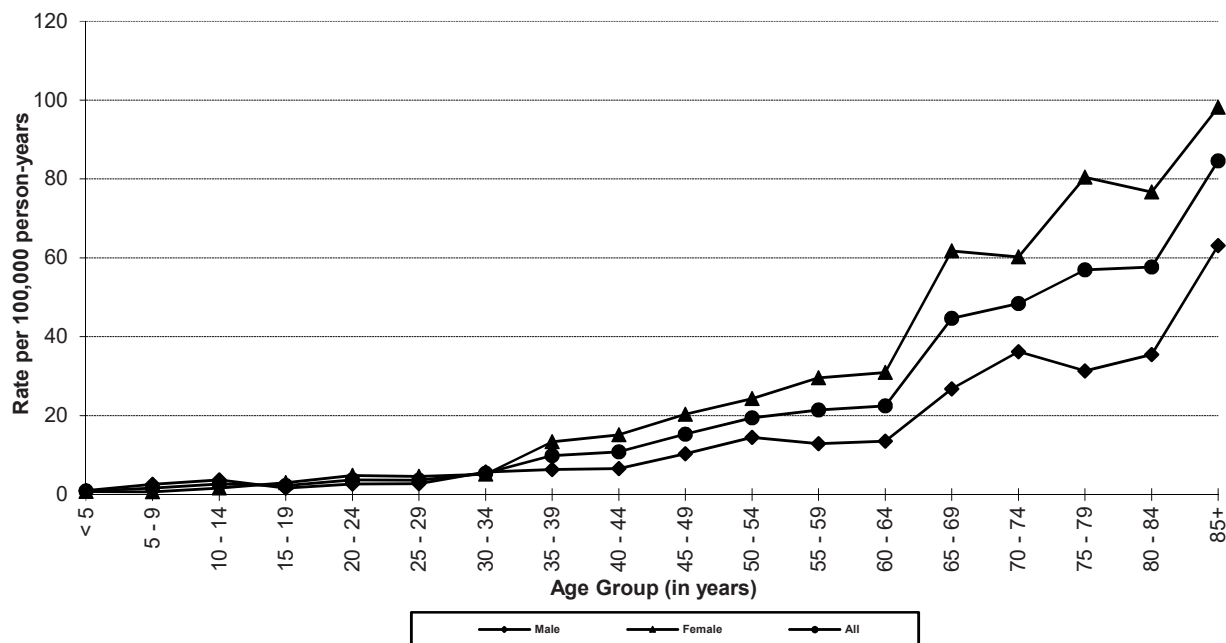
In 2007, as a result of Public Law 107-260, the publication United States Cancer Statistics 2004 Incidence and Mortality began to include tables for non-malignant brain tumors. Until this time, the only reference data were from the Central Brain Tumor Registry of the United States (CBTRUS; <http://www.cbtrus.org>), which has reported on data submitted from eighteen state central cancer registries, including Idaho.

Data Summary

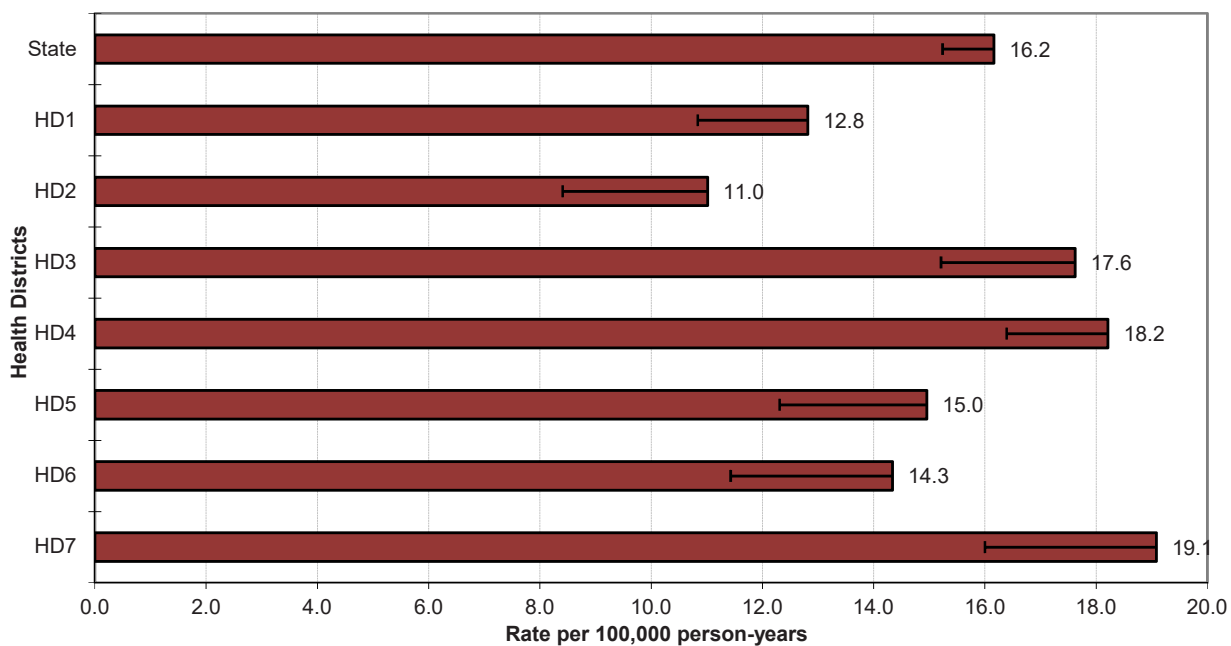
Mean age-adjusted incidence rate across health districts:	15.4
95% confidence interval on the mean age-adjusted incidence rate:	13.2–17.6
Median age-adjusted incidence rate of health districts:	15.0
Range of age-adjusted incidence rate for health districts:	11.0–19.1
USCS rate (2018, all races):	12.3

Incidence rates of benign and borderline behavior brain and other central nervous system tumors increase with age, peaking in the age group 85+ for males and females. No health district had statistically significantly more, or fewer, cases of non-malignant brain and other central nervous system tumors than expected based upon rates for the remainder of Idaho. (See Section V for data.)

**State Brain & other CNS Non-Malignant Incidence
Age-specific Rates 2015–2019**



**Brain & other CNS non-Malignant Incidence
Age-adjusted Rates by Health District**



BREAST

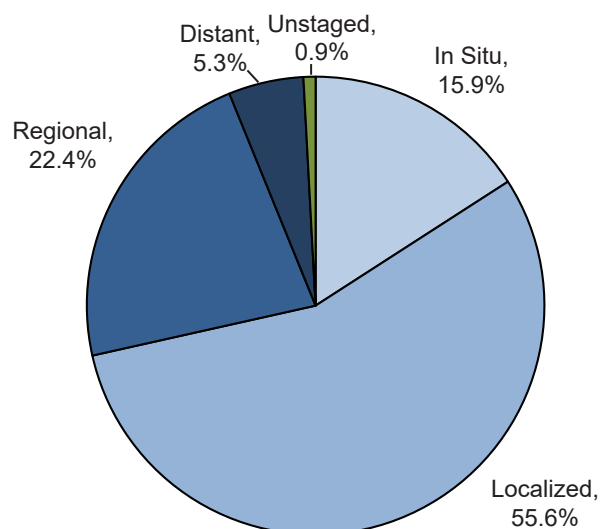
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	66.3	1.5	128.0
# of new invasive cases	1,381	14	1,367
# of new in situ cases	261	1	260
# of deaths	206	4	202

Total Cases by County

Ada	504	Cassia	16	Lewis	9
Adams	3	Clark	0	Lincoln	3
Bannock	66	Clearwater	6	Madison	12
Bear Lake	2	Custer	1	Minidoka	16
Benewah	11	Elmore	20	Nez Perce	34
Bingham	42	Franklin	8	Oneida	2
Blaine	30	Fremont	8	Owyhee	12
Boise	10	Gem	17	Payette	22
Bonner	62	Gooding	14	Power	7
Bonneville	102	Idaho	18	Shoshone	8
Boundary	8	Jefferson	23	Teton	8
Butte	3	Jerome	21	Twin Falls	68
Camas	-	Kootenai	168	Valley	14
Canyon	216	Latah	27	Washington	14
Caribou	3	Lemhi	4		

Stage at Diagnosis - Breast



Factors Associated with Cancer Incidence

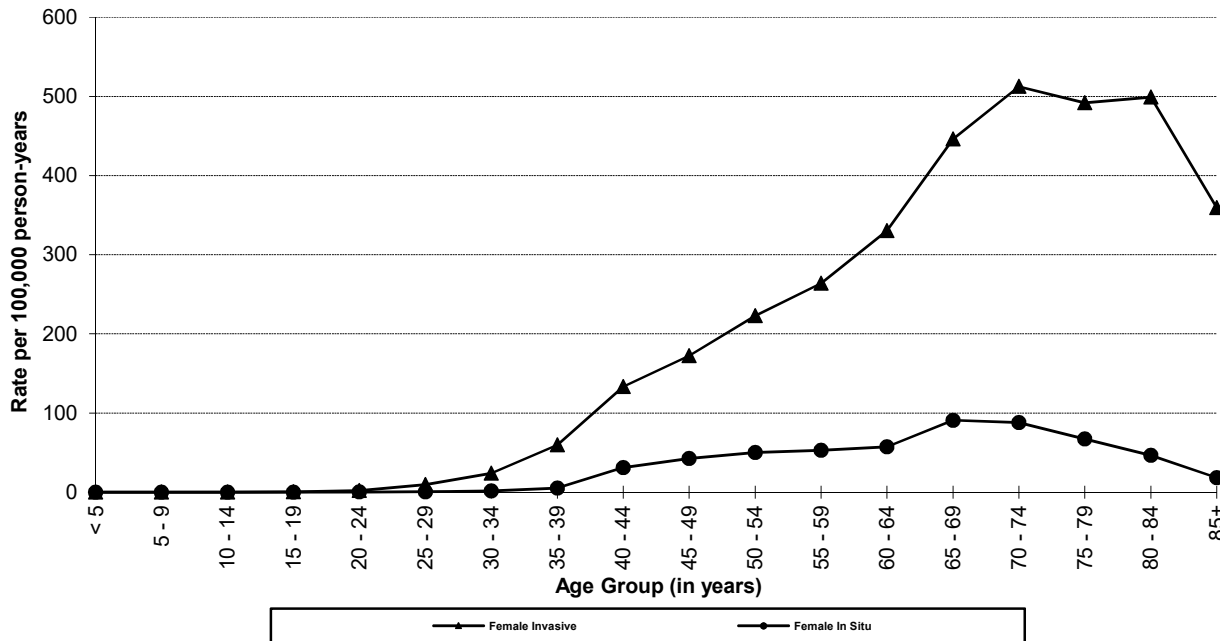
Age	Age is the most important risk factor for female breast cancer. Luminal A, luminal B, and triple-negative breast cancer incidence increase with age and peak among ages 65–74. HER2-enriched tumor incidence has an earlier and sustained increase in incidence from 50 to 79.
Race/Ethnicity	Whites have the highest incidence rates. Whites, Blacks and Asians/Pacific Islanders have similar incidence of all breast cancers until the age of 50, when incidence for Whites and Blacks increases at a higher rate than for other races. American Indians/Alaska Natives have lower incidence than other races until age 60. Luminal A tumors, the most common breast cancer subtype, mirror breast cancer trends by race overall; triple-negative cancers are highest among Blacks across age groups; luminal B tumors have similar incidence across races; and HER2-enriched tumor incidence is highest among Blacks and Asians/Pacific Islanders.
Genetics	Only 5%–10% of breast cancers are attributable to highly penetrant pathogenic genetic mutations, e.g. BRCA1/2, CDH1, PALB2. However, lifetime cancer risk for individuals with these mutations can be over 50% versus 10% in low-risk individuals. Breast cancer risk is twice as high among those with a family history (mother, sister, other first degree relative). Women with higher breast density, largely an inherited trait, are also at increased risk.
Hormonal	Cumulative estrogen exposure, including use of combination hormone therapy (estrogen-progestin), early menarche, and late menopause, are associated with increased breast cancer risk.
Other	Heavy alcohol consumption, obesity in postmenopausal women, and exposure of breast tissue to ionizing radiation are associated with an increased risk of developing breast cancer.

Data Summary

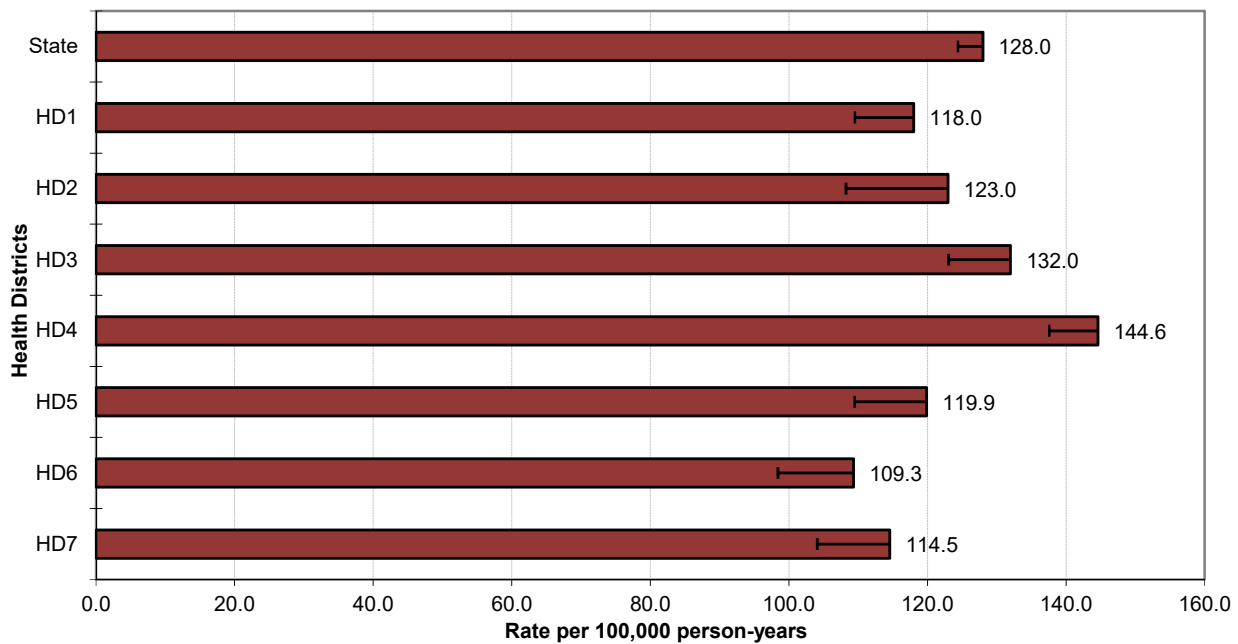
Mean age-adjusted incidence rate across health districts:	123.0
95% confidence interval on the mean age-adjusted incidence rate:	114.3–131.8
Median age-adjusted incidence rate of health districts:	119.9
Range of age-adjusted incidence rate for health districts:	109.3–144.6
USCS rate (2018, female, all races):	126.8

During 2019, 99.0% of invasive breast cancer cases were diagnosed among females. Age-specific incidence rates of female breast peak among 70–74-year-olds. Among total invasive cases, Health District 4 had statistically significantly more cases than expected based upon rates for the remainder of Idaho. (See Section V for data.)

**State Female Breast Cancer Incidence
Age-specific Rates 2015–2019**



**Female Breast Cancer Incidence
Age-adjusted Rates by Health District**



CERVIX

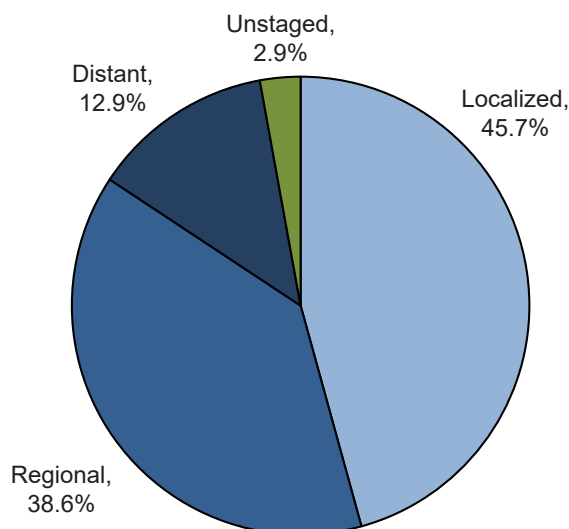
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	-	-	8.0
# of new invasive cases	-	-	70
# of new in-situ cases	-	-	n/a
# of deaths	-	-	18

Total Cases by County

Ada	17	Cassia	1	Lewis	-
Adams	-	Clark	-	Lincoln	-
Bannock	7	Clearwater	-	Madison	-
Bear Lake	1	Custer	-	Minidoka	-
Benewah	1	Elmore	-	Nez Perce	1
Bingham	3	Franklin	-	Oneida	-
Blaine	1	Fremont	-	Owyhee	1
Boise	-	Gem	-	Payette	1
Bonner	3	Gooding	1	Power	1
Bonneville	2	Idaho	-	Shoshone	1
Boundary	2	Jefferson	-	Teton	-
Butte	-	Jerome	2	Twin Falls	1
Camas	-	Kootenai	7	Valley	-
Canyon	15	Latah	-	Washington	-
Caribou	-	Lemhi	1		

Stage at Diagnosis - Cervix



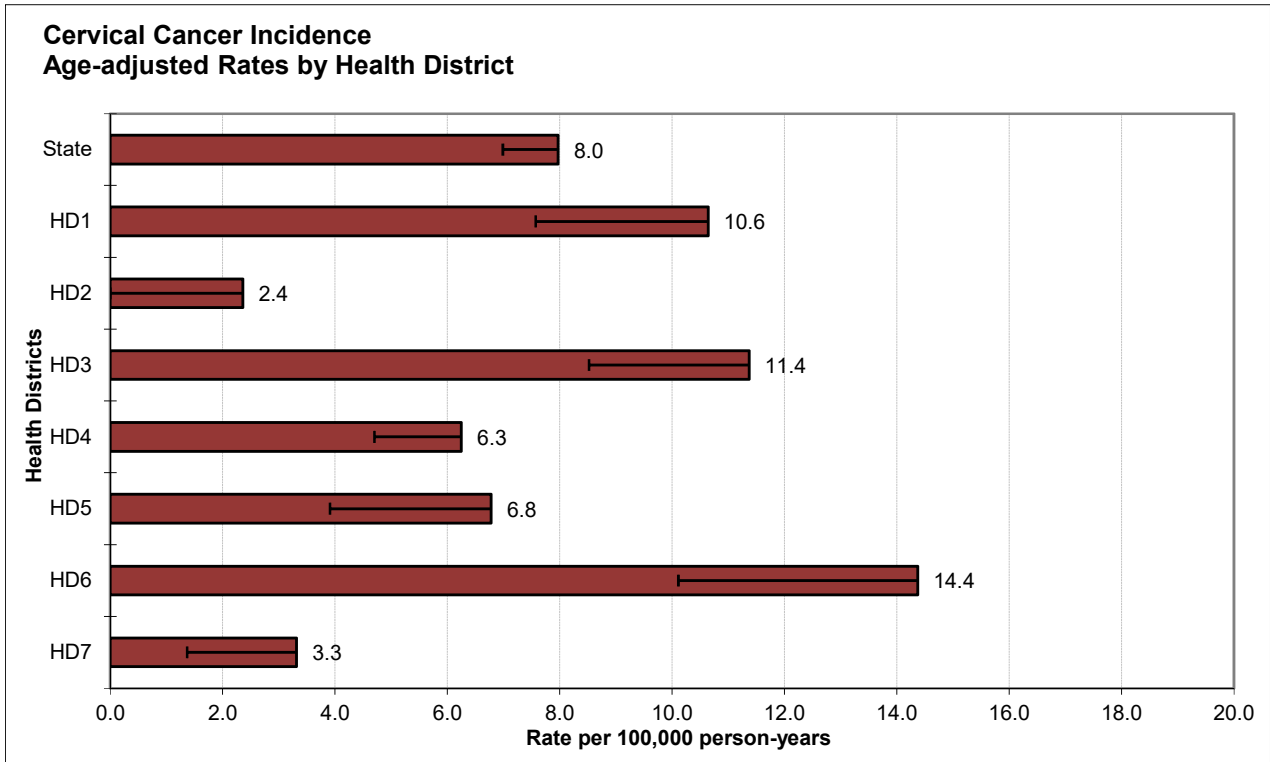
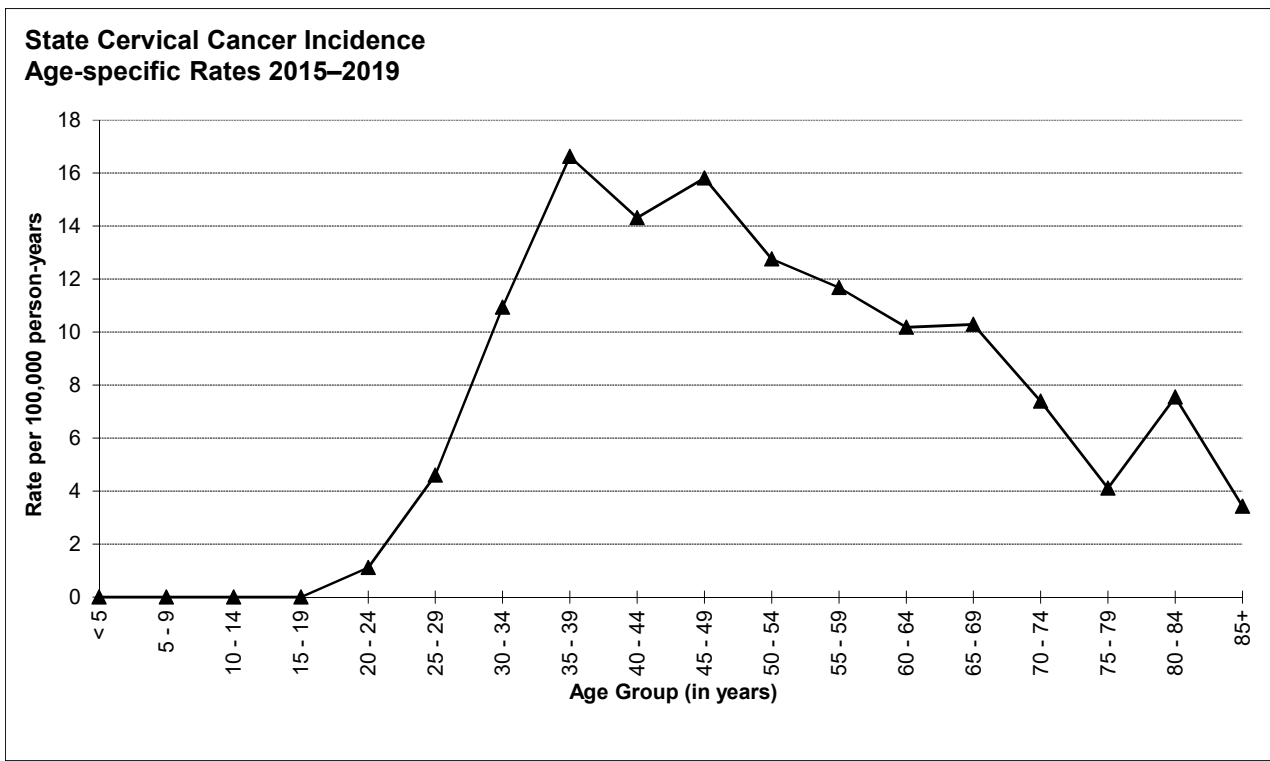
Factors Associated with Cancer Incidence

Age	Among women > 19 years, cervical cancer incidence increases sharply and steadily until it peaks among ages 40–44. Rates gradually decrease among older age groups. However, most invasive cases are diagnosed in older women.
Race/Ethnicity	Overall, Blacks and American Indians/Alaska Natives have higher rates of cervical cancer than Whites and Asians/Pacific Islanders, although rates among American Indians/Alaska Natives are less stable due to small case counts. From age 40 onwards, Hispanics have higher rates than non-Hispanic Whites.
Other	Human papillomavirus (HPV) is the cause of nearly all cases of cervical cancer. Of the over 100 known HPV types, types 16 and 18 are estimated to cause 70% of cervical cancers and pre-cancerous cervical lesions. Other risk factors that may be correlates or independent risk factors of HPV infection include: early age at first intercourse (< 16 years old) and a history of a higher number of lifetime sex partners. High parity and long-term oral contraceptive use are also associated with increased cervical cancer risk. Other risk factors include immunosuppression (e.g. HIV), exposure to cigarette smoke, and in utero-exposure to diethylstilbestrol (DES).

Data Summary

Mean age-adjusted incidence rate across health districts:	7.9
95% confidence interval on the mean age-adjusted incidence rate:	4.6–11.1
Median age-adjusted incidence rate of health districts:	6.8
Range of age-adjusted incidence rate for health districts:	2.4–14.4
USCS rate (2018, all races):	7.5

Increased screening with routine Pap tests has increased diagnostic rates for pre-invasive cervical disease and helped to reduce the incidence of invasive cervical cancer. Today, most cases in younger women are diagnosed before the invasive stage, with cure rates approaching 100%. For invasive cases, rates peak among 35–39-year-old females. Health District 6 had statistically significantly more cases than expected based upon rates for the remainder of Idaho. (See Section V for data.)



COLORECTAL

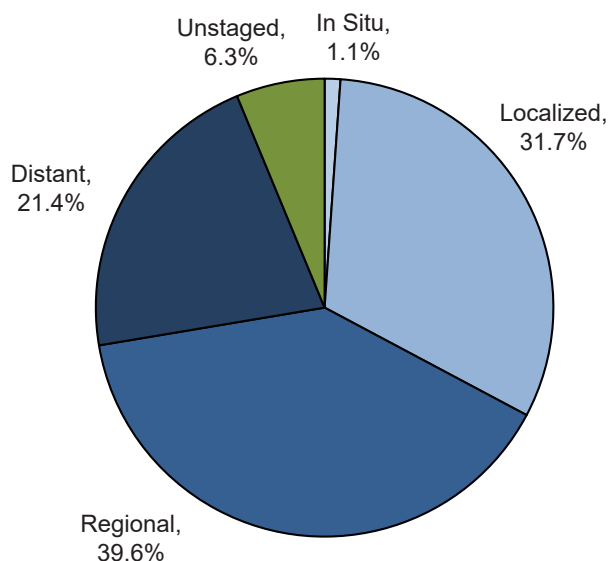
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	34.2	37.4	31.1
# of new invasive cases	712	378	334
# of new in situ cases	8	3	5
# of deaths	252	141	111

Total Cases by County

Ada	165	Cassia	9	Lewis	1
Adams	2	Clark	-	Lincoln	1
Bannock	20	Clearwater	10	Madison	8
Bear Lake	2	Custer	3	Minidoka	10
Benewah	5	Elmore	10	Nez Perce	25
Bingham	18	Franklin	7	Oneida	2
Blaine	6	Fremont	5	Owyhee	2
Boise	-	Gem	10	Payette	16
Bonner	29	Gooding	9	Power	5
Bonneville	51	Idaho	9	Shoshone	13
Boundary	13	Jefferson	8	Teton	-
Butte	3	Jerome	8	Twin Falls	40
Camas	1	Kootenai	79	Valley	4
Canyon	86	Latah	7	Washington	10
Caribou	2	Lemhi	6		

Stage at Diagnosis - Colorectal



Factors Associated with Cancer Incidence

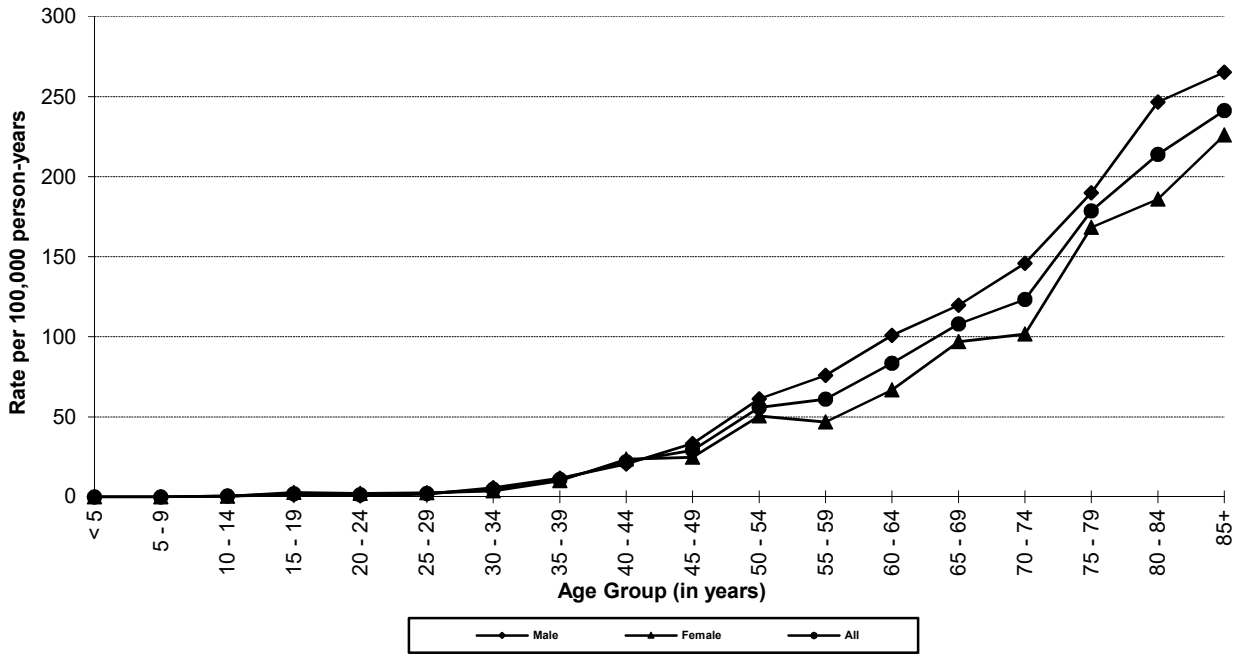
Age	Rates increase with age, and greatly increase from 50 years onwards.
Sex	Males and females have similar incidence through age 49, after which males have increasingly higher rates than females.
Race/Ethnicity	Blacks have higher incidence than Whites, particularly after age 50. American Indians/Alaska Natives have similar incidence to Whites and Asians/Pacific Islanders through age 69, at which point American Indians/Alaska Natives have similar incidence to Blacks. Asians/Pacific Islanders have the lowest incidence. Non-Hispanic Whites have similar incidence to Hispanics until age 70, when incidence among non-Hispanic Whites increases relative to Hispanics.
Genetics	Familial adenomatous polyposis and Lynch syndrome are two forms of hereditary colorectal cancer that are associated with approximately 5%–10% of colorectal cancers. Other familial aggregation of colorectal cancer without evidence of a specific hereditary syndrome accounts for up to 25% of cases.
Diet	Heavy alcohol consumption and processed meat consumption are associated with an increased risk of colorectal cancer.
Other	Cigarette smoking is significantly associated with increased colorectal cancer incidence and mortality. A sedentary lifestyle and obesity (body mass index > 29) confer increased colorectal cancer risk; colorectal cancer risk and body mass index have a positive dose-response relationship. The use of NSAIDs, including aspirin, may help prevent colon cancer.

Data Summary

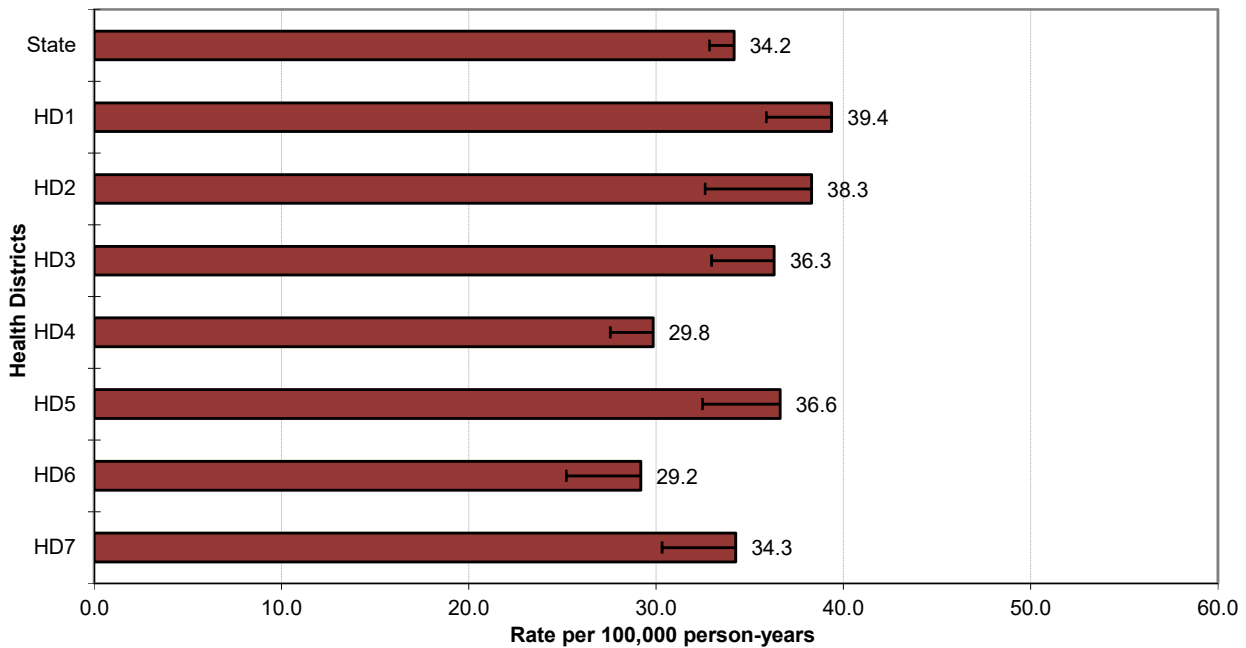
Mean age-adjusted incidence rate across health districts:	34.8
95% confidence interval on the mean age-adjusted incidence rate:	31.9–37.8
Median age-adjusted incidence rate of health districts:	36.3
Range of age-adjusted incidence rate for health districts:	29.2–39.4
USCS rate (2018, all races):	36.5

Although colorectal cancer rates are declining among adults 50 years and older, colorectal cancer rates are increasing among adults less than 50. Health District 1 had statistically significantly more cases of invasive colorectal cancer than expected based upon rates for the remainder of Idaho and Health District 4 had statistically significantly fewer. (See Section V for data.)

**State Colorectal Cancer Incidence
Age-specific Rates 2015–2019**



**Colorectal Cancer Incidence
Age-adjusted Rates by Health District**



CORPUS UTERI

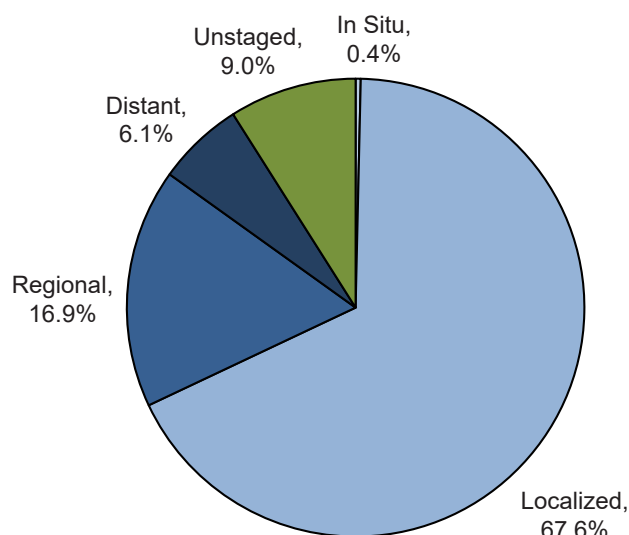
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	-	-	25.4
# of new invasive cases	-	-	277
# of new in situ cases	-	-	1
# of deaths	-	-	30

Total Cases by County

Ada	72	Cassia	3	Lewis	-
Adams	-	Clark	-	Lincoln	-
Bannock	10	Clearwater	2	Madison	6
Bear Lake	1	Custer	-	Minidoka	2
Benewah	3	Elmore	3	Nez Perce	9
Bingham	5	Franklin	2	Oneida	1
Blaine	2	Fremont	2	Owyhee	2
Boise	1	Gem	2	Payette	5
Bonner	8	Gooding	1	Power	1
Bonneville	23	Idaho	3	Shoshone	2
Boundary	4	Jefferson	3	Teton	3
Butte	-	Jerome	4	Twin Falls	14
Camas	-	Kootenai	34	Valley	-
Canyon	38	Latah	4	Washington	1
Caribou	-	Lemhi	2		

Stage at Diagnosis - Corpus Uteri



Factors Associated with Cancer Incidence

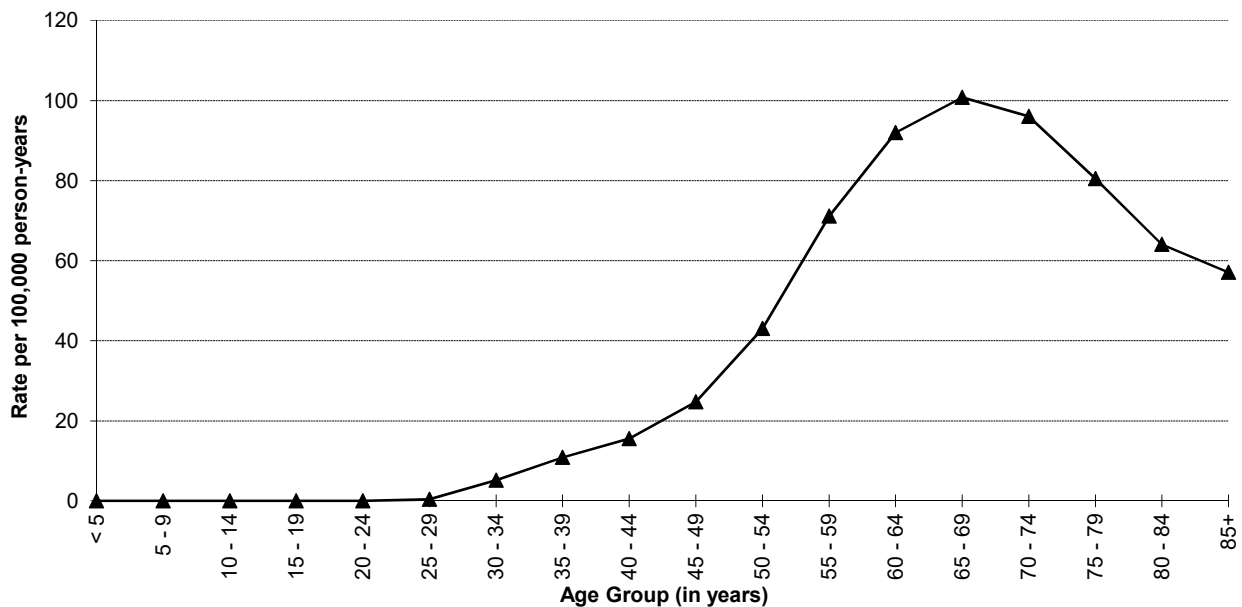
Age	Occurs predominantly after menopause, with incidence rates above 100 per 100,000 among persons aged 60–74.
Race/Ethnicity	Among adult females, Whites and Asians/Pacific Islanders have the highest incidence until age 54, when rates in Asians/Pacific Islanders decrease. Blacks have the highest incidence from age 60 through 84. American Indians/Alaska Native have the lowest rates among the race groups across age groups. Hispanics have higher rates than non-Hispanic Whites from ages 25–39, after which Non-Hispanic Whites have higher incidence than Hispanics.
Genetics	Hereditary syndromes, such as Lynch syndrome, polycystic ovarian syndrome, and Cowden syndrome, are associated with increased endometrial cancer risk. Endometrial cancer risk is also elevated for individuals with a family history (mother, sister, other first degree relative).
Hormonal	Hormone therapy with unopposed estrogen (versus estrogen and progestin), use of selective estrogen receptor modulators, e.g. tamoxifen, and factors contributing to increased endogenous estrogen exposure, e.g. nulliparity, early menarche, and late menopause, are associated with increased risk.
Other	Endometrial hyperplasia is a common pre-cursor or concurrent condition to endometrial cancer. Obesity, high body mass index, metabolic syndrome, and post-menopausal weight gain are all associated with increased risk. Regular physical activity is associated with decreased risk.

Data Summary

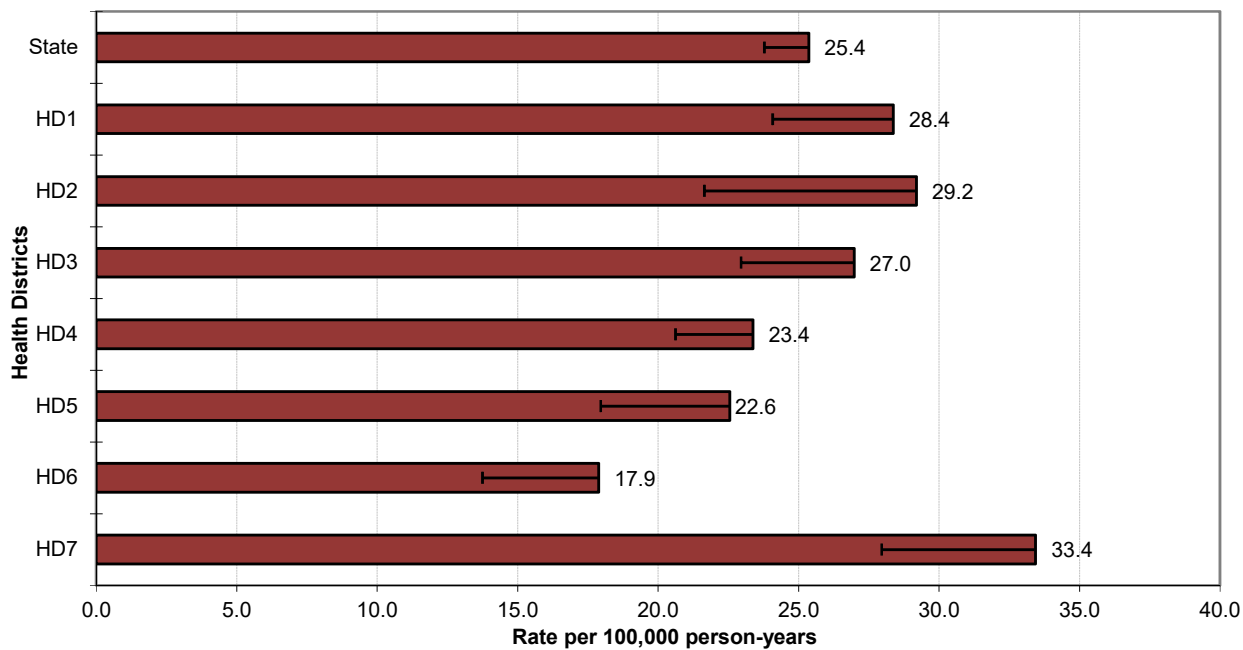
Mean age-adjusted incidence rate across health districts:	26.0
95% confidence interval on the mean age-adjusted incidence rate:	22.2–29.8
Median age-adjusted incidence rate of health districts:	27.0
Range of age-adjusted incidence rate for health districts:	17.9–33.4
USCS rate (2018, all races):	27.4

Few cases of endometrial cancer were diagnosed in persons less than 35 years of age. After age 44, there was a sharp increase in age-specific rates, peaking in the age group 65–69. No health district had statistically significantly more, or fewer, cases of endometrial cancer than expected based upon rates for the remainder of Idaho. (See Section V for data.)

**State Corpus Uteri Cancer Incidence
Age-specific Rates 2015–2019**



**Corpus Uteri Cancer Incidence
Age-adjusted Rates by Health District**



ESOPHAGUS

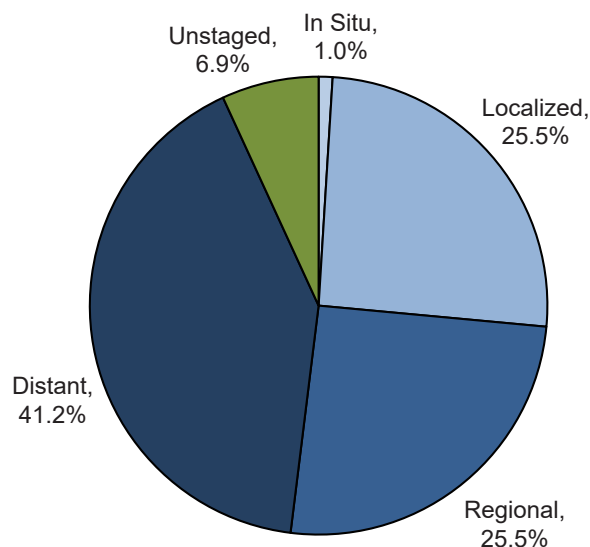
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	4.6	8.1	1.5
# of new invasive cases	101	84	17
# of new in situ cases	1	1	0
# of deaths	89	78	11

Total Cases by County

Ada	26	Cassia	-	Lewis	-
Adams	-	Clark	-	Lincoln	-
Bannock	4	Clearwater	-	Madison	1
Bear Lake	-	Custer	1	Minidoka	4
Benewah	-	Elmore	2	Nez Perce	6
Bingham	4	Franklin	-	Oneida	1
Blaine	2	Fremont	-	Owyhee	-
Boise	1	Gem	-	Payette	3
Bonner	2	Gooding	3	Power	-
Bonneville	7	Idaho	2	Shoshone	2
Boundary	-	Jefferson	1	Teton	-
Butte	-	Jerome	1	Twin Falls	9
Camas	-	Kootenai	9	Valley	-
Canyon	7	Latah	4	Washington	-
Caribou	-	Lemhi	-		

Stage at Diagnosis - Esophagus



Factors Associated with Cancer Incidence

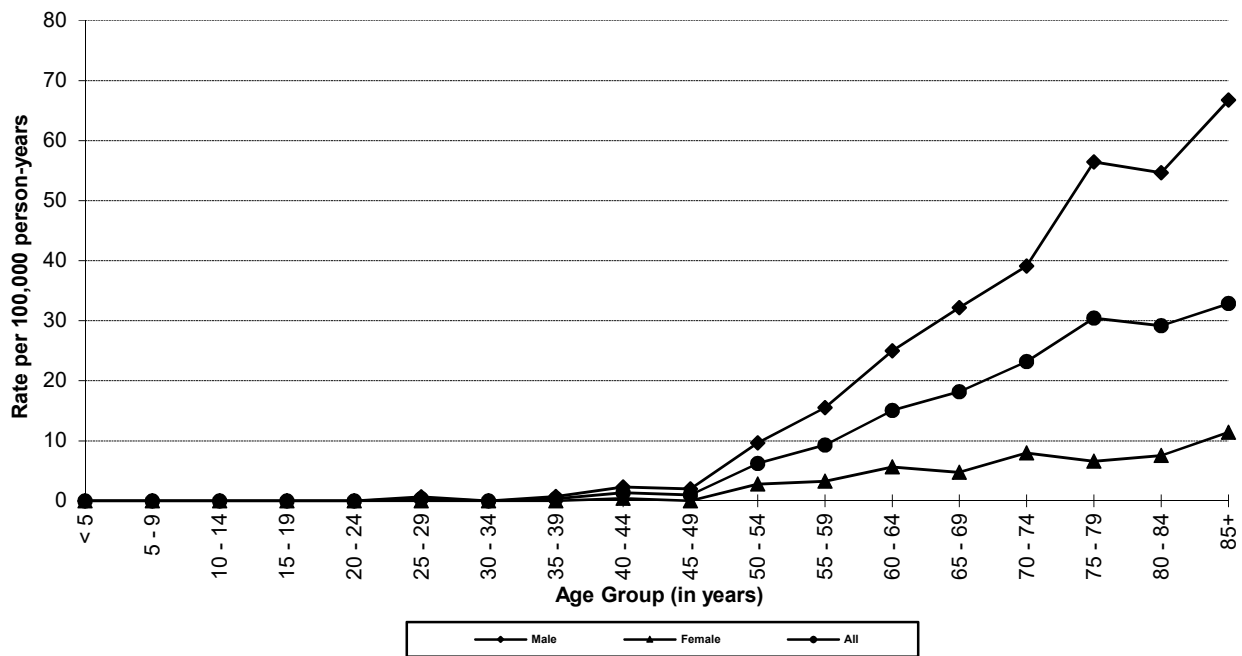
Age	Incidence of esophageal cancer increases with age, peaking among ages 80–84.
Sex	Males have higher rates of esophageal cancer overall and adenocarcinoma and squamous cell carcinoma types; male-to-female incidence ratios are 3:1 or higher.
Race/Ethnicity	Whites and Blacks have similar rates through age 64, when rates in Whites demonstrate steeper increases until rates peak among ages 80–84. Blacks and Whites experience higher rates of squamous cell carcinoma and adenocarcinoma, respectively, across the life course relative to other races. Data are limited for American Indians/Alaska Natives. Incidence is higher in non-Hispanic Whites than Hispanics.
Occupation	Occupations with high levels of soot exposure are at higher risk.
Other	Tobacco use (cigarettes or spit tobacco) and heavy alcohol consumption are major risk factors for cancer of the esophagus, accounting for an estimated 90% of squamous cell carcinomas. Risk increases when both factors are present. Gastroesophageal reflux, and medications that predispose individuals to gastroesophageal reflux disease, e.g. anticholinergics, are associated with an increased risk of adenocarcinoma. Obesity is also associated with increased esophageal adenocarcinoma risk. Conversely, aspirin and nonsteroidal anti-inflammatory medications are associated with a small decrease in esophageal cancer risk.

Data Summary

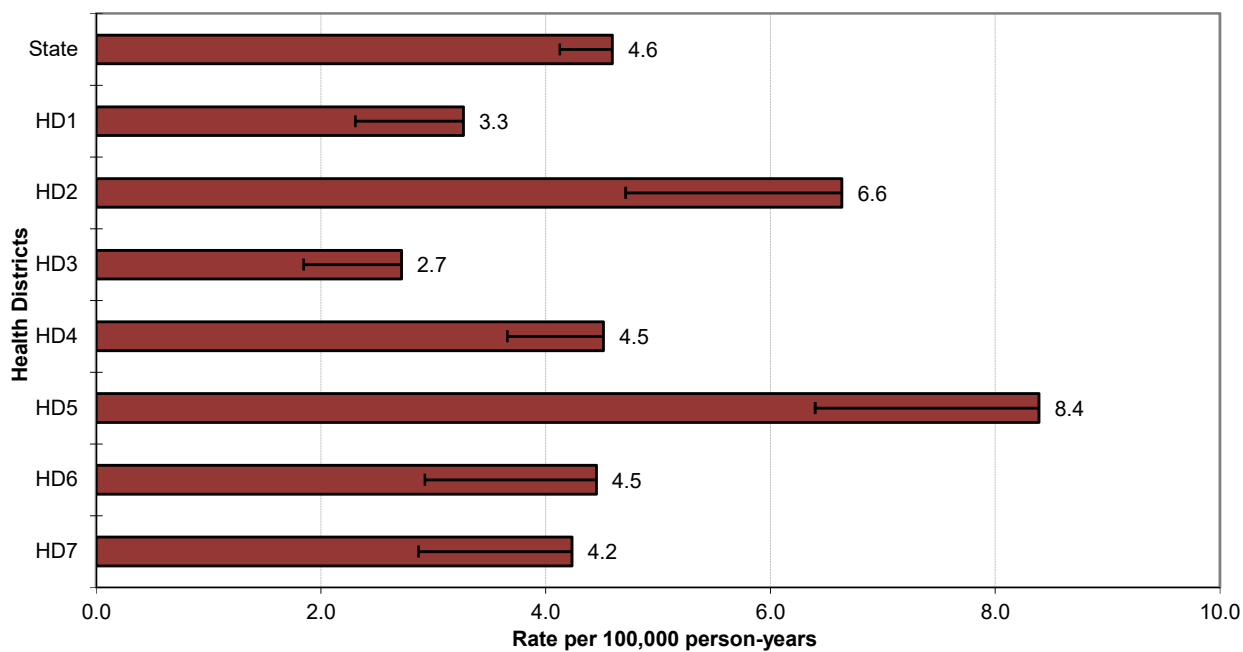
Mean age-adjusted incidence rate across health districts:	4.9
95% confidence interval on the mean age-adjusted incidence rate:	3.4–6.3
Median age-adjusted incidence rate of health districts:	4.5
Range of age-adjusted incidence rate for health districts:	2.7–8.4
USCS rate (2018, all races):	4.5

Few cases of esophageal cancer were diagnosed in persons less than 50 years of age. The age-specific incidence rates peaked in the age group 85+ for males and females. Health District 5 had statistically significantly more cases of esophageal cancer than expected based upon rates for the remainder of Idaho. (See Section V for data.)

State Esophageal Cancer Incidence Age-specific Rates 2015–2019



Esophageal Cancer Incidence Age-adjusted Rates by Health District



HODGKIN LYMPHOMA

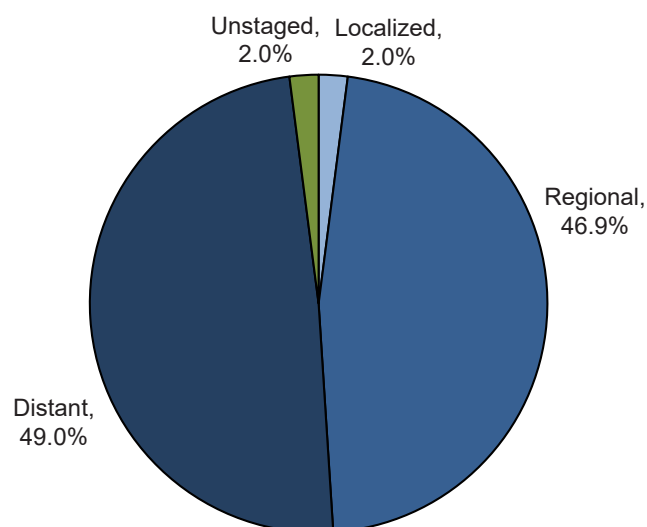
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	2.8	2.7	2.9
# of new invasive cases	49	25	24
# of new in situ cases	0	0	0
# of deaths	5	2	3

Total Cases by County

Ada	20	Cassia	1	Lewis	-
Adams	-	Clark	-	Lincoln	-
Bannock	1	Clearwater	-	Madison	-
Bear Lake	-	Custer	-	Minidoka	2
Benewah	-	Elmore	-	Nez Perce	-
Bingham	1	Franklin	-	Oneida	-
Blaine	2	Fremont	1	Owyhee	1
Boise	-	Gem	-	Payette	1
Bonner	-	Gooding	-	Power	-
Bonneville	1	Idaho	1	Shoshone	-
Boundary	-	Jefferson	-	Teton	1
Butte	-	Jerome	-	Twin Falls	3
Camas	-	Kootenai	1	Valley	1
Canyon	9	Latah	1	Washington	-
Caribou	1	Lemhi	-		

Stage at Diagnosis - Hodgkin Lymphoma



Factors Associated with Cancer Incidence

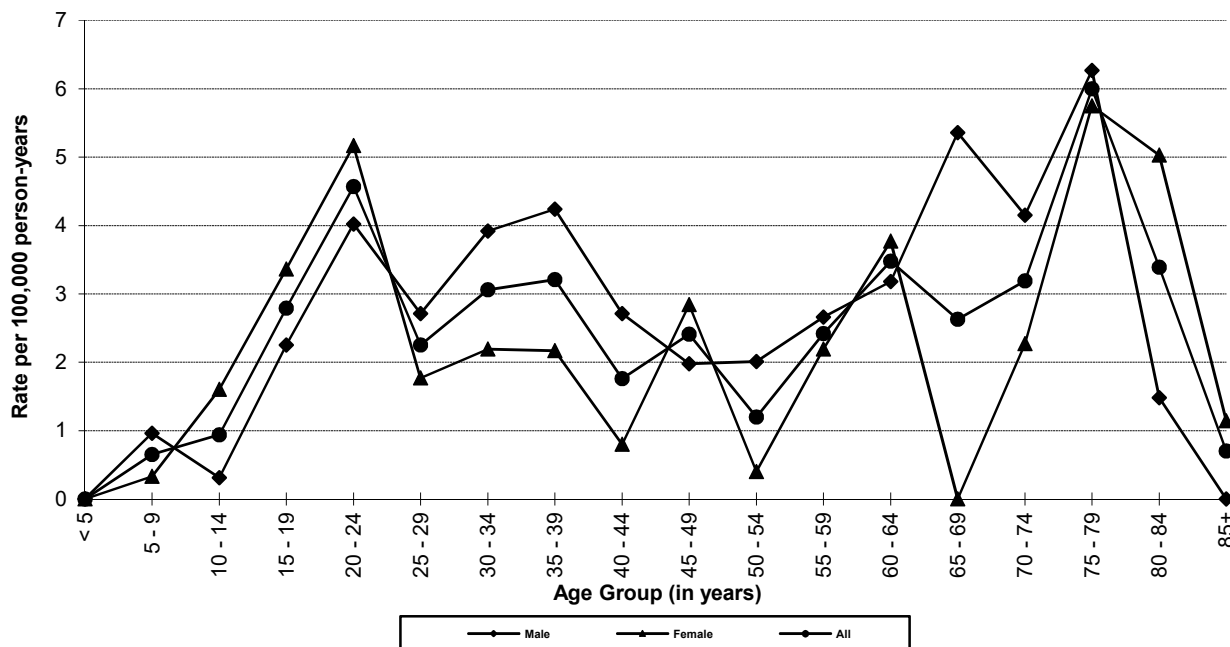
Age & Sex	Hodgkin lymphoma rates are bimodal, with peaks for males and females aged 20–24 years and 75–84. Rates are higher among males among ages 5–14 and 30 – 85+.
Race/Ethnicity	Whites have higher incidence of Hodgkin lymphoma than other races across the life course, except for Blacks from 35–54. Rates are similar to or lower among Asians/Pacific Islanders than other races. Non-Hispanic Whites have higher rates of Hodgkin Lymphoma through age 44, after which point incidence between Hispanic and Non-Hispanic Whites are similar, apart from higher incidence among Hispanics aged 75–79 years.
Genetics	Hodgkin lymphoma risk is elevated for individuals with a family history, e.g. a sibling, but reasons for this increased risk are not well understood.
Other	Epstein-Barr virus and immunosuppression (e.g. HIV infection, immunosuppressant medications related to organ transplant) are associated with increased risk of Hodgkin lymphoma.

Data Summary

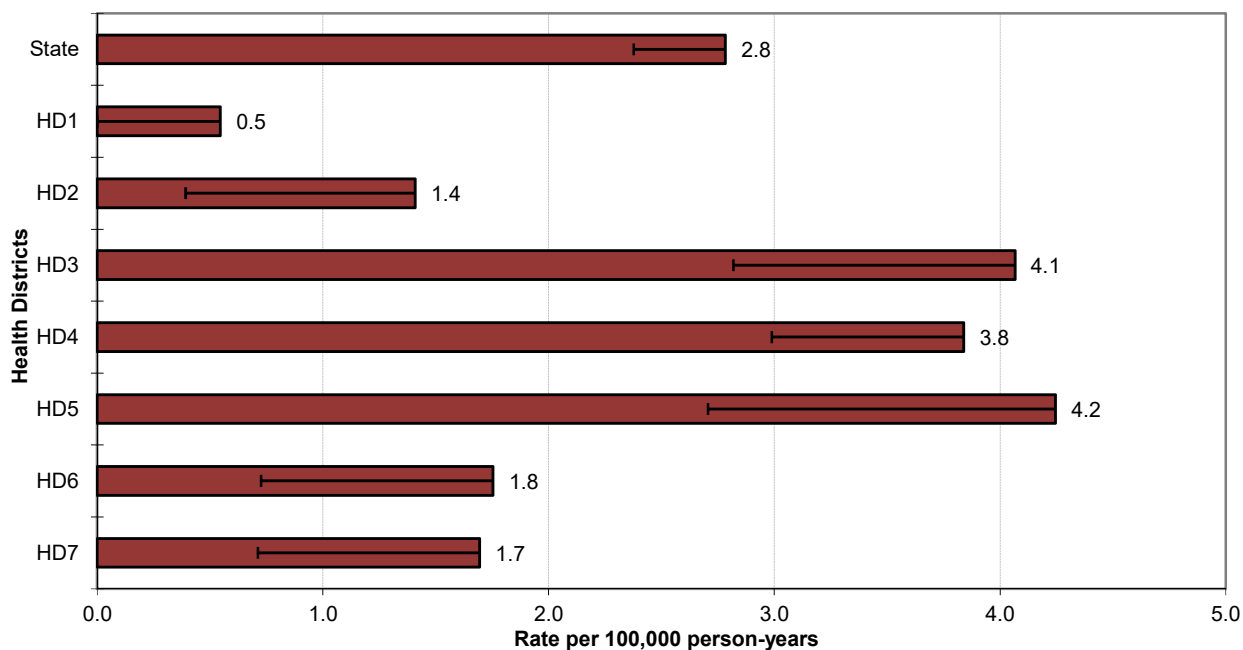
Mean age-adjusted incidence rate across health districts:	2.5
95% confidence interval on the mean age-adjusted incidence rate:	1.4–3.6
Median age-adjusted incidence rate of health districts:	1.8
Range of age-adjusted incidence rate for health districts:	0.5–4.2
USCS rate (2018, all races):	2.5

The age-related incidence of Hodgkin lymphoma is typically bimodal, usually with a peak in the late 20s to early 30s, and another peak after age 74. Health District 1 had statistically significantly fewer cases of Hodgkin lymphoma than expected based upon rates for the remainder of Idaho and Health District 4 had statistically significantly more. (See Section V for data.)

State Hodgkin Lymphoma Incidence Age-specific Rates 2015–2019



Hodgkin Lymphoma Incidence Age-adjusted Rates by Health District



KIDNEY AND RENAL PELVIS

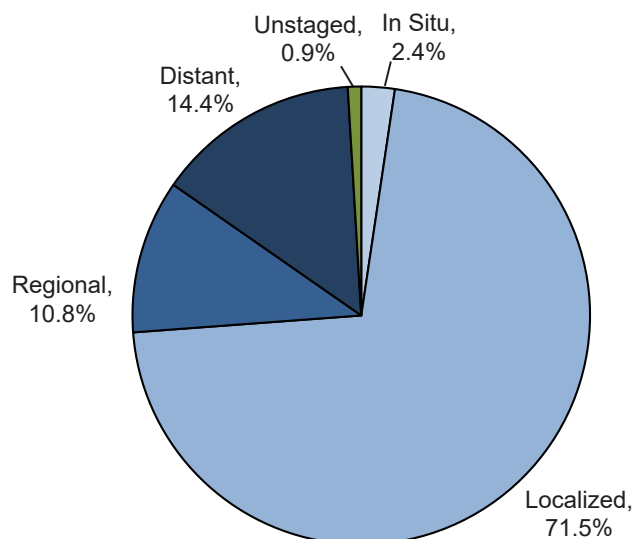
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	19.8	26.1	13.8
# of new invasive cases	414	261	153
# of new in situ cases	10	9	1
# of deaths	65	35	30

Total Cases by County

Ada	113	Cassia	4	Lewis	2
Adams	1	Clark	-	Lincoln	1
Bannock	12	Clearwater	2	Madison	4
Bear Lake	-	Custer	1	Minidoka	6
Benewah	9	Elmore	8	Nez Perce	8
Bingham	9	Franklin	2	Oneida	4
Blaine	4	Fremont	3	Owyhee	5
Boise	3	Gem	10	Payette	9
Bonner	10	Gooding	3	Power	3
Bonneville	26	Idaho	6	Shoshone	5
Boundary	5	Jefferson	1	Teton	1
Butte	1	Jerome	3	Twin Falls	20
Camas	-	Kootenai	46	Valley	2
Canyon	56	Latah	8	Washington	1
Caribou	3	Lemhi	4		

Stage at Diagnosis - Kidney and Renal Pelvis



Factors Associated with Cancer Incidence

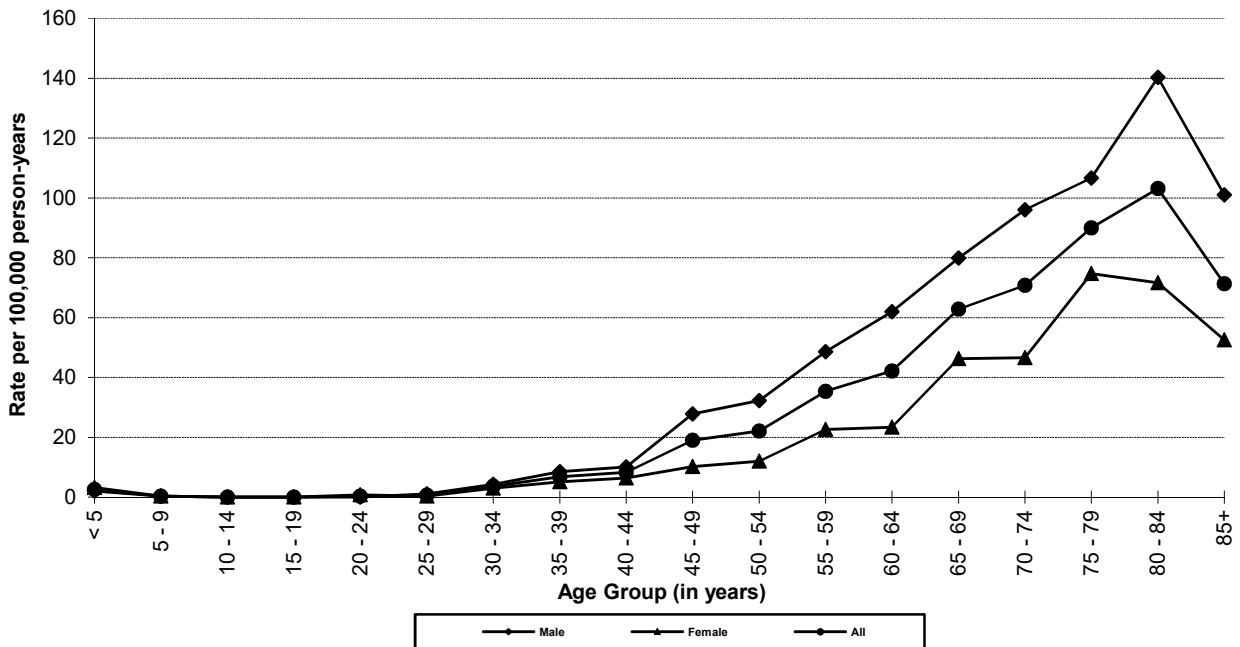
Age	Both adults and children are at risk for kidney cancer. Rates increase with age and peak during 75–79 years. 80% of all adult kidney cancers are renal cell carcinoma (RCC). Most pediatric kidney cancers are Wilms tumors, with a mean age at diagnosis of 31 or 44 months, depending on laterality.
Sex	RCC incidence is approximately twice as high in males versus females.
Race/Ethnicity	Asians/Pacific Islanders have lower rates of kidney and renal pelvis cancers than other races. Kidney and renal pelvis incidence is similar among Blacks, Whites, and American Indians/Alaska Natives across age groups. Incidence is similar among Hispanics and non-Hispanic Whites.
Genetics	Hippel-Lindau disease, hereditary leiomyomatosis and RCC (HLRCC), Birt-Hogg-Dubé syndrome, and hereditary papillary renal carcinoma are RCC-associated syndromes, and account for < 10% of RCC. Li-Fraumeni, Frasier, and Beckwith-Wiedemann are some of the numerous Wilms tumor-associated syndromes.
Occupation	Increased kidney cancer risk is associated with occupational cadmium exposure.
Other	Cigarette smoking, obesity, and hypertension are important risk factors. Products containing aristolochic acids, which are naturally found in some plant families, are linked to increased risk for kidney and renal pelvis cancers. Trichloroethylene exposure, commonly used as a solvent or in refrigerants, is associated with increased risk.

Data Summary

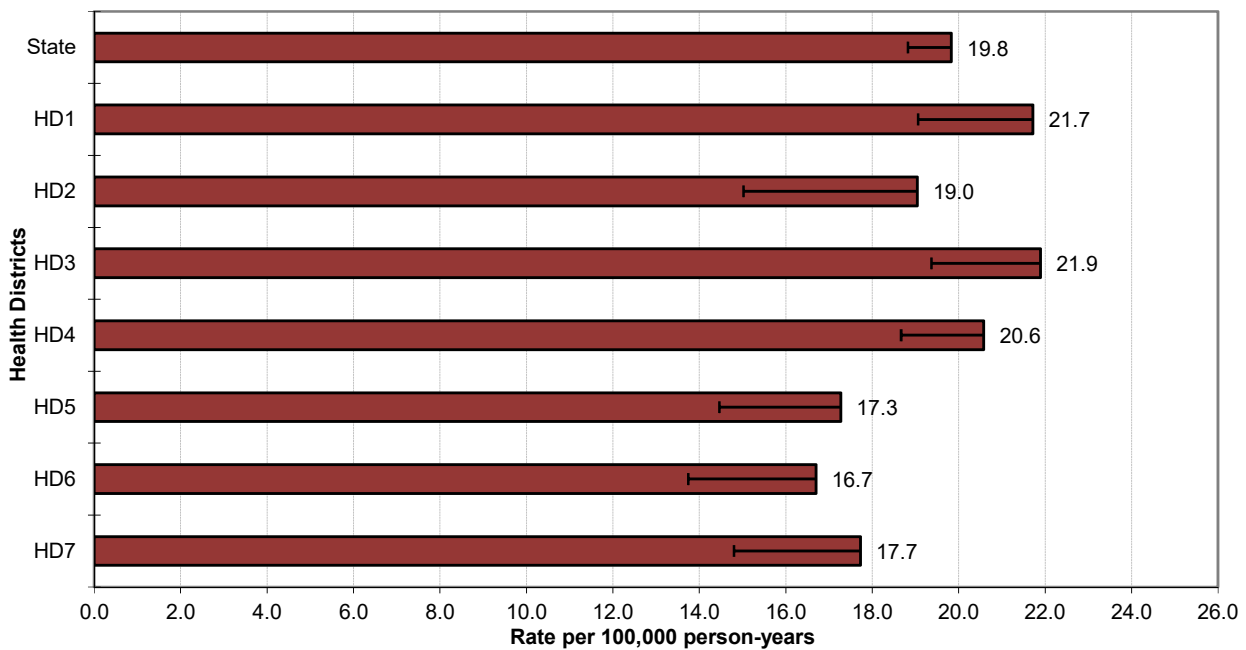
Mean age-adjusted incidence rate across health districts:	19.3
95% confidence interval on the mean age-adjusted incidence rate:	17.7–20.9
Median age-adjusted incidence rate of health districts:	19.0
Range of age-adjusted incidence rate for health districts:	16.7–21.9
USCS rate (2018, all races):	16.9

There were few cases of kidney or renal pelvis cancer among persons aged less than 40 years. The age-specific incidence rates peaked in the age group 80–84 for males and 75–79 for females. No health district had statistically significantly fewer or more cases than expected based upon rates for the remainder of Idaho. (See Section V for data.)

**State Kidney & Renal Pelvis Cancer Incidence
Age-specific Rates 2015–2019**



**Kidney & Renal Pelvis Cancer Incidence
Age-adjusted Rates by Health District**



LARYNX

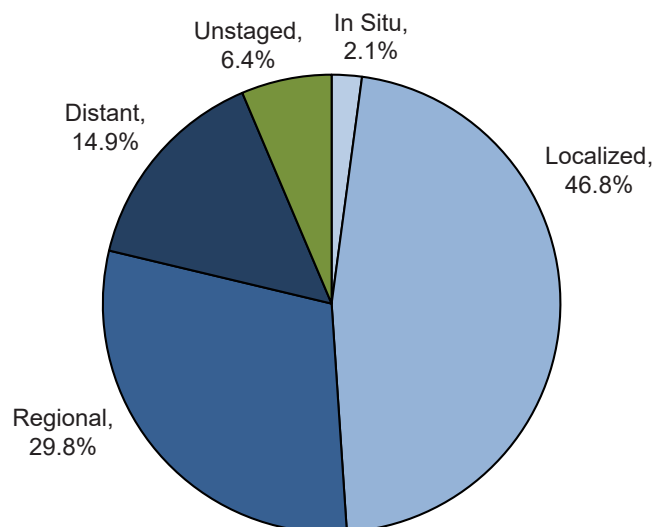
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	2.0	3.3	0.8
# of new invasive cases	46	36	10
# of new in situ cases	1	1	0
# of deaths	14	13	1

Total Cases by County

Ada	9	Cassia	-	Lewis	-
Adams	-	Clark	-	Lincoln	-
Bannock	4	Clearwater	-	Madison	1
Bear Lake	-	Custer	-	Minidoka	2
Benewah	-	Elmore	-	Nez Perce	3
Bingham	1	Franklin	-	Oneida	-
Blaine	1	Fremont	-	Owyhee	2
Boise	-	Gem	-	Payette	2
Bonner	3	Gooding	-	Power	-
Bonneville	2	Idaho	-	Shoshone	1
Boundary	1	Jefferson	1	Teton	1
Butte	-	Jerome	1	Twin Falls	3
Camas	-	Kootenai	4	Valley	1
Canyon	3	Latah	-	Washington	-
Caribou	1	Lemhi	-		

Stage at Diagnosis - Larynx



Factors Associated with Cancer Incidence

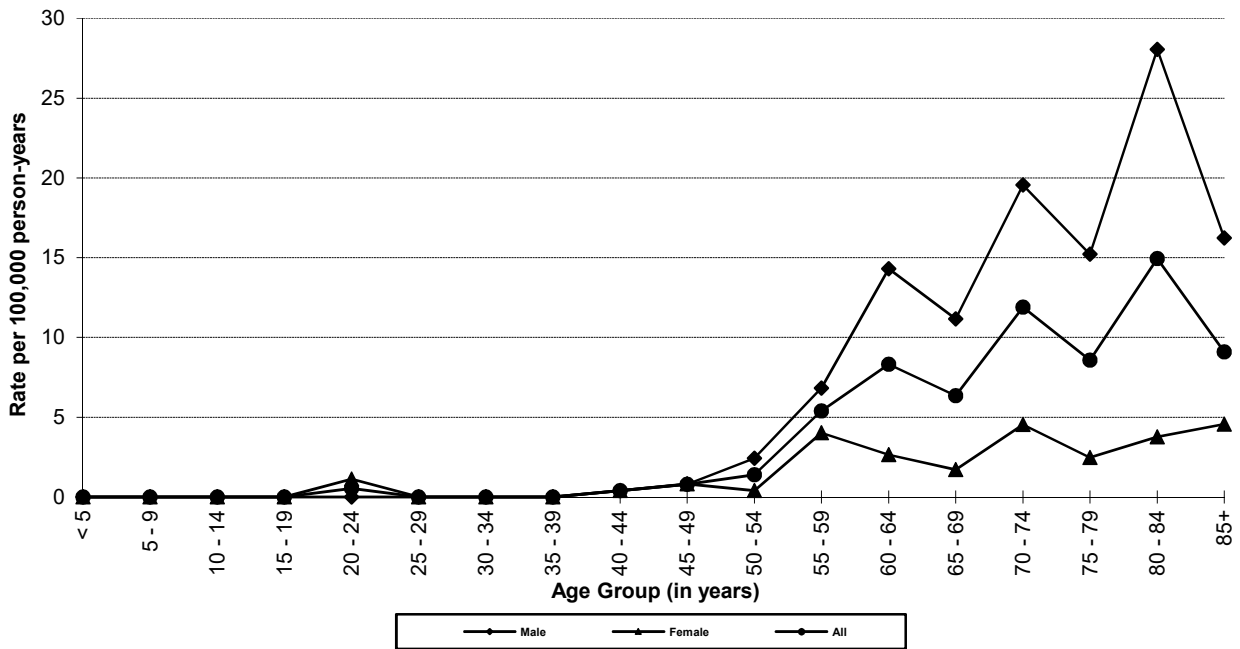
Age	Rates increase with age, with most cases occurring after age 54.
Sex	Laryngeal cancers are much more common in males than females.
Race/Ethnicity	Generally in the United States, Blacks have higher incidence rates than Whites. Hispanics have lower rates than non-Hispanic Whites.
Occupation	Laryngeal cancer has been associated with exposures to asbestos and wood dust.
Other	Cigarette smoking and excess alcohol use are both major risk factors. The combination of alcohol consumption and tobacco use (smoking or spit tobacco) acts greatly to increase the risk. A patient with a single laryngeal cancer who continues to smoke and drink alcohol has an enhanced risk of developing a second laryngeal tumor.

Data Summary

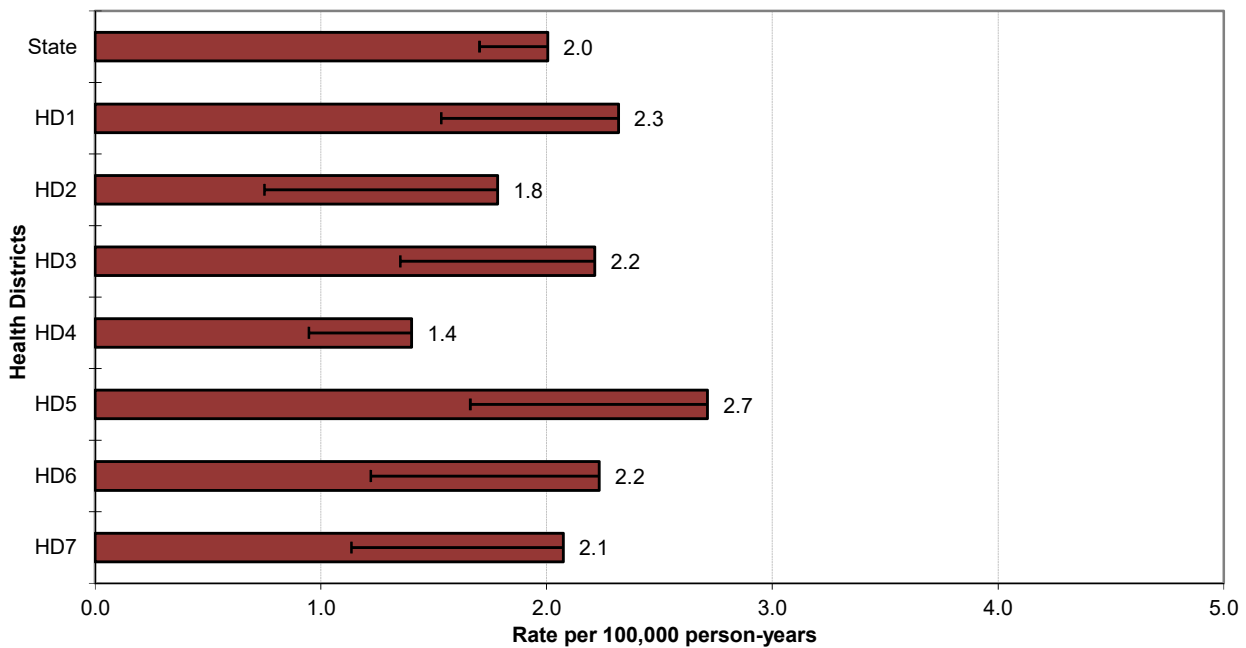
Mean age-adjusted incidence rate across health districts:	2.1
95% confidence interval on the mean age-adjusted incidence rate:	1.8–2.4
Median age-adjusted incidence rate of health districts:	2.2
Range of age-adjusted incidence rate for health districts:	1.4–2.7
USCS rate (2018, all races):	2.9

There were few cases of laryngeal cancer among persons aged less than 50 years. The age-specific incidence rates for males were more than twice those for females after age 59. The age-specific incidence rates peaked in the age group 80–84 for males and 85+ for females. No health district had statistically significantly fewer or more cases than expected based upon rates for the remainder of Idaho. (See Section V for data.)

**State Laryngeal Cancer Incidence
Age-specific Rates 2015–2019**



**Laryngeal Cancer Incidence
Age-adjusted Rates by Health District**



LEUKEMIA

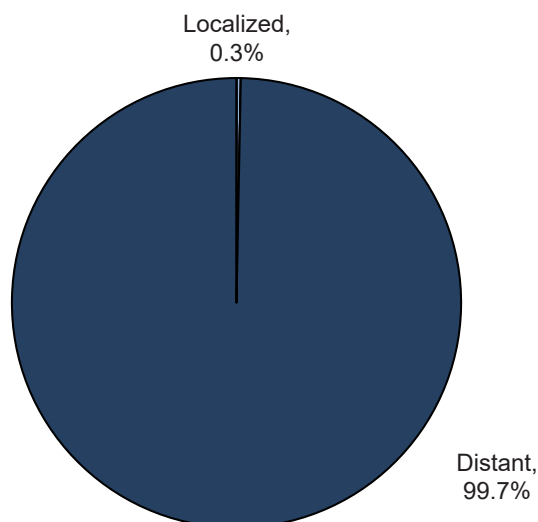
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	15.8	19.9	12.3
# of new invasive cases	327	195	132
# of new in situ cases	0	0	0
# of deaths	126	78	48

Total Cases by County

Ada	79	Cassia	4	Lewis	-
Adams	1	Clark	-	Lincoln	-
Bannock	12	Clearwater	5	Madison	4
Bear Lake	1	Custer	1	Minidoka	4
Benewah	1	Elmore	4	Nez Perce	7
Bingham	10	Franklin	3	Oneida	1
Blaine	8	Fremont	2	Owyhee	4
Boise	4	Gem	4	Payette	6
Bonner	15	Gooding	1	Power	2
Bonneville	18	Idaho	4	Shoshone	5
Boundary	4	Jefferson	6	Teton	2
Butte	2	Jerome	2	Twin Falls	18
Camas	-	Kootenai	32	Valley	1
Canyon	38	Latah	7	Washington	2
Caribou	1	Lemhi	2		

Stage at Diagnosis - Leukemia



Factors Associated with Cancer Incidence

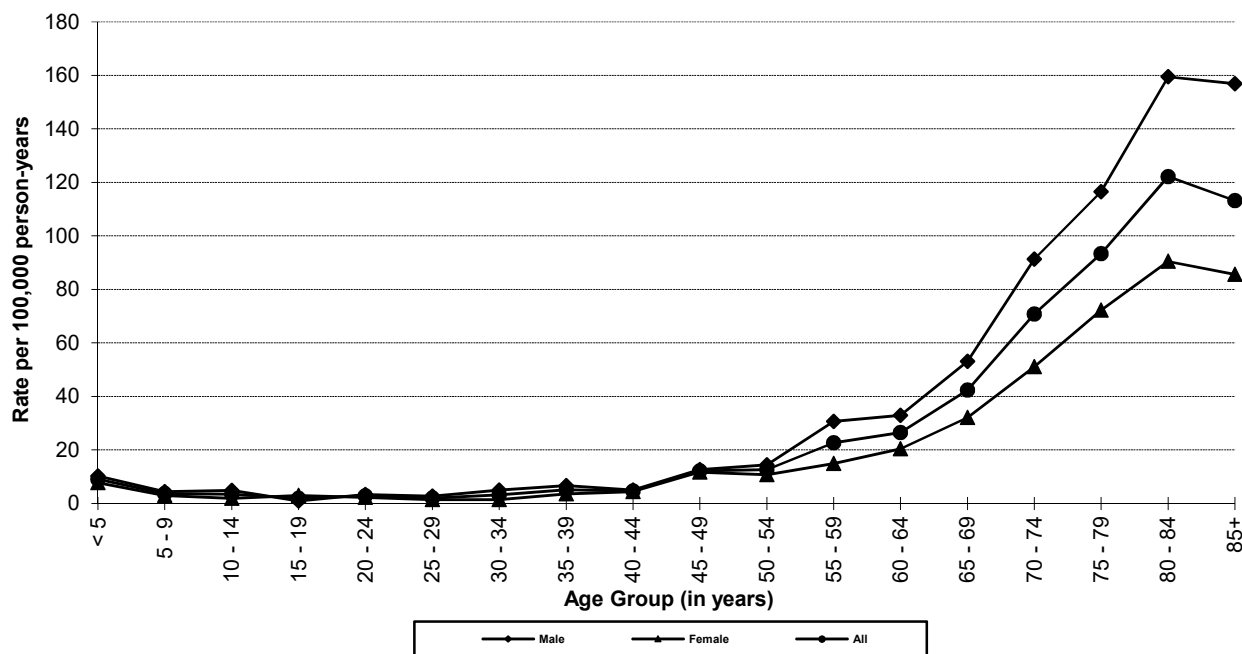
Age	Leukemia is the most common form of cancer in children. Incidence usually increases with age in adults. The highest rates occur in individuals over age 60.
Sex	Males have higher incidence rates than females for acute lymphoblastic leukemia (ALL), chronic lymphocytic leukemia (CLL), acute myeloid leukemia (AML), chronic myeloid leukemia (CML), acute monocytic leukemia (AML-M5), and chronic myelomonocytic leukemia (CMML).
Race/Ethnicity	ALL is less common among Blacks. CLL is rare in Asian/Pacific Islanders. Hispanics and non-Hispanic Whites have higher rates of AML-M5 than other race/ethnic groups.
Genetics	Certain congenital defects (e.g. trisomy 21, Fanconi's anemia, Bloom syndrome, ataxia-telangiectasia) increase risk for various types of leukemia in children.
Other	Ionizing radiation exposure increases leukemia risk, except for CLL. Benzene is a known cause of leukemia (predominantly AML). Treatment with some chemotherapeutic agents for other cancers increases the risk of leukemia. Exposure to herbicides used during the Vietnam War, including Agent Orange, has been associated with increased incidence of CLL. Autoimmune diseases and several viruses, including HTLV-I and Epstein-Barr virus, are associated with certain types of leukemia.

Data Summary

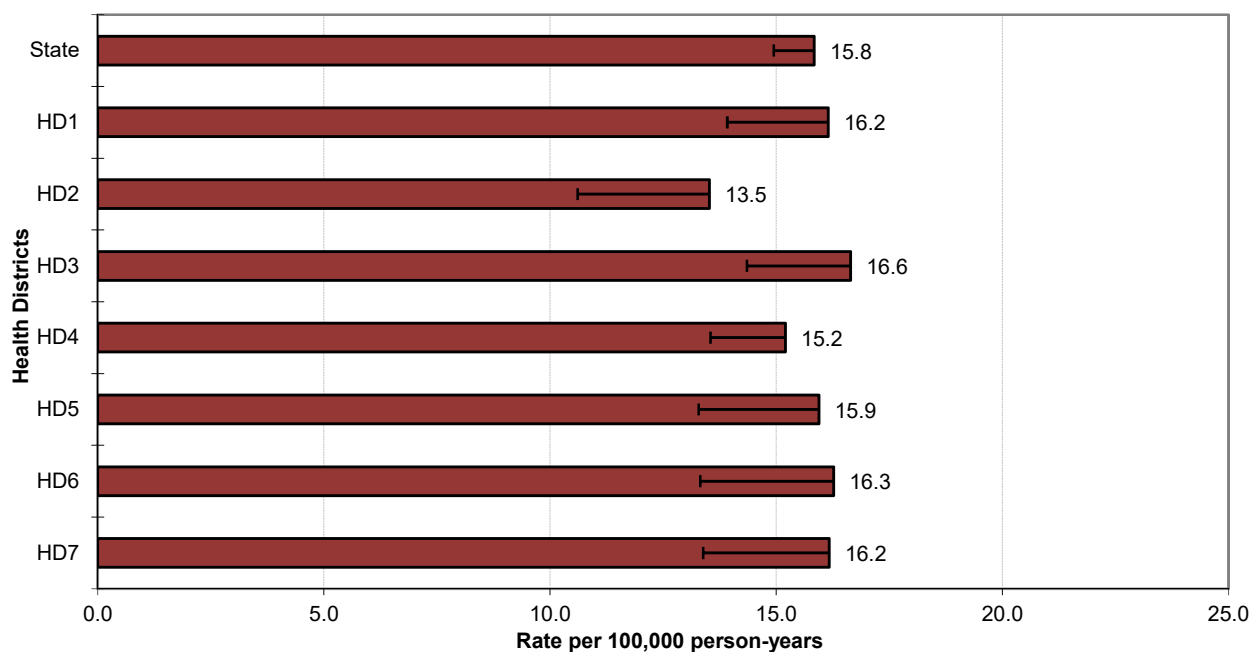
Mean age-adjusted incidence rate across health districts:	15.7
95% confidence interval on the mean age-adjusted incidence rate:	14.9–16.5
Median age-adjusted incidence rate of health districts:	16.2
Range of age-adjusted incidence rate for health districts:	13.5–16.6
USCS rate (2018, all races):	13.3

The age-specific incidence distribution of leukemia for Idaho is quite similar to the typical pattern seen in SEER or NPCR data. The rates are higher for males than females for all types of leukemia apart from AML, which has no predilection for age or sex. Among total cases, no health district had statistically significantly fewer or more cases than expected based upon rates for the remainder of Idaho. (See Section V for data.)

State Leukemia Incidence Age-specific Rates 2015–2019



Leukemia Incidence Age-adjusted Rates by Health District



LIVER AND BILE DUCT

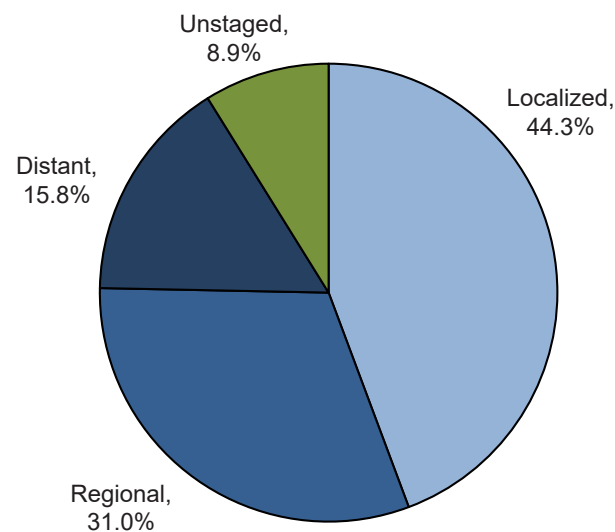
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	7.0	9.6	4.6
# of new invasive cases	158	106	52
# of new in situ cases	0	0	0
# of deaths	118	74	44

Total Cases by County

Ada	37	Cassia	1	Lewis	-
Adams	-	Clark	-	Lincoln	-
Bannock	9	Clearwater	1	Madison	4
Bear Lake	-	Custer	-	Minidoka	-
Benewah	1	Elmore	2	Nez Perce	6
Bingham	6	Franklin	1	Oneida	2
Blaine	1	Fremont	2	Owyhee	2
Boise	-	Gem	2	Payette	5
Bonner	7	Gooding	1	Power	-
Bonneville	9	Idaho	1	Shoshone	2
Boundary	-	Jefferson	3	Teton	1
Butte	-	Jerome	2	Twin Falls	6
Camas	1	Kootenai	19	Valley	1
Canyon	17	Latah	3	Washington	3
Caribou	-	Lemhi	-		

Stage at Diagnosis - Liver and Bile Duct



Factors Associated with Cancer Incidence

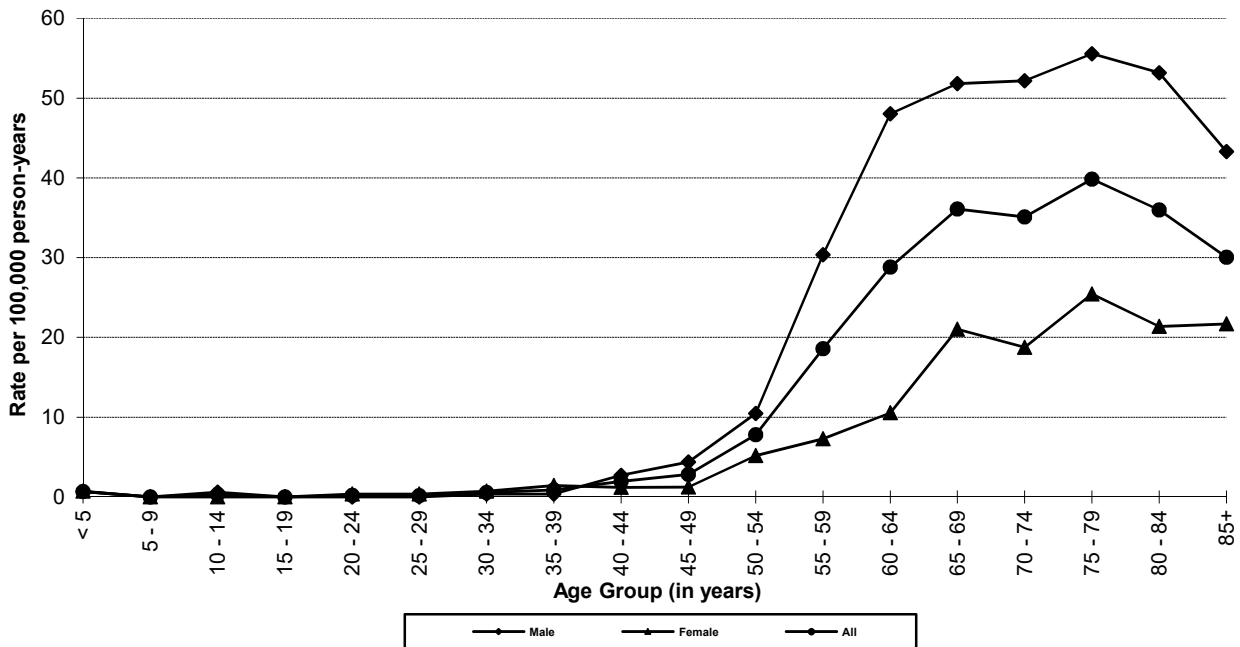
Age	The incidence rate of liver cancer increases with age.
Sex	Rates are usually higher among males than females.
Race/Ethnicity	Incidence is higher among Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics.
Diet	Aflatoxins, which are present in certain foods such as peanut butter, are classified as a known human carcinogen causing liver cancer.
Occupation	Thorium dioxide (an x-ray contrast medium) exposure increases liver cancer risk. Exposure to vinyl chloride used in plastic production is associated with an increased risk of angiosarcoma of the liver.
Other	Hepatitis B and Hepatitis C infections are significant causes of hepatocellular carcinoma. Cirrhosis of the liver due to viral hepatitis, alcoholism, or toxic chemical exposure accounts for 50–80% of liver cancer cases. Long-term use of estrogen-progestogen contraceptives increases risk of hepatocellular carcinoma.

Data Summary

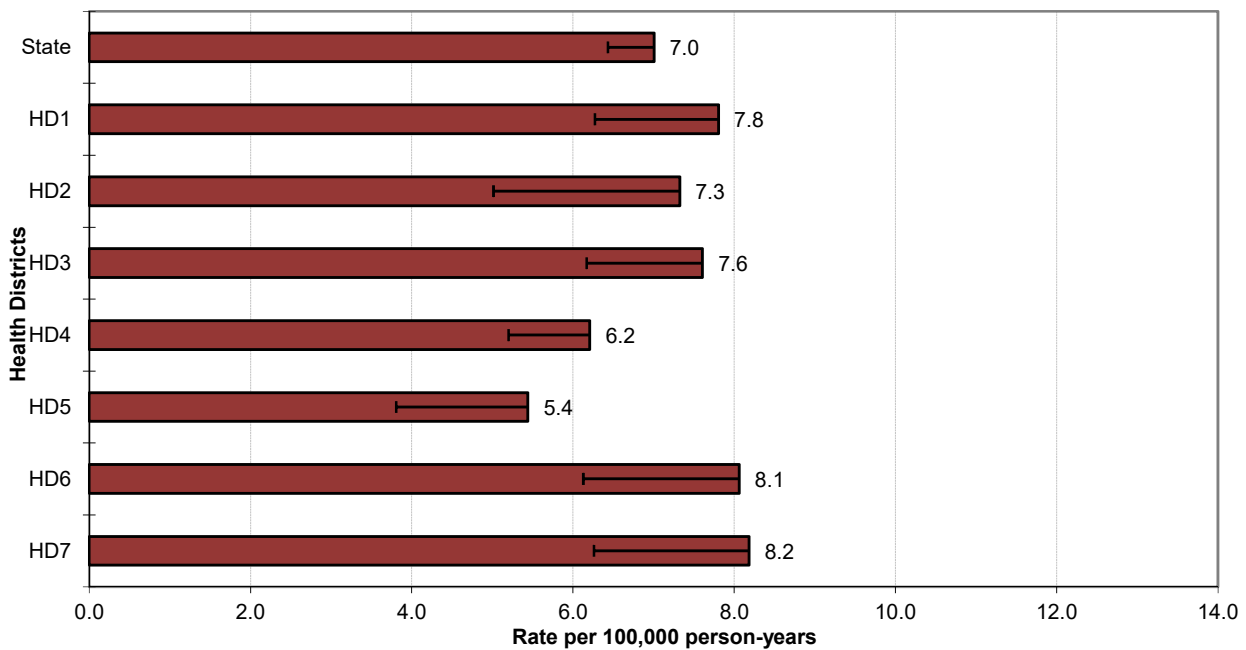
Mean age-adjusted incidence rate across health districts:	7.2
95% confidence interval on the mean age-adjusted incidence rate:	6.5–8.0
Median age-adjusted incidence rate of health districts:	7.6
Range of age-adjusted incidence rate for health districts:	5.4–8.2
USCS rate (2018, all races):	8.3

There were few cases of liver and bile duct cancer among persons less than 55 years of age. Age-specific incidence rates generally increased with age, peaking in the age group 75–79 for males and females. No health district had statistically significantly fewer or more cases than expected based upon rates for the remainder of Idaho. (See Section V for data.)

**State Liver & Bile Duct Cancer Incidence
Age-specific Rates 2015–2019**



**Liver and Bile Duct Cancer Incidence
Age-adjusted Rates by Health District**



LUNG AND BRONCHUS

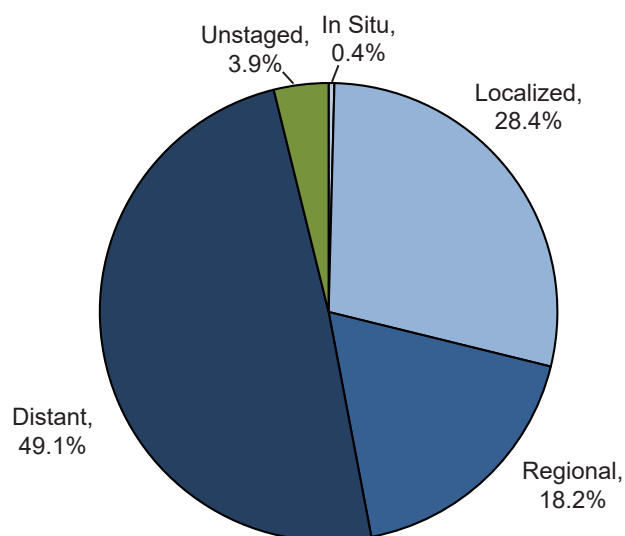
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	44.2	44.6	44.0
# of new invasive cases	981	469	512
# of new in situ cases	4	0	4
# of deaths	572	303	269

Total Cases by County

Ada	221	Cassia	10	Lewis	4
Adams	3	Clark	-	Lincoln	5
Bannock	21	Clearwater	11	Madison	3
Bear Lake	3	Custer	3	Minidoka	7
Benewah	7	Elmore	26	Nez Perce	35
Bingham	23	Franklin	-	Oneida	2
Blaine	15	Fremont	2	Owyhee	10
Boise	9	Gem	16	Payette	28
Bonner	40	Gooding	11	Power	3
Bonneville	44	Idaho	23	Shoshone	24
Boundary	9	Jefferson	11	Teton	2
Butte	4	Jerome	15	Twin Falls	45
Camas	1	Kootenai	119	Valley	9
Canyon	121	Latah	21	Washington	6
Caribou	7	Lemhi	6		

Stage at Diagnosis - Lung and Bronchus



Factors Associated with Cancer Incidence

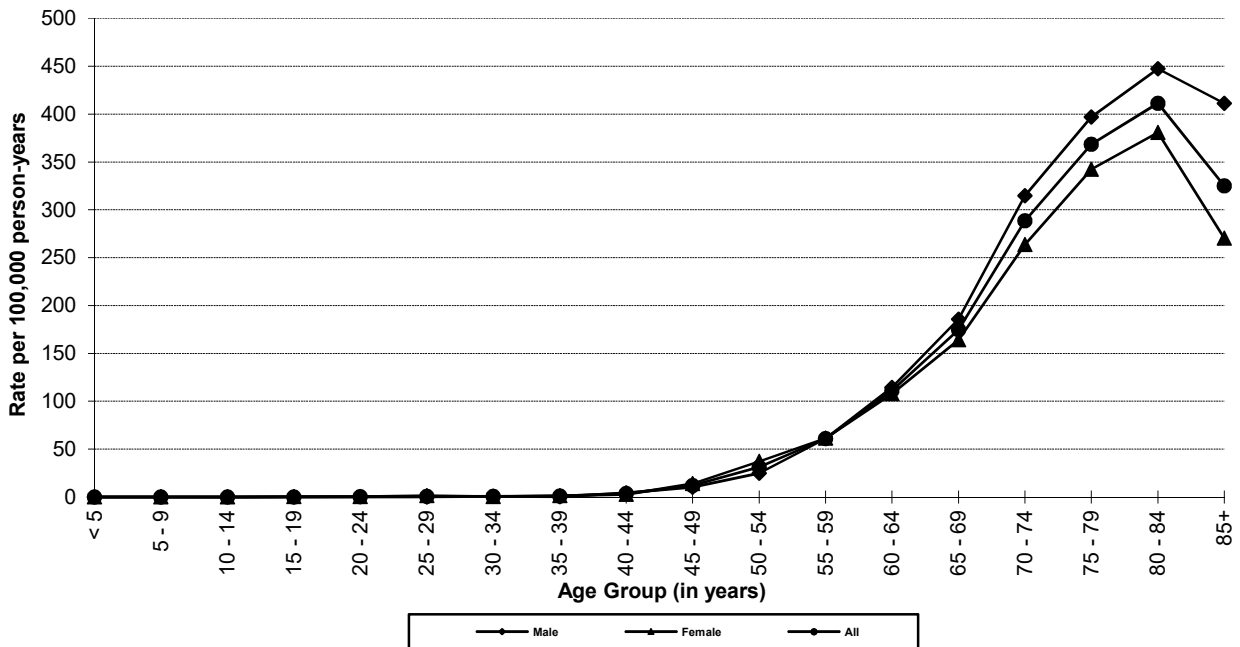
Age	Lung cancer incidence rates increase with age.
Sex	The incidence is currently higher in males than in females, but the gap is narrowing due to increased smoking rates among women in recent decades.
Race/Ethnicity	Incidence is highest among non-Hispanic Whites and Blacks and lowest among Hispanics and Asian and Pacific Islanders.
Occupation	Occupational or environmental exposures to asbestos, cadmium, chromium, coal tars, crystalline silica dust, polycyclic aromatic hydrocarbons, radon, soot, chlorpyrifos insecticides, ionizing radiation, and other substances increase the risk.
Other	Cigarette smoking, including exposure to second-hand smoke, is the most important risk factor, accounting for about 80% of lung cancer deaths. Evidence exists that rates are about 1.3 times higher, adjusted for smoking, in urban areas than rural areas due to air pollution, mostly from motor vehicles.

Data Summary

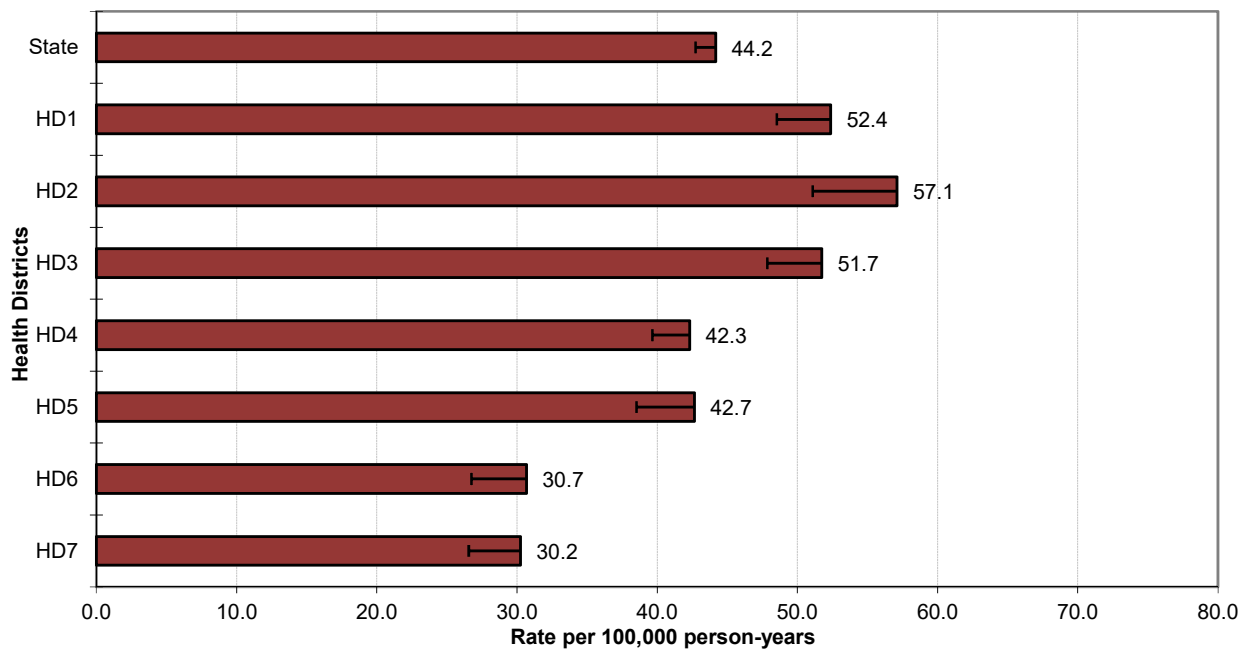
Mean age-adjusted incidence rate across health districts:	43.9
95% confidence interval on the mean age-adjusted incidence rate:	36.0–51.7
Median age-adjusted incidence rate of health districts:	42.7
Range of age-adjusted incidence rate for health districts:	30.2–57.1
USCS rate (2018, all races):	53.6

There were few cases of lung cancer among persons less than 50 years of age. The age-specific incidence rates for males were uniformly higher than the rates for females after age 64. The incidence rates increased with age, peaking in the age group 80–84 for males and females. Health Districts 1, 2, and 3 had statistically significantly more cases of lung cancer than expected based upon rates for the remainder of Idaho, and Health Districts 6 and 7 had statistically significantly fewer. (See Section V for data.)

**State Lung & Bronchus Cancer Incidence
Age-specific Rates 2015–2019**



**Lung & Bronchus Cancer Incidence
Age-adjusted Rates by Health District**



MELANOMA OF SKIN

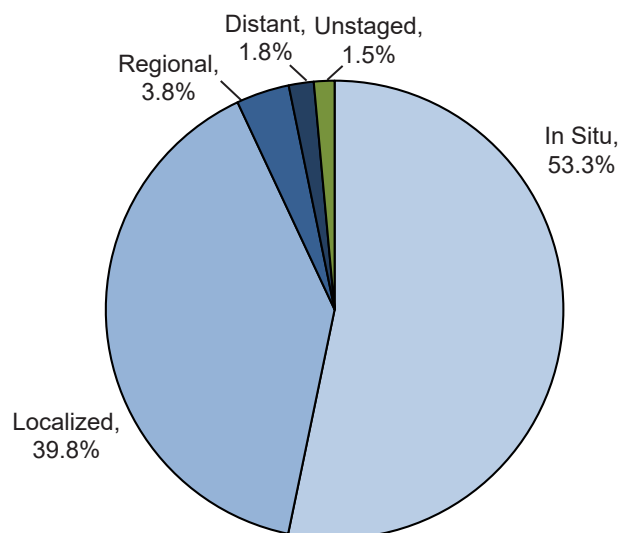
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	29.9	35.4	25.4
# of new invasive cases	610	352	258
# of new in situ cases	695	401	294
# of deaths	59	37	22

Total Cases by County

Ada	413	Cassia	12	Lewis	1
Adams	7	Clark	-	Lincoln	1
Bannock	57	Clearwater	6	Madison	10
Bear Lake	9	Custer	-	Minidoka	12
Benewah	9	Elmore	12	Nez Perce	28
Bingham	24	Franklin	9	Oneida	4
Blaine	50	Fremont	9	Owyhee	8
Boise	5	Gem	21	Payette	22
Bonner	31	Gooding	7	Power	3
Bonneville	75	Idaho	10	Shoshone	6
Boundary	6	Jefferson	14	Teton	12
Butte	1	Jerome	20	Twin Falls	55
Camas	1	Kootenai	120	Valley	18
Canyon	160	Latah	18	Washington	14
Caribou	2	Lemhi	3		

Stage at Diagnosis - Melanoma of Skin



Factors Associated with Cancer Incidence

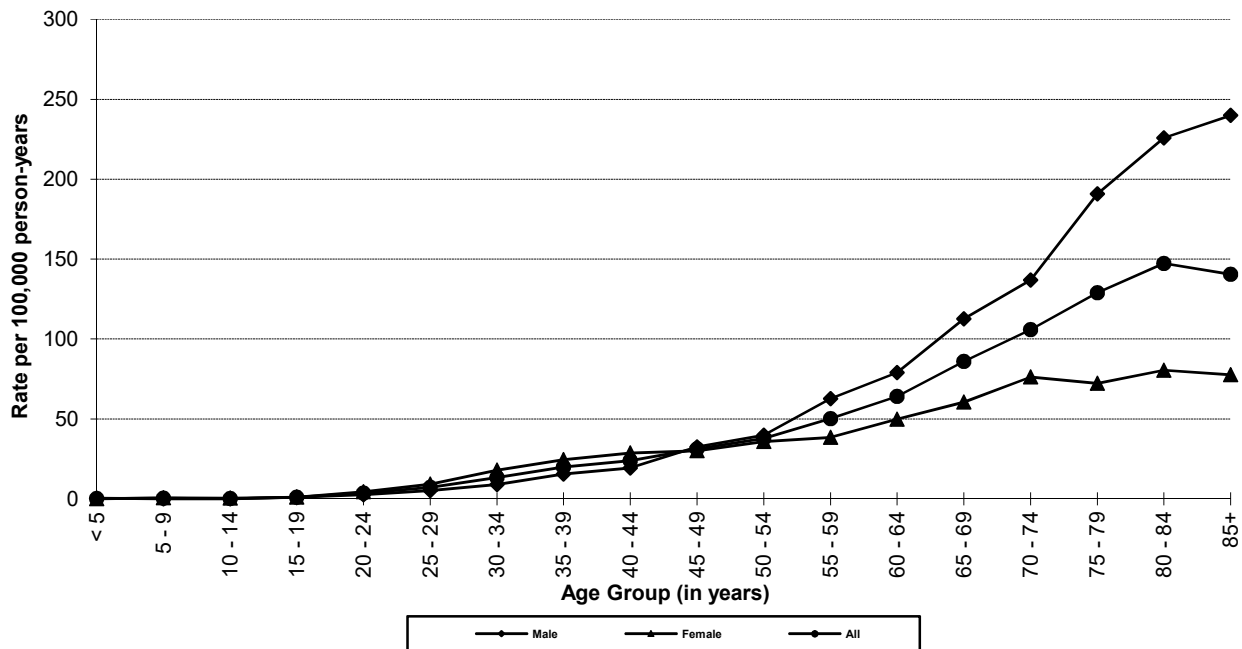
Age	Melanoma is extremely uncommon before puberty. Rates increase with age.
Sex	Incidence rates are higher among females than males in younger age groups, and higher in males than females in older age groups.
Race/Ethnicity	Incidence rates are over 5-fold higher for non-Hispanic Whites than American Indian/Alaska Natives or Hispanics and lowest among Asian/Pacific Islanders and Blacks.
Other	Ultraviolet light exposure, especially blistering sunburns during childhood and intermittent exposure of untanned skin to intense sunlight, is a major risk factor. Melanoma incidence rates are increasing around the world. Blue eyes, fair or red hair, and pale complexion are well-known risk factors for melanoma. Apart from race and age, the number of melanocytic nevi is the strongest known risk factor for melanoma.

Data Summary

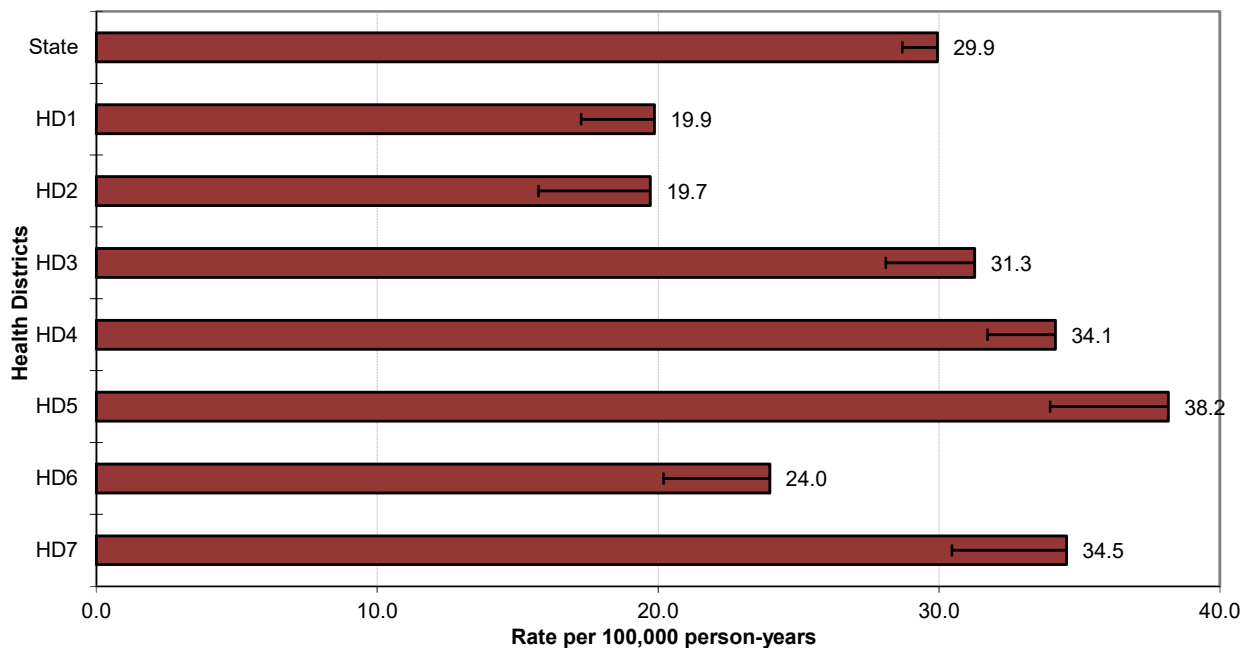
Mean age-adjusted incidence rate across health districts:	28.8
95% confidence interval on the mean age-adjusted incidence rate:	23.2–34.4
Median age-adjusted incidence rate of health districts:	31.3
Range of age-adjusted incidence rate for health districts:	19.7–38.2
USCS rate (2018, all races):	22.0

There were few cases of melanoma of the skin among persons less than 25 years of age. The age-specific incidence rates were higher among males after age 54. Health Districts 4 and 5 had statistically significantly more cases of melanoma than expected based upon rates for the remainder of Idaho, and Health Districts 1, 2, and 6 had statistically significantly fewer. (See Section V for data.)

State Melanoma of the Skin Incidence Age-specific Rates 2015–2019



Melanoma of the Skin Incidence Age-adjusted Rates by Health District



MYELOMA

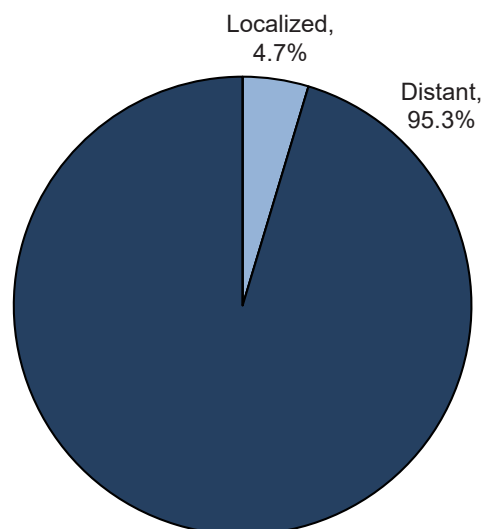
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	6.0	7.7	4.5
# of new invasive cases	129	79	50
# of new in situ cases	0	0	0
# of deaths	56	32	24

Total Cases by County

Ada	41	Cassia	1	Lewis	2
Adams	-	Clark	-	Lincoln	-
Bannock	3	Clearwater	-	Madison	1
Bear Lake	-	Custer	1	Minidoka	1
Benewah	3	Elmore	1	Nez Perce	-
Bingham	2	Franklin	-	Oneida	1
Blaine	3	Fremont	-	Owyhee	-
Boise	1	Gem	1	Payette	4
Bonner	3	Gooding	-	Power	1
Bonneville	9	Idaho	1	Shoshone	-
Boundary	1	Jefferson	1	Teton	-
Butte	1	Jerome	1	Twin Falls	3
Camas	-	Kootenai	11	Valley	1
Canyon	24	Latah	1	Washington	1
Caribou	3	Lemhi	1		

Stage at Diagnosis - Myeloma



Factors Associated with Cancer Incidence

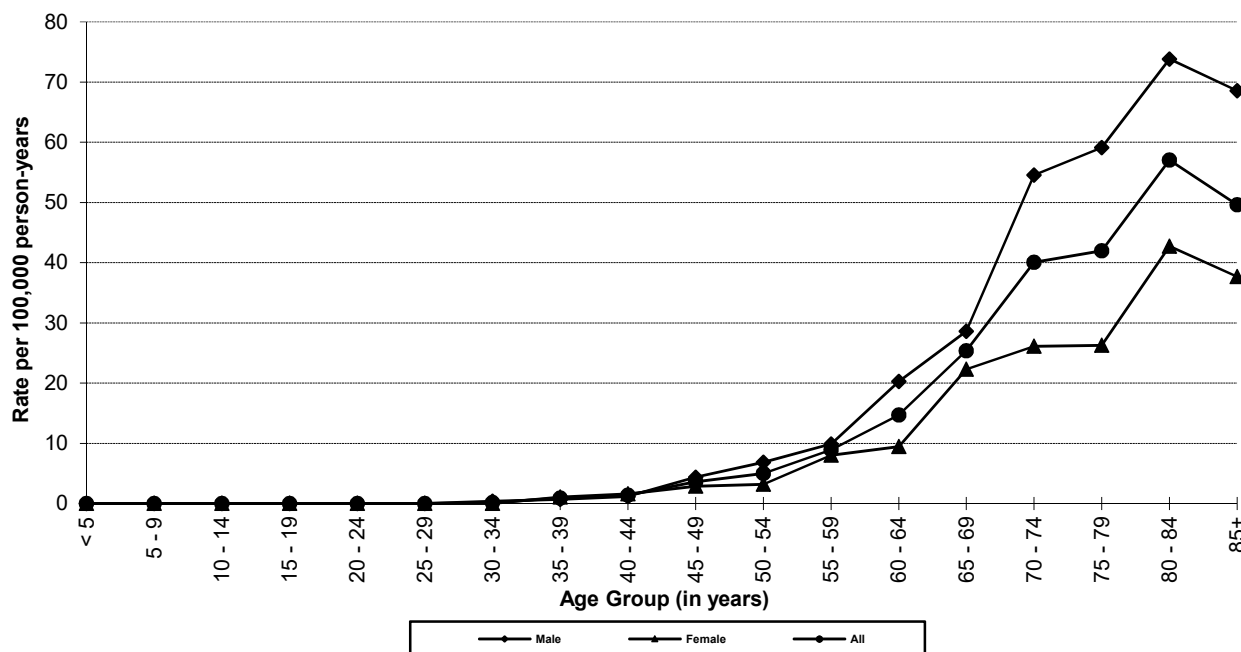
Age	Multiple myeloma is an age-dependent cancer; incidence rates increase with age, and it rarely occurs before age 40.
Sex	Rates for males are somewhat higher than for females.
Race/Ethnicity	Blacks have substantially higher incidence rates than other race/ethnicity groups and Hispanics have the second highest rates.
Genetics	There appears to be a slight increase in the incidence of the disease in first-degree relatives (parents or siblings) of people with multiple myeloma.
Other	Being overweight or obese increases a person's risk of developing myeloma. Several specific chemical and physical substances have been linked to myeloma risk in one or more studies. Truck drivers, painters, and agricultural workers are at increased risk for multiple myeloma. Individuals with monoclonal gammopathy of unknown significance or solitary plasmacytoma are at higher risk of developing multiple myeloma.

Data Summary

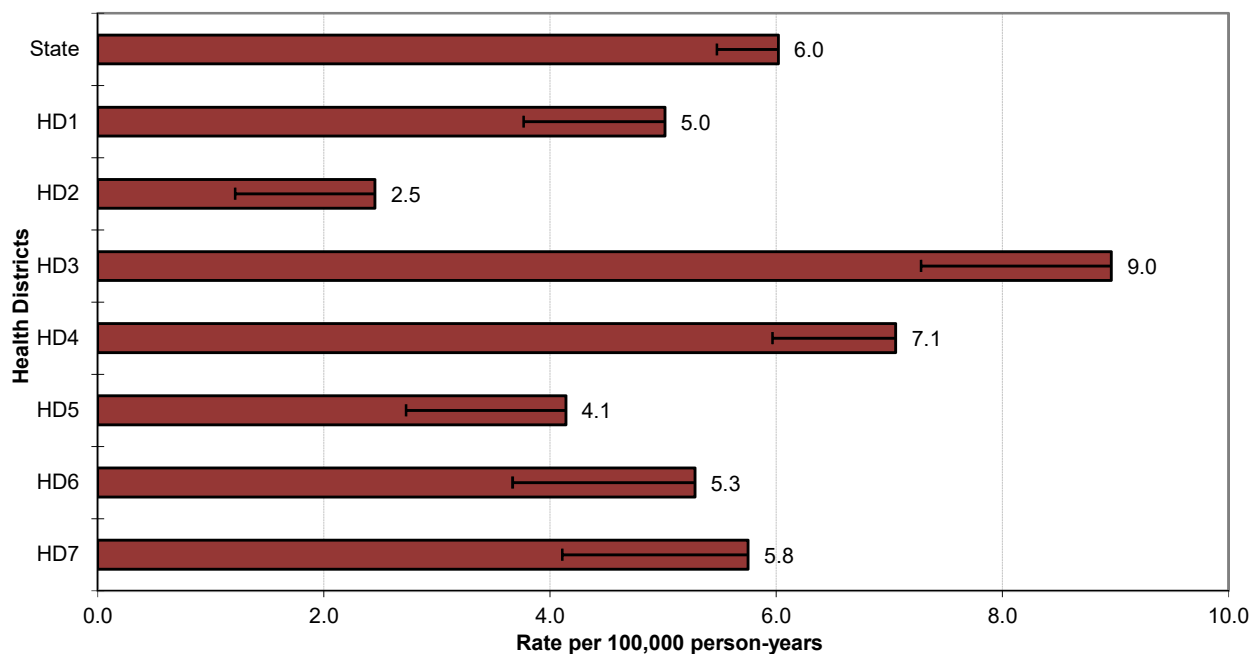
Mean age-adjusted incidence rate across health districts:	5.5
95% confidence interval on the mean age-adjusted incidence rate:	4.0–7.1
Median age-adjusted incidence rate of health districts:	5.3
Range of age-adjusted incidence rate for health districts:	2.5–9.0
USCS rate (2018, all races):	6.7

There were no cases of myeloma among persons less than 30 years of age. The age-specific incidence rates increased rapidly for males and females after age group 60–64. Health District 3 had statistically significantly more cases of myeloma than expected based upon rates for the remainder of Idaho. (See Section V for data.)

State Myeloma Incidence Age-specific Rates 2015–2019



Myeloma Incidence Age-adjusted Rates by Health District



NON-HODGKIN LYMPHOMA

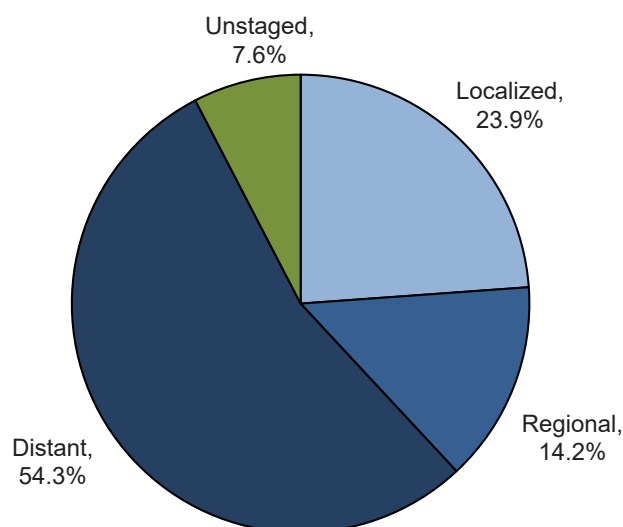
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	19.0	22.5	15.8
# of new invasive cases	394	225	169
# of new in situ cases	0	0	0
# of deaths	105	54	51

Total Cases by County

Ada	94	Cassia	3	Lewis	1
Adams	1	Clark	-	Lincoln	1
Bannock	17	Clearwater	3	Madison	6
Bear Lake	1	Custer	-	Minidoka	1
Benewah	7	Elmore	10	Nez Perce	11
Bingham	13	Franklin	2	Oneida	-
Blaine	8	Fremont	4	Owyhee	3
Boise	3	Gem	2	Payette	14
Bonner	13	Gooding	3	Power	1
Bonneville	28	Idaho	5	Shoshone	2
Boundary	6	Jefferson	5	Teton	1
Butte	-	Jerome	5	Twin Falls	25
Camas	-	Kootenai	34	Valley	5
Canyon	42	Latah	8	Washington	4
Caribou	-	Lemhi	2		

Stage at Diagnosis - Non-Hodgkin Lymphoma



Factors Associated with Cancer Incidence

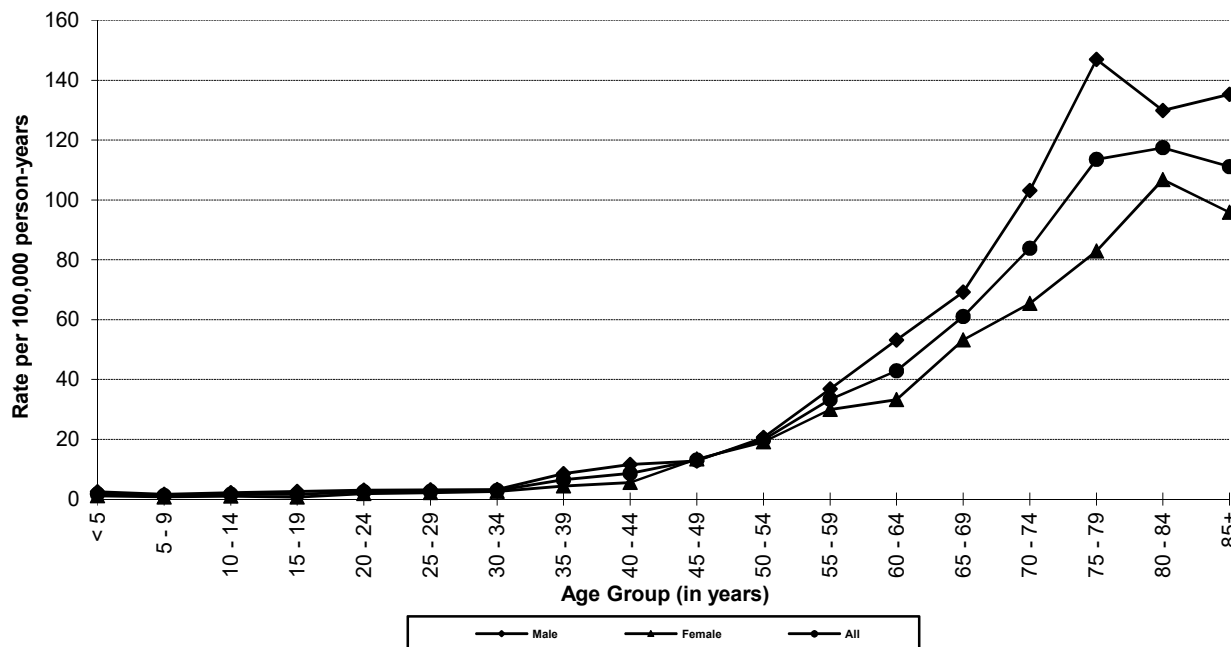
Age	Rates increase with age, reaching the highest levels in the eighth and ninth decades of life.
Sex	Males have higher rates than females.
Race/Ethnicity	In the United States, incidence rates are generally higher for non-Hispanic Whites and Hispanics than for other race/ethnicity groups.
Occupation	Exposure to ethylene oxide, such as through commercial production or use as a sterilant in the manufacture of medical and pharmaceutical products or production of food spices, has been identified as a risk factor.
Other	Non-Hodgkin lymphoma (NHL) develops with increased frequency in individuals infected with certain viruses, including HTLV-I, HIV, and Epstein-Barr virus. Treatment with some immunosuppressants increases the risk of NHL among organ transplant patients.

Data Summary

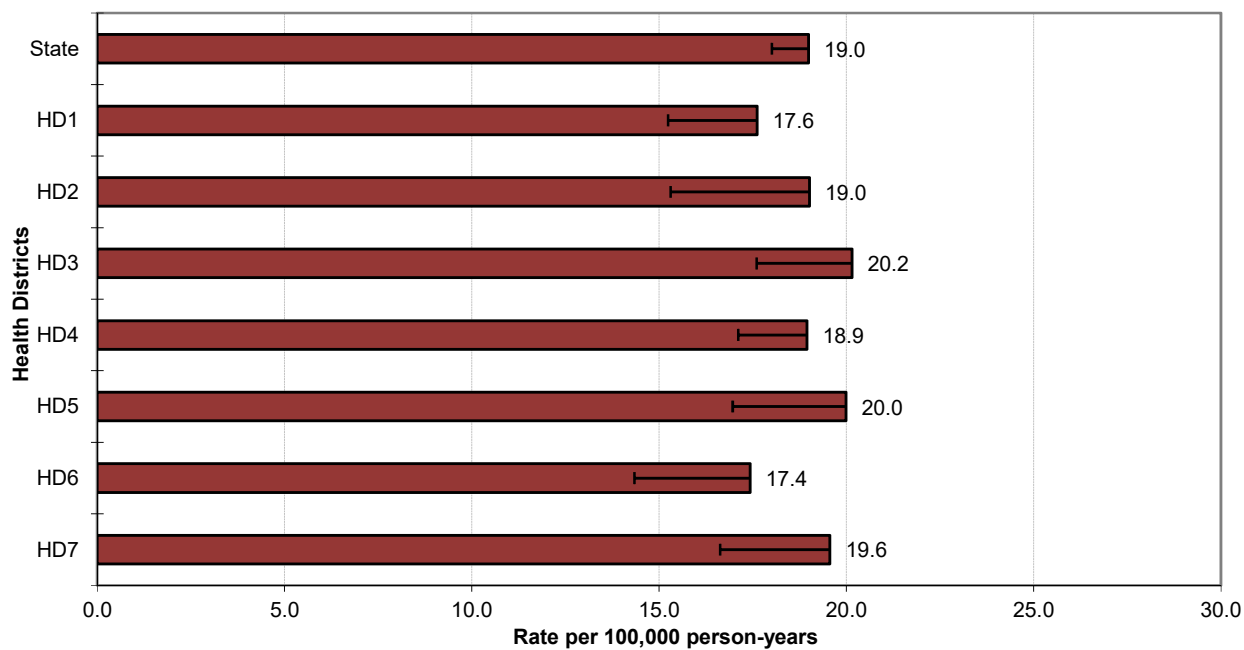
Mean age-adjusted incidence rate across health districts:	19.0
95% confidence interval on the mean age-adjusted incidence rate:	18.2–19.8
Median age-adjusted incidence rate of health districts:	19.0
Range of age-adjusted incidence rate for health districts:	17.4–20.2
USCS rate (2018, all races):	18.4

The age-specific incidence rates of NHL increased with age, peaking in the age group 75–79 for males and 80–84 for females. No health district had statistically significantly more, or fewer, cases than expected based upon rates for the remainder of Idaho. (See Section V for data.)

State Non-Hodgkin Lymphoma Incidence Age-specific Rates 2015–2019



Non-Hodgkin Lymphoma Incidence Age-adjusted Rates by Health District



ORAL CAVITY AND PHARYNX

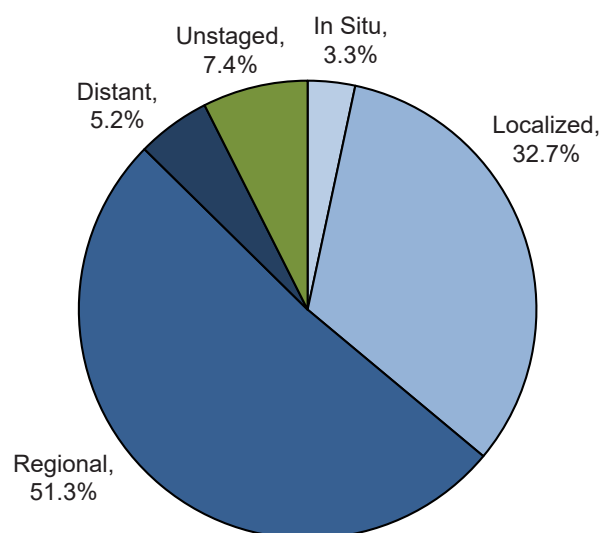
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	11.9	17.8	6.4
# of new invasive cases	260	186	74
# of new in situ cases	9	6	3
# of deaths	55	37	18

Total Cases by County

Ada	84	Cassia	3	Lewis	2
Adams	1	Clark	-	Lincoln	1
Bannock	8	Clearwater	2	Madison	-
Bear Lake	-	Custer	-	Minidoka	1
Benewah	3	Elmore	2	Nez Perce	5
Bingham	3	Franklin	1	Oneida	-
Blaine	5	Fremont	5	Owyhee	3
Boise	1	Gem	5	Payette	6
Bonner	11	Gooding	5	Power	-
Bonneville	15	Idaho	-	Shoshone	4
Boundary	4	Jefferson	4	Teton	-
Butte	4	Jerome	-	Twin Falls	15
Camas	-	Kootenai	23	Valley	3
Canyon	33	Latah	3	Washington	-
Caribou	3	Lemhi	1		

Stage at Diagnosis - Oral Cavity and Pharynx



Factors Associated with Cancer Incidence

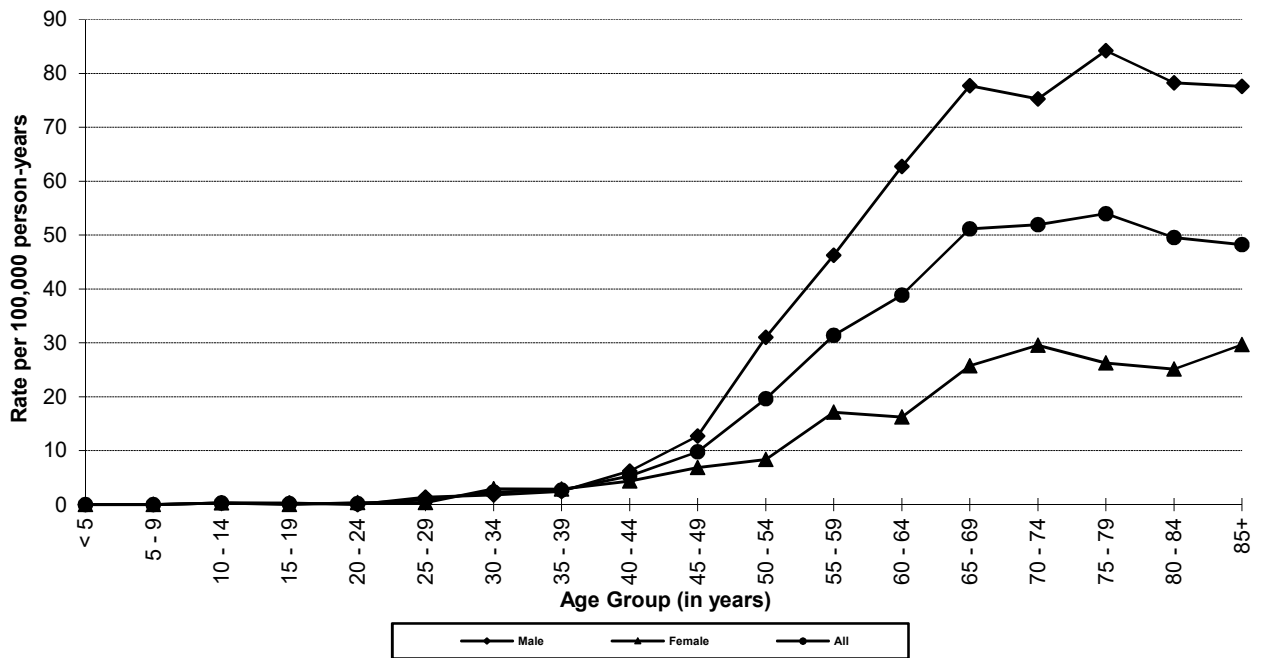
Age	Incidence rates increase with age, markedly after age 44.
Sex	Males have higher incidence rates than females, 2–6 times higher in most parts of the world.
Race/Ethnicity	Rates are highest for non-Hispanic Whites and lowest for Hispanics.
Diet	Diets low in fresh fruit and vegetable consumption are associated with increased risk.
Other	Smoking and spit tobacco use are major risk factors for cancers of the oral cavity and pharynx. Alcohol use, especially excessive, is a major risk factor. Combined exposure to tobacco and alcohol multiply the risks of each other. Smoking and drinking are estimated to account for 75% of all oral cancers in the United States. Approximately 15% of oral cavity and pharyngeal cancers in the United States are attributable to infection with oncogenic human papillomavirus (HPV) types. Patients with late stage oropharyngeal cancer have better outcomes if their tumors were linked to HPV versus tobacco and alcohol.

Data Summary

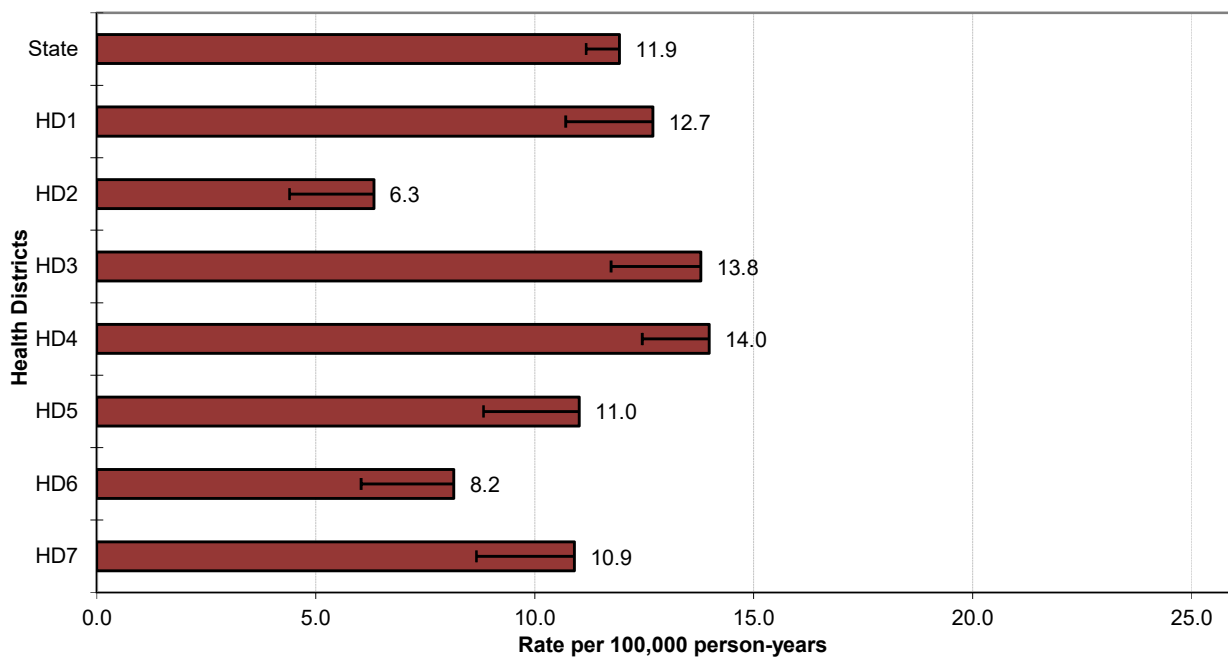
Mean age-adjusted incidence rate across health districts:	11.0
95% confidence interval on the mean age-adjusted incidence rate:	8.9–13.1
Median age-adjusted incidence rate of health districts:	11.0
Range of age-adjusted incidence rate for health districts:	6.3–14.0
USCS rate (2018, all races):	11.7

There were few cases of oral cavity and pharyngeal cancers among persons less than 45 years of age. The age-specific incidence rates generally increased with age after age 44, peaking in the age group 75–79 for males and 85+ for females. No health district had statistically significantly more, or fewer, cases than expected based upon rates for the remainder of Idaho. (See Section V for data.)

State Oral Cavity & Pharyngeal Cancer Incidence Age-specific Rates 2015–2019



Oral Cavity & Pharyngeal Cancer Incidence Age-adjusted Rates by Health District



OVARY

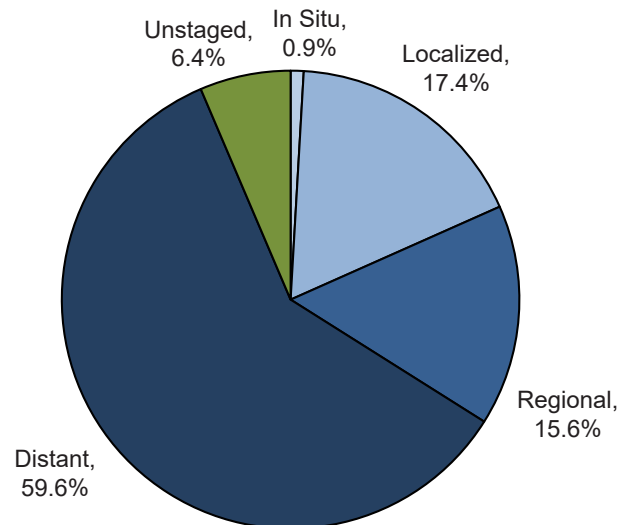
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	-	-	9.5
# of new invasive cases	-	-	108
# of new in situ cases	-	-	1
# of deaths	-	-	65

Total Cases by County

Ada	31	Cassia	1	Lewis	-
Adams	2	Clark	-	Lincoln	1
Bannock	4	Clearwater	1	Madison	1
Bear Lake	-	Custer	-	Minidoka	-
Benewah	-	Elmore	2	Nez Perce	1
Bingham	3	Franklin	1	Oneida	1
Blaine	3	Fremont	-	Owyhee	3
Boise	1	Gem	1	Payette	4
Bonner	5	Gooding	-	Power	-
Bonneville	4	Idaho	1	Shoshone	1
Boundary	-	Jefferson	-	Teton	-
Butte	1	Jerome	1	Twin Falls	8
Camas	-	Kootenai	8	Valley	-
Canyon	16	Latah	1	Washington	1
Caribou	-	Lemhi	1		

Stage at Diagnosis - Ovary



Factors Associated with Cancer Incidence

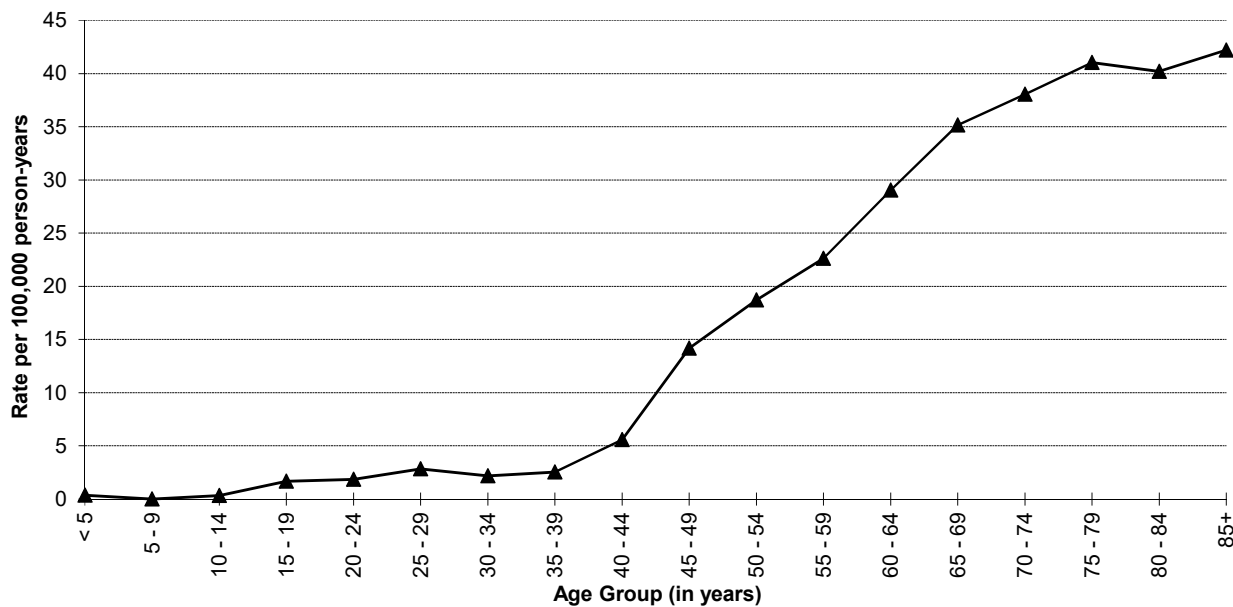
Age	The rate of ovarian cancer increases with age, markedly after age 39.
Race/Ethnicity	Incidence rates are slightly higher among non-Hispanic Whites and Hispanics than other race/ethnicity groups.
Genetics	The most important risk factor for ovarian cancer is a family history of a first-degree relative (mother, daughter, or sister) with the disease. The risk is higher still in women with two or more first-degree relatives with ovarian cancer. The lifetime ovarian cancer risk for women with a BRCA1 mutation is estimated to be between 35% and 70%.
Hormonal	Ovarian cancer is most frequently diagnosed in post-menopausal women. However, the strongest predictors of reduced ovarian cancer risk occur in pre-menopausal women, specifically suppression of ovulation through pregnancy or oral contraceptive use. Hormone replacement therapy is also associated with increased ovarian cancer risk.
Other	Exposure to asbestos and tobacco smoking increase ovarian cancer risk. Other risk factors for ovarian cancer include obesity, tall height, and endometriosis.

Data Summary

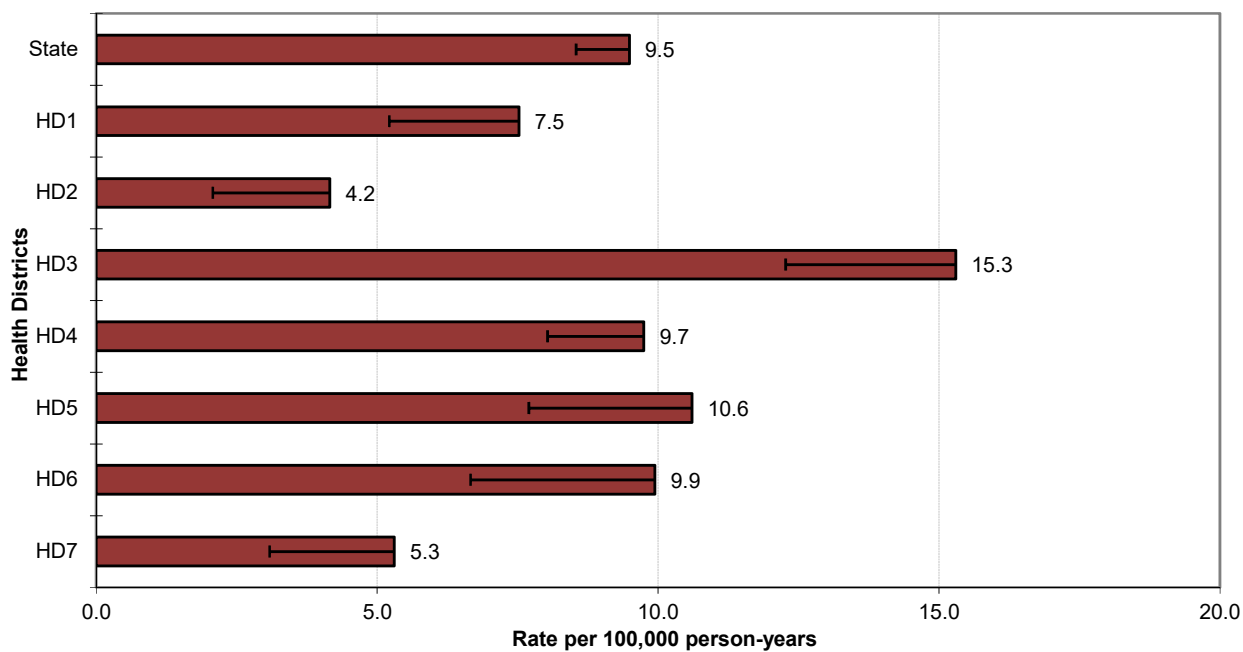
Mean age-adjusted incidence rate across health districts:	8.9
95% confidence interval on the mean age-adjusted incidence rate:	6.2–11.7
Median age-adjusted incidence rate of health districts:	9.7
Range of age-adjusted incidence rate for health districts:	4.2–15.3
USCS rate (2018, all races):	9.8

There were few cases of ovarian cancer among females aged less than 40 years. The age-specific incidence rates of ovarian cancer generally increased with age. The highest age-specific rate was for women aged 85+. Health District 3 had statistically significantly more cases of ovarian cancer than expected based upon rates for the remainder of Idaho. (See Section V for data.)

**State Ovarian Cancer Incidence
Age-specific Rates 2015–2019**



**Ovarian Cancer Incidence
Age-adjusted Rates by Health District**



PANCREAS

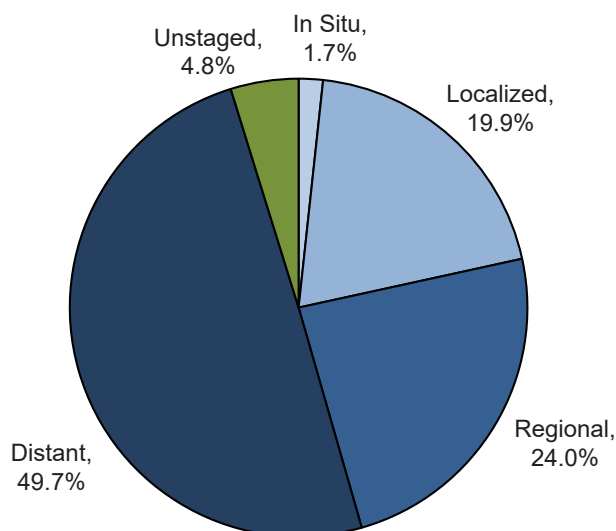
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	13.1	14.8	11.6
# of new invasive cases	287	155	132
# of new in situ cases	5	3	2
# of deaths	225	114	111

Total Cases by County

Ada	65	Cassia	3	Lewis	-
Adams	2	Clark	-	Lincoln	1
Bannock	14	Clearwater	2	Madison	2
Bear Lake	-	Custer	-	Minidoka	2
Benewah	3	Elmore	7	Nez Perce	7
Bingham	8	Franklin	-	Oneida	-
Blaine	2	Fremont	5	Owyhee	5
Boise	-	Gem	2	Payette	2
Bonner	17	Gooding	2	Power	2
Bonneville	17	Idaho	5	Shoshone	4
Boundary	1	Jefferson	7	Teton	2
Butte	-	Jerome	4	Twin Falls	17
Camas	-	Kootenai	39	Valley	3
Canyon	29	Latah	6	Washington	3
Caribou	-	Lemhi	2		

Stage at Diagnosis - Pancreas



Factors Associated with Cancer Incidence

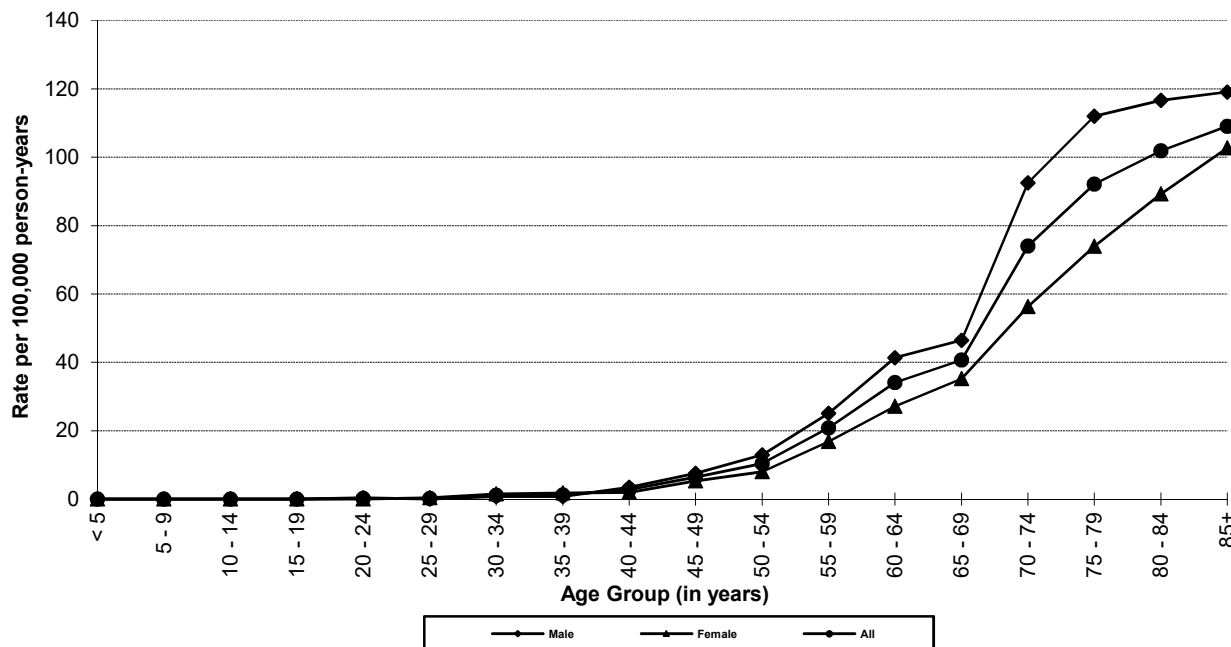
Age	Pancreatic cancer incidence increases with age, with rates notably increasing at age 50 and a median age at diagnosis ranging from 68–72.
Sex	Incidence is approximately 20%–30% higher in males than females among people aged 55 to 84 years.
Race/Ethnicity	Incidence is highest among Blacks, followed by Whites. Asians/Pacific Islanders and American Indians/Alaska Natives have similar and the lowest incidence rates in the United States. Hispanics have lower incidence than non-Hispanic Whites.
Diet	Heavy alcohol consumption is an important risk factor for pancreatic cancer.
Occupation	Occupational exposures to chlorinated hydrocarbon solvents as used in dry cleaning, nickel and nickel compounds, benzene, asbestos, and pesticides are associated with increased risk.
Other	Smoking is the most important risk factor for pancreatic cancer. Hereditary and genetic factors, such as family history of pancreatic cancer, gene mutations (e.g. BRCA2, p16/CDKN2A gene), and inherited genetic syndromes (e.g. familial pancreatitis, Lynch syndrome) are associated with increased risk. Comorbidities such as obesity, diabetes, and chronic pancreatitis also confer increased risk.

Data Summary

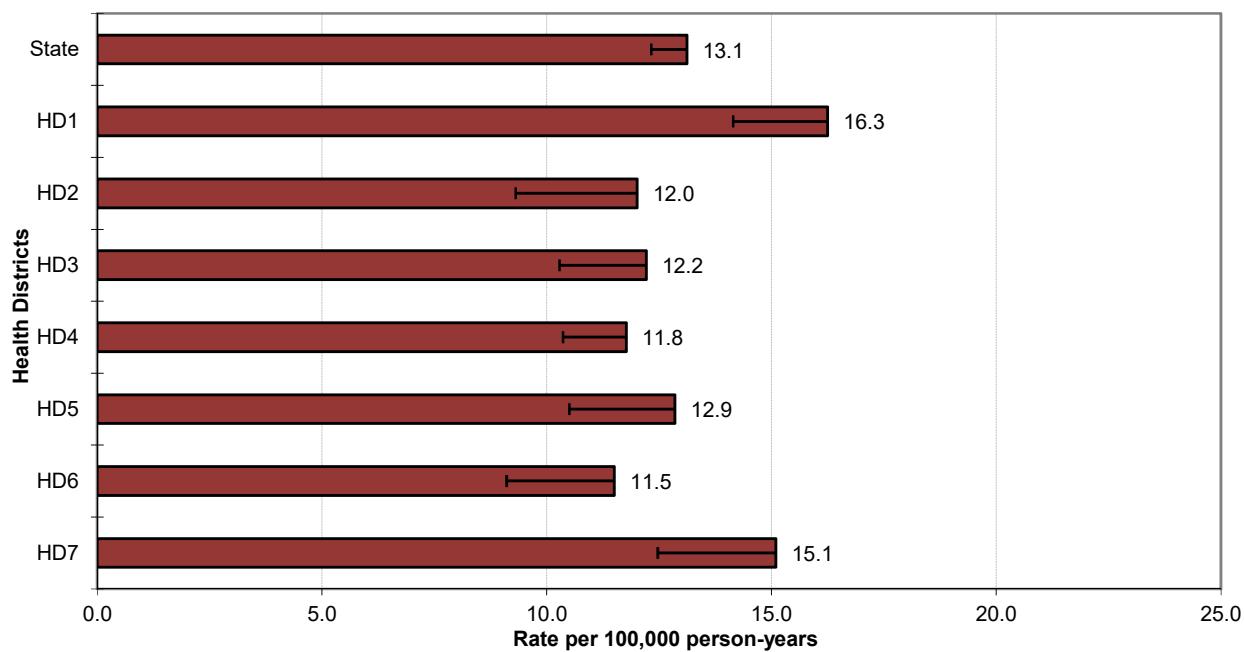
Mean age-adjusted incidence rate across health districts:	13.1
95% confidence interval on the mean age-adjusted incidence rate:	11.7–14.5
Median age-adjusted incidence rate of health districts:	12.2
Range of age-adjusted incidence rate for health districts:	11.5–16.3
USCS rate (2018, all races):	13.1

There were few cases of pancreatic cancer among persons aged less than 45 years. The age-specific incidence rates of pancreatic cancer generally increased after age 44, peaking in the age group 85+ for males and females. Health District 1 had statistically significantly more cases of pancreatic cancer than expected based upon rates for the remainder of Idaho. (See Section V for data.)

State Pancreas Cancer Incidence Age-specific Rates 2015–2019



Pancreas Cancer Incidence Age-adjusted Rates by Health District



PROSTATE

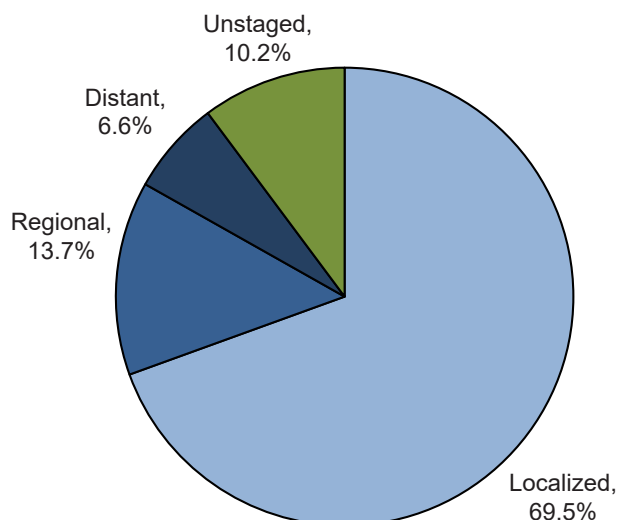
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	-	125.2	-
# of new invasive cases	-	1,402	-
# of new in situ cases	-	0	-
# of deaths	-	182	-

Total Cases by County

Ada	373	Cassia	15	Lewis	8
Adams	5	Clark	-	Lincoln	6
Bannock	41	Clearwater	14	Madison	15
Bear Lake	2	Custer	6	Minidoka	12
Benewah	11	Elmore	21	Nez Perce	43
Bingham	32	Franklin	9	Oneida	3
Blaine	30	Fremont	7	Owyhee	6
Boise	8	Gem	15	Payette	21
Bonner	61	Gooding	6	Power	4
Bonneville	70	Idaho	30	Shoshone	20
Boundary	15	Jefferson	19	Teton	5
Butte	2	Jerome	7	Twin Falls	53
Camas	2	Kootenai	192	Valley	15
Canyon	144	Latah	28	Washington	14
Caribou	3	Lemhi	9		

Stage at Diagnosis - Prostate



Factors Associated with Cancer Incidence

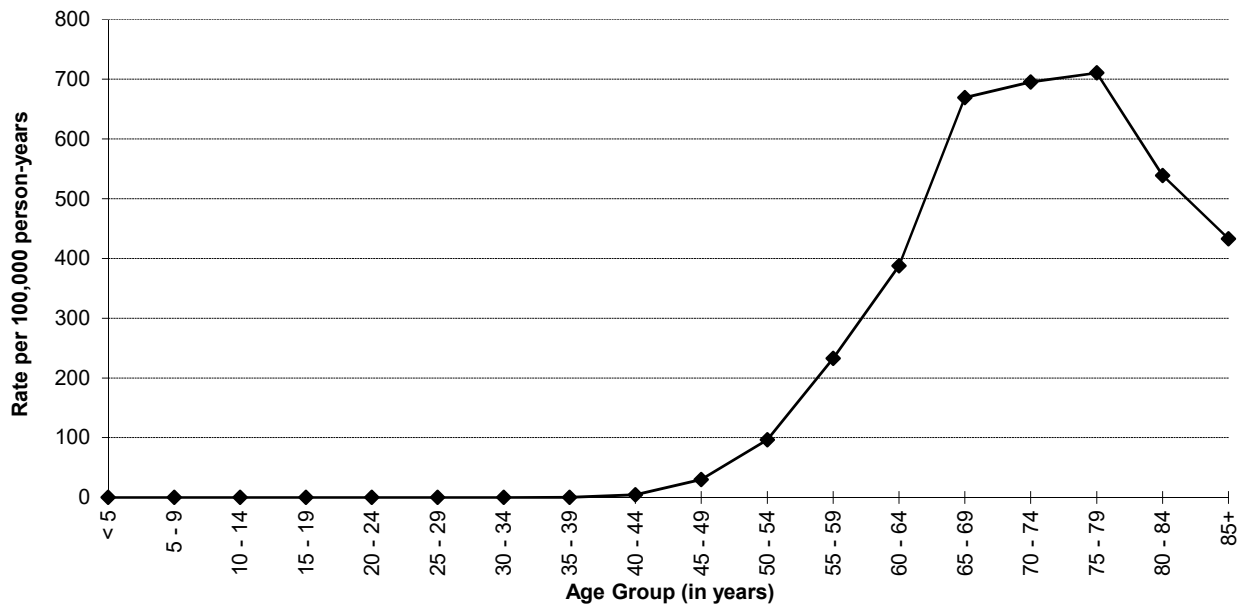
Age	Prostate cancer is primarily a disease of older males, and is rarely diagnosed before age 50.
Race/Ethnicity	Black males have substantially higher incidence and mortality rates than other race/ethnicity groups, with non-Hispanic Whites and Hispanic males having higher rates than American Indian/Alaska Natives or Asian and Pacific Islanders.
Genetics	A family history of prostate cancer is associated with increased risk.
Diet	Dietary fat has been implicated in several international, regional, and case-control studies.
Other	Prostate cancer is most common in North America, northwestern Europe, Australia, and on Caribbean islands. It is less common in Asia, Africa, Central America, and South America.

Data Summary

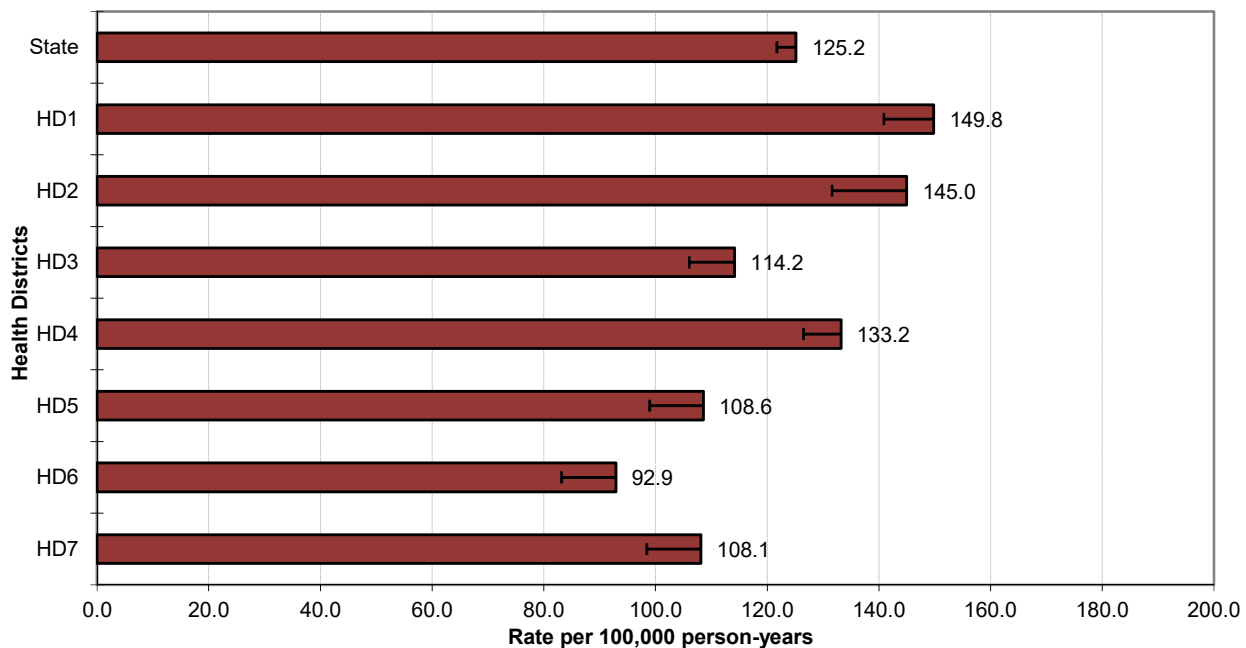
Mean age-adjusted incidence rate across health districts:	121.7
95% confidence interval on the mean age-adjusted incidence rate:	105.9–137.4
Median age-adjusted incidence rate of health districts:	114.2
Range of age-adjusted incidence rate for health districts:	92.9–149.8
USCS rate (2018, all races):	107.5

There were few cases of prostate cancer among men aged less than 50 years. The age-specific incidence rates of prostate cancer increased with age, peaking in the 75–79 age group. Health Districts 1 and 2 had statistically significantly more cases than expected based upon rates for the remainder of Idaho and Health Districts 5 and 6 had statistically significantly fewer. (See Section V for data.)

State Prostate Cancer Incidence Age-specific Rates 2015–2019



Prostate Cancer Incidence Age-adjusted Rates by Health District



STOMACH

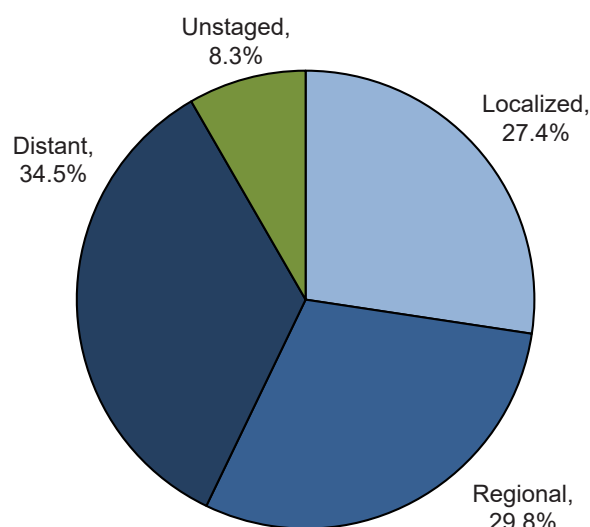
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	3.9	5.3	2.7
# of new invasive cases	84	55	29
# of new in situ cases	0	0	0
# of deaths	35	22	13

Total Cases by County

Ada	19	Cassia	-	Lewis	2
Adams	1	Clark	-	Lincoln	-
Bannock	5	Clearwater	1	Madison	-
Bear Lake	-	Custer	-	Minidoka	-
Benewah	-	Elmore	1	Nez Perce	1
Bingham	2	Franklin	1	Oneida	-
Blaine	1	Fremont	-	Owyhee	-
Boise	-	Gem	-	Payette	1
Bonner	2	Gooding	-	Power	1
Bonneville	7	Idaho	1	Shoshone	1
Boundary	1	Jefferson	1	Teton	-
Butte	-	Jerome	-	Twin Falls	6
Camas	-	Kootenai	14	Valley	-
Canyon	13	Latah	1	Washington	-
Caribou	1	Lemhi	-		

Stage at Diagnosis - Stomach



Factors Associated with Cancer Incidence

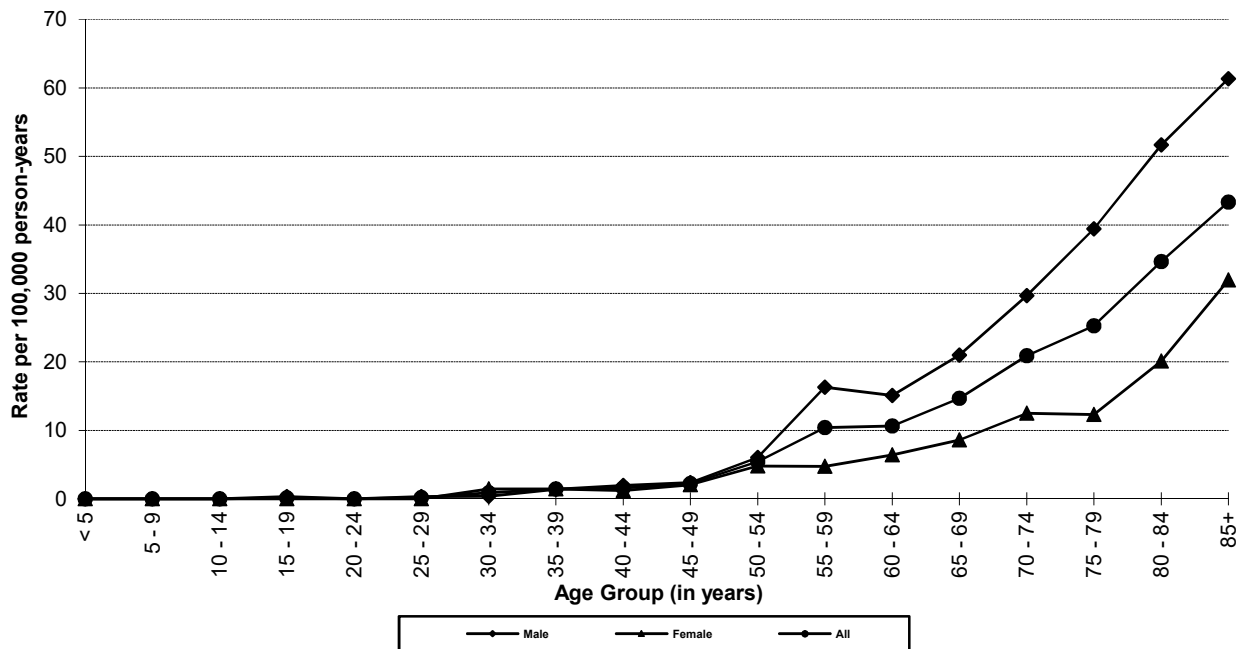
Age	Stomach cancer incidence rates increase with age.
Sex	Incidence rates for males are about twice as high as for females.
Race/Ethnicity	Incidence rates are highest among Asian and Pacific Islanders and lowest among non-Hispanic Whites.
Diet	Dietary risk factors include low consumption of fruits and vegetables and consumption of salted, smoked, or poorly preserved foods.
Occupation	Workers in the rubber and coal industries are at increased risk of stomach cancer.
Other	<i>Helicobacter pylori</i> infection and smoking are associated with increased risk of stomach cancer. Genetic risk factors include a family history of stomach cancer, Li Fraumeni syndrome, and type A blood type. Worldwide, stomach cancer is more common in Japan, China, Southern and Eastern Europe, and South and Central America.

Data Summary

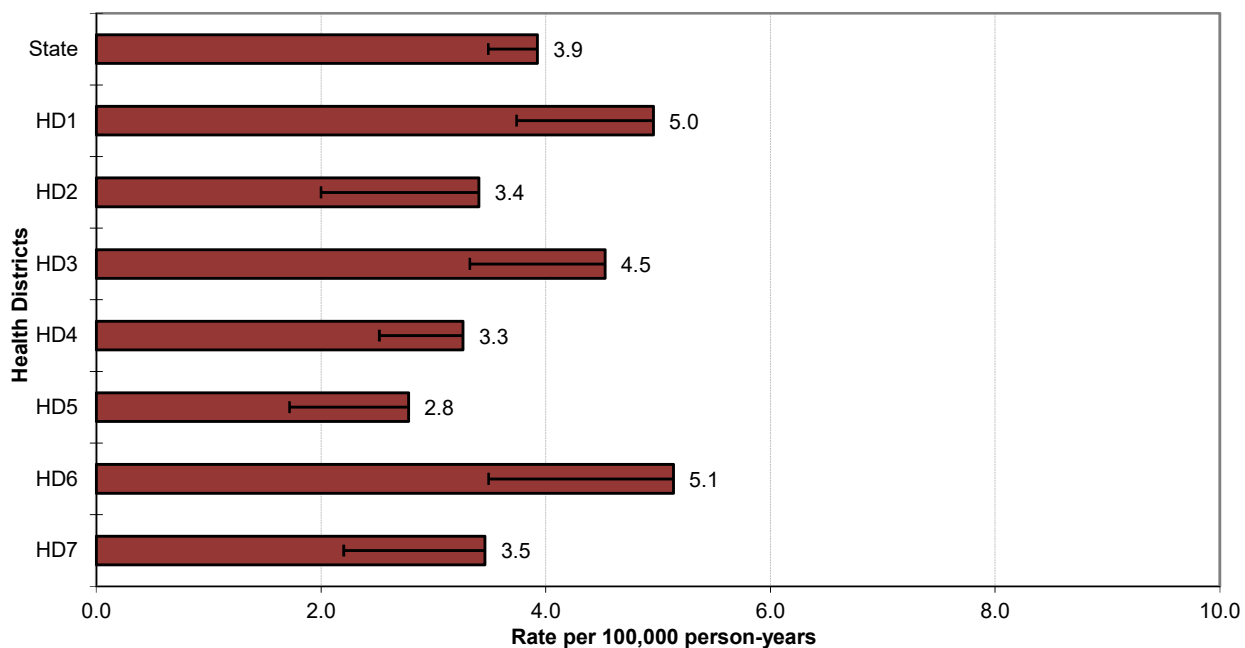
Mean age-adjusted incidence rate across health districts:	3.9
95% confidence interval on the mean age-adjusted incidence rate:	3.2–4.6
Median age-adjusted incidence rate of health districts:	3.5
Range of age-adjusted incidence rate for health districts:	2.8–5.1
USCS rate (2018, all races):	6.2

There were few cases of stomach cancer among persons aged less than 50 years. The age-specific incidence rates of stomach cancer increased with age, peaking in the 85+ age group for males and females. No health district had statistically significantly more, or fewer, cases of stomach cancer than expected based upon rates for the remainder of Idaho. (See Section V for data.)

State Stomach Cancer Incidence Age-specific Rates 2015–2019



Stomach Cancer Incidence Age-adjusted Rates by Health District



TESTIS

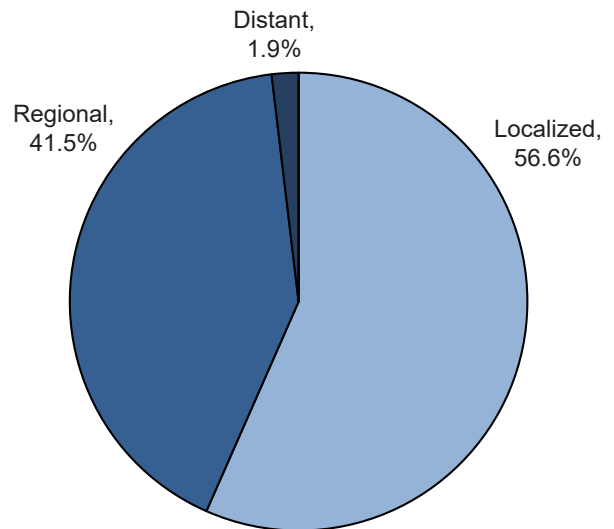
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	-	6.1	-
# of new invasive cases	-	53	-
# of new in situ cases	-	0	-
# of deaths	-	1	-

Total Cases by County

Ada	17	Cassia	1	Lewis	-
Adams	-	Clark	-	Lincoln	-
Bannock	3	Clearwater	-	Madison	3
Bear Lake	-	Custer	-	Minidoka	-
Benewah	-	Elmore	-	Nez Perce	1
Bingham	1	Franklin	-	Oneida	-
Blaine	1	Fremont	1	Owyhee	-
Boise	-	Gem	-	Payette	-
Bonner	-	Gooding	-	Power	-
Bonneville	3	Idaho	1	Shoshone	-
Boundary	1	Jefferson	-	Teton	-
Butte	-	Jerome	2	Twin Falls	5
Camas	-	Kootenai	3	Valley	-
Canyon	7	Latah	2	Washington	-
Caribou	1	Lemhi	-		

Stage at Diagnosis - Testis



Factors Associated with Cancer Incidence

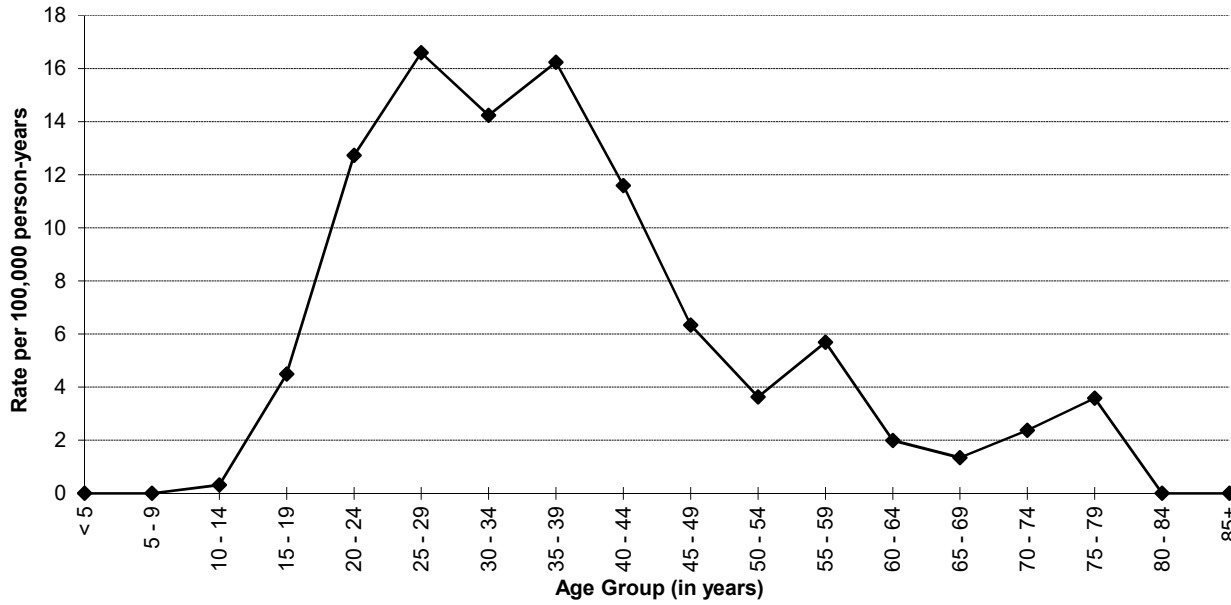
Age	Testicular cancer is the most common cancer in young males, especially males between the ages of 20 and 34.
Race/Ethnicity	Incidence rates are higher in non-Hispanic Whites, Hispanics, and American Indian/Alaska Natives and lower in Asian and Pacific Islanders and Blacks.
Other	Undescended testis, a minor abnormality that can usually be detected and corrected with surgery in childhood, is responsible for a substantially higher risk for testicular cancer when uncorrected. With current treatment, long term survival rates for testicular cancer are about 95%.

Data Summary

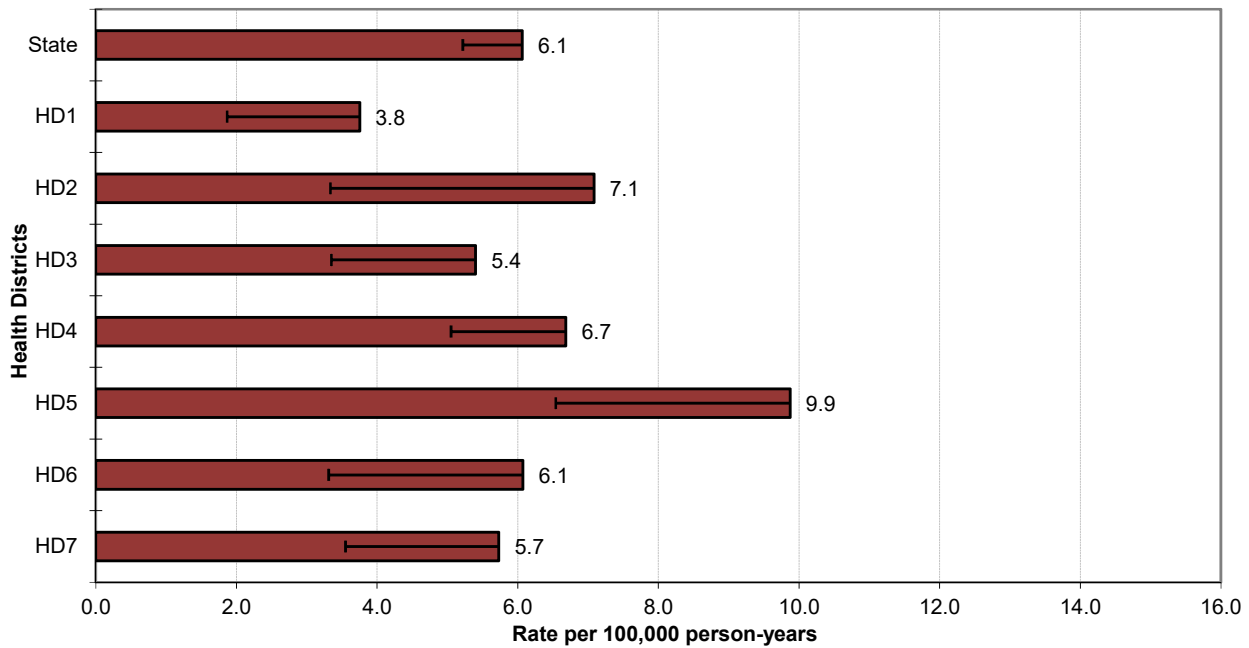
Mean age-adjusted incidence rate across health districts:	6.4
95% confidence interval on the mean age-adjusted incidence rate:	5.0–7.8
Median age-adjusted incidence rate of health districts:	6.1
Range of age-adjusted incidence rate for health districts:	3.8–9.9
USCS rate (2018, all races):	5.7

The highest age-specific incidence rates were in the 20–44 age range. No health district had statistically significantly more, or fewer, cases than expected based upon rates for the remainder of Idaho. (See Section V for data.)

**State Testis Cancer Incidence
Age-specific Rates 2015–2019**



**Testis Cancer Incidence
Age-adjusted Rates by Health District**



THYROID

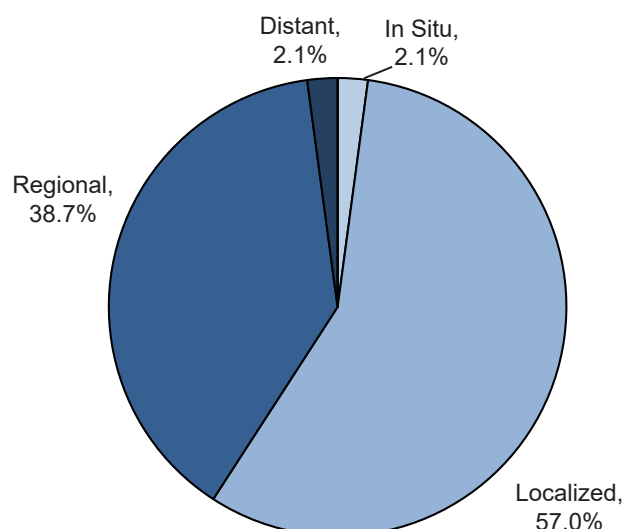
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	12.7	7.1	18.5
# of new invasive cases	230	64	166
# of new in situ cases	5	3	2
# of deaths	12	6	6

Total Cases by County

Ada	59	Cassia	2	Lewis	-
Adams	-	Clark	-	Lincoln	-
Bannock	7	Clearwater	1	Madison	5
Bear Lake	1	Custer	2	Minidoka	3
Benewah	-	Elmore	10	Nez Perce	6
Bingham	14	Franklin	1	Oneida	1
Blaine	5	Fremont	-	Owyhee	2
Boise	1	Gem	2	Payette	4
Bonner	7	Gooding	1	Power	2
Bonneville	22	Idaho	1	Shoshone	2
Boundary	3	Jefferson	6	Teton	-
Butte	-	Jerome	3	Twin Falls	11
Camas	1	Kootenai	18	Valley	-
Canyon	26	Latah	4	Washington	-
Caribou	-	Lemhi	2		

Stage at Diagnosis - Thyroid



Factors Associated with Cancer Incidence

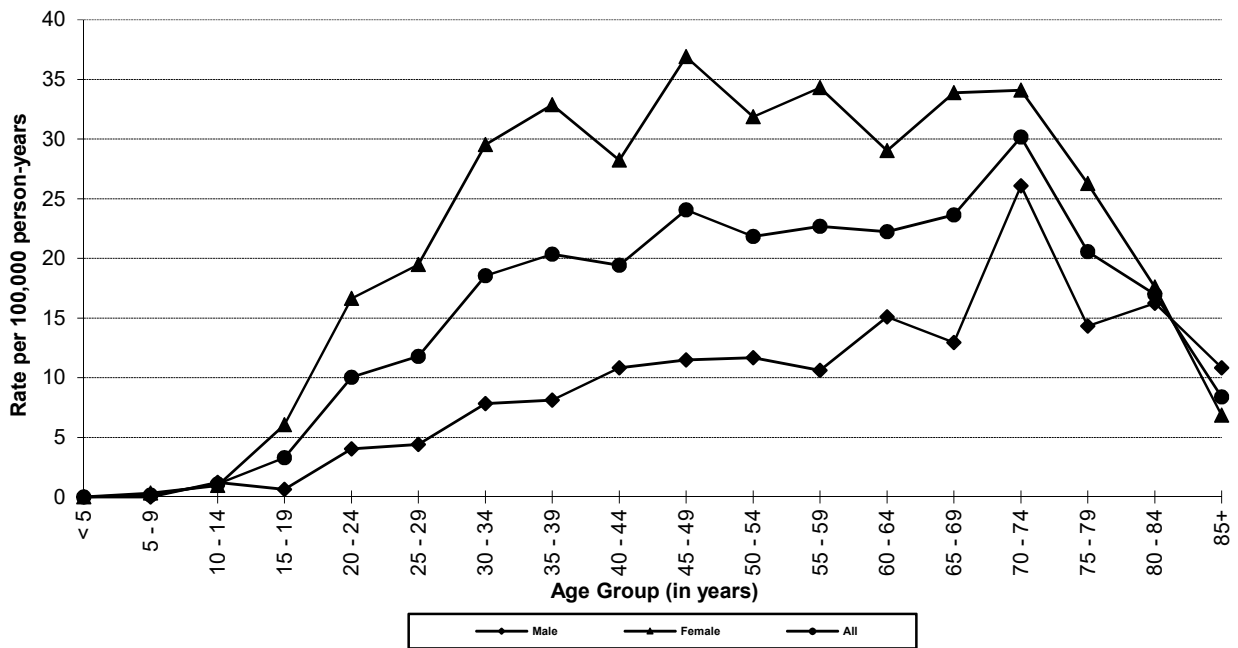
Age	Thyroid cancer is one of the most common malignancies affecting adolescents and adults up to 50 years of age.
Sex	Incidence rates are nearly three times higher among females than males.
Race/Ethnicity	Incidence rates are higher among non-Hispanic Whites, Asian and Pacific Islanders, and Hispanics and lower among American Indian/Alaska Natives and Blacks.
Other	Occupational and environmental exposures to ionizing radiation have been associated with higher rates of thyroid cancer. Radiation exposure to the head and neck in childhood is a well-known risk factor. About 2 out of 10 medullary thyroid carcinomas result from inheriting an abnormal gene. Thyroid cancer prognosis worsens with each decade of age over 50, partially because anaplastic thyroid cancer, which has a higher fatality rate, occurs more often among older patients. In the U.S., thyroid cancer incidence rates have tripled in the past 30 years. Some clinicians believe that use of imaging technologies such as ultrasound, CT, and MRI scanning is fueling an epidemic in diagnosis of thyroid cancers that are unlikely to progress to cause symptoms or death, while others argue that the trend is in part real and involves both small and large tumors.

Data Summary

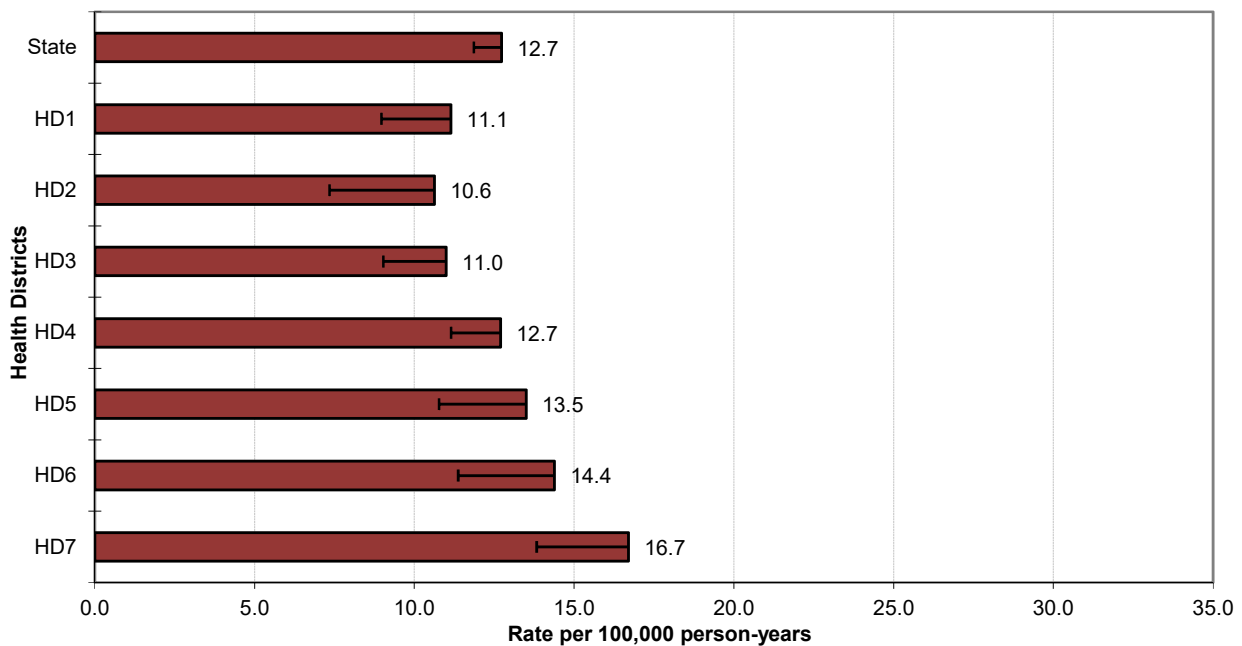
Mean age-adjusted incidence rate across health districts:	12.9
95% confidence interval on the mean age-adjusted incidence rate:	11.2–14.5
Median age-adjusted incidence rate of health districts:	12.7
Range of age-adjusted incidence rate for health districts:	10.6–16.7
USCS rate (2018, all races):	13.2

The age-specific incidence rates of thyroid cancer were typically higher for females than males. No health district had statistically significantly more, or fewer, cases than expected based upon rates for the remainder of Idaho. (See Section V for data.)

State Thyroid Cancer Incidence Age-specific Rates 2015–2019



Thyroid Cancer Incidence Age-adjusted Rates by Health District



SECTION II

INCIDENCE DATA BY SITE AND GENDER – STATE OF IDAHO, 2019

Idaho Resident Cancer Cases – 2019

Primary Site of Cancer	Invasive			In situ		
	Total	Male	Female	Total	Male	Female
All Sites	9,180	4,790	4,390	1,220	607	613
Oral Cavity and Pharynx	260	186	74	9	6	3
Lip	14	10	4	4	2	2
Tongue	97	71	26	2	1	1
Salivary Gland	28	17	11	-	-	-
Floor of Mouth	11	8	3	1	1	-
Gum and Other Mouth	33	19	14	2	2	-
Nasopharynx	5	3	2	-	-	-
Tonsil	37	30	7	-	-	-
Oropharynx	20	18	2	-	-	-
Hypopharynx	13	9	4	-	-	-
Other Oral Cavity and Pharynx	2	1	1	-	-	-
Digestive System	1,519	854	665	17	8	9
Esophagus	101	84	17	1	1	-
Stomach	84	55	29	-	-	-
Small Intestine	49	31	18	-	-	-
Colon and Rectum	712	378	334	8	3	5
Colon excluding Rectum	480	242	238	7	3	4
Cecum	112	53	59	1	1	-
Appendix	31	7	24	1	1	-
Ascending Colon	91	45	46	2	1	1
Hepatic Flexure	20	8	12	1	-	1
Transverse Colon	43	23	20	-	-	-
Splenic Flexure	13	7	6	-	-	-
Descending Colon	30	18	12	1	-	1
Sigmoid Colon	114	72	42	1	-	1
Large Intestine, NOS	26	9	17	-	-	-
Rectum and Rectosigmoid Junction	232	136	96	1	-	1
Rectosigmoid Junction	34	23	11	-	-	-
Rectum	198	113	85	1	-	1
Anus, Anal Canal and Anorectum	41	5	36	3	1	2
Liver and Intrahepatic Bile Duct	158	106	52	-	-	-
Liver	125	88	37	-	-	-
Intrahepatic Bile Duct	33	18	15	-	-	-
Gallbladder	13	7	6	-	-	-
Other Biliary	26	15	11	-	-	-
Pancreas	287	155	132	5	3	2
Retroperitoneum	9	5	4	-	-	-
Peritoneum, Omentum and Mesentery	21	1	20	-	-	-
Other Digestive Organs	18	12	6	-	-	-
Respiratory System	1,045	516	529	5	1	4
Nose, Nasal Cavity and Middle Ear	13	7	6	-	-	-
Larynx	46	36	10	1	1	-
Lung and Bronchus	981	469	512	4	-	4
Pleura	-	-	-	-	-	-
Trachea, Mediastinum and Other Respiratory Organs	5	4	1	-	-	-
Skin excluding Basal and Squamous	641	372	269	695	401	294
Melanoma of the Skin	610	352	258	695	401	294
Other Non-Epithelial Skin	31	20	11	-	-	-
Breast	1,381	14	1,367	261	1	260

Idaho Resident Cancer Cases – 2019 (continued)

Primary Site of Cancer	Invasive			In situ		
	Total	Male	Female	Total	Male	Female
Female Genital System	505	-	505	7	-	7
Cervix Uteri	70	-	70	-	-	-
Corpus and Uterus, NOS	289	-	289	1	-	1
Corpus Uteri	277	-	277	1	-	1
Uterus, NOS	12	-	12	-	-	-
Ovary	108	-	108	1	-	1
Vagina	5	-	5	-	-	-
Vulva	26	-	26	4	-	4
Other Female Genital Organs	7	-	7	1	-	1
Male Genital System	1,462	1,462	-	2	2	-
Prostate	1,402	1,402	-	-	-	-
Testis	53	53	-	-	-	-
Penis	6	6	-	1	1	-
Other Male Genital Organs	1	1	-	1	1	-
Urinary System	688	479	209	219	185	34
Urinary Bladder	251	199	52	203	173	30
Kidney and Renal Pelvis	414	261	153	10	9	1
Ureter	7	5	2	4	1	3
Other Urinary Organs	16	14	2	2	2	-
Brain and Other Nervous System	141	86	55	-	-	-
Brain	138	83	55	-	-	-
Cranial Nerves Other Nervous System	3	3	-	-	-	-
Endocrine System	246	68	178	5	3	2
Thyroid	230	64	166	5	3	2
Other Endocrine including Thymus	16	4	12	-	-	-
Lymphoma	443	250	193	-	-	-
Hodgkin Lymphoma	49	25	24	-	-	-
Non-Hodgkin Lymphoma	394	225	169	-	-	-
Myeloma	129	79	50	-	-	-
Leukemia	327	195	132	-	-	-
Lymphocytic Leukemia	170	109	61	-	-	-
Acute Lymphocytic Leukemia	32	22	10	-	-	-
Chronic Lymphocytic Leukemia	130	81	49	-	-	-
Other Lymphocytic Leukemia	8	6	2	-	-	-
Myeloid and Monocytic Leukemia	138	80	58	-	-	-
Acute Myeloid Leukemia	81	46	35	-	-	-
Acute Monocytic Leukemia	3	3	-	-	-	-
Chronic Myeloid Leukemia	53	31	22	-	-	-
Other Myeloid/Monocytic Leukemia	1	-	1	-	-	-
Other Leukemia	19	6	13	-	-	-
Other Acute Leukemia	8	3	5	-	-	-
Aleukemic, Subleukemic and NOS	11	3	8	-	-	-
Other or Unknown Sites	393	229	164	-	-	-
Bones and Joints	10	5	5	-	-	-
Soft Tissue including Heart	62	34	28	-	-	-
Eye and Orbit	10	7	3	-	-	-
Mesothelioma	17	11	6	-	-	-
Kaposi Sarcoma	1	-	1	-	-	-
Miscellaneous	293	172	121	-	-	-

SECTION III

MORTALITY RATES BY SITE AND GENDER – STATE OF IDAHO, 2019

Idaho Resident Cancer Mortality Rates – 2019

Cause of Death	Total			Male			Female		
	Rate	Deaths	Pop	Rate	Deaths	Pop	Rate	Deaths	Pop
All Causes of Death	716.8	14,430	1,787,065	811.2	7,537	895,928	628.6	6,893	891,137
All Malignant Cancers	138.3	2,928	1,787,065	161.8	1,595	895,928	119.1	1,333	891,137
Bladder	5.3	108	1,787,065	9.7	86	895,928	1.9	22	891,137
Brain and Other Nervous System	5.6	117	1,787,065	6.9	71	895,928	4.4	46	891,137
Breast	10.0	206	1,787,065	0.3	4	895,928	18.5	202	891,137
Cervix	-	-	1,787,065	-	-	895,928	1.8	18	891,137
Colorectal	12.3	252	1,787,065	14.6	141	895,928	10.2	111	891,137
Corpus Uteri	-	-	1,787,065	-	-	895,928	2.5	30	891,137
Esophagus	4.1	89	1,787,065	7.4	78	895,928	1.1	11	891,137
Hodgkin Lymphoma	0.3	5	1,787,065	0.2	2	895,928	0.3	3	891,137
Kidney	3.0	65	1,787,065	3.3	35	895,928	2.7	30	891,137
Larynx	0.7	14	1,787,065	1.3	13	895,928	0.1	1	891,137
Leukemia	6.2	126	1,787,065	8.2	78	895,928	4.5	48	891,137
Liver and Bile Duct	5.1	118	1,787,065	6.8	74	895,928	3.6	44	891,137
Lung and Bronchus	26.3	572	1,787,065	29.5	303	895,928	23.6	269	891,137
Melanoma of the Skin	2.9	59	1,787,065	4.0	37	895,928	2.2	22	891,137
Myeloma	2.7	56	1,787,065	3.4	32	895,928	2.2	24	891,137
Non-Hodgkin Lymphoma	5.0	105	1,787,065	5.5	54	895,928	4.6	51	891,137
Oral Cavity and Pharynx	2.5	55	1,787,065	3.6	37	895,928	1.6	18	891,137
Ovary	-	-	1,787,065	-	-	895,928	5.8	65	891,137
Pancreas	10.2	225	1,787,065	11.0	114	895,928	9.5	111	891,137
Prostate	-	-	1,787,065	19.6	182	895,928	-	-	891,137
Stomach	1.7	35	1,787,065	2.2	22	895,928	1.2	13	891,137
Testis	-	-	1,787,065	0.1	1	895,928	-	-	891,137
Thyroid	0.5	12	1,787,065	0.6	6	895,928	0.5	6	891,137

Data source: Bureau of Vital Records and Health Statistics (BVRHS), Idaho Department of Health and Welfare, 2020.¹⁹

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

Cause of death categories are based on SEER cause of death recodes (<https://seer.cancer.gov/codrecodes/>), which differ from official BVRHS cancer mortality categories. Death counts may differ from official BVRHS statistics due to late filings.

SECTION IV

2015–2019 AGE SPECIFIC INCIDENCE RATES PER 100,000 POPULATION BY SITE AND GENDER

IDAHO **AGE-SPECIFIC CANCER RATES, PER 100,000 POPULATION, BY SITE AND GENDER** **2015-2019**

Age (years)	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85 +	
All Cancers																		
All	22.5	12.5	13.2	23.2	42.4	56.1	94.2	152.1	221.3	334.0	511.2	789.7	1109.7	1592.0	1989.5	2351.1	2517.4	2349.3
Male	22.8	13.1	14.1	20.6	38.9	49.1	70.2	106.9	141.9	247.5	442.7	821.3	1243.8	1837.8	2356.4	2874.7	3055.1	3061.5
Female	22.2	11.9	12.2	25.9	46.2	63.4	118.9	198.3	303.0	422.5	578.9	759.3	982.4	1356.0	1637.9	1871.3	2059.8	1898.8
Bladder																		
All	0.2	0.0	0.0	0.0	0.2	0.5	2.0	2.7	4.6	10.6	26.2	41.6	79.4	112.9	163.7	172.4	205.5	
Male	0.3	0.0	0.0	0.0	0.3	0.7	2.1	4.6	6.3	15.7	38.7	65.5	125.1	189.7	283.2	311.6	414.9	
Female	0.0	0.0	0.0	0.0	0.0	0.4	1.8	0.8	2.8	5.6	14.2	18.9	35.6	39.2	54.2	54.0	73.0	
Brain																		
All	2.4	3.3	1.6	1.8	2.6	2.9	4.7	5.0	6.1	5.8	7.2	11.4	17.2	16.6	18.9	25.3	27.2	21.0
Male	1.4	3.2	1.2	2.3	3.0	3.4	6.4	6.7	8.1	7.1	7.3	12.1	23.4	23.2	24.3	35.8	36.9	21.7
Female	3.5	3.3	1.9	1.3	2.2	2.5	2.9	3.3	4.0	4.5	7.2	10.6	11.3	10.3	13.6	15.6	18.9	20.5
Brain & Other Central Nervous System (Non-Malignant)																		
All	0.9	1.6	2.7	2.3	3.7	3.6	5.4	9.8	10.8	15.2	19.4	21.4	22.4	44.6	48.5	57.0	57.7	84.6
Male	1.0	2.6	3.7	1.6	2.7	2.7	5.7	6.4	6.6	10.3	14.5	12.9	13.5	26.8	36.2	31.4	35.4	63.1
Female	0.7	0.7	1.6	3.0	4.8	4.6	5.1	13.4	15.1	20.3	24.3	29.6	30.9	61.8	60.2	80.5	76.7	98.1
Breast																		
Female Invasive	0.0	0.0	0.0	0.3	1.9	9.6	24.1	59.6	133.2	172.3	222.7	263.8	330.2	446.0	512.4	491.8	498.9	359.4
Female In Situ	0.0	0.0	0.0	0.0	0.4	0.4	1.5	5.1	31.0	42.6	50.2	52.9	57.3	90.9	88.1	67.3	46.5	18.3
Cervix																		
Female	0.0	0.0	0.0	0.0	1.1	4.6	10.9	16.6	14.3	15.8	12.8	11.7	10.2	10.3	7.4	4.1	7.5	3.4
Colorectal																		
All	0.0	0.0	0.5	2.0	1.4	2.1	4.7	10.9	22.0	29.1	55.9	61.0	83.4	108.1	123.3	178.7	213.9	241.2
Male	0.0	0.0	0.6	1.3	0.7	1.7	5.7	11.7	20.5	33.3	61.2	75.9	100.9	119.7	145.9	190.0	246.6	265.2
Female	0.0	0.0	0.3	2.7	2.2	2.5	3.7	10.1	23.5	24.7	50.6	46.7	66.7	96.9	101.7	168.3	186.0	225.9
Corpus Uteri																		
Female	0.0	0.0	0.0	0.0	0.4	5.1	10.8	15.5	24.7	43.0	71.2	92.0	100.8	96.0	80.5	64.1	57.1	
Esophagus																		
All	0.0	0.0	0.0	0.0	0.4	0.0	0.4	1.4	1.0	6.2	9.3	15.1	18.2	23.2	30.4	29.2	32.9	
Male	0.0	0.0	0.0	0.0	0.7	0.0	0.7	2.3	2.0	9.7	15.6	25.0	32.2	39.1	56.5	54.6	66.8	
Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	2.8	3.3	5.7	4.7	8.0	6.6	7.5	11.4	

IDAHO **AGE-SPECIFIC CANCER RATES, PER 100,000 POPULATION, BY SITE AND GENDER** **2015-2019**

Age (years)		5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85 +
Hodgkin Lymphoma																		
All	0.0	0.7	0.9	2.8	4.6	2.3	3.1	3.2	1.8	2.4	1.2	2.4	3.5	2.6	3.2	6.0	3.4	0.7
Male	0.0	1.0	0.3	2.3	4.0	2.7	3.9	4.2	2.7	2.0	2.0	2.7	3.2	5.4	4.2	6.3	1.5	0.0
Female	0.0	0.3	1.6	3.4	5.2	1.8	2.2	2.2	0.8	2.8	0.4	2.2	3.8	0.0	2.3	5.8	5.0	1.1
Kidney & Renal Pelvis																		
All	2.6	0.3	0.0	0.0	0.4	0.7	3.6	6.8	8.2	19.1	22.0	35.3	42.2	62.8	70.8	90.0	103.2	71.3
Male	2.1	0.3	0.0	0.0	0.0	1.0	4.3	8.5	10.1	27.8	32.2	48.6	62.0	79.9	96.1	106.6	140.3	101.0
Female	3.2	0.3	0.0	0.0	0.7	0.4	2.9	5.1	6.4	10.1	12.0	22.6	23.4	46.3	46.6	74.7	71.6	52.5
Larynx																		
All	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.4	0.8	1.4	5.4	8.3	6.3	11.9	8.6	14.9	9.1
Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.8	2.4	6.8	14.3	11.2	19.6	15.2	28.1	16.2
Female	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.4	0.8	0.4	4.0	2.6	1.7	4.5	2.5	3.8	4.6
Leukemia																		
All	9.0	3.7	3.4	2.0	2.8	2.1	3.2	5.2	4.7	12.2	12.6	22.7	26.5	42.4	70.8	93.4	122.2	113.2
Male	10.2	4.5	4.9	1.0	3.4	2.7	5.0	6.7	5.0	12.7	14.5	30.7	33.0	53.2	91.3	116.5	159.5	157.0
Female	7.8	3.0	1.9	3.0	2.2	1.4	1.5	3.6	4.4	11.8	10.8	15.0	20.4	32.2	51.1	72.3	90.5	85.6
Liver & Bile Duct																		
All	0.7	0.0	0.3	0.0	0.2	0.2	0.5	0.9	2.0	2.8	7.8	18.6	28.8	36.1	35.1	39.9	36.0	30.1
Male	0.7	0.0	0.6	0.0	0.0	0.0	0.4	0.4	2.7	4.4	10.5	30.4	48.1	51.8	52.2	55.6	53.2	43.3
Female	0.7	0.0	0.0	0.0	0.4	0.4	0.7	1.5	1.2	1.2	5.2	7.3	10.6	21.0	18.8	25.5	21.4	21.7
Lung & Bronchus																		
All	0.0	0.0	0.0	0.2	0.4	0.7	0.5	0.9	3.5	12.0	31.1	61.2	111.0	174.8	288.7	368.5	411.4	325.0
Male	0.0	0.0	0.0	0.0	0.3	0.0	0.7	0.4	4.3	10.3	25.0	61.1	114.4	185.8	314.9	397.0	447.4	411.3
Female	0.0	0.0	0.0	0.3	0.4	1.4	0.4	1.5	2.8	13.8	37.1	61.3	107.8	164.3	263.6	342.4	380.8	270.4
Melanoma of the Skin																		
All	0.2	0.3	0.2	1.0	3.5	7.1	13.3	20.0	23.9	31.3	37.9	50.2	64.0	86.0	105.9	129.0	147.3	140.5
Male	0.3	0.0	0.0	1.0	2.7	5.1	8.9	15.5	19.3	32.5	39.9	62.6	79.0	112.6	137.0	190.9	225.9	239.9
Female	0.0	0.7	0.3	1.0	4.4	9.2	17.9	24.6	28.6	30.0	35.9	38.3	49.8	60.5	76.1	72.3	80.4	77.6
Myeloma																		
All	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9	1.4	3.6	5.0	8.9	14.7	25.4	40.0	42.0	57.0	49.6
Male	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	1.2	4.4	6.9	9.9	20.3	28.6	54.6	59.1	73.8	68.6
Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.6	2.8	3.2	8.0	9.4	22.3	26.1	26.3	42.7	37.7

IDAHO **AGE-SPECIFIC CANCER RATES, PER 100,000 POPULATION, BY SITE AND GENDER** **2015–2019**

Age (years)	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 74	75 - 79	80 - 84	85 +
Non-Hodgkin Lymphoma																	
All	1.7	1.1	1.6	2.5	2.6	2.9	6.4	8.6	13.0	19.8	33.3	42.9	61.0	83.9	113.6	117.5	111.1
Male	2.4	1.6	2.1	3.0	3.1	3.2	8.5	11.6	12.7	20.5	36.8	53.2	69.2	103.2	147.0	129.9	135.3
Female	1.1	0.7	1.0	1.9	2.1	2.6	4.3	5.6	13.4	19.1	29.9	33.2	53.2	65.3	82.9	106.8	95.9
Oral Cavity & Pharynx																	
All	0.0	0.0	0.3	0.2	0.9	2.3	2.7	5.3	9.8	19.6	31.4	38.9	51.2	51.9	54.0	49.6	48.2
Male	0.0	0.0	0.3	0.3	1.4	1.8	2.5	6.2	12.7	31.0	46.3	62.7	77.7	75.3	84.2	78.3	77.6
Female	0.0	0.0	0.3	0.4	0.4	2.9	2.9	4.4	6.9	8.4	17.2	16.2	25.7	29.5	26.3	25.1	29.7
Ovary																	
Female	0.4	0.0	0.3	1.9	2.8	2.2	2.5	5.6	14.2	18.7	22.6	29.0	35.2	38.1	41.1	40.2	42.2
Pancreas																	
All	0.0	0.0	0.0	0.2	0.2	1.1	1.3	2.7	6.4	10.4	20.8	34.0	40.7	74.0	92.1	101.8	109.0
Male	0.0	0.0	0.0	0.3	0.0	0.7	0.7	3.5	7.5	12.9	25.0	41.3	46.5	92.5	112.0	116.7	119.1
Female	0.0	0.0	0.0	0.0	0.4	1.5	1.8	2.0	5.3	8.0	16.8	27.1	35.2	56.2	73.9	89.2	102.7
Prostate																	
Male	0.0	0.0	0.0	0.0	0.0	0.0	0.4	4.6	30.1	96.7	232.9	387.6	669.5	695.5	710.6	539.0	433.0
Stomach																	
All	0.0	0.0	0.0	0.2	0.2	0.9	1.4	1.6	2.2	5.4	10.4	10.6	14.7	20.9	25.3	34.6	43.3
Male	0.0	0.0	0.0	0.3	0.3	0.4	1.4	1.9	2.4	6.0	16.3	15.1	21.0	29.7	39.4	51.7	61.3
Female	0.0	0.0	0.0	0.0	0.0	1.5	1.5	1.2	2.0	4.8	4.7	6.4	8.6	12.5	12.3	20.1	32.0
Testis																	
Male	0.0	0.0	0.3	4.5	12.7	14.3	16.2	11.6	6.3	3.6	5.7	2.0	1.3	2.4	3.6	0.0	0.0
Thyroid																	
All	0.0	0.2	1.1	3.3	10.0	18.6	20.4	19.4	24.1	21.8	22.7	22.2	23.6	30.2	20.6	17.0	8.4
Male	0.0	0.0	1.2	0.6	4.0	7.8	8.1	10.8	11.5	11.7	10.6	15.1	13.0	26.1	14.3	16.2	10.8
Female	0.0	0.3	1.0	6.1	16.6	29.5	32.9	28.2	36.9	31.9	34.3	29.0	33.9	34.1	26.3	17.6	6.9

SECTION V

2019 OBSERVED VS. EXPECTED NUMBERS BY HEALTH DISTRICT

2019 OBSERVED VERSUS EXPECTED NUMBERS BY HEALTH DISTRICT

MALES AND FEMALES

	HD 1		HD 2		HD 3		HD 4		HD 5		HD 6		HD 7	
	OBS	EXP	OBS	EXP	OBS	EXP	OBS	EXP	OBS	EXP	OBS	EXP	OBS	EXP
All Sites	1,659	1,555.7 *	640	670.5	1,595	1,499.3 +	2,772	2,675.5	1,021	1,041.4	744	889.5 *	952	1,013.0
Bladder	82	78.1	26	35.2	75	72.8	136	122.9	49	51.4	39	42.6	47	47.6
Brain	22	21.9	6	9.7	23	22.2	35	43.0	16	15.2	15	12.9	21	15.0
Brain & CNS non-Malignant	46	53.9	19	23.1	56	51.9	104	91.1	34	36.3	26	31.0	40	35.1
Breast	220	230.5	83	96.7	237	220.5	457	382.0 *	145	152.6	111	130.4	128	150.2
Breast (in situ)	37	44.0	11	18.1	47	41.3	91	71.8 +	23	29.0	22	24.4	30	27.6
Cervix	14	9.6	1	4.5	17	10.3	17	23.9	6	7.9	12	6.1 +	3	8.7
Colorectal	139	115.0 +	52	50.8	123	113.4	179	215.9 +	83	78.9	57	67.3	79	75.7
Corpus Uteri	50	45.0	18	19.2	48	44.0	76	84.1	26	30.9	20	26.4	39	28.7
Esophagus	12	18.3	12	6.9	10	17.4	29	28.7	19	10.3 +	9	9.5	10	10.8
Hodgkin lymphoma	1	7.8 *	2	3.3	11	7.4	21	12.4 +	8	5.0	3	4.9	3	6.6
Kidney & renal pelvis	75	67.7	26	29.2	79	64.8	122	118.7	40	46.5	34	39.2	38	45.3
Larynx	9	7.6	3	3.3	7	7.5	10	14.4	7	4.9	5	4.2	5	4.9
Leukemia	57	53.3	23	23.4	55	52.7	88	95.4	37	36.8	32	30.8	35	35.8
Liver & bile duct	29	26.5	11	11.3	29	24.8	40	47.9	12	18.1	18	14.4	19	16.6
Lung & bronchus	198	165.2 +	94	71.0 +	183	153.5 +	264	281.1	109	109.3	63	94.0 *	70	106.6 *
Melanoma of skin	65	107.4 *	28	43.5 +	104	97.7	210	164.6 *	87	65.1 +	42	58.7 +	74	65.1
Myeloma	18	22.8	4	9.8	30	19.0 +	44	34.2	9	15.0	11	12.1	13	13.7
N-H Lymphoma	62	65.7	28	27.9	66	63.2	112	113.8	46	43.6	34	37.3	46	42.7
Oral cavity & pharynx	45	43.4	11	18.7	48	40.7	88	70.8	27	28.9	16	25.1	25	28.1
Ovary	13	19.1	4	7.8	27	15.4 *	34	30.8	14	11.6	10	10.1	6	12.4
Pancreas	63	46.5 +	20	21.2	42	47.1	73	84.6	31	32.0	24	27.0	34	29.9
Prostate	299	231.6 *	123	99.4 +	205	229.5	417	392.7	131	156.6 +	96	133.6 *	131	149.1
Stomach	18	13.6	6	6.1	15	13.3	20	25.3	7	9.7	10	7.6	8	9.0
Testis	4	7.5	4	3.4	7	9.0	17	16.0	9	5.4	5	5.2	7	7.1
Thyroid	29	35.1	12	14.8	33	38.4	70	70.5	26	25.0	24	21.4	36	25.6
Pediatric (age 0-19)	5	10.1	3	4.2	16	13.9	28	19.4	9	9.8	10	8.6	9	12.5

Notes:

+ Statistically significant difference at p<.05.

* Statistically significant difference at p<.01.

Observed and expected numbers exclude in situ cases, basal/squamous skin cases, and cases with unknown age or sex.

2019 OBSERVED VERSUS EXPECTED NUMBERS BY HEALTH DISTRICT

MALES

	HD 1		HD 2		HD 3		HD 4		HD 5		HD 6		HD 7	
	OBS	EXP	OBS	EXP	OBS	EXP	OBS	EXP	OBS	EXP	OBS	EXP	OBS	EXP
All Sites	924	828.4 *	353	366.6	802	797.8	1,424	1,392.7	543	550.9	397	471.0 *	520	538.4
Bladder	65	65.3	19	29.9+	65	59.1	106	99.6	44	41.5	34	34.8	39	39.5
Brain	11	13.6	4	6.0	13	13.4	23	24.8	10	9.1	9	7.8	13	9.1
Brain & CNS non-Malignant	12	17.8	5	7.6	22	15.9	38	27.3	9	12.0	7	10.1	12	11.7
Breast	2	2.4	1	1.1	2	2.3	5	3.5	2	1.6	2	1.3	0	1.7
Breast (in situ)	0	0.2	0	0.1	0	0.2	1	0.0 *	0	0.1	0	0.1	0	0.1
Colorectal	80	59.8+	25	27.4	68	59.4	82	118.5*	48	41.3	26	36.2	49	40.1
Esophagus	11	15.2	10	5.9	9	14.3	23	23.7	18	8.3*	7	8.0	6	9.4
Hodgkin lymphoma	1	4.2	2	1.6	5	3.8	10	6.9	3	2.7	2	2.4	2	3.0
Kidney & renal pelvis	46	42.8	19	18.5	48	40.9	80	73.2	26	29.2	23	24.6	19	29.8+
Larynx	5	6.5	3	2.6	7	5.5	8	11.0	4	4.0	5	3.2	4	3.9
Leukemia	36	31.5	16	14.1	31	31.9	52	55.8	22	21.9	16	18.7	22	21.5
Liver & bile duct	20	17.7	7	7.7	22	16.1	23	33.1	7	12.2	14	9.5	13	11.2
Lung & bronchus	98	79.5+	41	35.2	88	73.1	110	137.5+	60	51.1	36	44.5	36	51.3+
Melanoma of skin	37	63.6*	14	26.4+	54	57.3	126	90.1*	46	38.2	28	33.4	47	37.0
Myeloma	12	13.8	3	6.1	16	12.1	28	20.3	6	9.1	8	7.3	6	8.8
N-H Lymphoma	36	37.2	16	16.2	31	37.3	66	63.5	30	24.5	19	21.4	27	24.9
Oral cavity & pharynx	33	30.9	9	13.5	36	28.8	62	50.5	16	21.2	12	17.9	18	20.4
Pancreas	38	24.4+	10	11.8	21	25.7	39	45.1	15	17.5	15	14.4	17	16.6
Prostate	299	232.6*	123	102.1+	205	228.4	417	385.2	131	156.7+	96	134.4*	131	151.5
Stomach	12	9.1	3	4.3	9	8.9	14	15.6	2	6.6	8	4.8	7	5.7
Testis	4	7.4	4	3.5	7	8.8	17	16.2	9	5.4	5	5.1	7	7.2
Thyroid	6	10.6	4	4.1	7	11.1	18	20.0	9	6.8	6	5.9	14	6.3+
Pediatric (age 0-19)	2	5.5	2	2.1	8	7.4	16	9.7	4	5.3	4	4.7	6	6.3

Notes:

+ Statistically significant difference at p<.05.

* Statistically significant difference at p<.01.

Observed and expected numbers exclude in situ cases, basal/squamous skin cases, and cases with unknown age or sex.

2019 OBSERVED VERSUS EXPECTED NUMBERS BY HEALTH DISTRICT

FEMALES

	HD 1		HD 2		HD 3		HD 4		HD 5		HD 6		HD 7	
	OBS	EXP	OBS	EXP	OBS	EXP	OBS	EXP	OBS	EXP	OBS	EXP	OBS	EXP
All Sites	735	730.6	287	306.2	793	702.4 *	1,348	1,272.4 +	478	489.9	347	419.4 *	432	476.0 +
Bladder	17	13.6	7	5.9	10	13.9	30	20.9	5	9.7	5	7.9	8	8.6
Brain	11	8.3	2	3.8	10	8.7	12	18.2	6	6.2	6	5.1	8	5.9
Brain & CNS non-Malignant	34	36.0	14	15.3	34	36.1	66	64.2	25	24.3	19	20.8	28	23.3
Breast	218	228.2	82	93.5	235	219.6	452	382.5 *	143	150.6	109	129.0	128	146.4
Breast (in situ)	37	44.1	11	17.7	47	41.4	90	72.3 +	23	28.8	22	24.3	30	27.1
Cervix	14	9.7	1	4.4	17	10.5	17	23.8	6	7.8	12	6.1 +	3	8.5
Colorectal	59	55.0	27	23.4	55	53.8	97	97.0	35	37.7	31	31.2	30	35.9
Corpus Uteri	50	45.2	18	18.8	48	44.3	76	84.8	26	30.8	20	26.4	39	28.2
Esophagus	1	3.3	2	1.1	1	3.1	6	4.6	1	2.0	2	1.5	4	1.5
Hodgkin lymphoma	0	3.6	0	1.7	6	3.6	11	5.5	5	2.4	1	2.5	1	3.7
Kidney & renal pelvis	29	24.9	7	10.9	31	23.7	42	45.1	14	17.4	11	14.6	19	15.8
Larynx	4	1.2	0	0.8	0	1.9	2	3.3	3	0.9	0	1.0	1	1.1
Leukemia	21	22.0	7	9.4	24	21.0	36	39.1	15	14.8	16	12.0	13	14.5
Liver & bile duct	9	8.7	4	3.7	7	8.7	17	14.4	5	5.9	4	4.9	6	5.6
Lung & bronchus	100	85.8	53	35.9 *	95	80.4	154	143.4	49	58.2	27	49.6 *	34	55.3 *
Melanoma of skin	28	44.2 +	14	17.3	50	40.5	84	73.6	41	26.9 +	14	25.3 +	27	28.2
Myeloma	6	9.0	1	3.8	14	6.9 +	16	13.8	3	5.9	3	4.8	7	5.0
N-H Lymphoma	26	28.4	12	11.8	35	25.9	46	50.1	16	19.2	15	15.9	19	17.9
Oral cavity & pharynx	12	12.5	2	5.4	12	11.9	26	19.8	11	7.8	4	7.2	7	7.9
Ovary	13	19.1	4	7.6	27	15.5 +	34	31.1	14	11.6	10	10.1	6	12.2
Pancreas	25	22.1	10	9.5	21	21.3	34	39.4	16	14.6	9	12.6	17	13.4
Stomach	6	4.6	3	2.0	6	4.4	6	9.4	5	3.1	2	2.8	1	3.3
Thyroid	23	24.7	8	10.6	26	27.6	52	50.2	17	18.1	18	15.5	22	19.1
Pediatric (age 0-19)	3	4.7	1	2.1	8	6.4	12	9.6	5	4.5	6	3.9	3	6.3

Notes:

+ Statistically significant difference at p<.05.

* Statistically significant difference at p<.01.

Observed and expected numbers exclude in situ cases, basal/squamous skin cases, and cases with unknown age or sex.

SECTION VI

RISKS OF BEING DIAGNOSED AND DYING FROM CANCER

Risks of Being Diagnosed with and Dying from Cancer

All Sites, Invasive in Females

If your current age is:	Then your risk of <u>being diagnosed with cancer</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 63	1 in 20	1 in 9	1 in 5	1 in 3	1 in 2
40		1 in 28	1 in 10	1 in 5	1 in 3	1 in 2
50			1 in 15	1 in 6	1 in 3	1 in 2
60				1 in 8	1 in 4	1 in 2
70					1 in 5	1 in 3
80						1 in 4

If your current age is:	Then your risk of <u>dying from cancer</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 660	1 in 156	1 in 50	1 in 20	1 in 10	1 in 6
40		1 in 202	1 in 54	1 in 21	1 in 10	1 in 6
50			1 in 72	1 in 23	1 in 10	1 in 6
60				1 in 32	1 in 12	1 in 6
70					1 in 17	1 in 6
80						1 in 8

All Sites, Invasive in Males

If your current age is:	Then your risk of <u>being diagnosed with cancer</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 115	1 in 36	1 in 12	1 in 5	1 in 3	1 in 2
40		1 in 50	1 in 13	1 in 5	1 in 3	1 in 2
50			1 in 16	1 in 5	1 in 3	1 in 2
60				1 in 7	1 in 3	1 in 2
70					1 in 4	1 in 2
80						1 in 3

If your current age is:	Then your risk of <u>dying from cancer</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 791	1 in 199	1 in 53	1 in 18	1 in 9	1 in 5
40		1 in 261	1 in 56	1 in 18	1 in 8	1 in 5
50			1 in 69	1 in 19	1 in 9	1 in 5
60				1 in 25	1 in 9	1 in 5
70					1 in 12	1 in 5
80						1 in 6

Risks of Being Diagnosed with and Dying from Cancer

Female Breast Cancer

If your current age is:	Then your risk of <u>being diagnosed with breast cancer</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 226	1 in 53	1 in 24	1 in 13	1 in 9	1 in 7
40		1 in 68	1 in 26	1 in 14	1 in 9	1 in 7
50			1 in 42	1 in 17	1 in 10	1 in 8
60				1 in 27	1 in 13	1 in 9
70					1 in 21	1 in 13
80						1 in 23

If your current age is:	Then your risk of <u>dying from breast cancer</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 1980	1 in 579	1 in 217	1 in 105	1 in 60	1 in 36
40		1 in 811	1 in 241	1 in 110	1 in 61	1 in 36
50			1 in 337	1 in 125	1 in 65	1 in 37
60				1 in 189	1 in 77	1 in 40
70					1 in 118	1 in 46
80						1 in 59

Prostate Cancer

If your current age is:	Then your risk of <u>being diagnosed with prostate cancer</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 22826	1 in 477	1 in 56	1 in 16	1 in 9	1 in 8
40		1 in 479	1 in 55	1 in 16	1 in 9	1 in 7
50			1 in 61	1 in 16	1 in 9	1 in 7
60				1 in 20	1 in 10	1 in 8
70					1 in 15	1 in 10
80						1 in 20

If your current age is:	Then your risk of <u>dying from prostate cancer</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in *	1 in 59229	1 in 1861	1 in 327	1 in 97	1 in 34
40		1 in 58195	1 in 1828	1 in 322	1 in 96	1 in 33
50			1 in 1834	1 in 314	1 in 93	1 in 32
60				1 in 355	1 in 92	1 in 31
70					1 in 107	1 in 29
80						1 in 28

Note: * Risk is not precise - estimate not shown.

Risks of Being Diagnosed with and Dying from Cancer

Colon/Rectal Cancer in Females

If your current age is:	Then your risk of <u>being diagnosed with colorectal cancer</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 1320	1 in 319	1 in 130	1 in 68	1 in 41	1 in 27
40		1 in 417	1 in 143	1 in 71	1 in 42	1 in 27
50			1 in 213	1 in 84	1 in 45	1 in 28
60				1 in 132	1 in 55	1 in 31
70					1 in 85	1 in 37
80						1 in 51

If your current age is:	Then your risk of <u>dying from colorectal cancer</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 8593	1 in 1544	1 in 520	1 in 249	1 in 131	1 in 63
40		1 in 1864	1 in 548	1 in 254	1 in 132	1 in 63
50			1 in 761	1 in 289	1 in 139	1 in 64
60				1 in 446	1 in 163	1 in 67
70					1 in 235	1 in 72
80						1 in 80

Colon/Rectal Cancer in Males

If your current age is:	Then your risk of <u>being diagnosed with colorectal cancer</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 1148	1 in 284	1 in 104	1 in 54	1 in 34	1 in 24
40		1 in 370	1 in 112	1 in 55	1 in 34	1 in 24
50			1 in 155	1 in 63	1 in 37	1 in 25
60				1 in 99	1 in 45	1 in 28
70					1 in 70	1 in 34
80						1 in 46

If your current age is:	Then your risk of <u>dying from colorectal cancer</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 4216	1 in 979	1 in 369	1 in 168	1 in 98	1 in 58
40		1 in 1253	1 in 397	1 in 172	1 in 98	1 in 58
50			1 in 564	1 in 194	1 in 104	1 in 59
60				1 in 276	1 in 119	1 in 61
70					1 in 182	1 in 68
80						1 in 78

Risks of Being Diagnosed with and Dying from Cancer

Melanoma in Females

If your current age is:	Then your risk of <u>being diagnosed with melanoma</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 487	1 in 203	1 in 119	1 in 76	1 in 53	1 in 43
40		1 in 344	1 in 155	1 in 88	1 in 59	1 in 46
50			1 in 276	1 in 116	1 in 70	1 in 52
60				1 in 192	1 in 90	1 in 61
70					1 in 153	1 in 82
80						1 in 135

If your current age is:	Then your risk of <u>dying from melanoma</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 19060	1 in 4814	1 in 1973	1 in 1160	1 in 704	1 in 408
40		1 in 6379	1 in 2180	1 in 1223	1 in 724	1 in 413
50			1 in 3250	1 in 1485	1 in 801	1 in 433
60				1 in 2619	1 in 1018	1 in 478
70					1 in 1519	1 in 534
80						1 in 642

Melanoma in Males

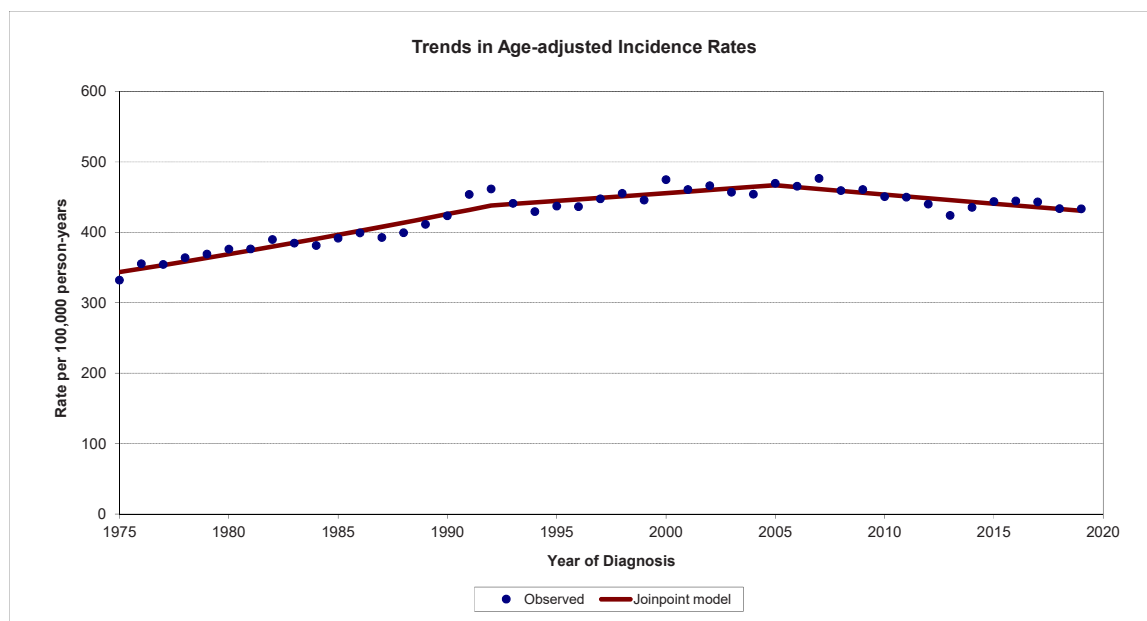
If your current age is:	Then your risk of <u>being diagnosed with melanoma</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 849	1 in 271	1 in 120	1 in 63	1 in 38	1 in 28
40		1 in 391	1 in 137	1 in 66	1 in 39	1 in 28
50			1 in 204	1 in 77	1 in 42	1 in 29
60				1 in 116	1 in 49	1 in 32
70					1 in 74	1 in 38
80						1 in 55

If your current age is:	Then your risk of <u>dying from melanoma</u> by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 9869	1 in 4235	1 in 1584	1 in 652	1 in 374	1 in 216
40		1 in 7290	1 in 1854	1 in 685	1 in 382	1 in 217
50			1 in 2416	1 in 735	1 in 392	1 in 218
60				1 in 990	1 in 438	1 in 224
70					1 in 681	1 in 251
80						1 in 282

SECTION VII

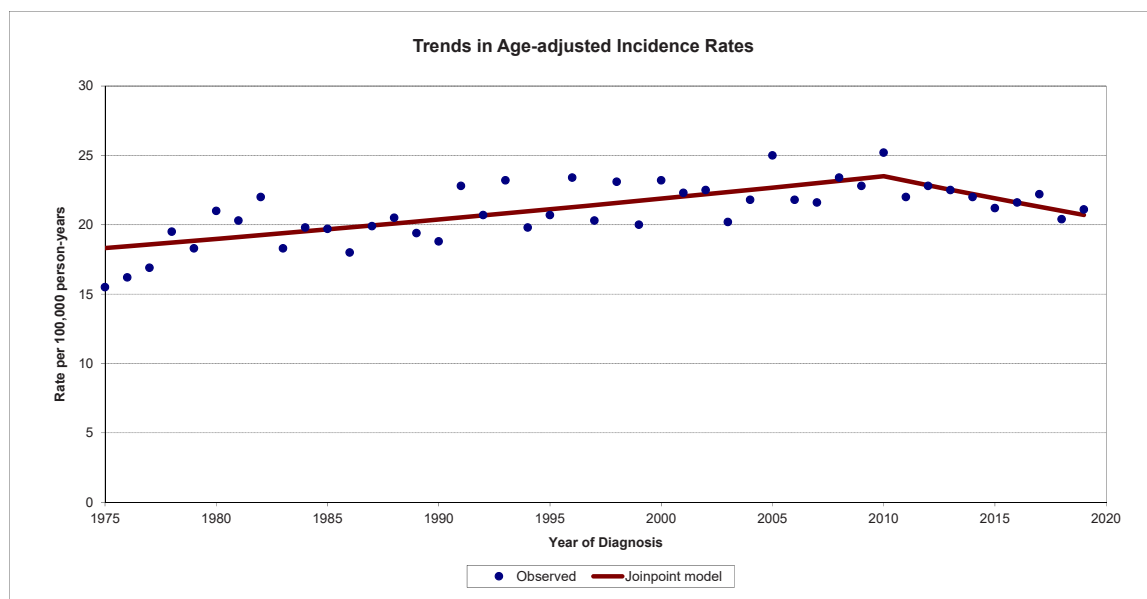
CANCER TRENDS IN IDAHO 1975–2019

All Sites



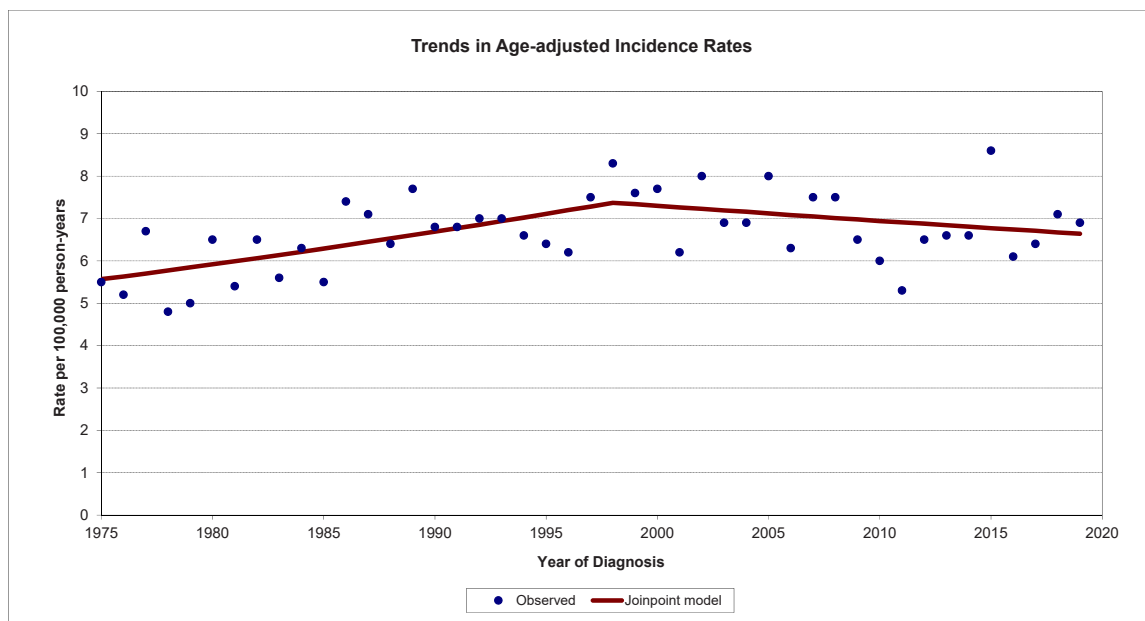
Cancer incidence increased at a rate of about 1.4% per year in Idaho from 1975 to 1992, and at a rate of about 0.5% per year from 1992 to 2005. Since 2005, overall cancer incidence has declined about 0.6% per year. Cancer incidence trends over time were different for males and females. For males, much of the overall trend is due to the trend in prostate cancer incidence. For females, much of the overall trend is due to the trend in breast cancer incidence.

Bladder



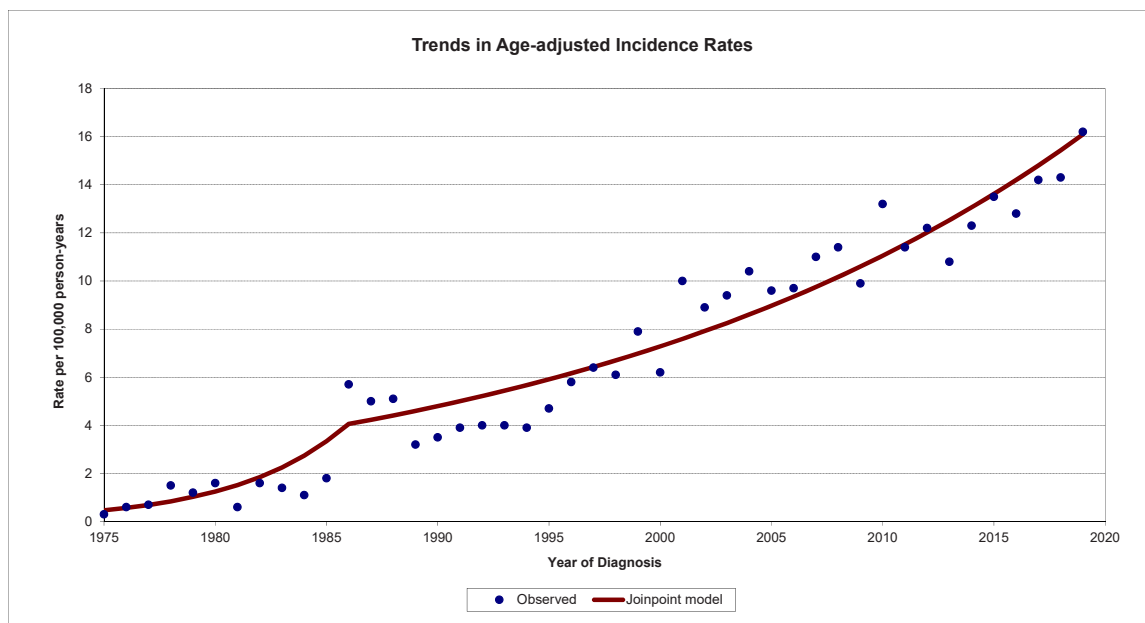
Bladder cancer incidence includes in situ and invasive cases. Bladder cancer incidence increased at a rate of about 0.7% per year in Idaho from 1975 to 2010, then decreased at a rate of about 1.4% per year since 2010. The trends in bladder cancer incidence are driven by males, who have rates of bladder cancer incidence about 4-5 times those of females.

Brain



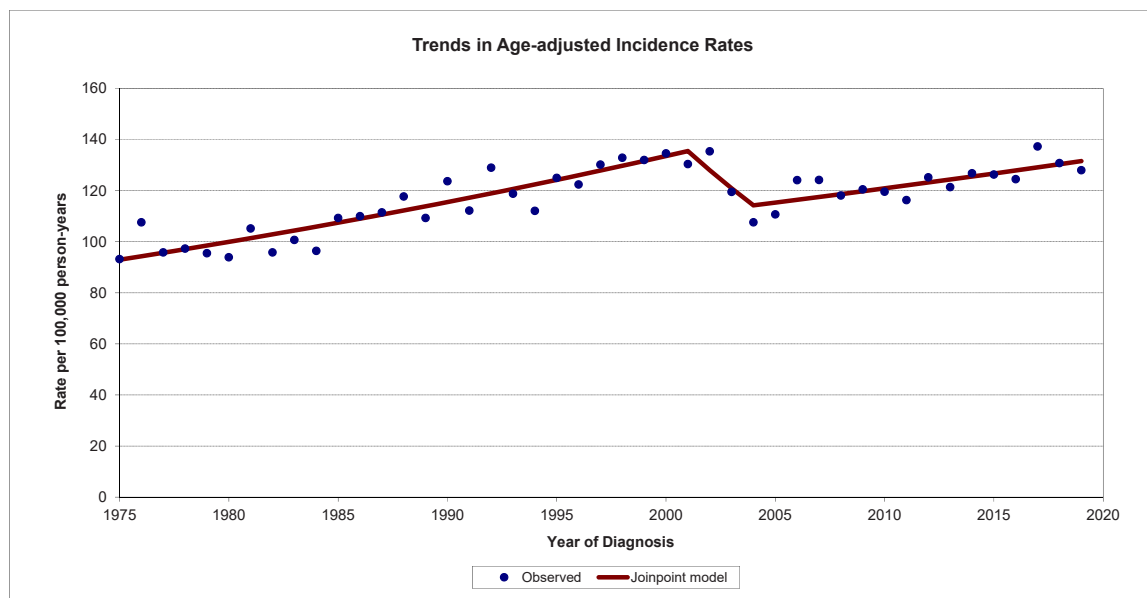
Malignant brain cancer incidence increased at a rate of about 1.2% per year in Idaho from 1975 to 1998, after which the rate has declined about 0.5% per year. Among males, malignant brain cancer incidence rates followed the same pattern. Among females, the rate has been stable 1975 to present.

Brain and Other CNS, Non-Malignant



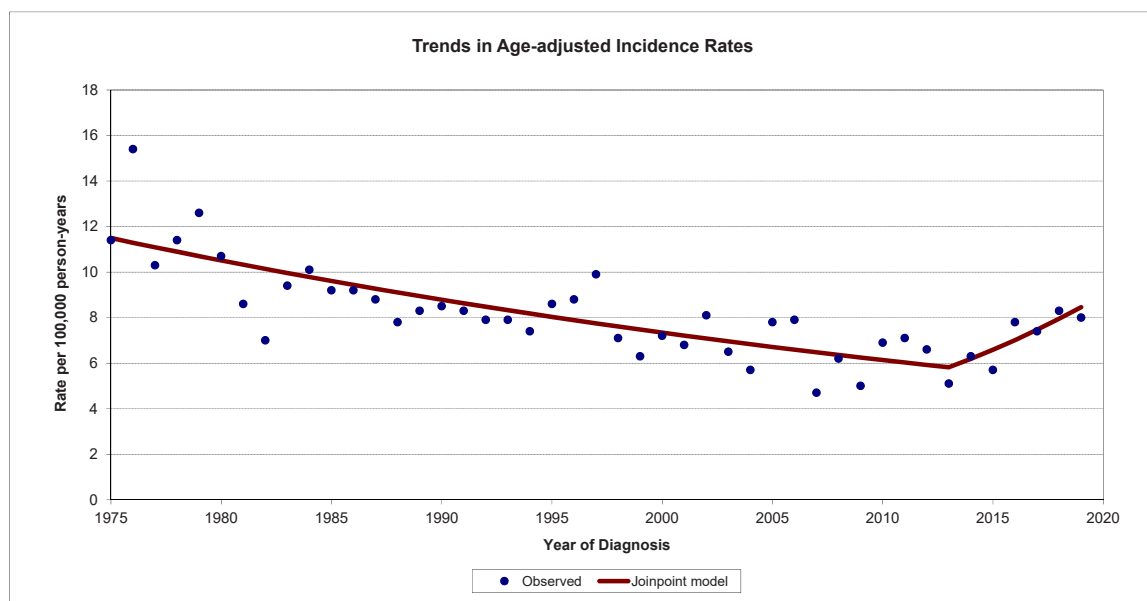
Non-malignant brain and other central nervous system tumors include those with benign and borderline behavior. Non-malignant brain and other CNS tumor incidence increased at a rate of about 21.7% per year in Idaho from 1975 to 1986 (likely due to improved reporting), after which the rate increased by about 4.3% per year.

Breast Female



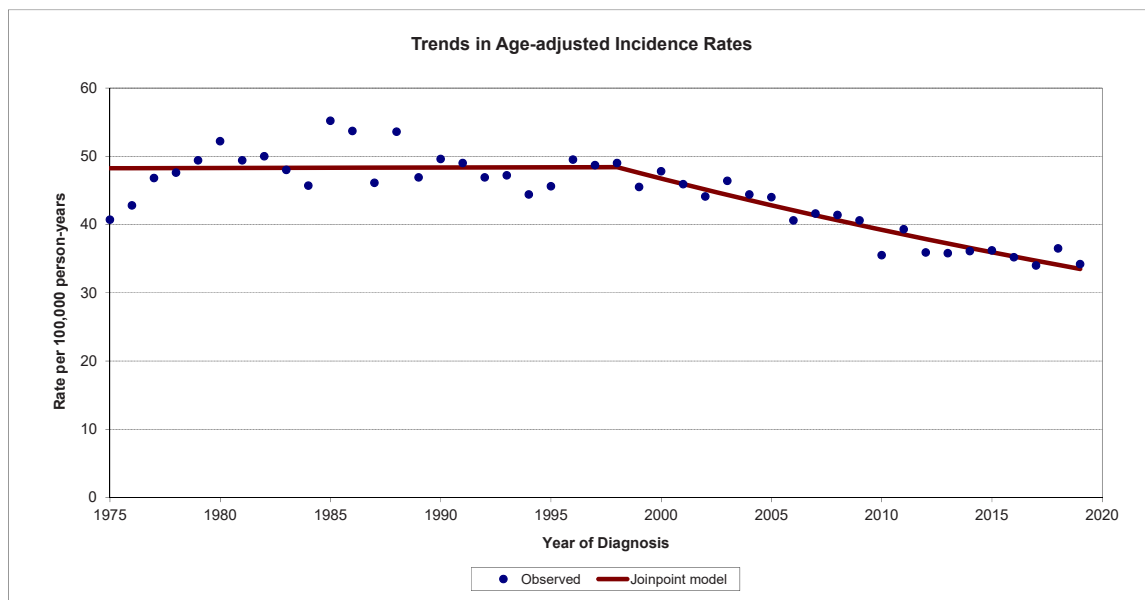
Invasive breast cancer incidence increased at a rate of about 1.5% per year among female Idahoans from 1975 to 2001. From 2001 to 2004, the rate decreased sharply by about 5.5% per year. This decrease may be due in part to a decrease in the use of hormone replacement therapy. Since 2004, the invasive breast cancer incidence rate has increased about 1.0% per year. In situ breast cancer rates increased at a rate of about 9.9% per year from 1975 to 1996, after which the rate has been stable (data not shown).

Cervix



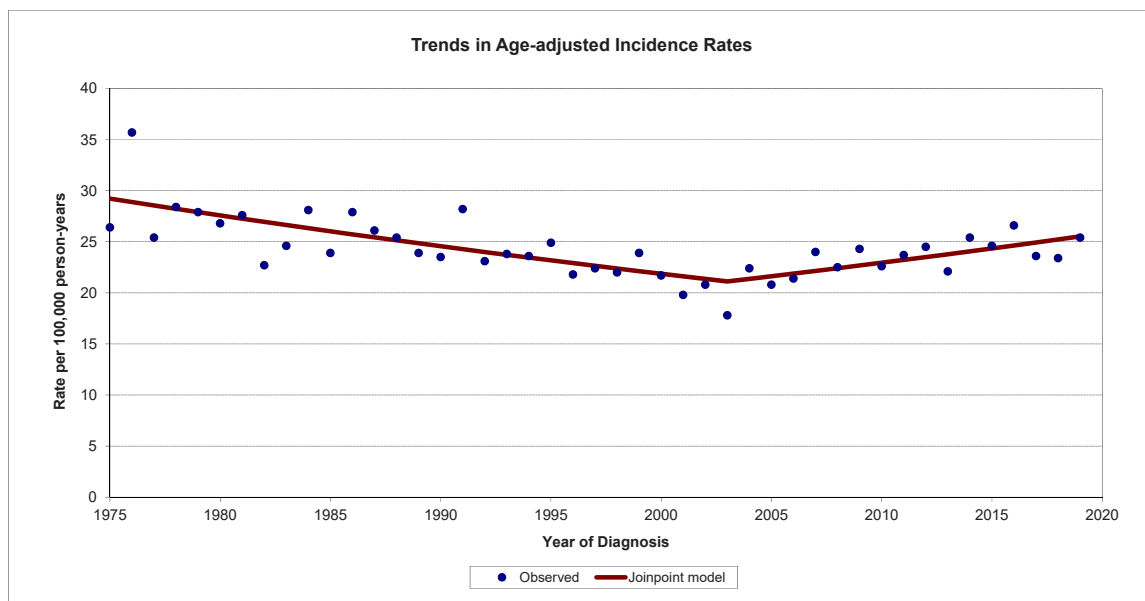
Invasive cervical cancer incidence decreased about 1.8% per year in Idaho from 1975 to 2013 and has increased by about 6.4% per year since 2013. Rates showed year-to-year variability due to the relatively small numbers of cases diagnosed annually.

Colorectal



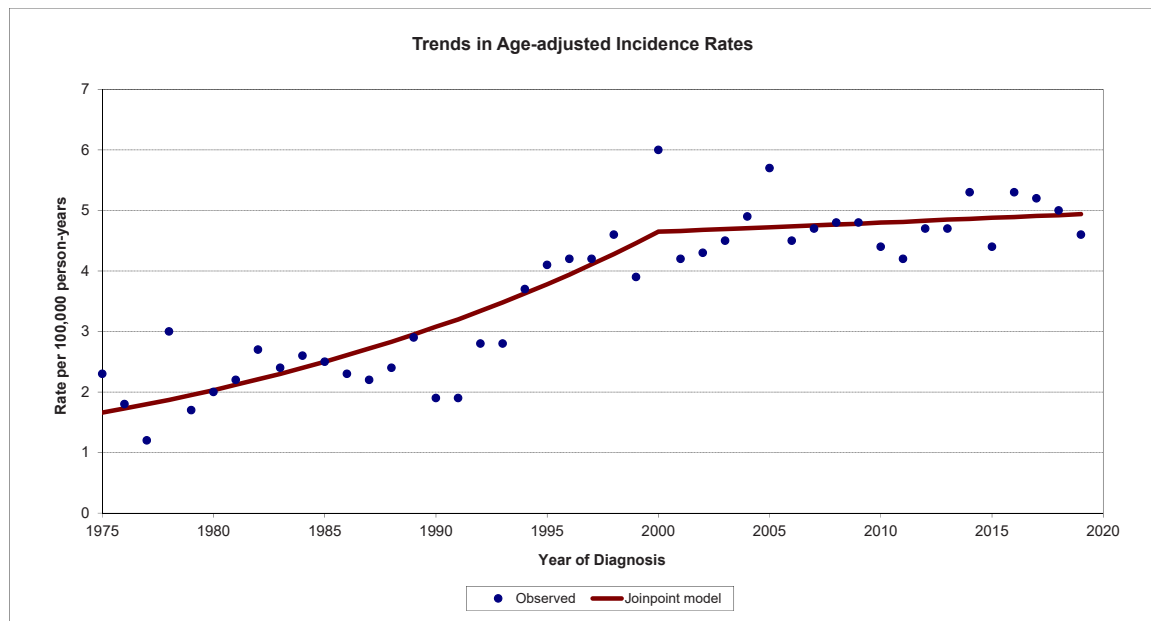
Colorectal cancer incidence rates were stable in Idaho from 1975-1998 and have since decreased about 1.7% per year. Colorectal cancer incidence trends over time were different for males and females. For males, rates increased from 1975 to 1988, then decreased. For females, rates have decreased about 0.9% per year from 1975-2019.

Corpus Uteri



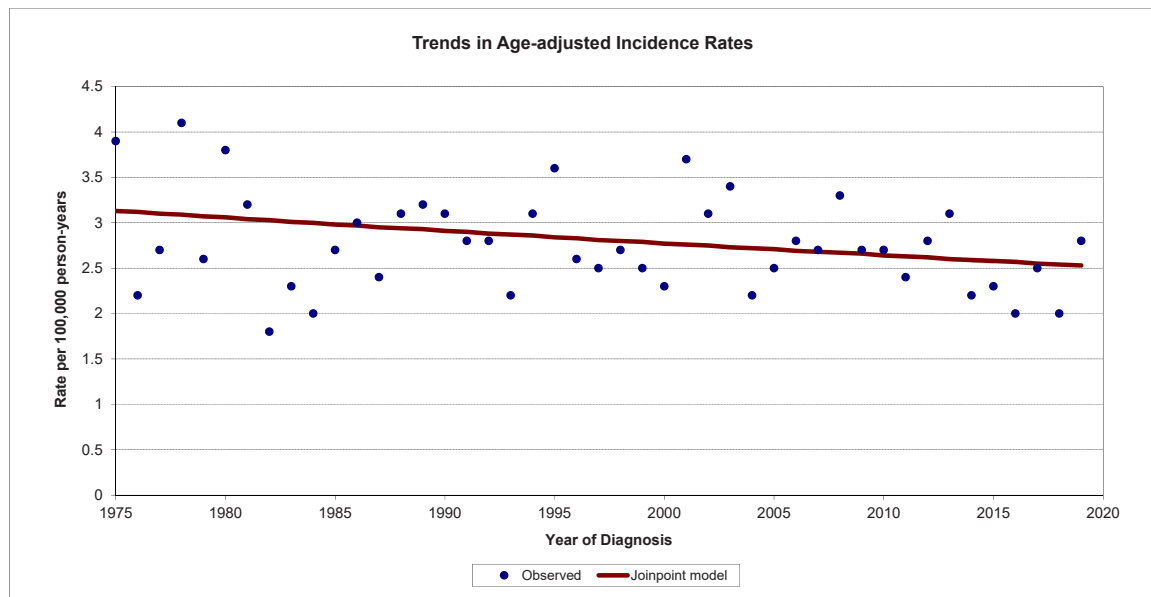
Corpus uteri cancer incidence rates decreased about 1.2% per year in Idaho from 1975 to 2003 and have increased by 1.2% per year since 2003.

Esophagus



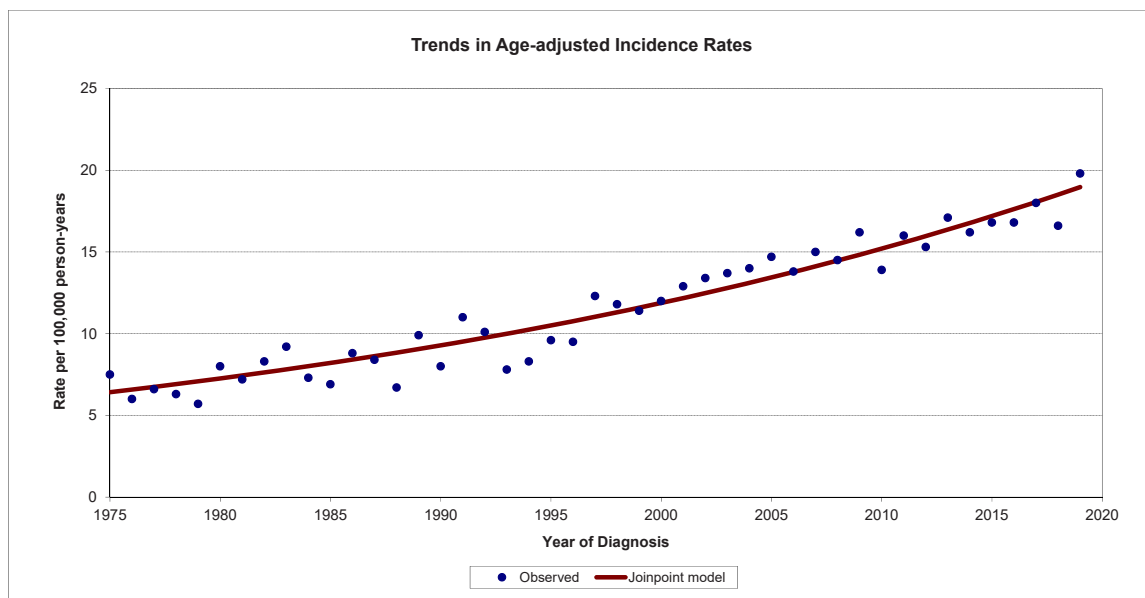
Esophageal cancer incidence increased at a rate of about 4.2% per year in Idaho from 1975 to 2000, after which the incidence rate has been stable. Rates of esophageal cancers among males were about 3-4 times higher than those among females.

Hodgkin Lymphoma



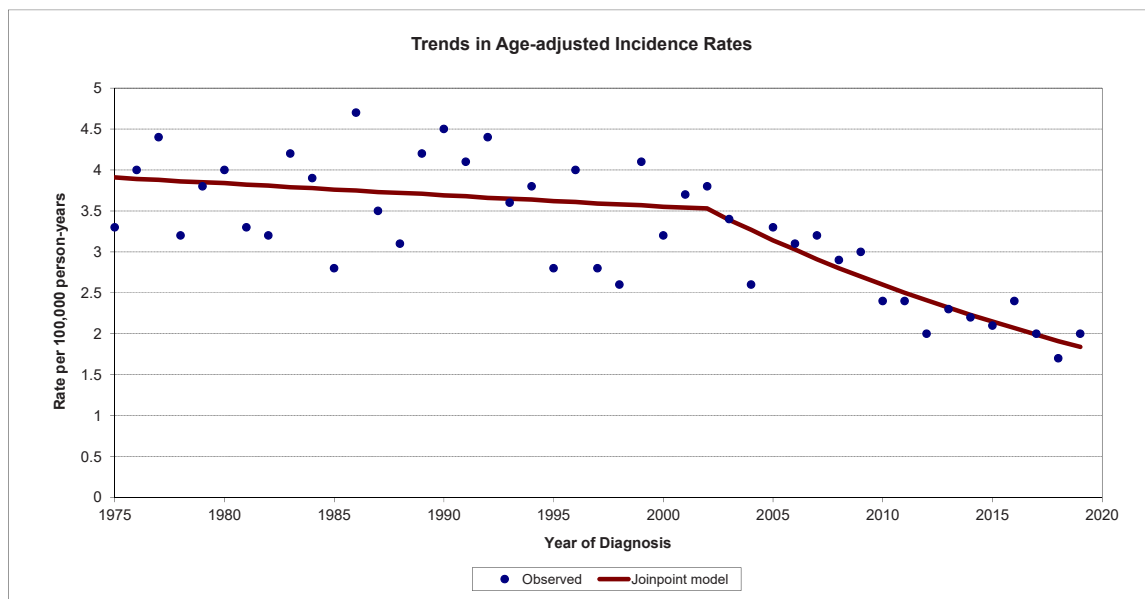
Hodgkin lymphoma incidence has decreased about 0.5% per year in Idaho from 1975 to 2019. Rates showed year-to-year variability due to the relatively small numbers of cases diagnosed annually.

Kidney and Renal Pelvis



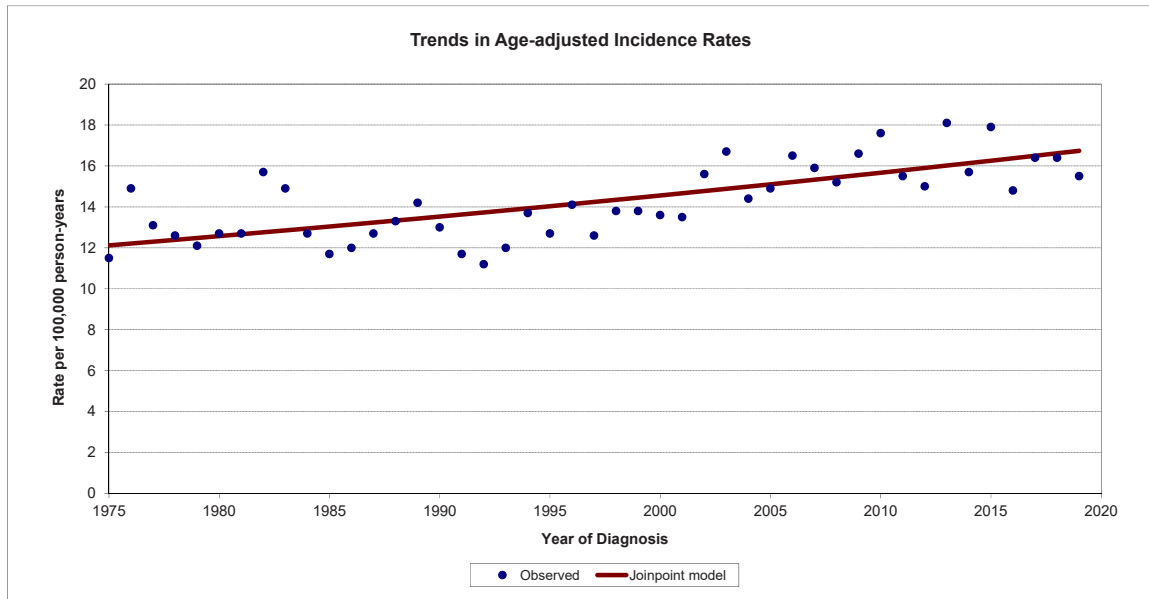
Kidney and renal pelvis cancer incidence increased at a rate of about 2.5% per year in Idaho from 1975 to 2019. The rate of increase was similar for males and females, although rates of kidney and renal pelvis cancers among males were about twice as high as among females.

Larynx



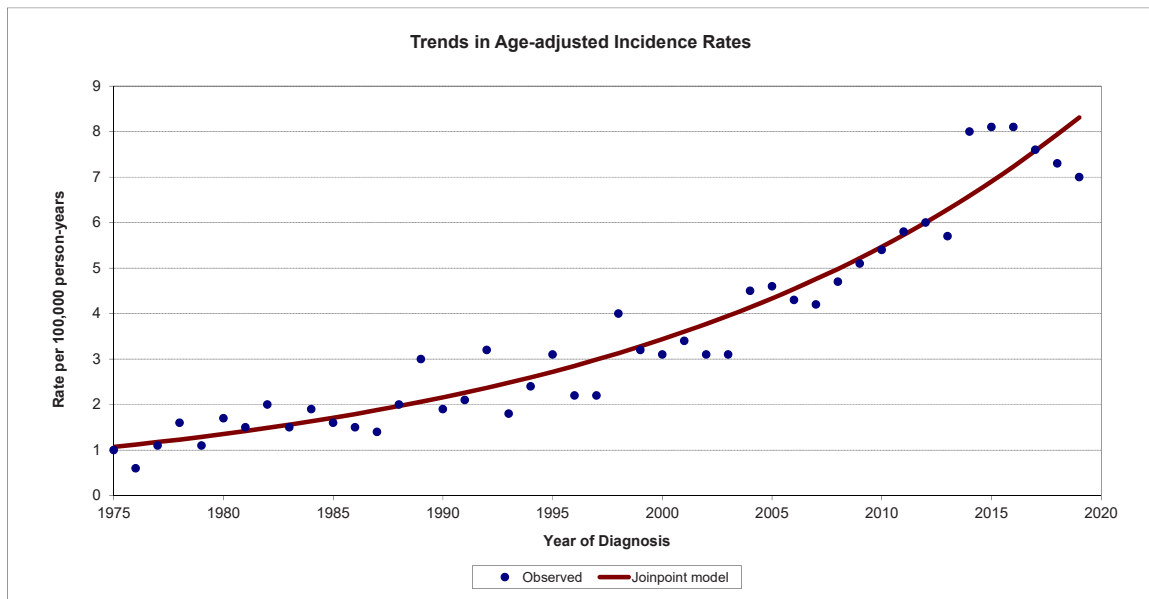
Laryngeal cancer incidence decreased about 0.4% per year in Idaho from 1975 to 2002 and decreased about 3.8% per year since 2002. Rates showed year-to-year variability due to the relatively small numbers of cases diagnosed annually. The temporal pattern was similar for males. Among females, incidence rates of laryngeal cancer decreased about 1.5% per year from 1975 to 2019. Incidence rates of laryngeal cancers among males were about 4 times as high as among females.

Leukemia



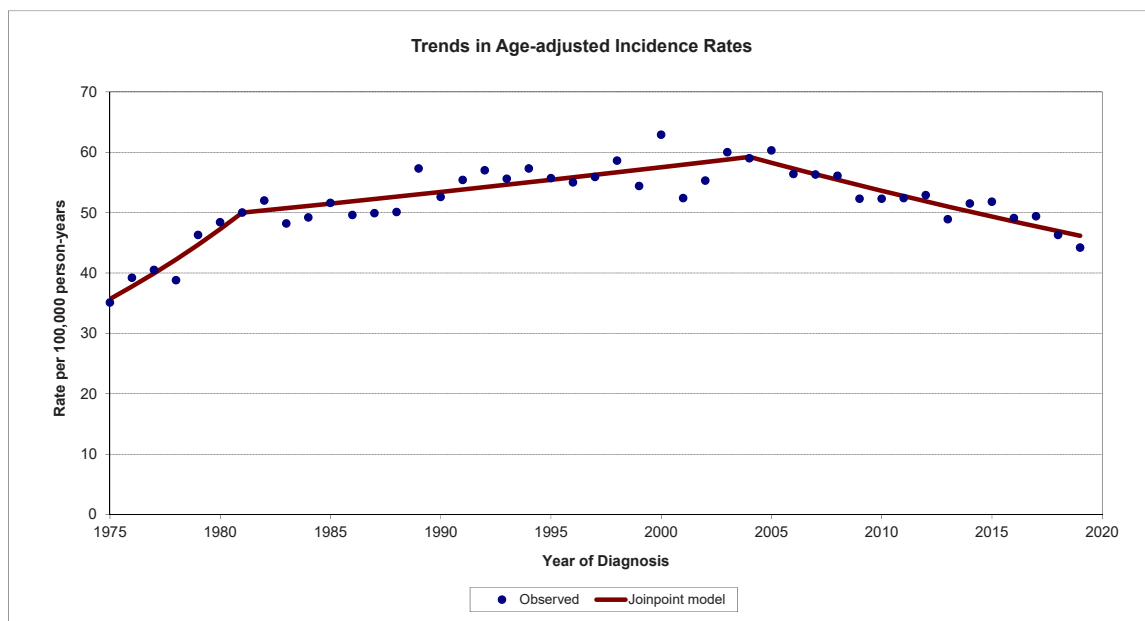
Leukemia incidence has increased about 0.7% per year from 1975 to 2019. Rates showed year-to-year variability due to the relatively small numbers of cases diagnosed annually.

Liver and Bile Duct



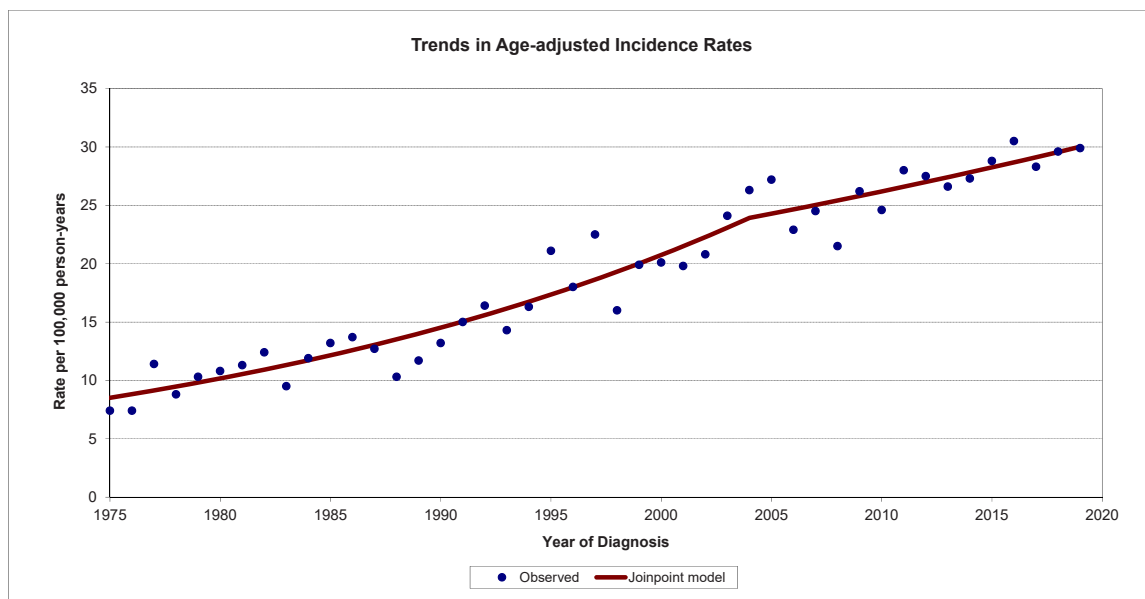
Liver cancer incidence increased at a rate of about 4.8% per year in Idaho from 1975 to 2019. The rate of increase was higher for males (5.2% per year) than for females (3.6% per year), and rates of liver cancers among males were about twice as high as among females.

Lung and Bronchus



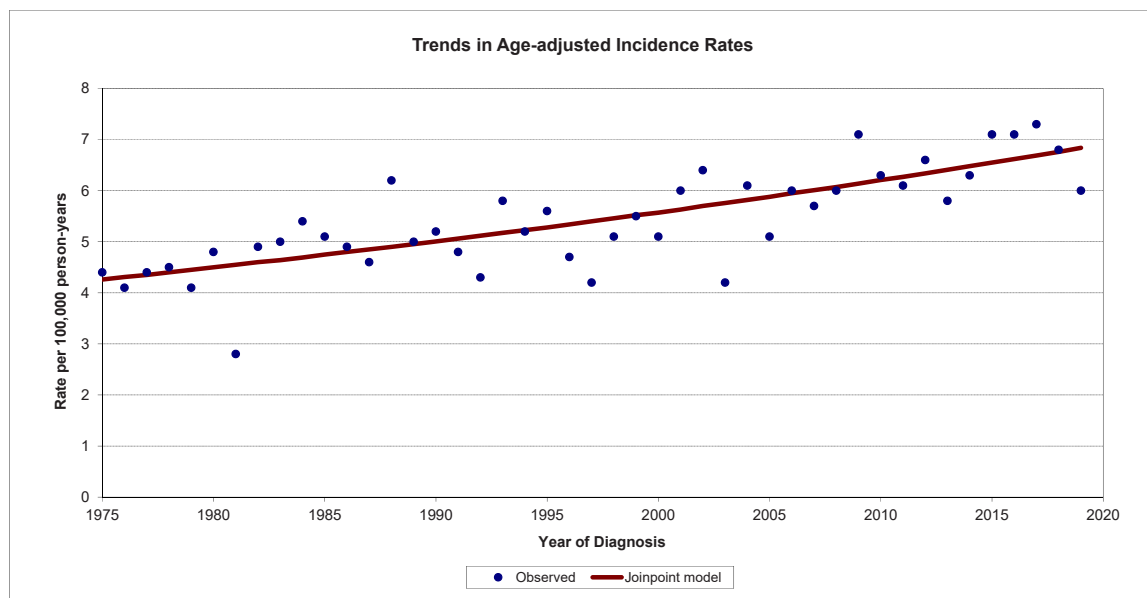
Lung cancer incidence increased at a rate of about 5.8% per year in Idaho from 1975 to 1981, after which the rate of increase lessened to about 0.7% per year until 2004. From 2004 to 2019, the rate has decreased about 1.6% per year. Lung cancer incidence trends over time were different for males and females. For males, lung cancer incidence increased at a rate of about 4.6% per year from 1975 to 1981, and then decreased by about 0.4% per year until 2004, after which it has decreased by about 2.5% per year. For females, lung cancer incidence increased at a rate of about 6.1% per year from 1975 to 1988, after which the rate of increase lessened to about 1.9% per year until 2005. From 2005 to 2019, the rate has decreased about 0.8% per year. Historically, lung cancer incidence rates have been two or more times higher among males as among females, but the gap is continuing to narrow, reflecting long-term trends in smoking prevalence.

Melanoma



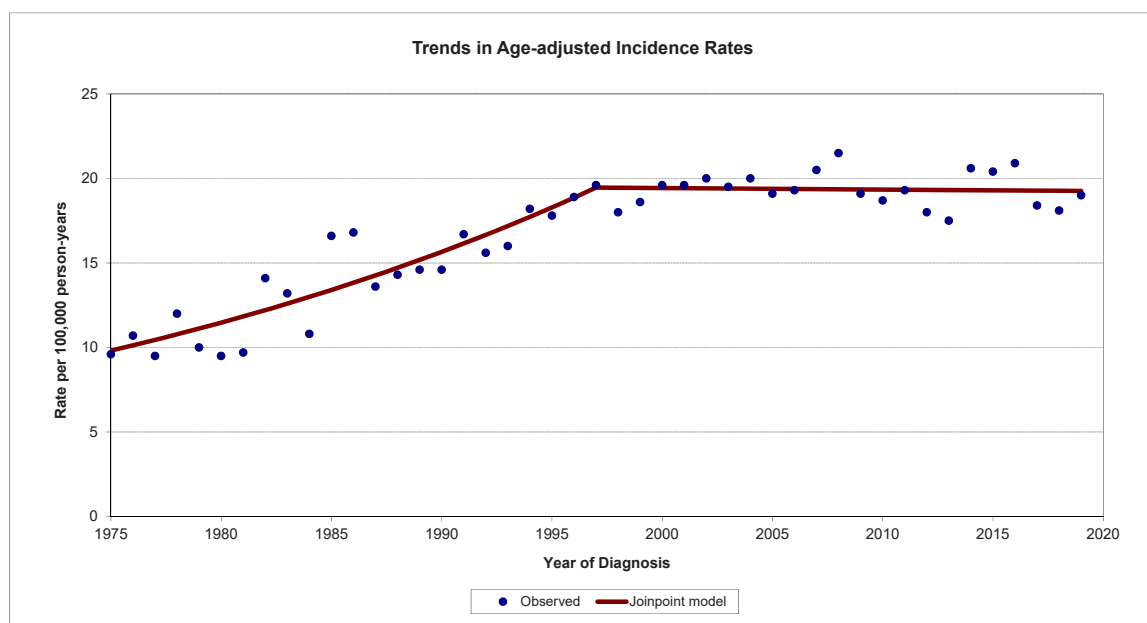
The incidence of melanoma of the skin increased at a rate of about 3.6% per year in Idaho from 1975 to 2004, after which it increased about 1.5% per year. Among males, the rate increased about 3.6% per year from 1975-2004, after which it increased about 1.5% per year. Among females, incidence rates of melanoma of the skin increased about 2.4% per year from 1975 to 2019. The incidence of in situ melanoma of the skin increased at a higher rate (5.9% per year from 1980 to 2019) than for the invasive cases depicted in the graph.

Myeloma



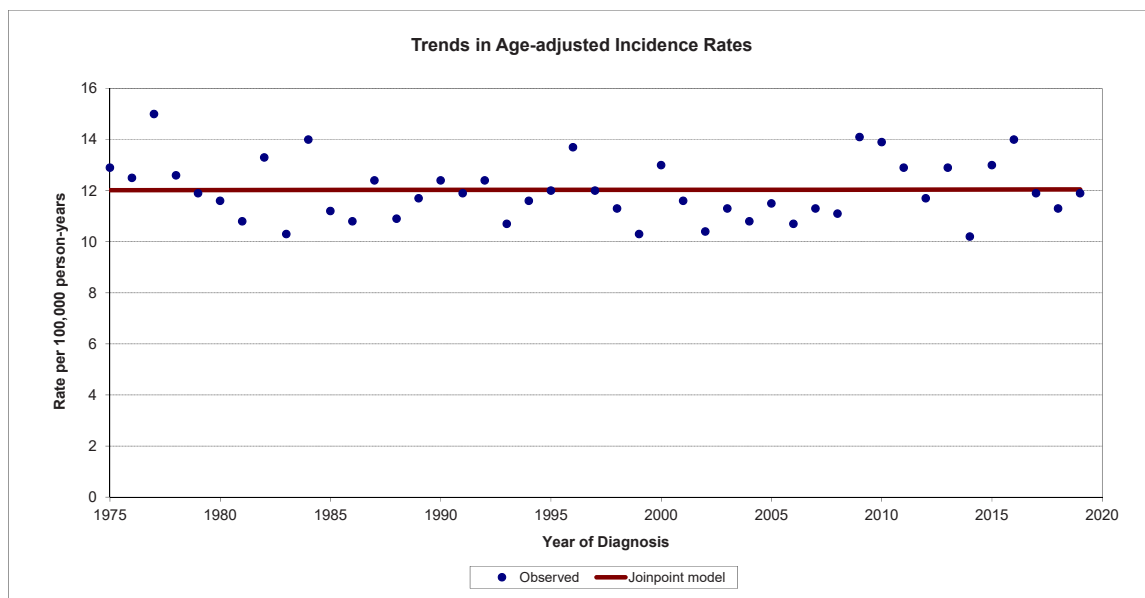
The incidence of myeloma increased at a rate of about 1.1% per year in Idaho from 1975 to 2019. The rate of increase was higher for males (1.4% per year) than for females (0.5% per year), and rates of myeloma incidence among males were higher than among females.

Non-Hodgkin Lymphoma



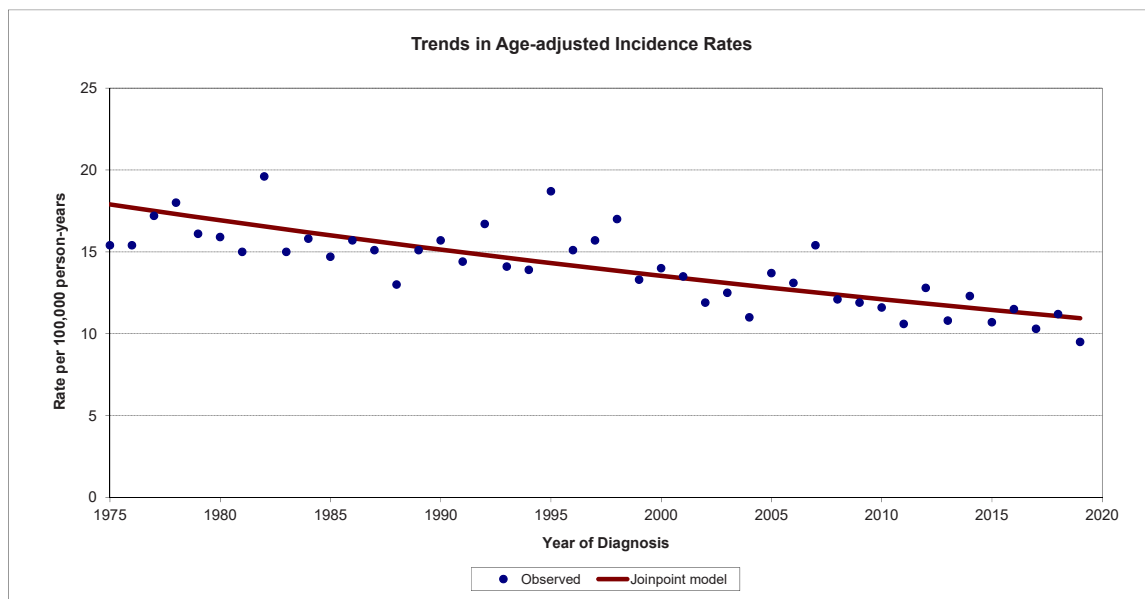
The incidence of non-Hodgkin lymphoma increased at a rate of about 3.1% per year in Idaho from 1975 to 1997, after which rates were stable. Non-Hodgkin lymphoma incidence trends over time were similar for males and females, but rates of non-Hodgkin lymphoma incidence among males were higher than among females.

Oral Cavity and Pharynx



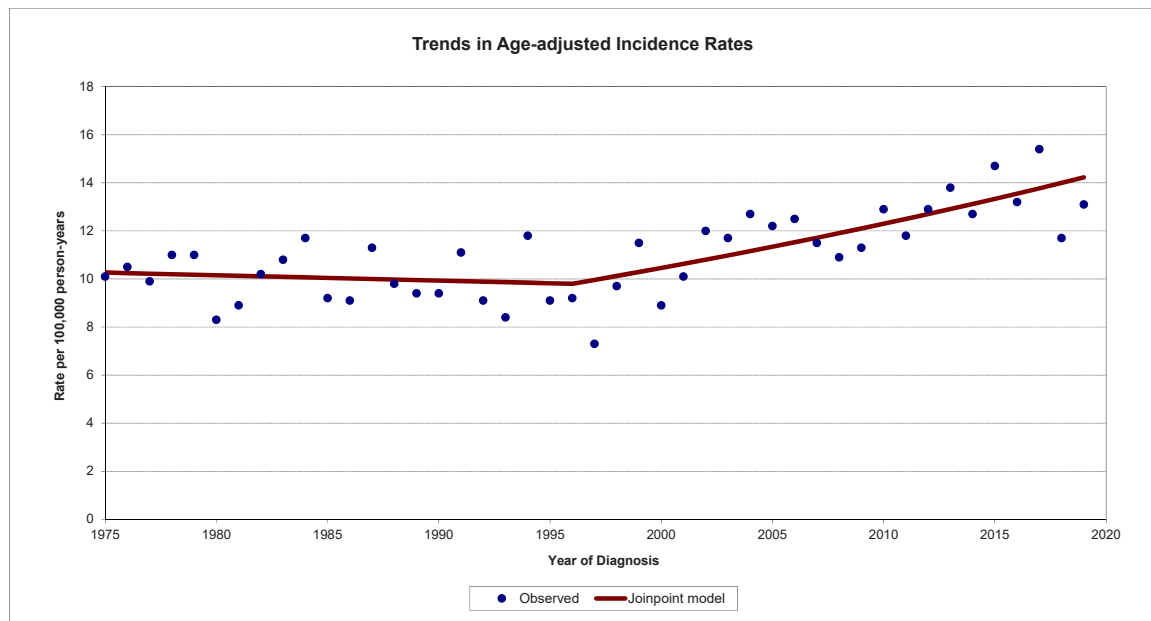
The incidence of cancers of the oral cavity and pharynx was stable in Idaho from 1975 to 2019. Among males, rates decreased about 0.3% per year. Among females, incidence of cancers of the oral cavity and pharynx increased at a rate of about 0.5% per year. Rates of cancers of the oral cavity and pharynx were about 3 times higher among males than among females. This latter result likely reflects differences in long-term prevalence trends for tobacco use and alcohol consumption between males and females.

Ovary



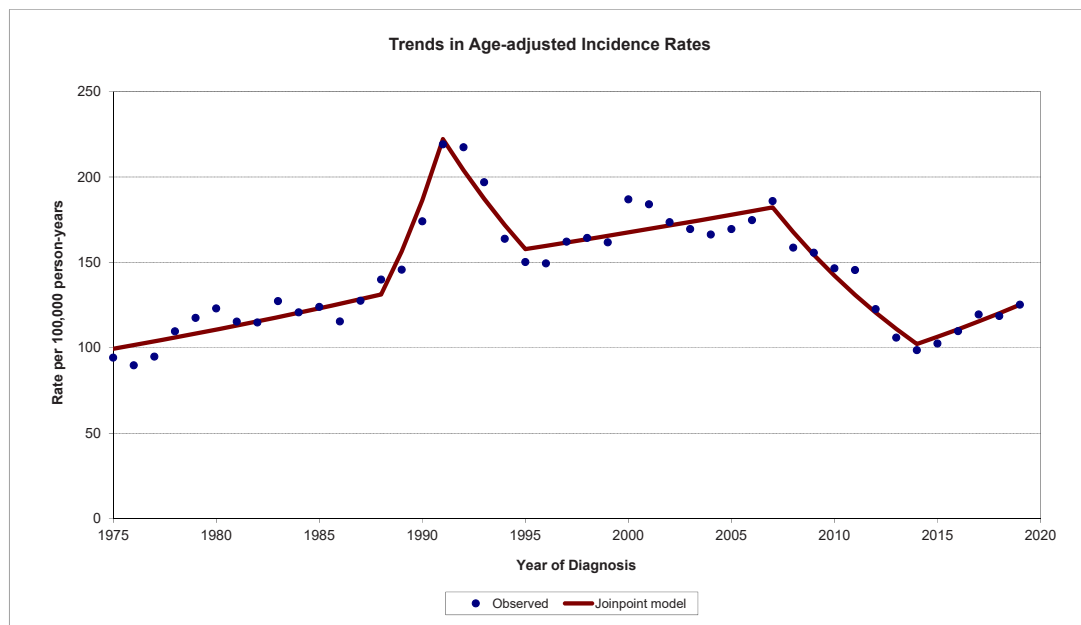
The incidence of ovarian cancer among females in Idaho decreased about 1.1% per year from 1975 to 2019. Part of the decrease in ovarian cancer incidence rates may have been due to a decrease in the use of hormone replacement therapy.

Pancreas



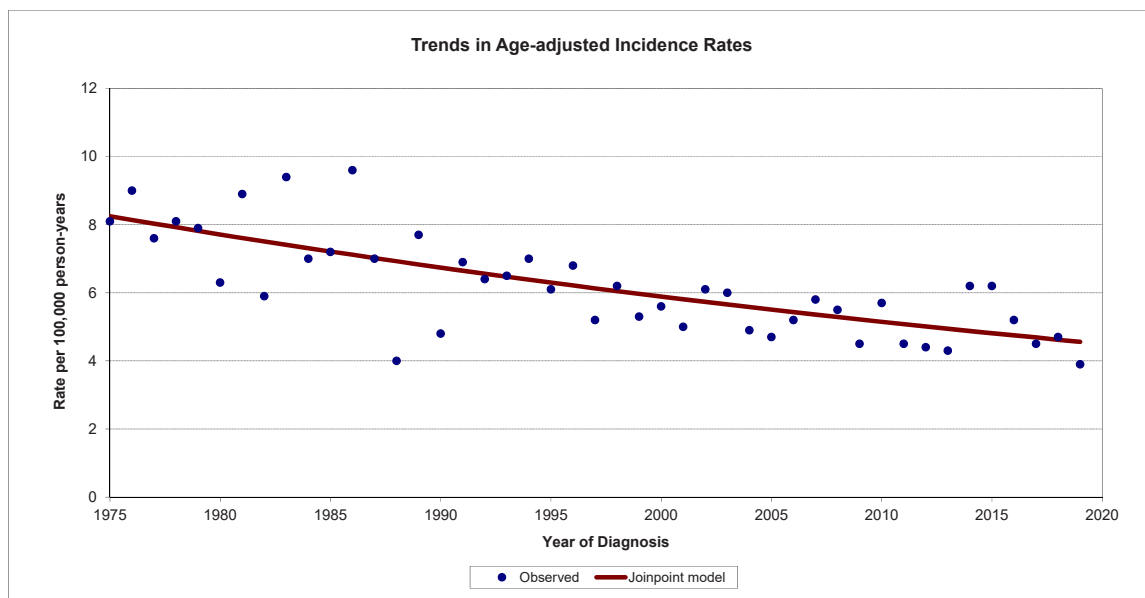
Pancreas cancer incidence decreased at a rate of 0.2% per year from 1975 to 1996 and increased at a rate of about 1.6% per year from 1996 to 2019. Pancreas cancer incidence trends over time were different for males and females. Among males, pancreas cancer incidence decreased about 1.2% per year from 1975-1997 and has increased about 1.9% per year since 1997. Among females, pancreas cancer increased about 1.1% per year from 1975-2019. Rates of pancreas cancer incidence among males were higher than among females.

Prostate



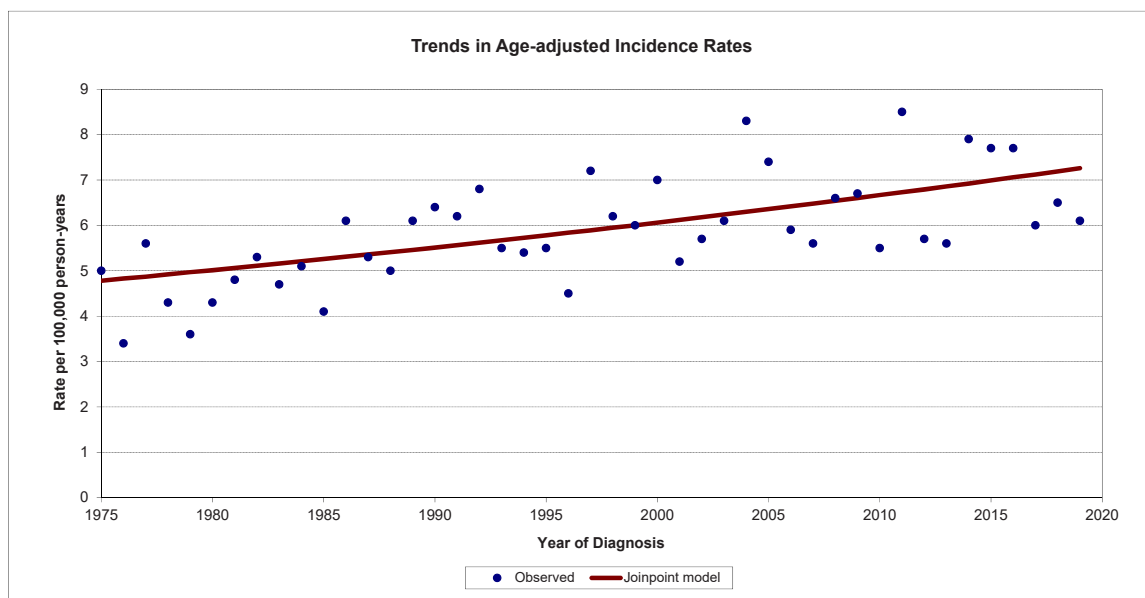
Trends in prostate cancer incidence are complicated, owing to the adoption of the Prostate-Specific Antigen (PSA) screening test in the late 1980s and early 1990s. From 1975 to 1988, prostate cancer incidence increased in Idaho at a rate of about 2.2% per year. From 1988 to 1991, prostate cancer incidence increased at a rate of about 19.2% per year. During 1991-1995, prostate cancer incidence rates decreased by about 8.2% per year. During 1995-2007, the rates increased about 1.2% per year. From 2007 to 2014, rates decreased about 7.9% per year. Since 2014, rates have increased about 4.1% per year. Overall, there was an increasing trend in prostate cancer incidence from 1975 to 2007 punctuated by a large increase and concomitant decrease associated with widespread adoption of the PSA test, which likely detected many indolent cases. In May 2012, the United States Preventive Service Task Force issued a recommendation against PSA-based screening for prostate cancer in all age groups. The prostate cancer incidence rates in 2014-2019 were similar to the rates at the beginning of the time series, before the adoption of the PSA test.

Stomach



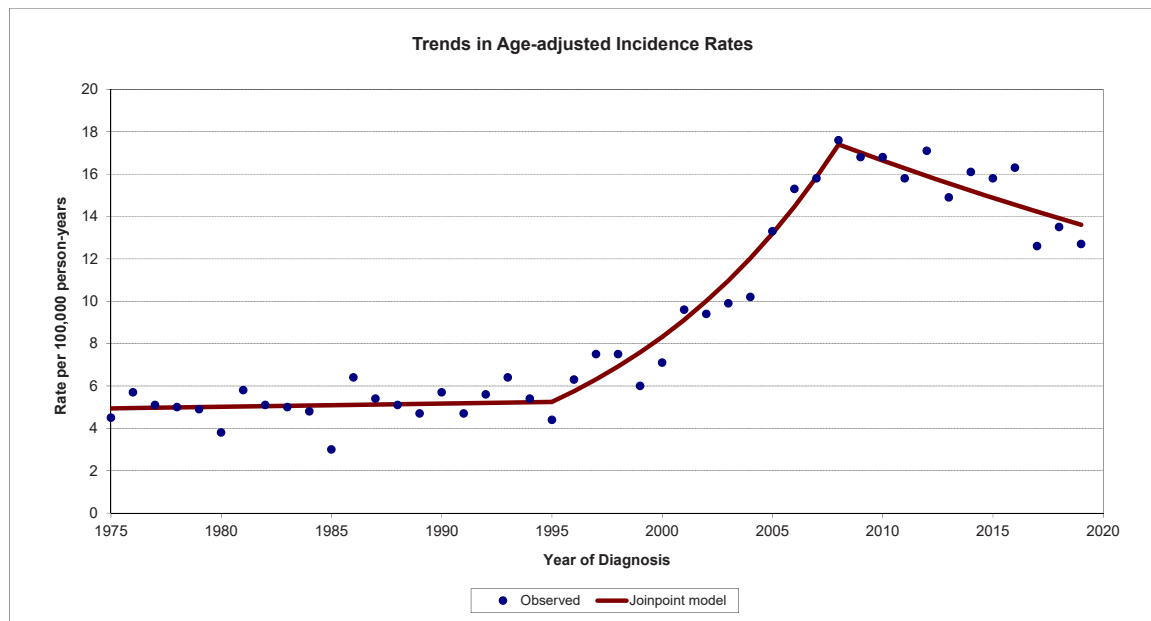
Stomach cancer incidence decreased at a rate of about 1.3% per year in Idaho from 1975 to 2019. Stomach cancer incidence trends over time were similar for males and females, although stomach cancer incidence rates among males were about twice as high as among females.

Testis



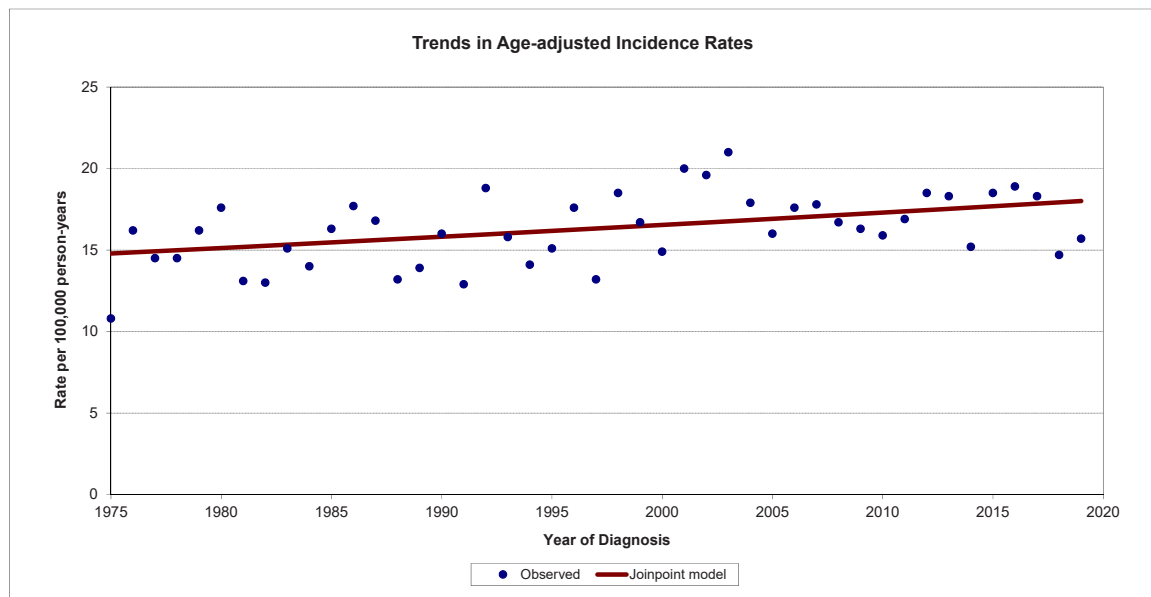
Testis cancer incidence increased at a rate of about 1.0% per year in Idaho from 1975 to 2019.

Thyroid



Thyroid cancer incidence was stable in Idaho from 1975 to 1995. From 1995-2008, thyroid cancer incidence increased at a rate of about 9.7% per year, and thyroid cancer incidence has decreased about 2.2% per year since 2008. Thyroid cancer incidence trends over time were different for males and females. For males, thyroid cancer incidence increased at a rate of about 3.8% per year from 1975 to 2019. Among females, the trend was similar to both sexes combined. Historically, thyroid cancer incidence rates have been about 3 times higher among females as among males.

Pediatric (age 0 to 19) Cancer



Pediatric cancer incidence increased at a rate of about 0.5% per year in Idaho from 1975 to 2019. Among males, pediatric cancer incidence rates were stable from 1975-2019. Among females, pediatric cancer incidence rates increased about 0.7% per year from 1975-2019. For more detailed information on pediatric cancer in Idaho, see: <https://www.idcancer.org/pediatriccancer>.

SECTION VIII

CANCER INCIDENCE BY RACE AND ETHNICITY 2015–2019

Idaho Cancer Incidence Rates by Race and Ethnicity, 2015–2019

Primary Site	All Races (includes Hispanic)		White Non-Hispanic		Hispanic (any race)		Black		American Indian/ Alaska Native		Asian or Pacific Islander	
	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases
All Sites	448.7	44,393	453.6	40,969	353.0	2,001	378.4	169	380.5	510	318.7	428
Bladder	21.3	2,144	21.6	2,020	13.9	60	^	^	16.6	20	15.5	19
Brain - malignant	7.0	657	7.2	600	4.9	37	^	^	^	^	^	^
Brain and other CNS - non-malignant	14.3	1,342	14.2	1,203	13.6	88	14.7	10	8.0	11	12.8	19
Breast	129.5	6,435	130.8	5,901	105.1	320	75.0	15	118.5	84	107.5	91
Breast - in situ	22.9	1,128	23.6	1,047	15.4	49	^	^	19.0	13	18.1	15
Cervix	7.4	309	7.3	259	8.9	37	^	^	^	^	^	^
Colorectal	35.2	3,413	35.3	3,128	30.1	173	48.4	20	40.1	48	22.3	29
Corpus Uteri	24.7	1,295	24.9	1,187	17.9	61	^	^	29.7	22	13.6	12
Esophagus	4.9	499	5.0	470	2.3	13	^	^	^	^	^	^
Hodgkin Lymphoma	2.3	202	2.4	175	2.2	19	^	^	^	^	^	^
Kidney and Renal Pelvis	17.6	1,731	17.2	1,545	21.0	122	^	^	26.9	36	11.8	17
Larynx	2.0	213	2.1	200	^	^	^	^	^	^	^	^
Leukemia	16.6	1,589	16.8	1,462	14.9	92	^	^	7.9	11	9.7	13
Liver and Bile Duct	7.6	803	7.1	691	12.9	68	^	^	14.5	22	10.1	13
Lung and Bronchus	48.1	4,876	48.7	4,602	34.9	142	52.5	20	53.3	64	40.9	49
Melanoma of the Skin	29.5	2,802	32.0	2,738	7.7	49	^	^	7.0	10	^	^
Myeloma	6.8	687	6.8	634	7.4	35	^	^	^	^	^	^
Non-Hodgkin Lymphoma	19.3	1,892	19.5	1,743	18.5	105	^	^	11.0	14	9.7	12
Oral Cavity and Pharynx	12.4	1,262	12.7	1,178	7.0	41	^	^	9.0	14	9.1	12
Ovary	10.6	536	10.6	485	10.4	35	^	^	^	^	^	^
Pancreas	13.6	1,363	13.9	1,286	10.4	49	^	^	11.2	14	11.3	13
Prostate	115.5	5,989	114.2	5,481	84.8	201	187.8	50	71.3	51	76.3	37
Stomach	4.9	483	4.6	417	8.2	43	^	^	^	^	10.9	13
Testis	6.8	274	7.1	233	4.9	31	^	^	^	^	^	^
Thyroid	14.1	1,232	14.2	1,069	13.1	111	^	^	8.3	11	16.5	26
Pediatric Age 0 to 19	17.8	432	18.2	342	14.4	64	^	^	^	^	25.2	12

Notes:

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

Rates and case counts include all invasive and bladder in situ cases. Statistics for non-malignant brain and other CNS and breast in situ categories are not included in the all sites totals.

Rates and case counts for cancers of the breast, cervix, corpus uteri, and ovary are for females only, and rates and case counts for cancers of the prostate and testis are for males only.

Statistics for Black, American Indian/Alaska Native, and Asian or Pacific Islander include non-Hispanic and Hispanic ethnicity. All races category includes unknown race.

^ Statistic not displayed due to fewer than 10 cases.

SECTION IX

CANCER SURVIVAL 2012–2018

**Actual (Crude) Measures of Cancer Prognosis at 5 Years After Diagnosis
Idaho Cases Diagnosed 2012–2018 Followed Through December 31, 2019**

Primary Site	All Primaries						
	N	Using Cause of Death			Using Expected Survival		
		Cancer Death	Other Death	Survival	Cancer Death	Other Death	Survival
All Sites	52,966	31.1	10.0	58.9	31.9	9.3	58.8
Brain & Other Nervous System	808	75.0	3.6	21.4	76.8	1.9	21.3
Breast	8,139	11.5	7.7	80.8	10.0	9.4	80.6
Cervix Uteri	374	25.3	1.0	73.7	24.5	1.8	73.7
Colon & Rectum	4,340	34.9	11.9	53.2	36.8	10.1	53.1
Corpus & Uterus, NOS	1,734	20.4	6.8	72.8	20.9	6.3	72.8
Esophagus	633	74.9	8.5	16.6	77.9	5.5	16.6
Hodgkin Lymphoma	264	10.8	5.3	83.9	13.0	3.1	83.9
Kidney & Renal Pelvis	2,073	22.1	13.7	64.2	26.0	9.8	64.2
Larynx	279	32.7	16.7	50.6	40.2	9.3	50.5
Leukemia	1,902	36.6	11.7	51.7	38.2	10.2	51.6
Liver & Intrahepatic Bile Duct	962	73.4	13.3	13.3	83.8	3.3	12.9
Lung & Bronchus	6,240	67.9	12.8	19.3	74.7	6.0	19.3
Melanoma of the Skin	3,381	9.0	10.4	80.6	7.9	11.6	80.5
Mesothelioma	142	80.0	8.6	11.4	83.3	5.3	11.4
Myeloma	841	41.4	14.4	44.2	45.8	10.2	44.0
Non-Hodgkin Lymphoma	2,362	28.3	10.1	61.6	27.7	10.8	61.5
Oral Cavity & Pharynx	1,570	25.6	12.9	61.5	29.4	9.3	61.3
Ovary	724	53.6	4.2	42.2	53.2	4.6	42.2
Pancreas	1,690	85.3	5.7	9.0	87.9	3.1	9.0
Prostate	7,326	9.1	9.7	81.2	5.0	13.8	81.2
Stomach	632	67.6	9.0	23.4	70.5	6.2	23.3
Testis	357	1.9	1.2	96.9	1.8	1.3	96.9
Thyroid	1,756	3.3	3.2	93.5	2.5	4.0	93.5
Urinary Bladder	2,747	20.2	18.8	61.0	22.2	16.9	60.9

Notes:

Actual (crude) measures of cancer survival include competing causes of death. Analysis includes all invasive and bladder in situ cases diagnosed among persons aged 15-99. See Technical Notes for more details.

N: Number of cases included in analysis.

^ Statistic not able to be calculated.

Net Measures of Cancer Survival at 5 Years After Diagnosis
Idaho Cases Diagnosed 2012–2018 Followed Through December 31, 2019

Primary Site	All Primaries			
	N	Cause Specific Survival (95% CI)		Relative Survival Ratio (95% CI)
All Sites	52,966	66.8	(66.3, 67.2)	66.2 (65.7, 66.8)
Brain & Other Nervous System	808	27.6	(24.3, 31.0)	27.2 (23.9, 30.6)
Breast	8,139	87.0	(86.0, 87.9)	89.2 (87.6, 90.6)
Cervix Uteri	374	66.7	(60.4, 72.2)	67.2 (60.5, 73.0)
Colon & Rectum	4,340	63.3	(61.6, 64.9)	61.5 (59.5, 63.5)
Corpus & Uterus, NOS	1,734	75.0	(72.0, 77.7)	73.7 (70.1, 77.0)
Esophagus	633	20.9	(17.0, 25.0)	19.6 (15.6, 23.9)
Hodgkin Lymphoma	264	88.6	(84.5, 91.7)	85.9 (80.4, 89.9)
Kidney & Renal Pelvis	2,073	75.3	(73.0, 77.5)	71.7 (68.6, 74.5)
Larynx	279	67.1	(60.7, 72.7)	60.8 (52.8, 67.8)
Leukemia	1,902	63.1	(60.7, 65.5)	61.5 (58.5, 64.3)
Liver & Intrahepatic Bile Duct	962	18.0	(14.7, 21.6)	12.6 (9.8, 15.7)
Lung & Bronchus	6,240	28.0	(26.2, 29.7)	24.8 (23.0, 26.5)
Melanoma of the Skin	3,381	91.9	(90.8, 92.9)	92.3 (90.6, 93.7)
Mesothelioma	142	13.6	(7.4, 21.6)	13.3 (7.2, 21.4)
Myeloma	841	58.1	(53.6, 62.2)	54.7 (50.0, 59.2)
Non-Hodgkin Lymphoma	2,362	71.3	(69.2, 73.2)	71.9 (69.2, 74.4)
Oral Cavity & Pharynx	1,570	71.2	(68.3, 73.9)	67.7 (63.7, 71.4)
Ovary	724	41.0	(36.8, 45.0)	41.1 (36.7, 45.5)
Pancreas	1,690	12.5	(10.5, 14.8)	11.9 (9.9, 14.1)
Prostate	7,326	89.3	(88.3, 90.2)	93.2 (91.6, 94.5)
Stomach	632	30.1	(25.9, 34.4)	27.8 (23.4, 32.3)
Testis	357	96.2	(90.3, 98.6)	95.9 (89.6, 98.4)
Thyroid	1,756	95.0	(93.4, 96.2)	96.0 (94.2, 97.3)
Urinary Bladder	2,747	80.1	(78.1, 81.9)	77.8 (75.1, 80.2)

Notes:

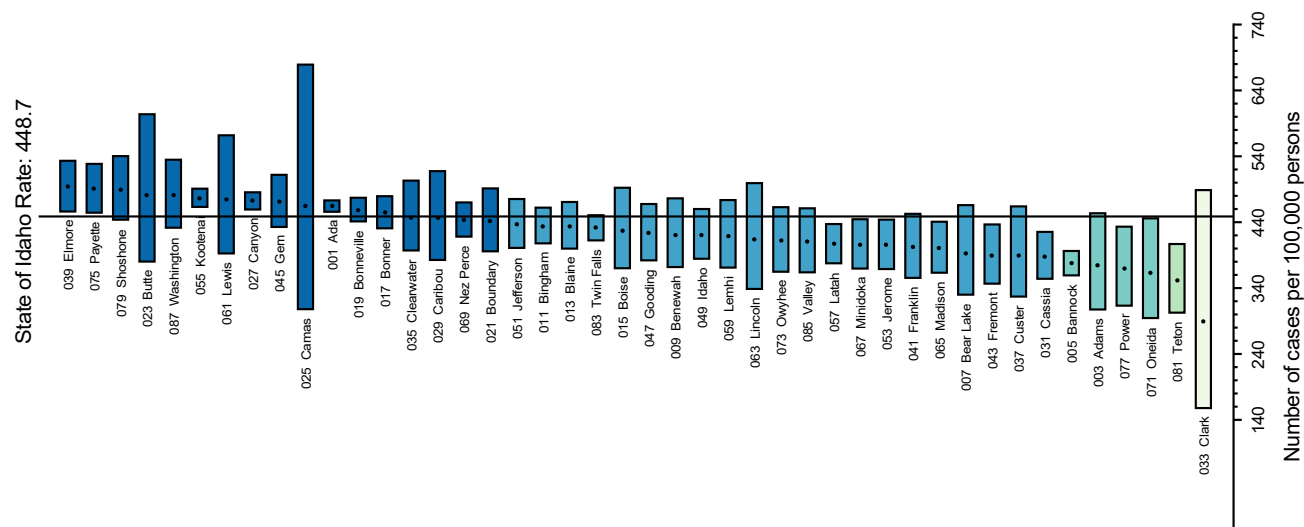
Net measures of cancer survival exclude competing causes of death. Analysis includes all invasive and bladder in situ cases diagnosed among persons aged 15-99. Age standardized to the International Cancer Survival Standards. Statistics in bold italics could not be age standardized; unstandardized measure shown instead. See Technical Notes for more details.

N: Number of cases included in analysis; CI: Confidence Interval.

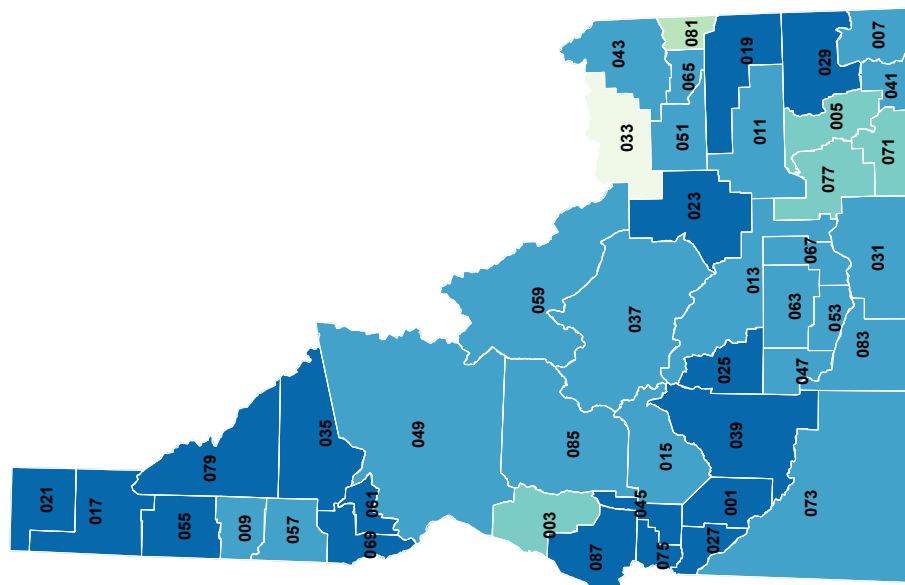
^ Statistic not able to be calculated.

SECTION X

MAPS AND CHARTS OF AGE-ADJUSTED INCIDENCE AND MORTALITY RATES BY COUNTY, 2015–2019

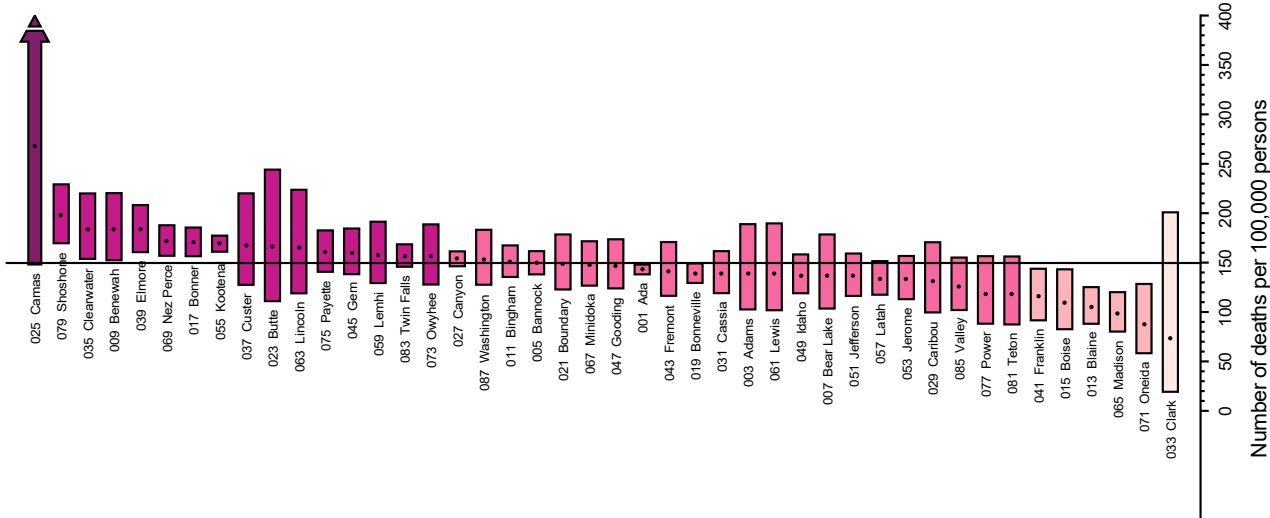


Age-Adjusted Incidence Rates All Sites Both Males and Females State of Idaho, by County, 2015–2019

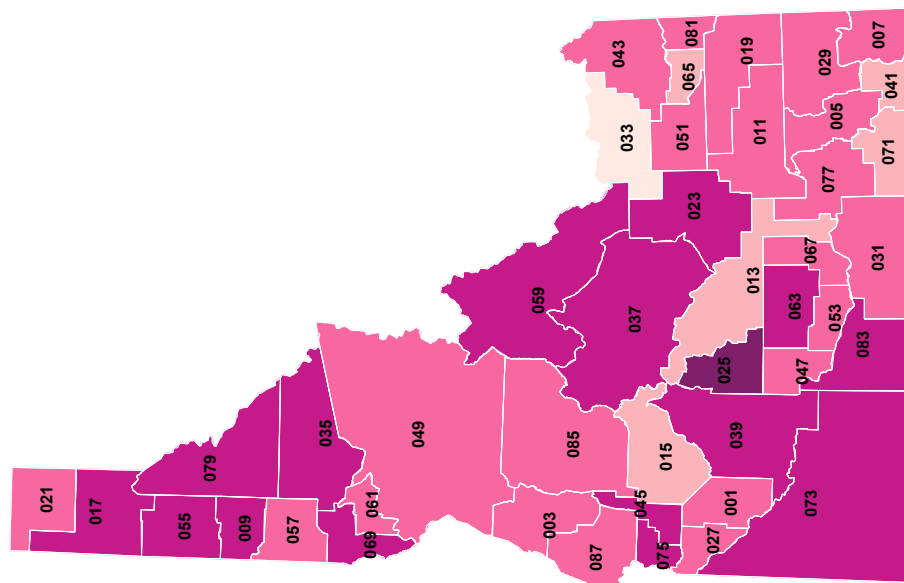


Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.

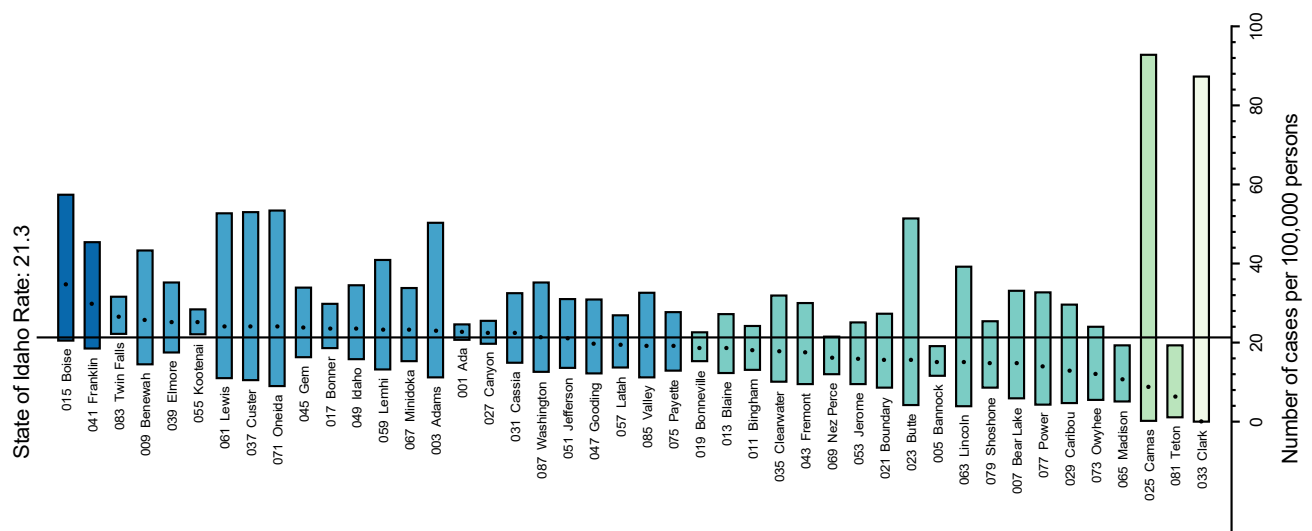
State of Idaho Rate: 149.6



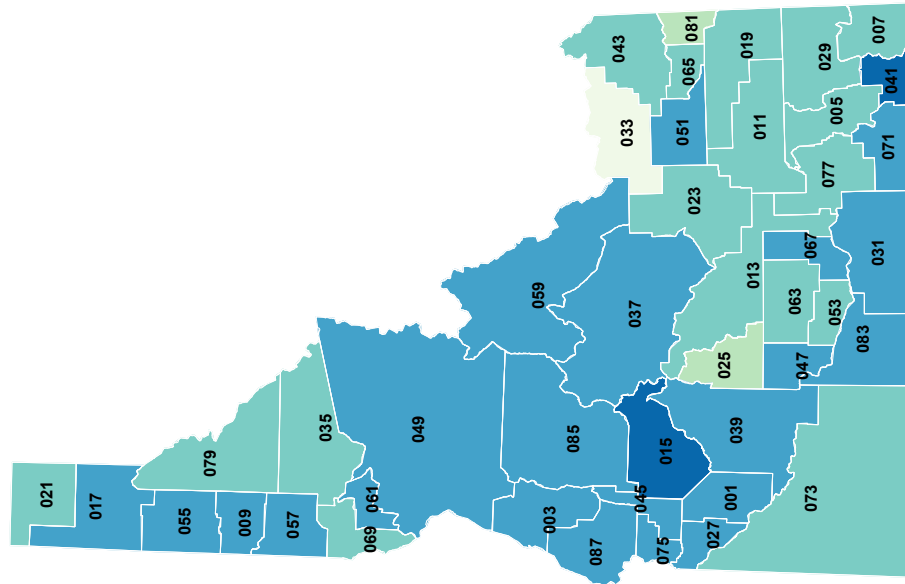
Age-Adjusted Mortality Rates All Malignant Cancers Both Males and Females State of Idaho, by County, 2015–2019



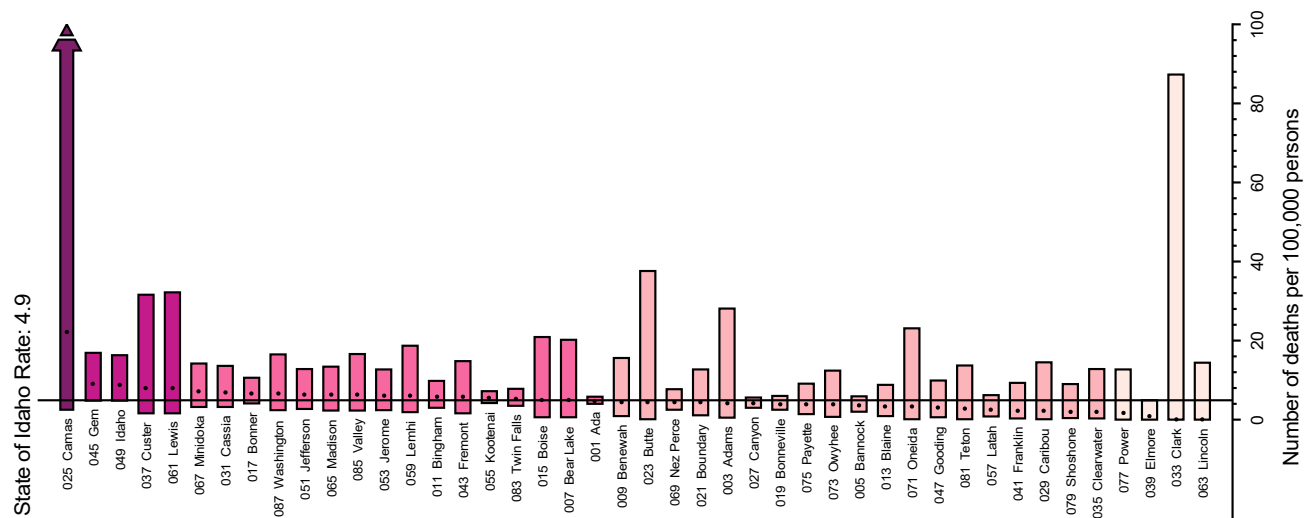
Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.



Age-Adjusted Incidence Rates Bladder Both Males and Females State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.

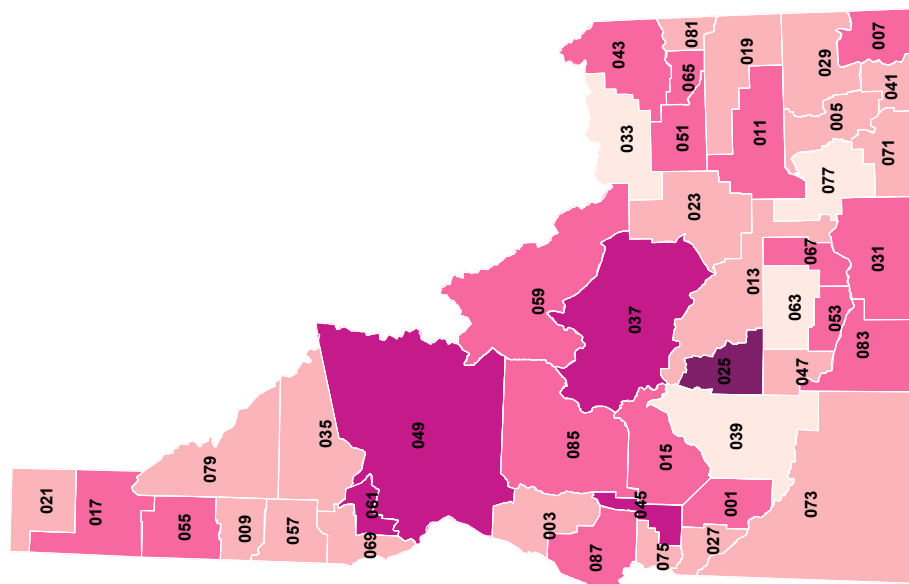


Age-Adjusted Mortality Rates

Bladder

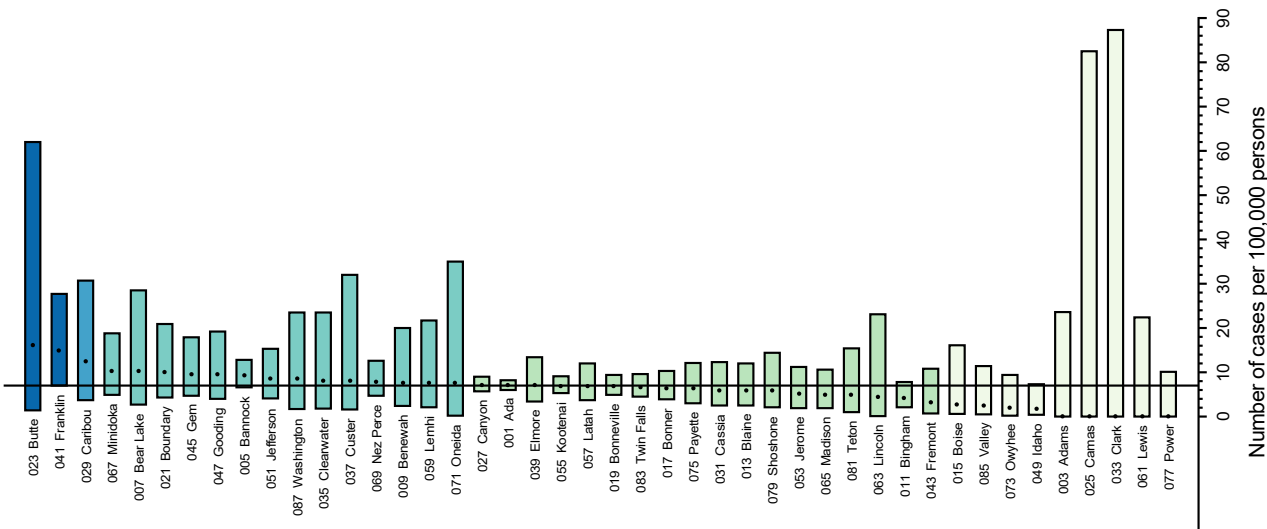
Both Males and Females

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 7.0

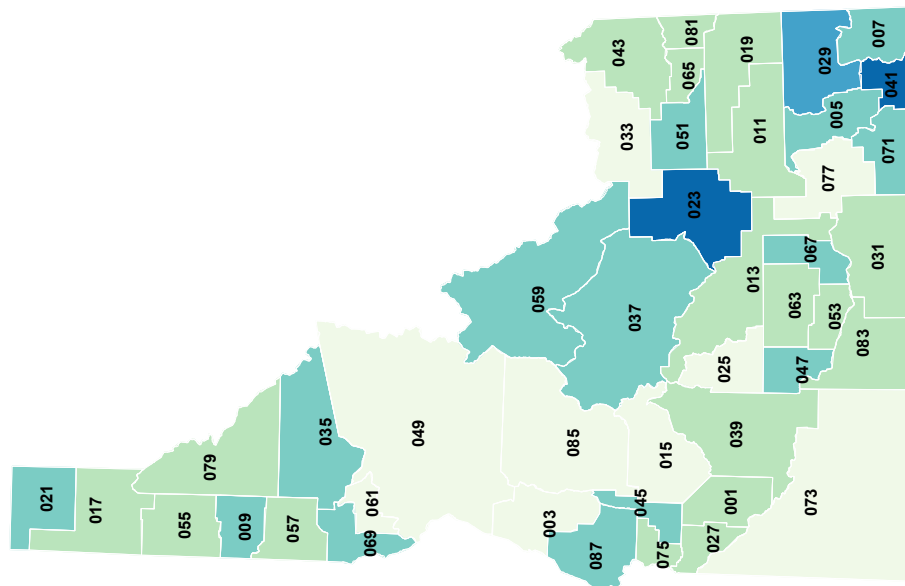


Age-Adjusted Incidence Rates

Brain - malignant

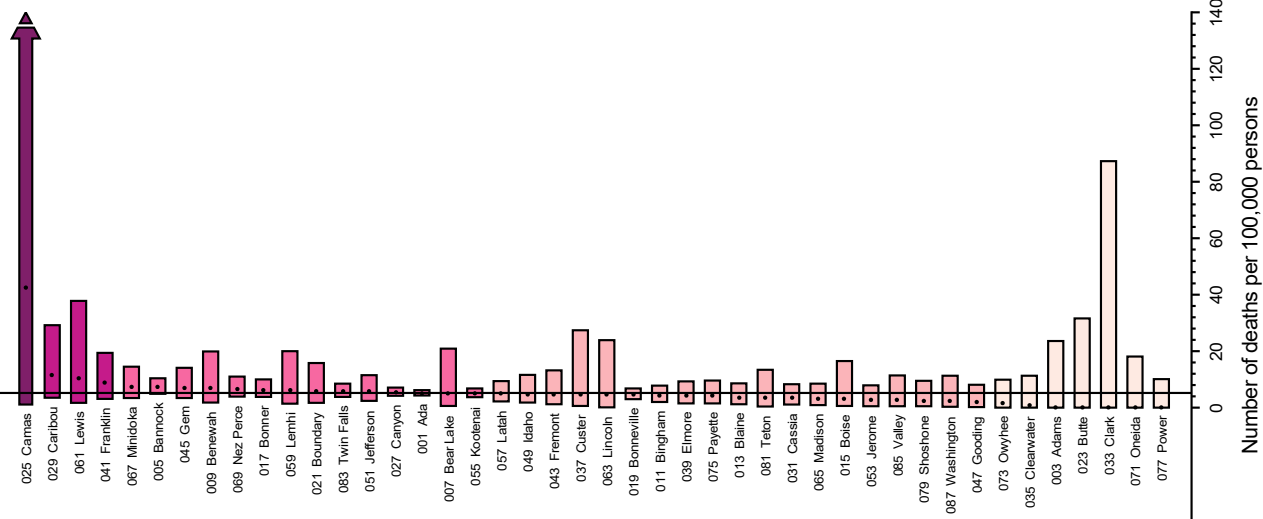
Both Males and Females

State of Idaho, by County, 2015–2019

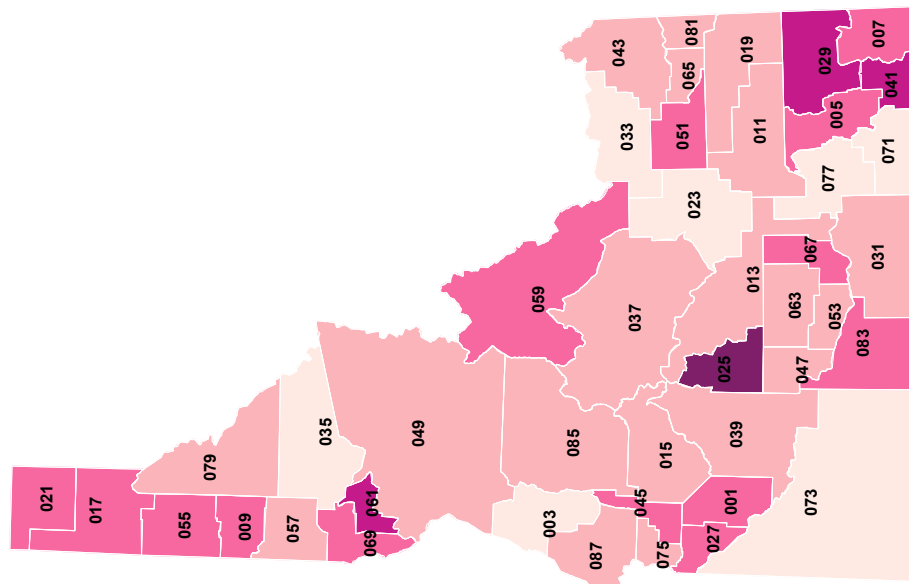


Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.

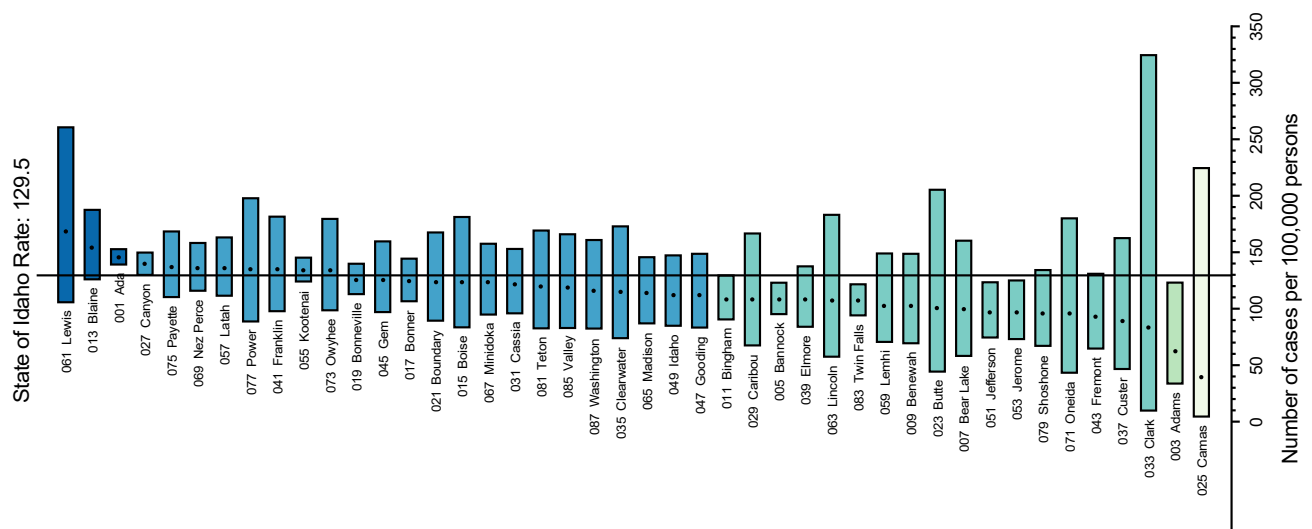
State of Idaho Rate: 5.2



Age-Adjusted Mortality Rates Brain and Other Nervous System Both Males and Females State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.

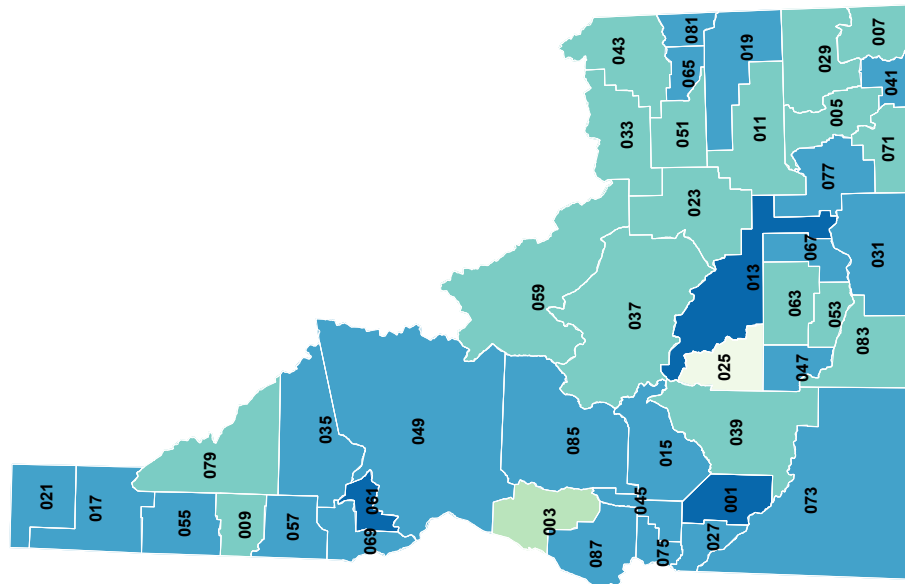


Age-Adjusted Incidence Rates

Breast

Females

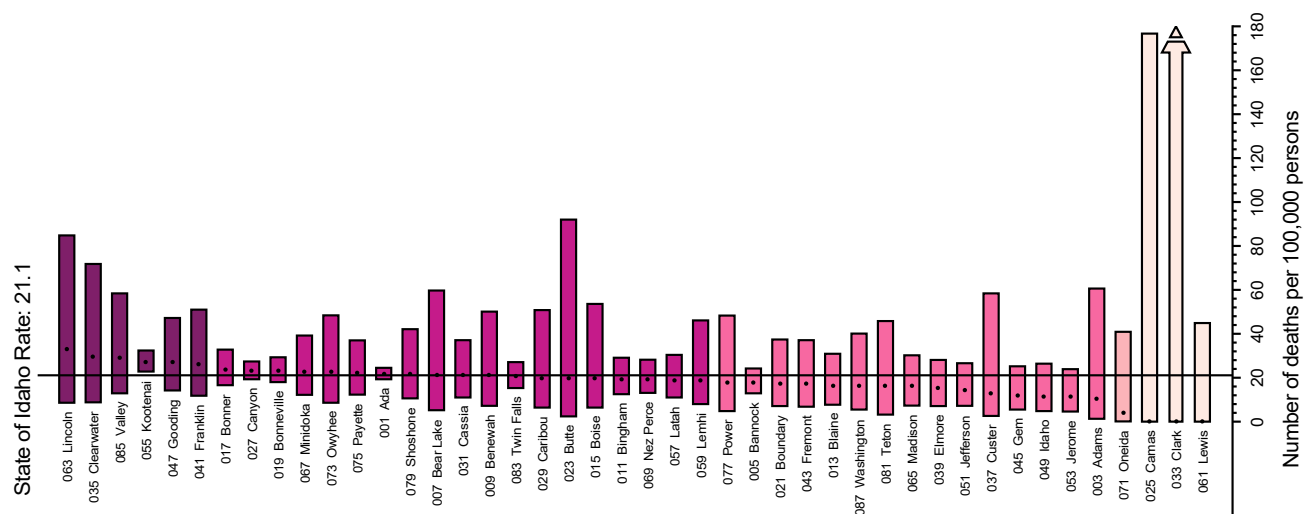
State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.

Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.

Colors denote rate clustering. Width of bars indicate 95% confidence intervals.

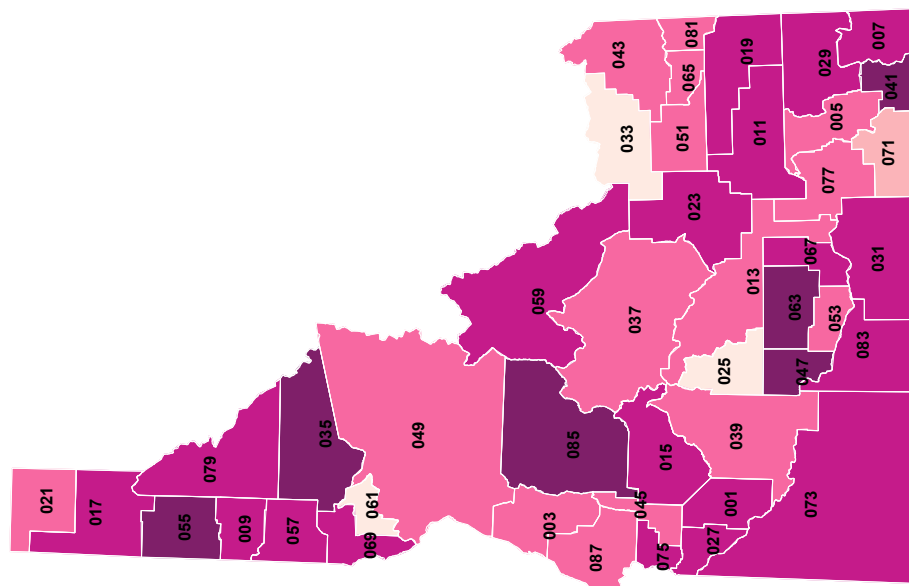


Age-Adjusted Mortality Rates

Breast

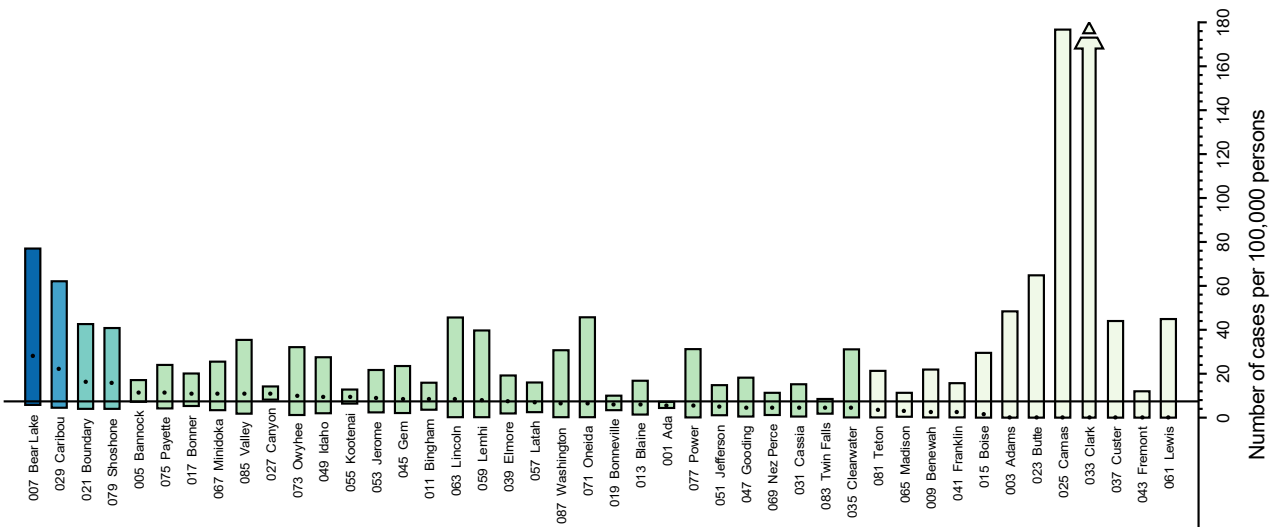
Females

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 7.4

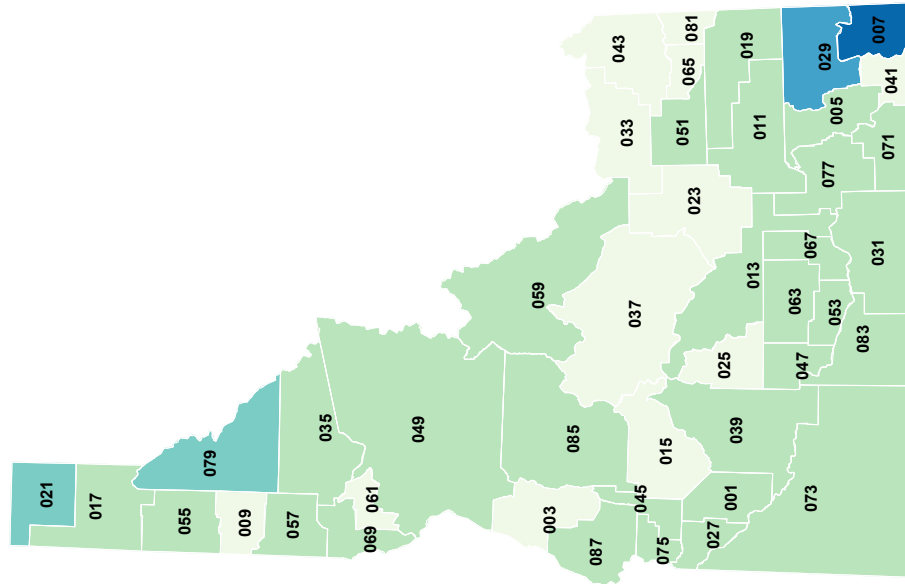


Age-Adjusted Incidence Rates

Cervix

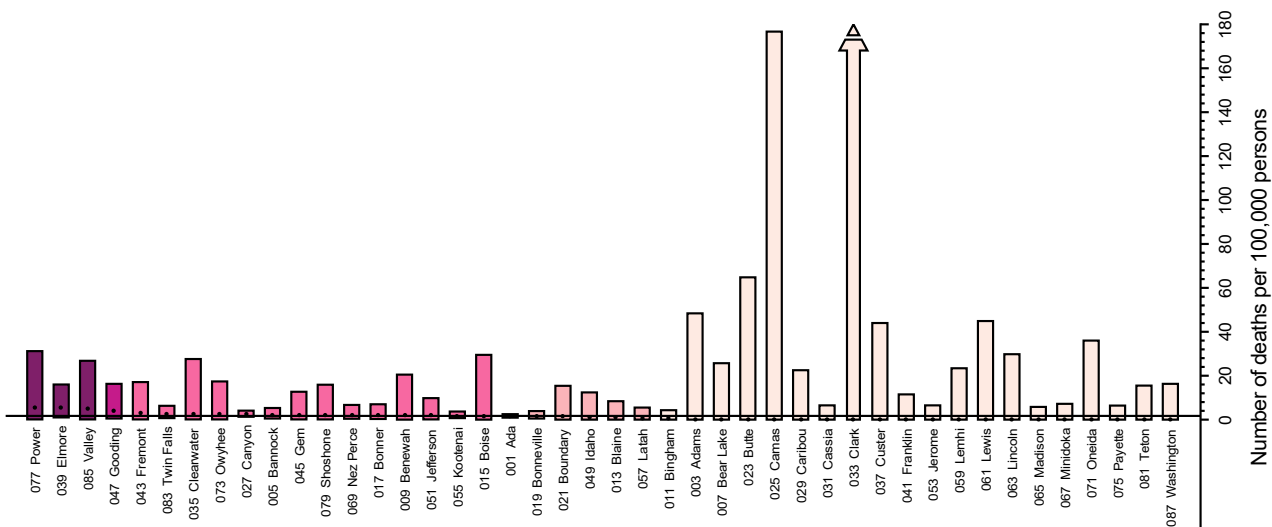
Females

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 1.7

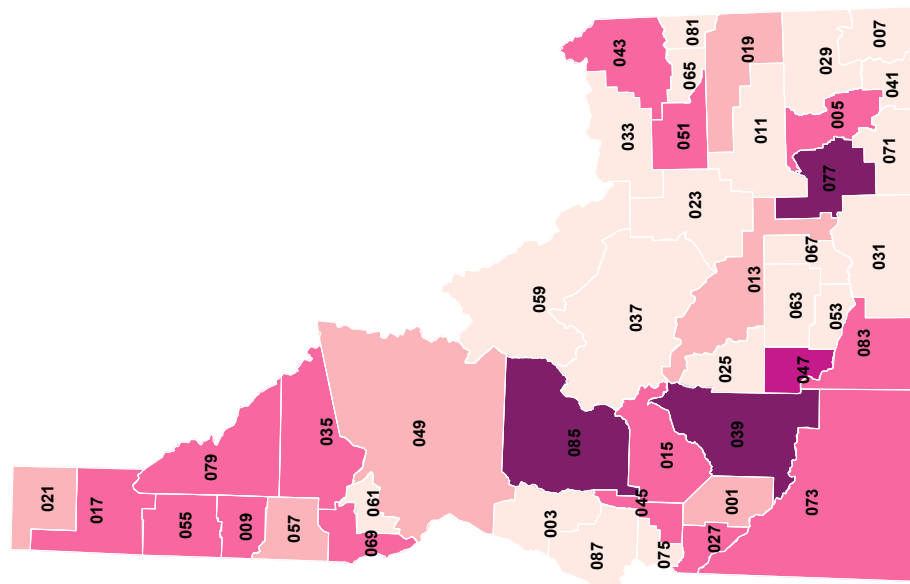


Age-Adjusted Mortality Rates

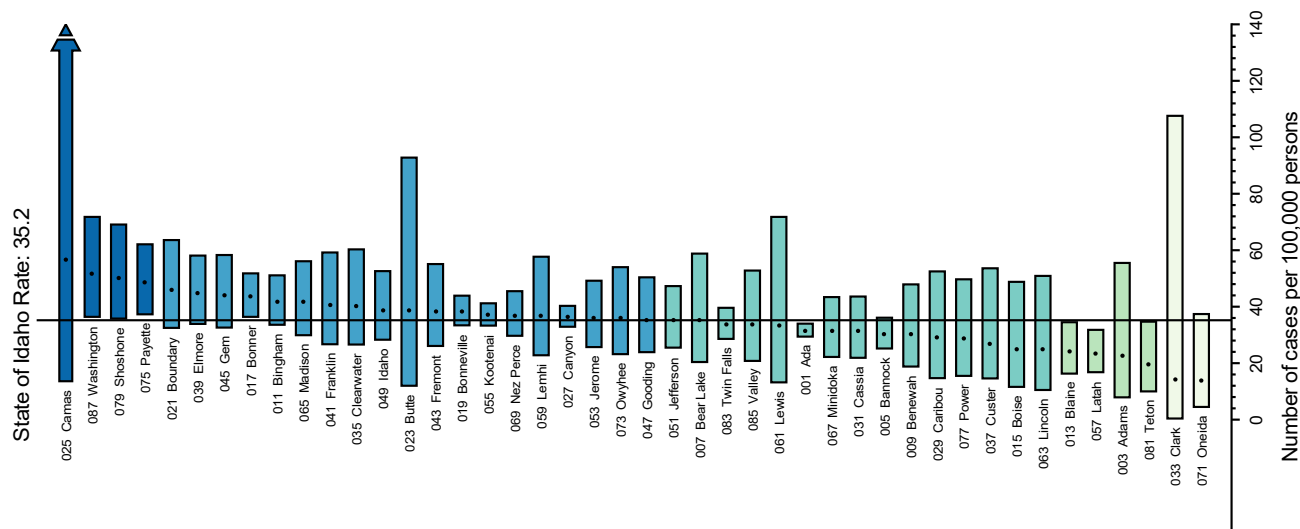
Cervix

Females

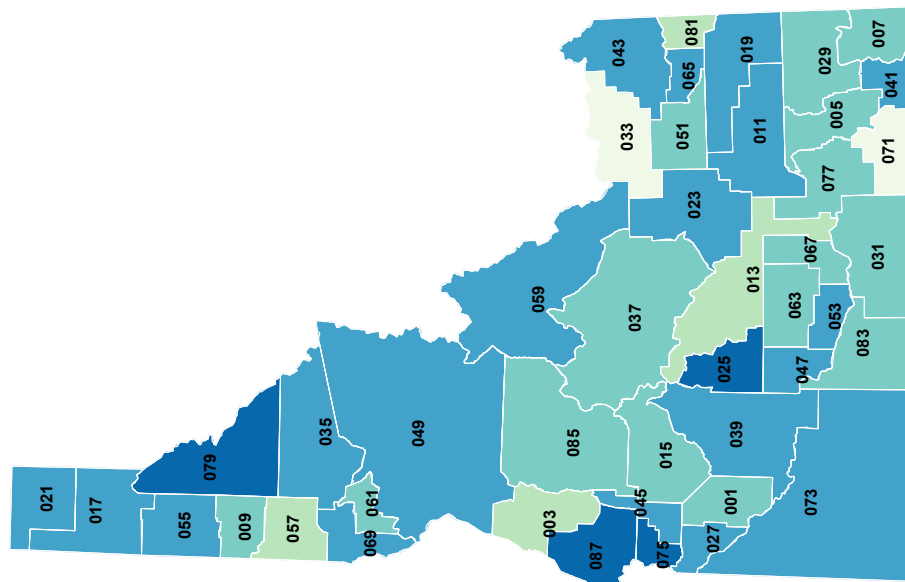
State of Idaho, by County, 2015–2019



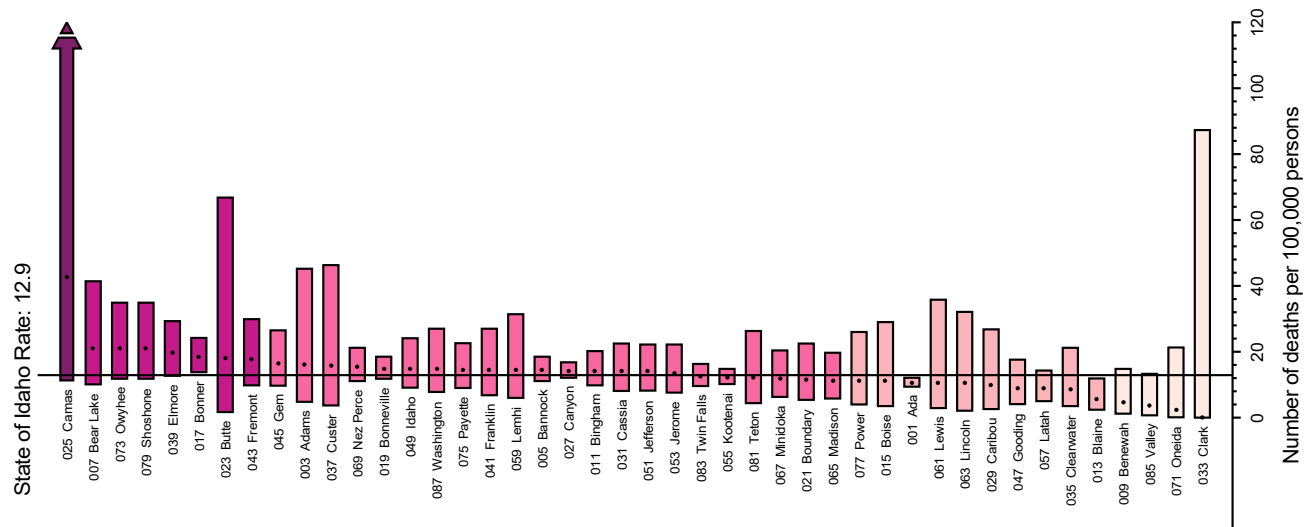
Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.



Age-Adjusted Incidence Rates Colorectal Both Males and Females State of Idaho, by County, 2015–2019



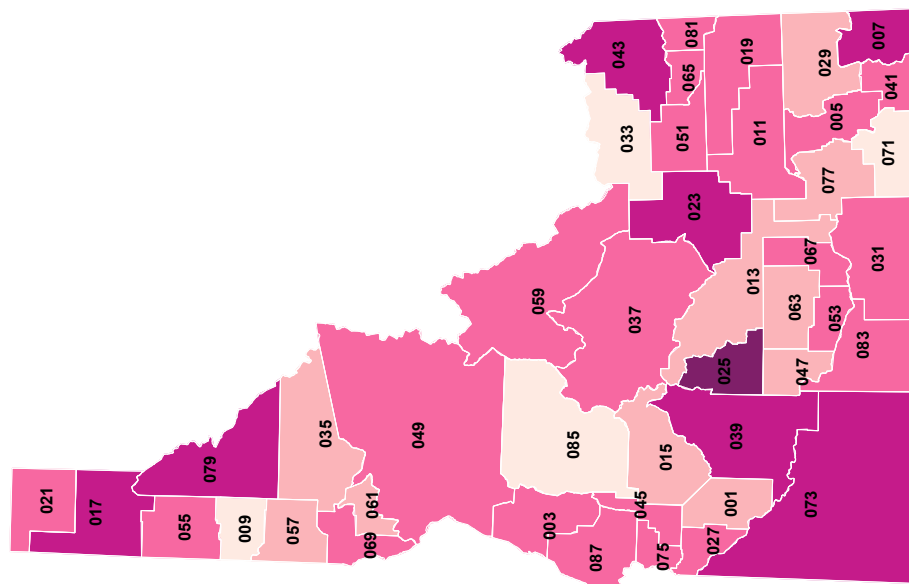
Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.



Age-Adjusted Mortality Rates Colorectal

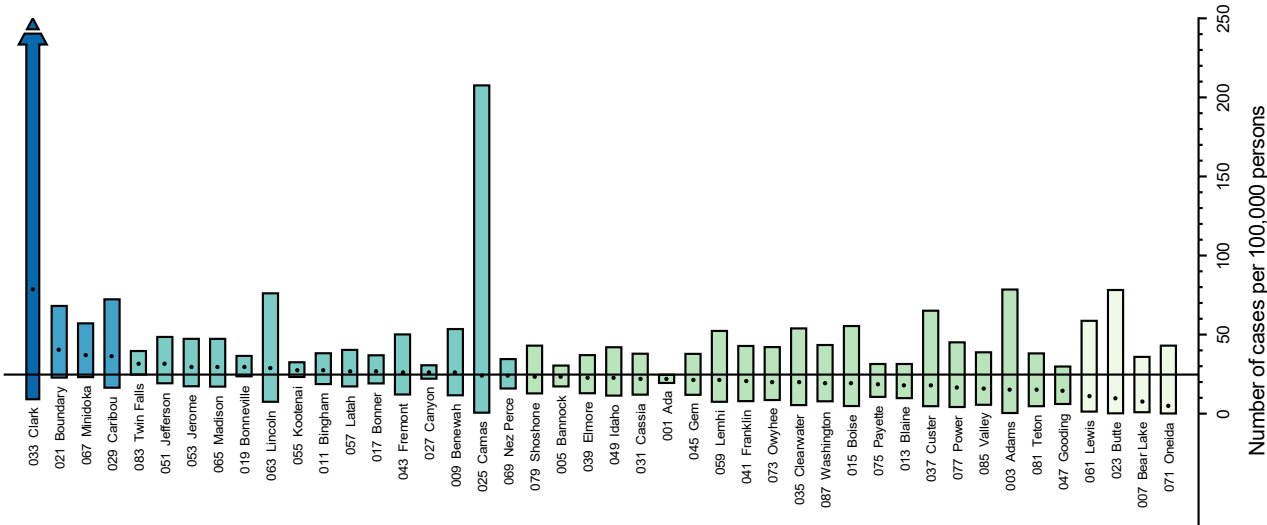
Both Males and Females

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 24.7

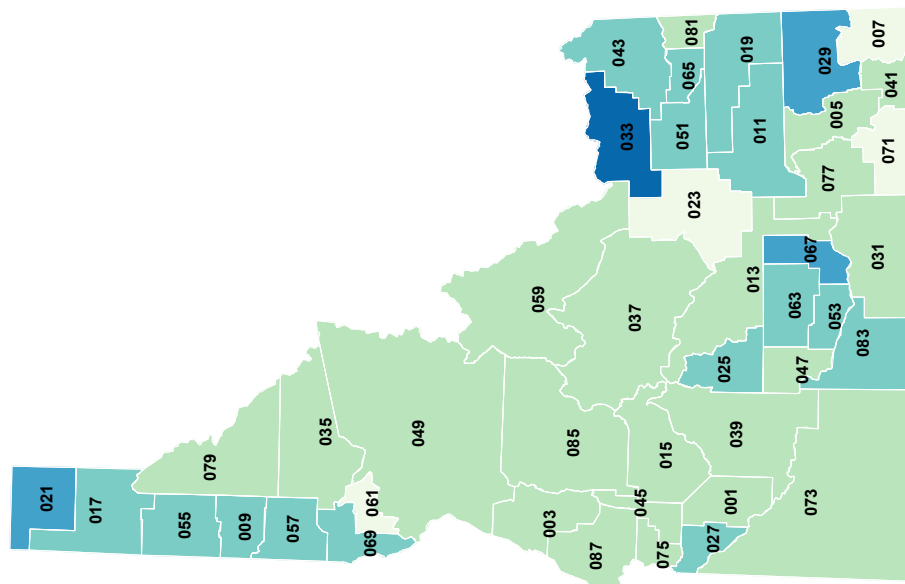


Age-Adjusted Incidence Rates

Corpus Uteri

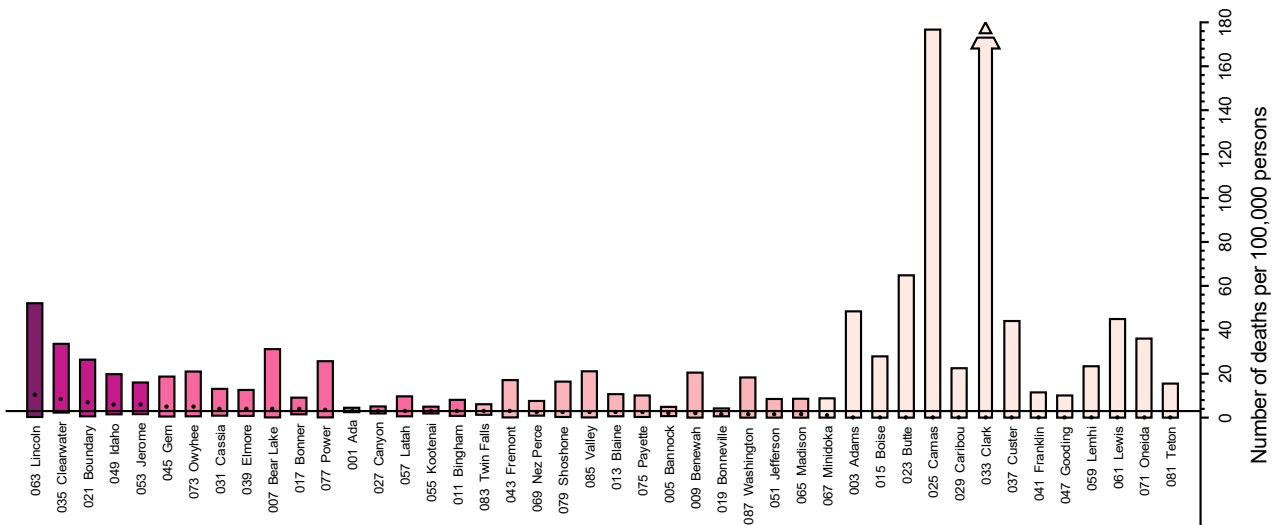
Females

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond geographic area.

State of Idaho Rate: 3.0

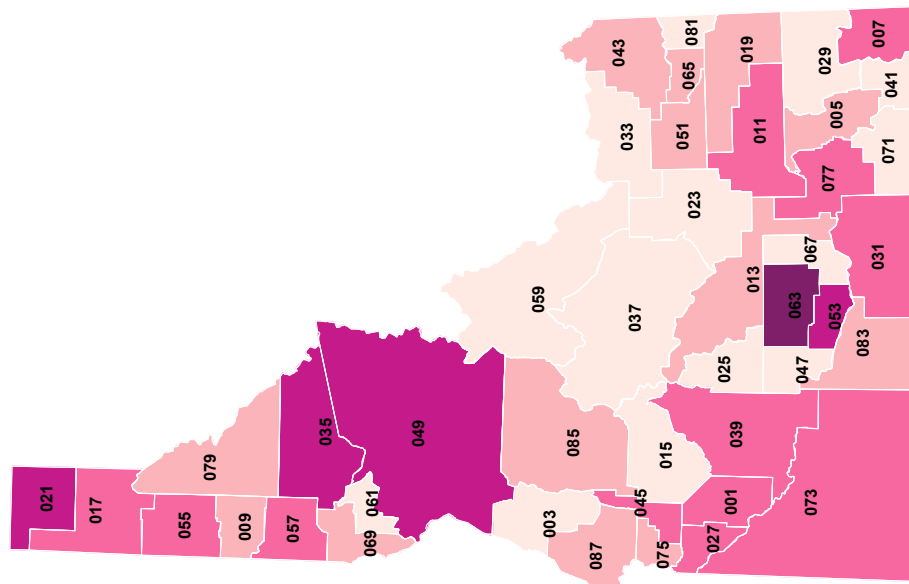


Age-Adjusted Mortality Rates

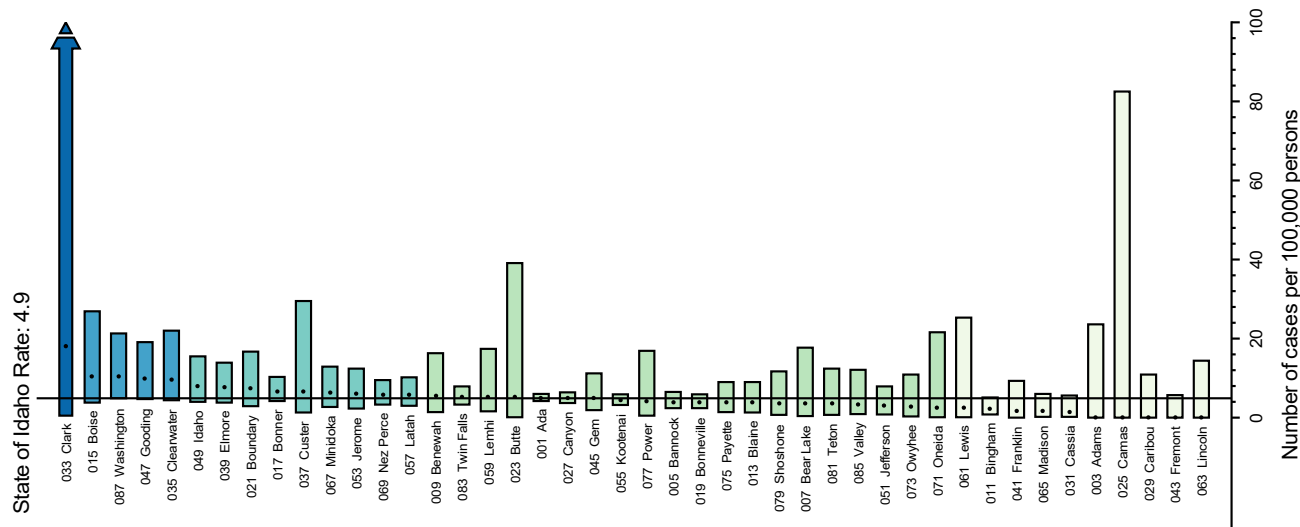
Corpus Uteri

Females

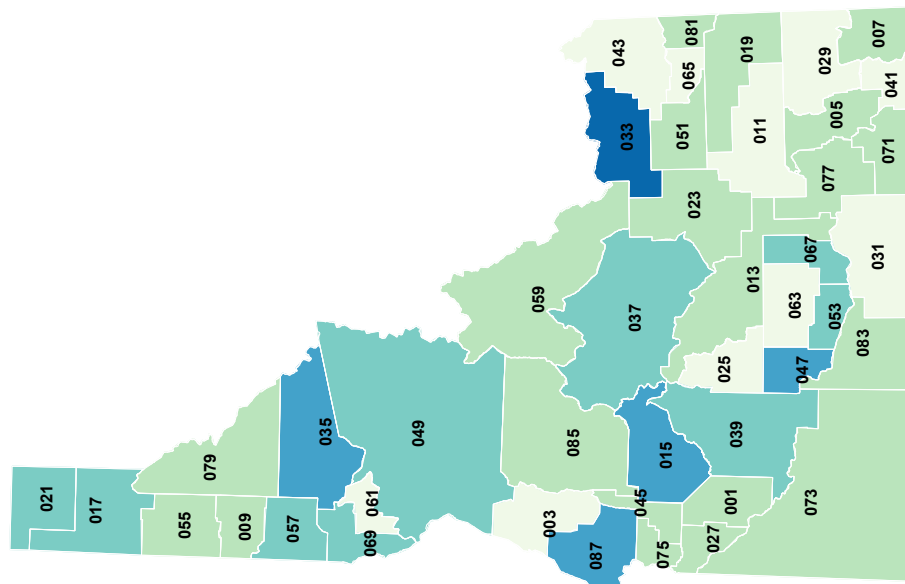
State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.

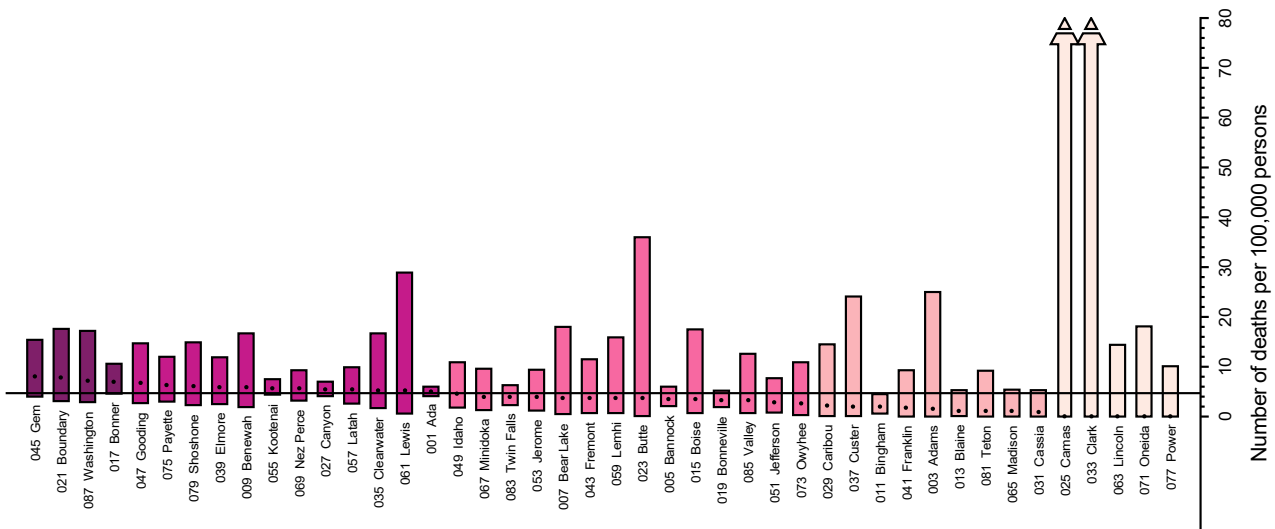


Age-Adjusted Incidence Rates Esophagus Both Males and Females State of Idaho, by County, 2015–2019

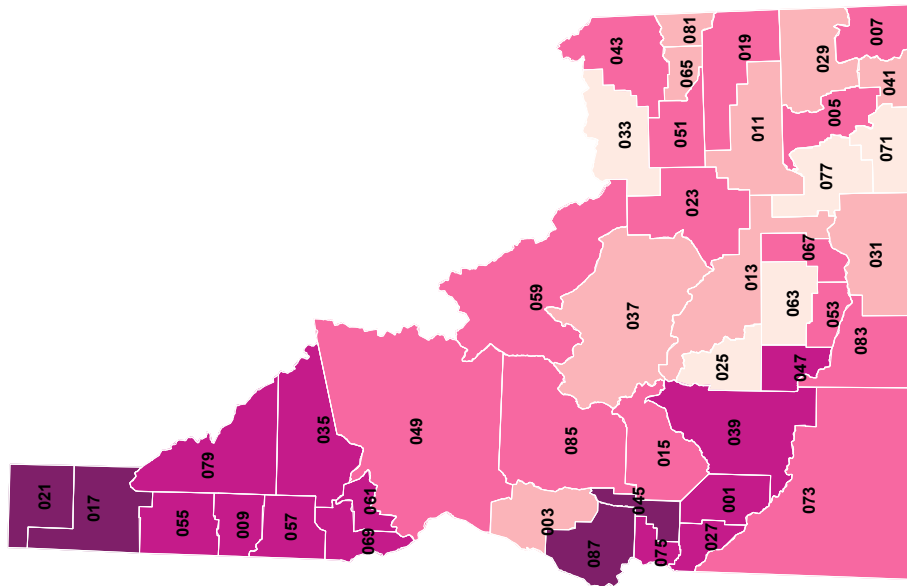


Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 4.7

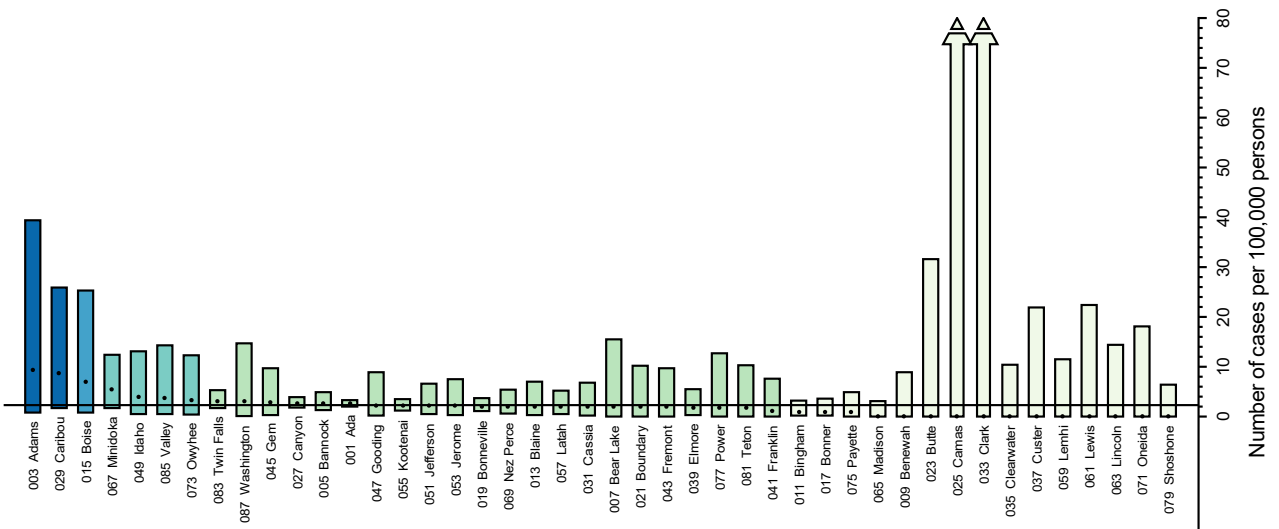


Age-Adjusted Mortality Rates Esophagus Both Males and Females State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 2.3

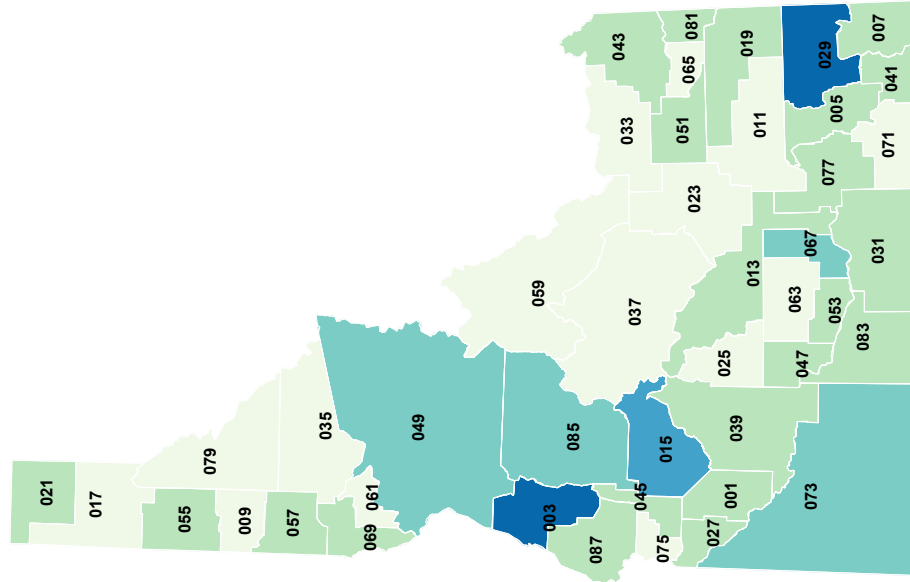


Age-Adjusted Incidence Rates

Hodgkin Lymphoma

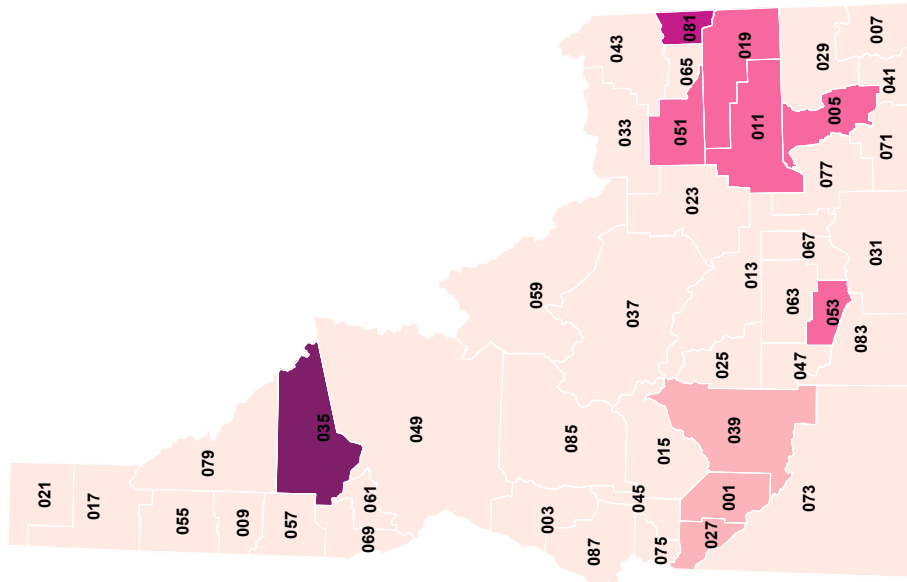
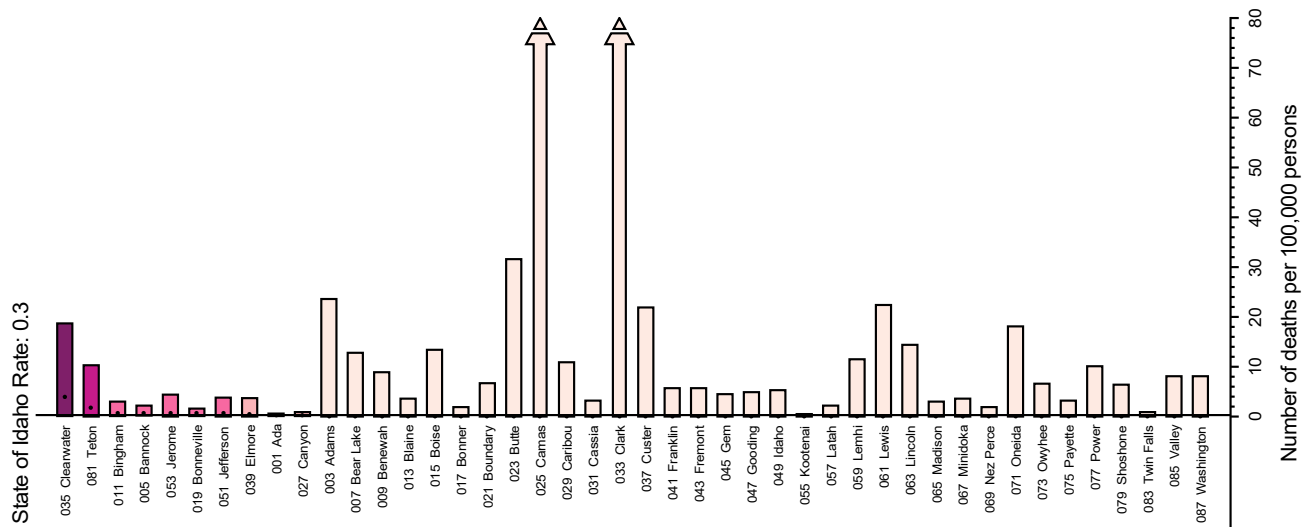
Both Males and Females

State of Idaho, by County, 2015–2019



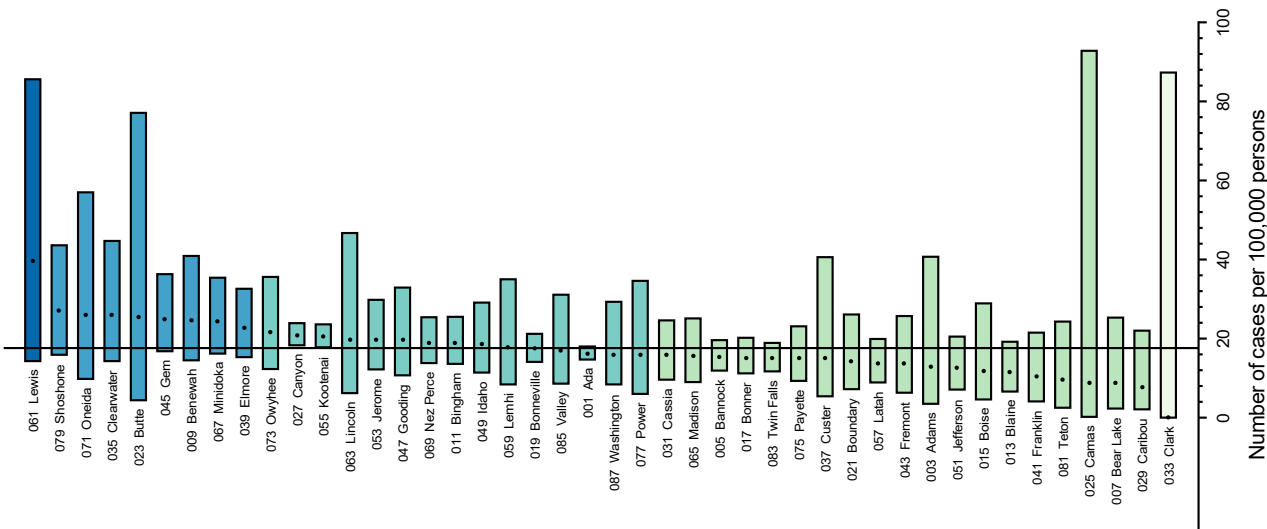
Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.

Age-Adjusted Mortality Rates Hodgkin Lymphoma Both Males and Females State of Idaho, by County, 2015–2019

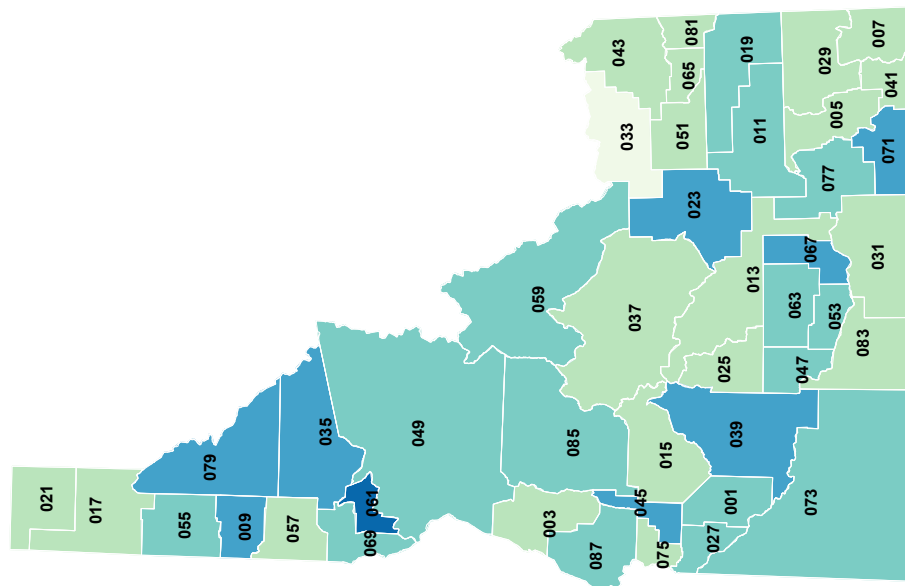


Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.

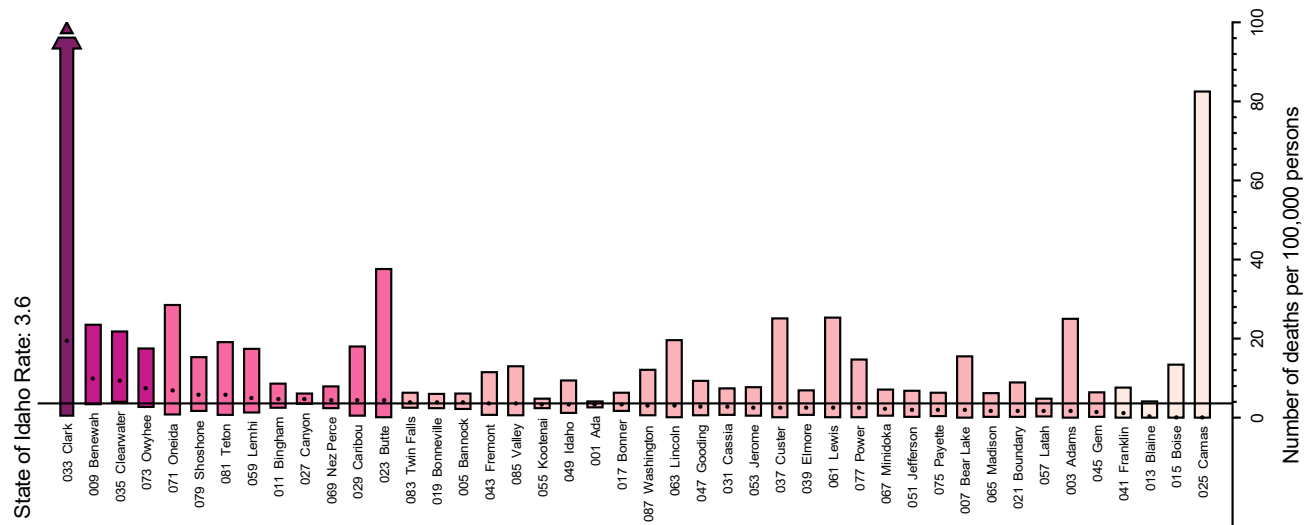
State of Idaho Rate: 17.6



Age-Adjusted Incidence Rates Kidney and Renal Pelvis Both Males and Females State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.

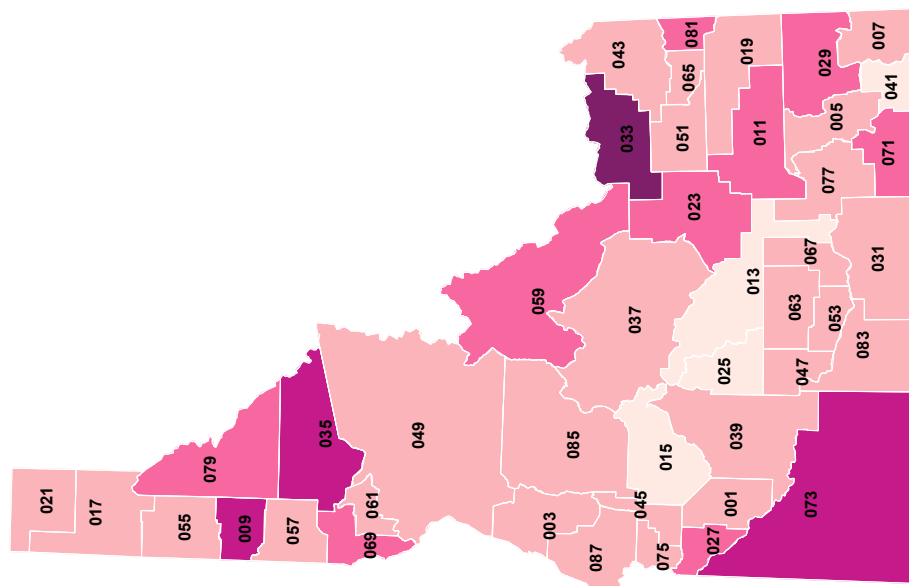


Age-Adjusted Mortality Rates

Kidney

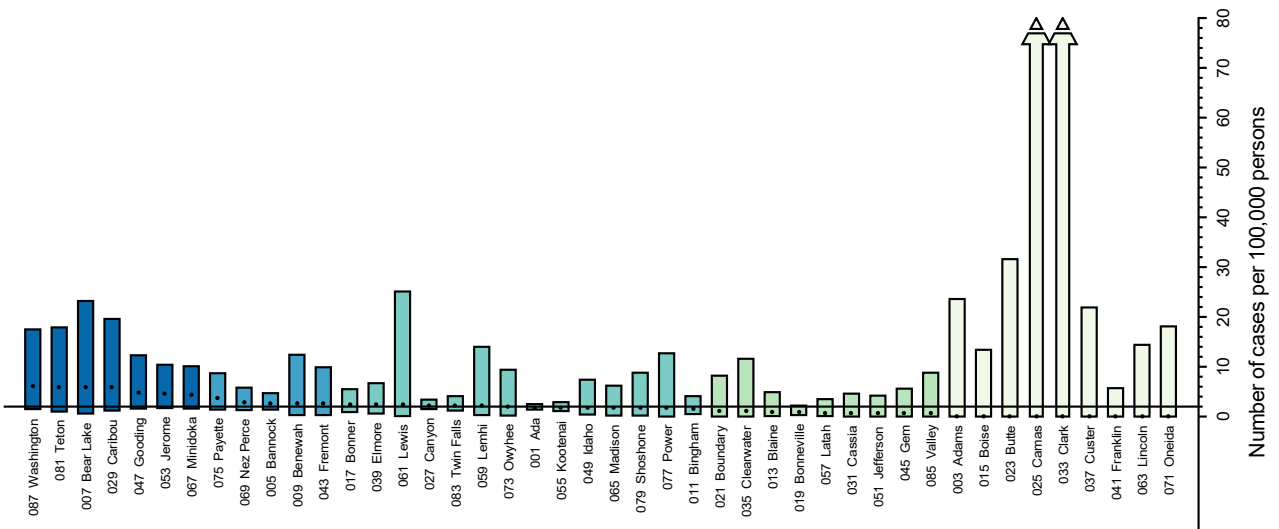
Both Males and Females

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 2.0

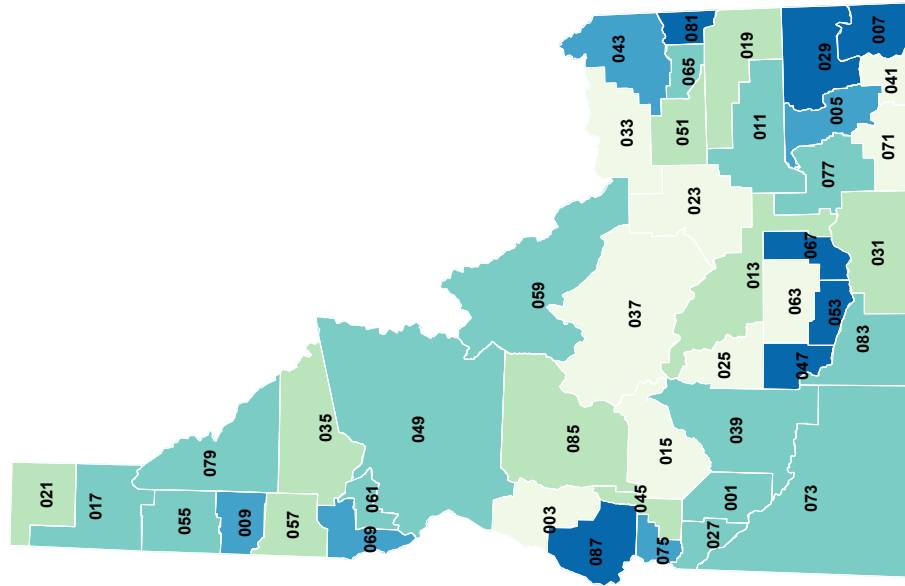


Age-Adjusted Incidence Rates

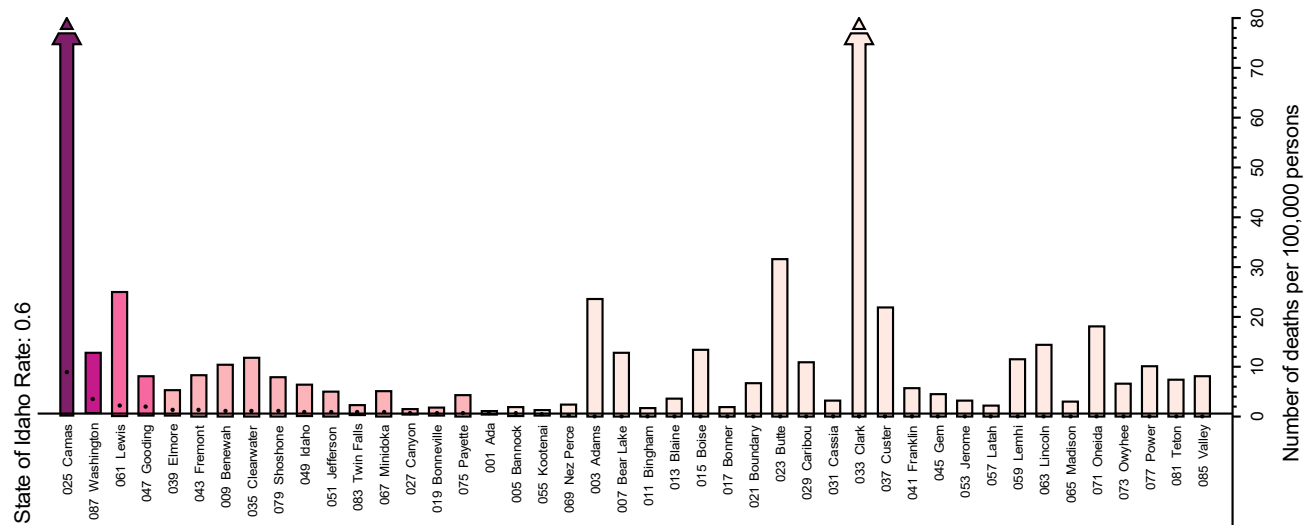
Larynx

Both Males and Females

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.

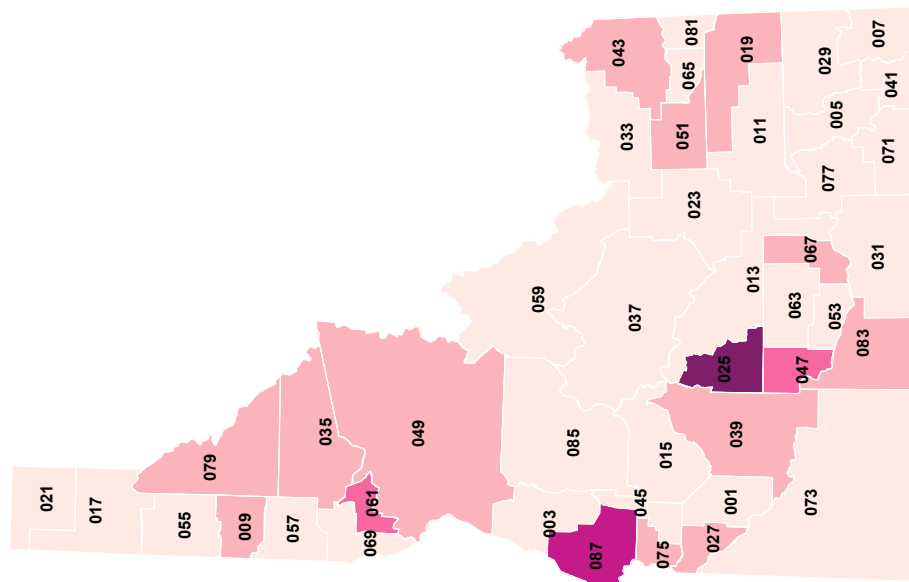


Age-Adjusted Mortality Rates

Larynx

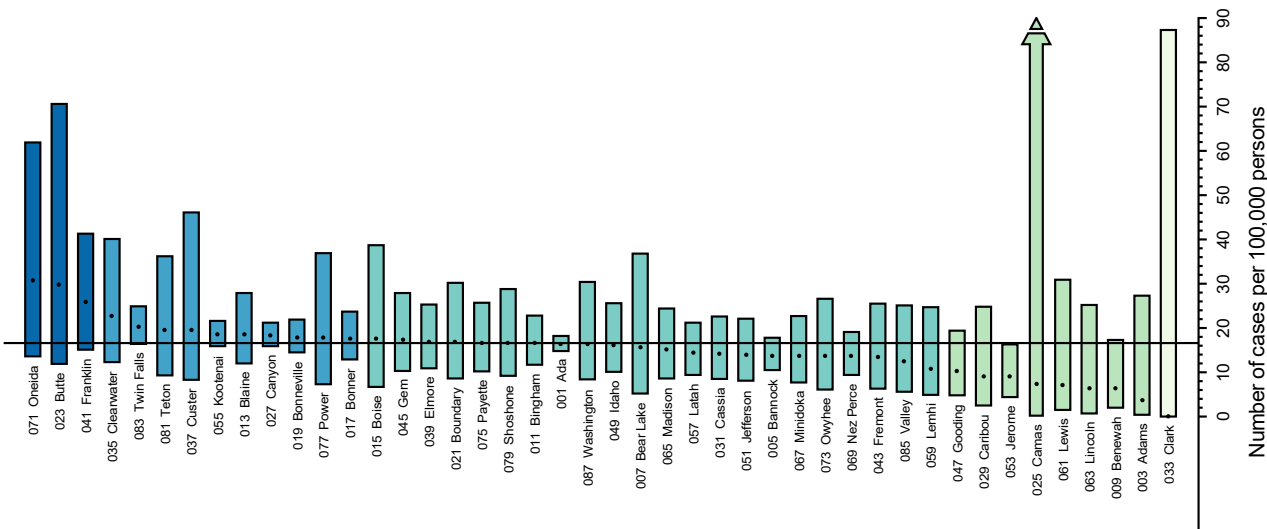
Both Males and Females

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 16.6

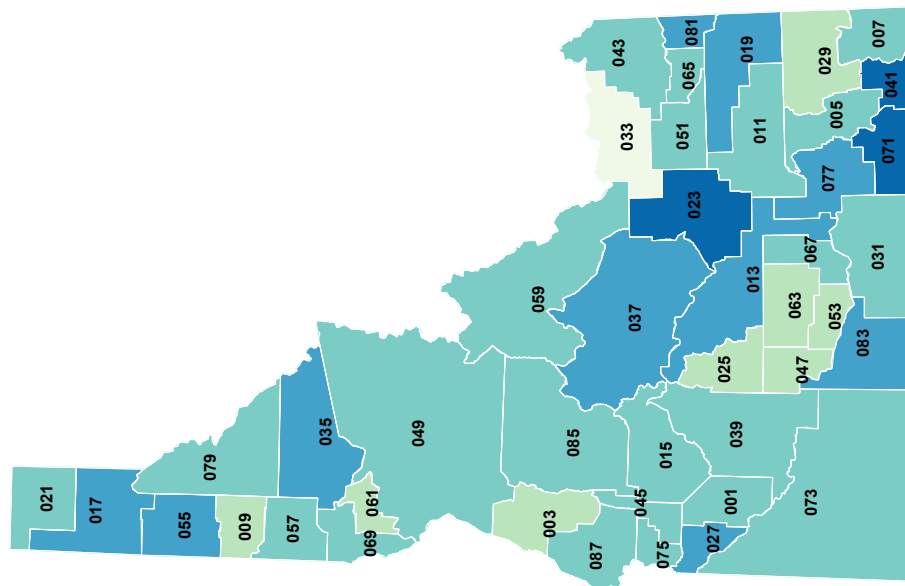


Age-Adjusted Incidence Rates

Leukemia

Both Males and Females

State of Idaho, by County, 2015–2019



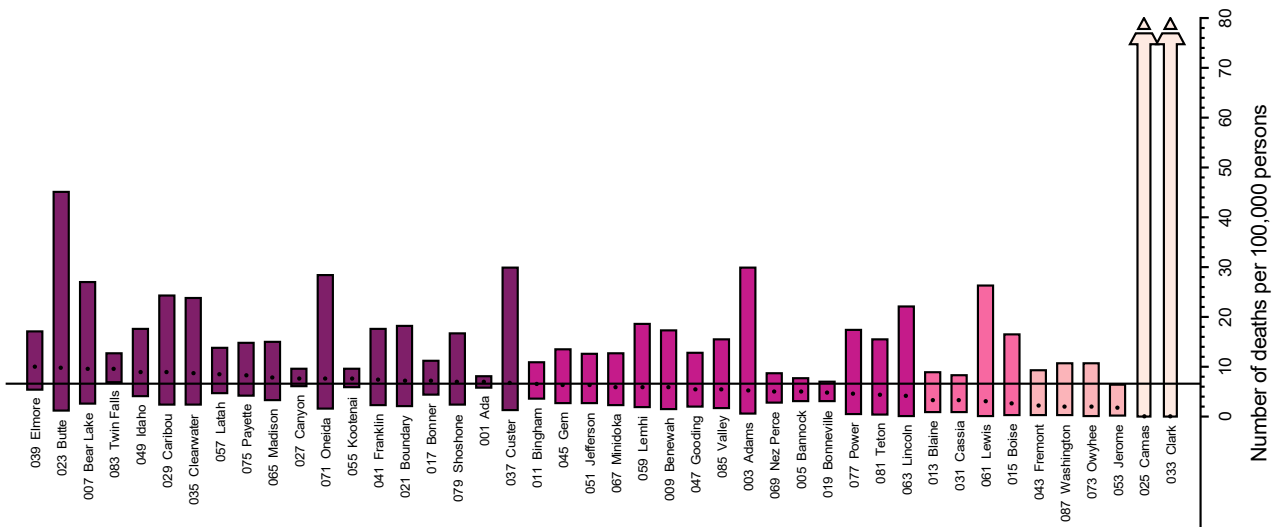
Cancer Data Registry of Idaho.

Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.

Colors denote rate clustering. Width of bars indicate 95% confidence intervals.

Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 6.6

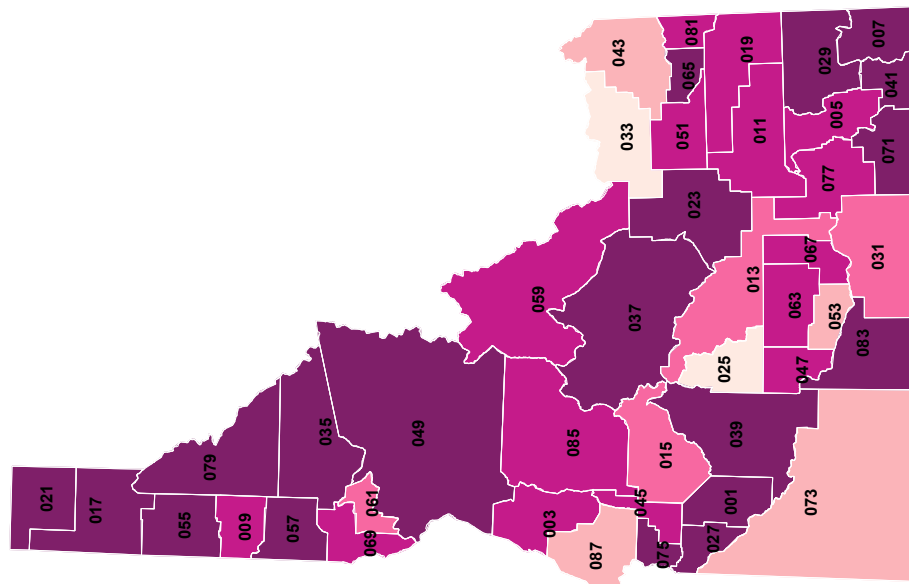


Age-Adjusted Mortality Rates

Leukemia

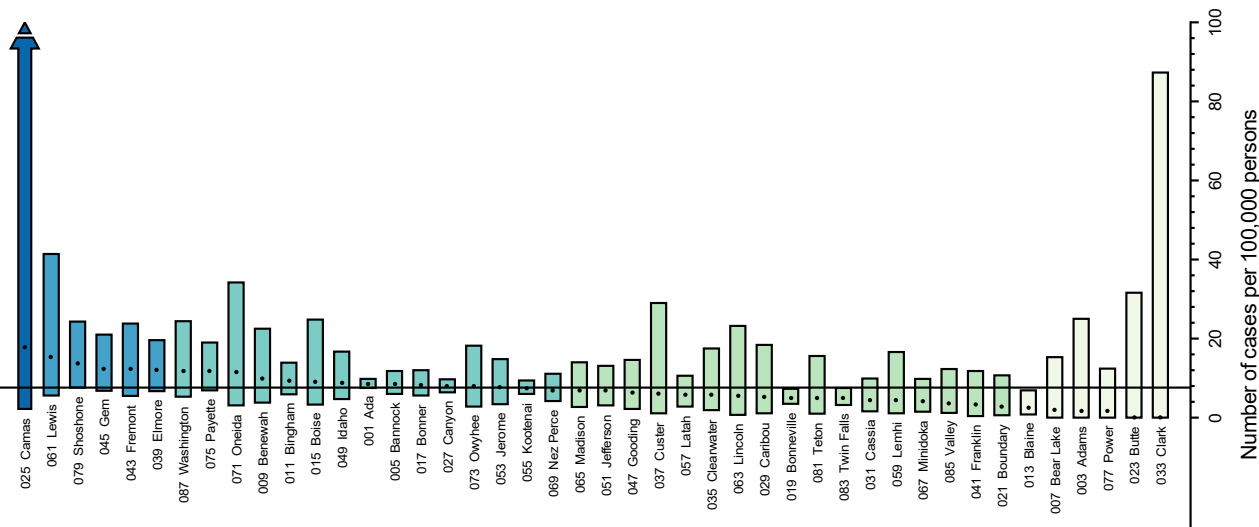
Both Males and Females

State of Idaho, by County, 2015–2019

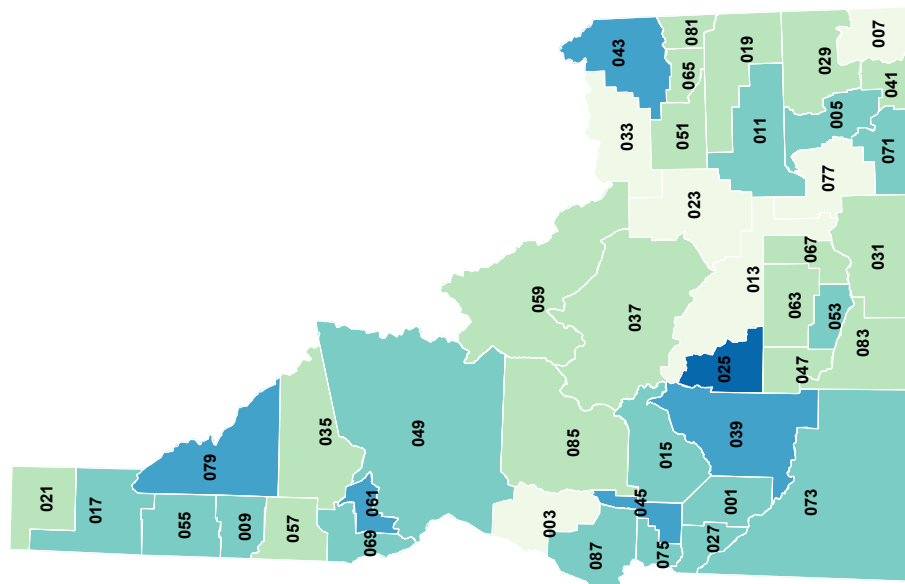


Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graph area.

State of Idaho Rate: 7.6

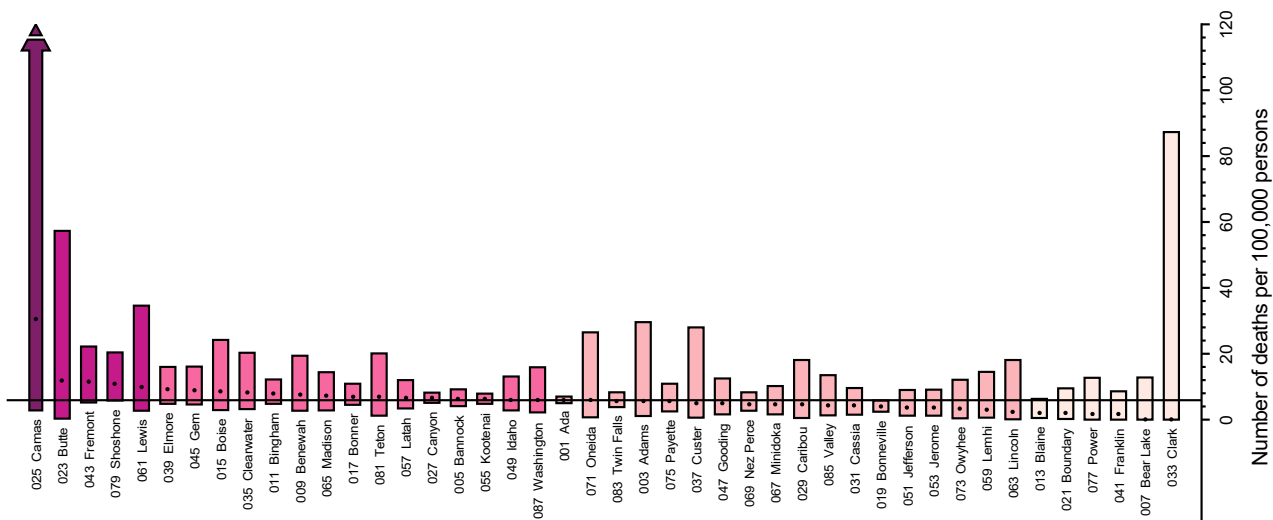


Age-Adjusted Incidence Rates Liver and Bile Duct Both Males and Females State of Idaho, by County, 2015–2019

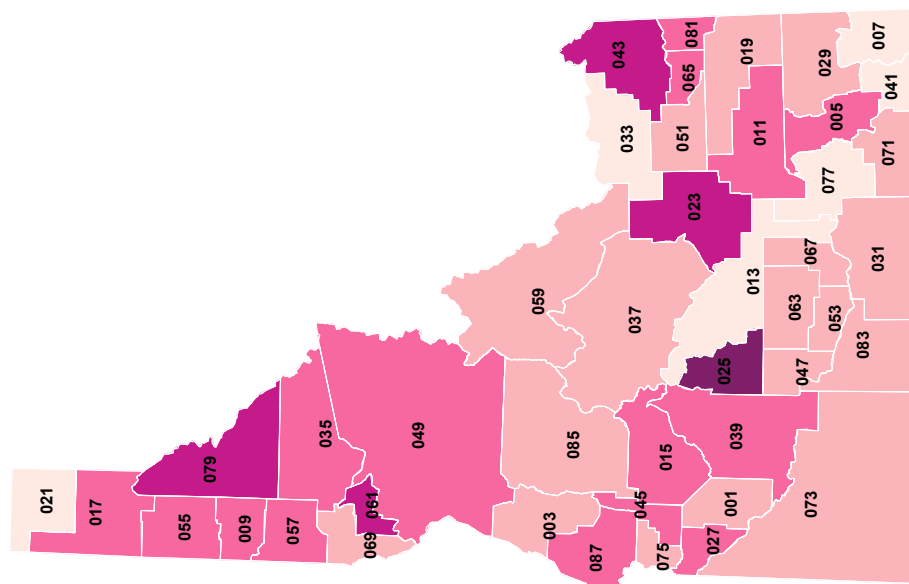


Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.

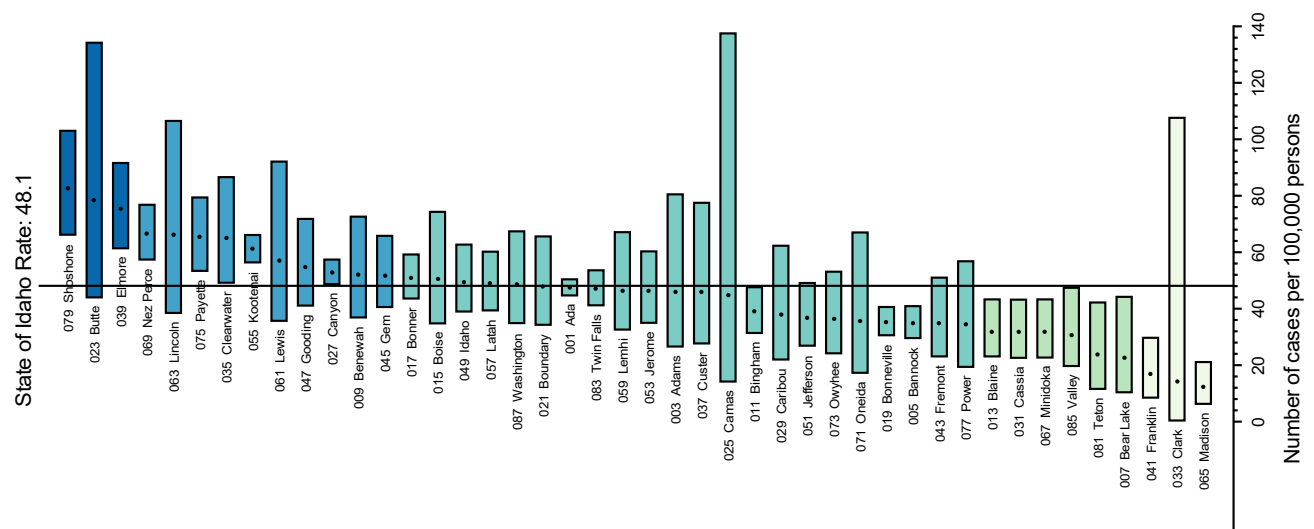
State of Idaho Rate: 5.9



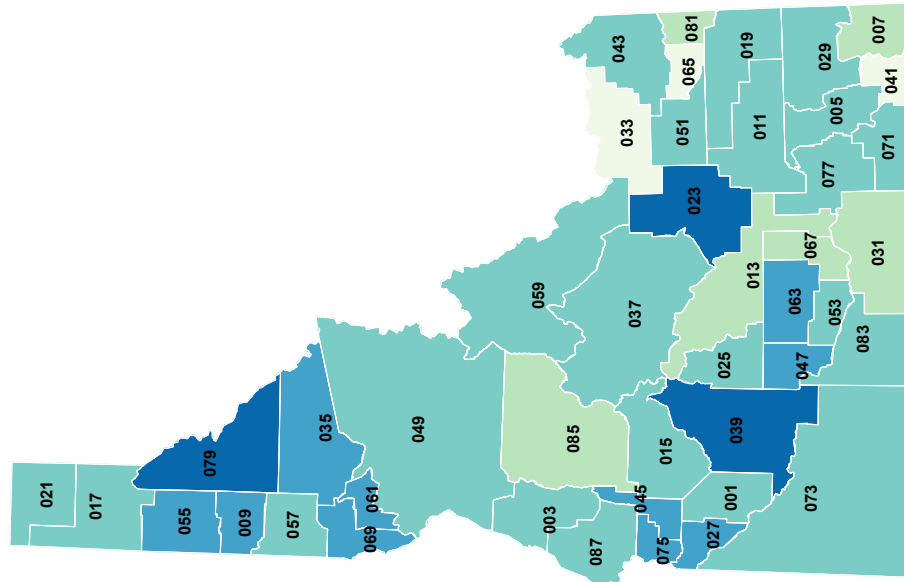
State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.

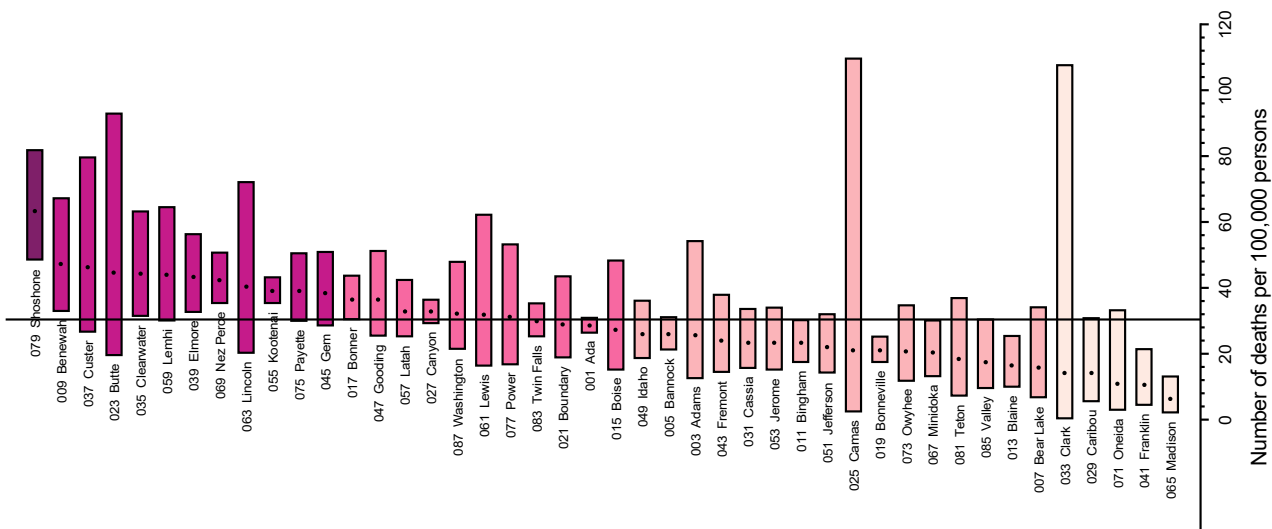


Age-Adjusted Incidence Rates Lung and Bronchus Both Males and Females State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.

State of Idaho Rate: 30.4

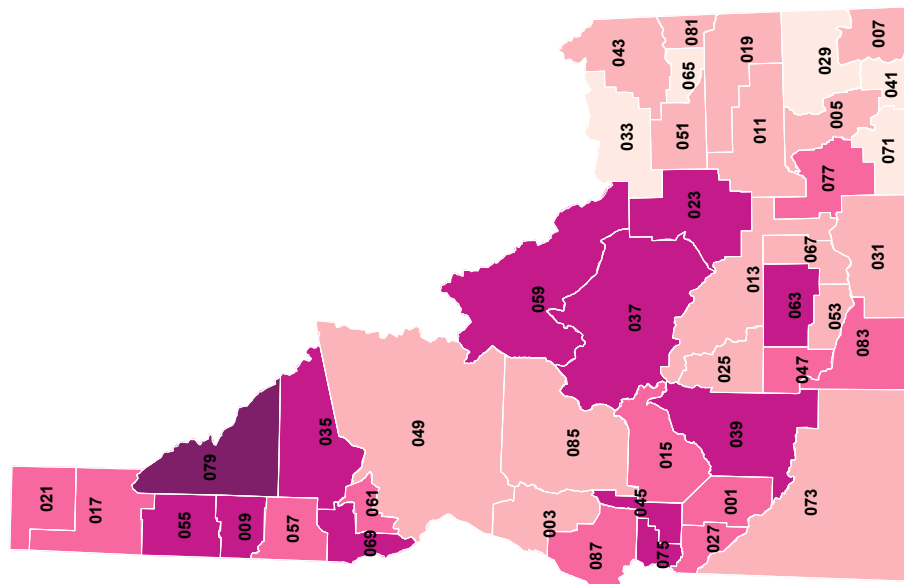


Age-Adjusted Mortality Rates

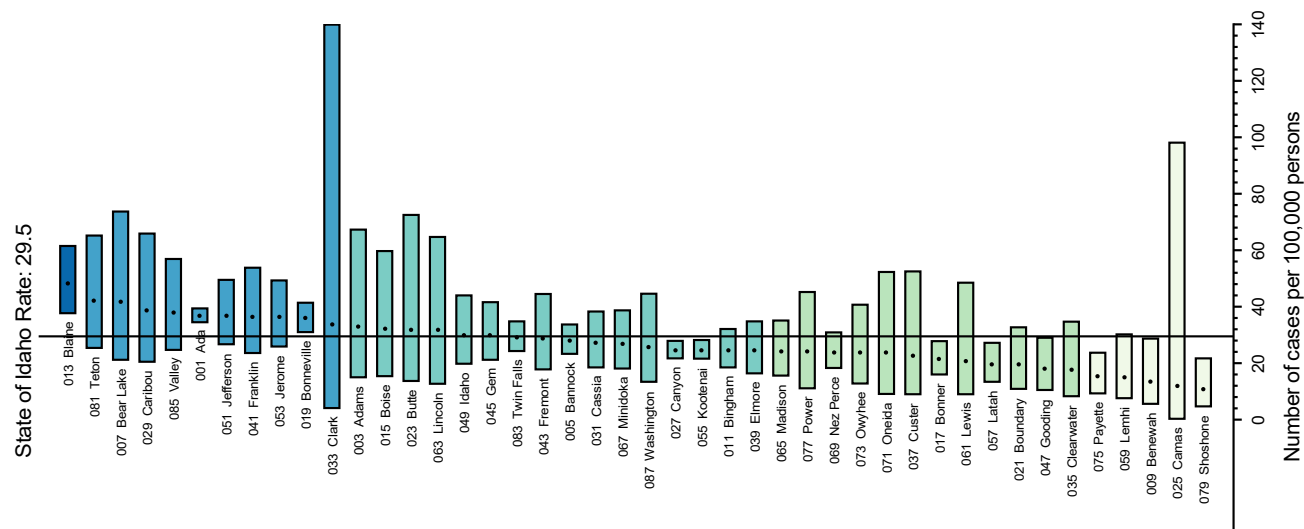
Lung and Bronchus

Both Males and Females

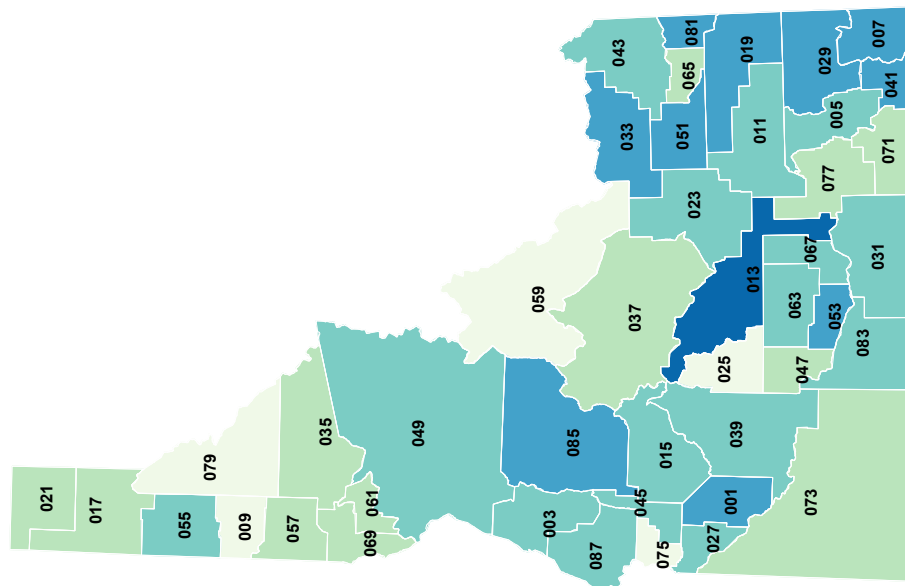
State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.

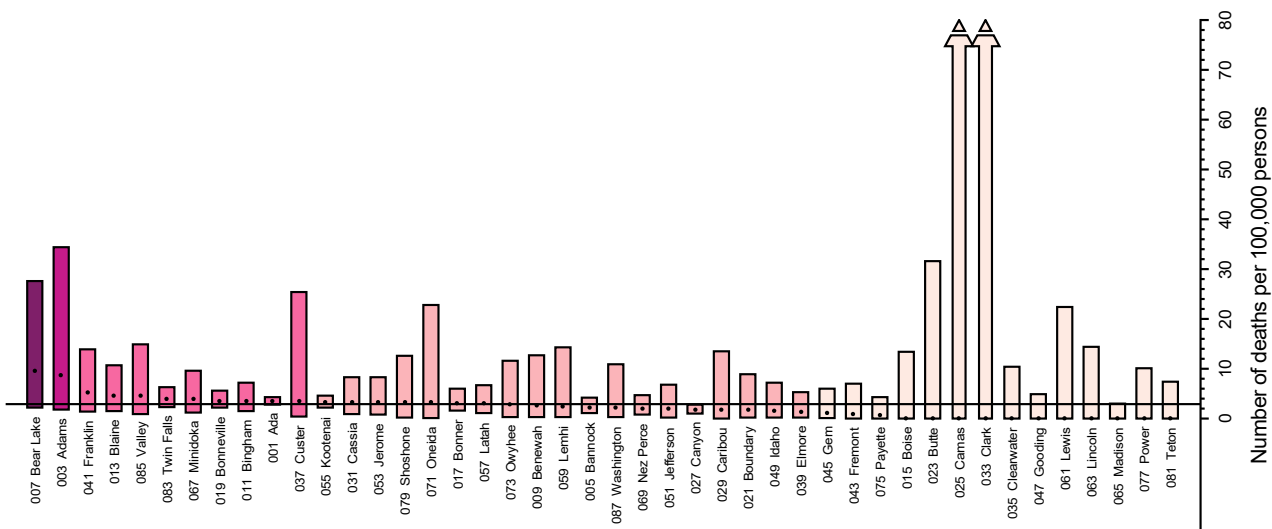


Age-Adjusted Incidence Rates Melanoma of the Skin Both Males and Females State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.

State of Idaho Rate: 2.9

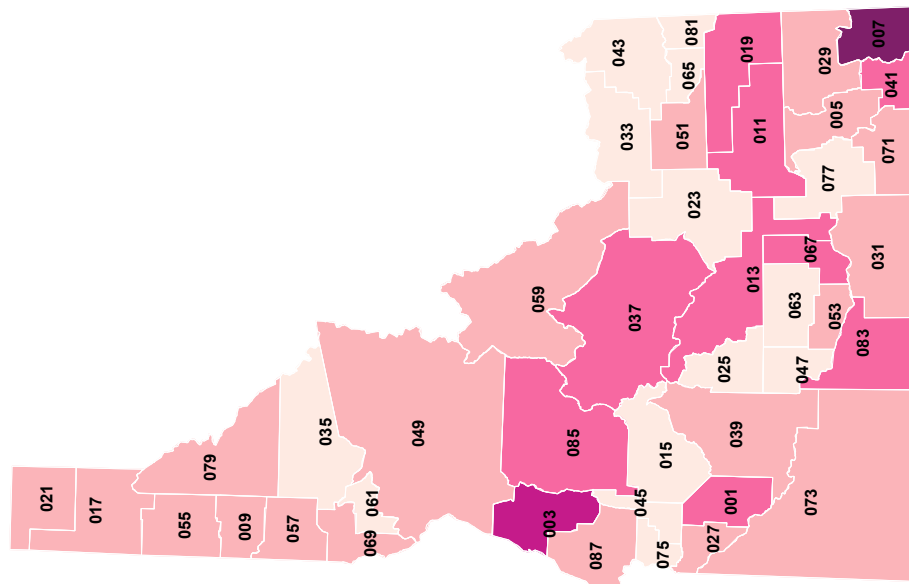


Age-Adjusted Mortality Rates

Melanoma of the Skin

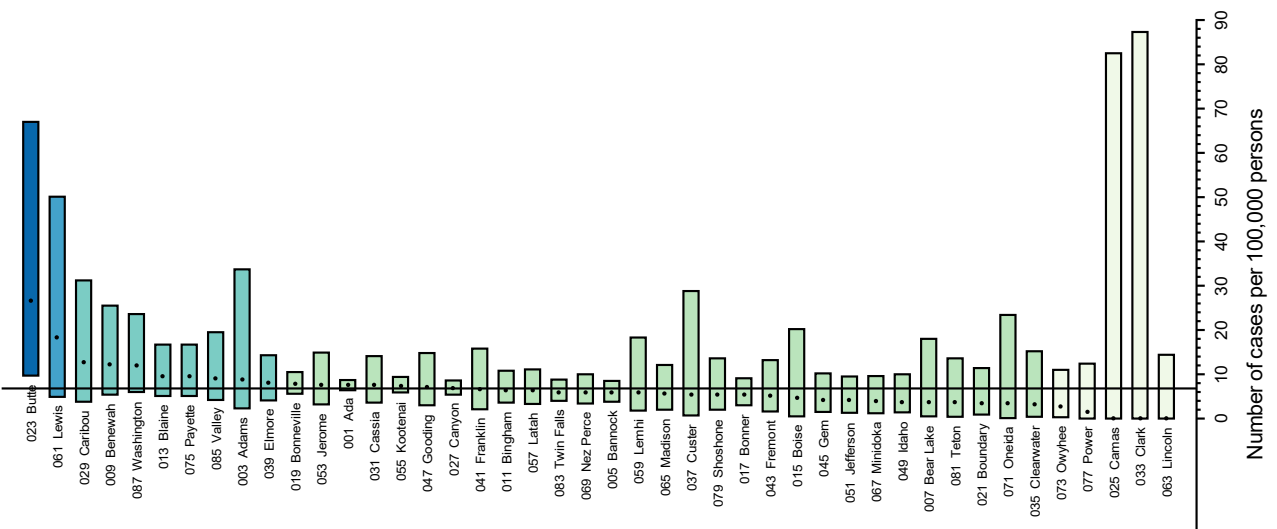
Both Males and Females

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond geographic area.

State of Idaho Rate: 6.8

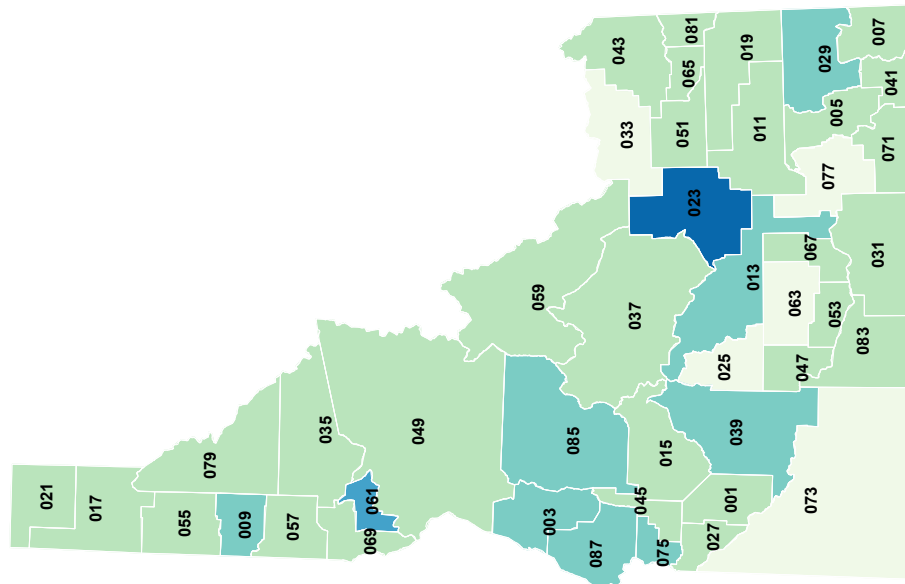


Age-Adjusted Incidence Rates

Myeloma

Both Males and Females

State of Idaho, by County, 2015–2019



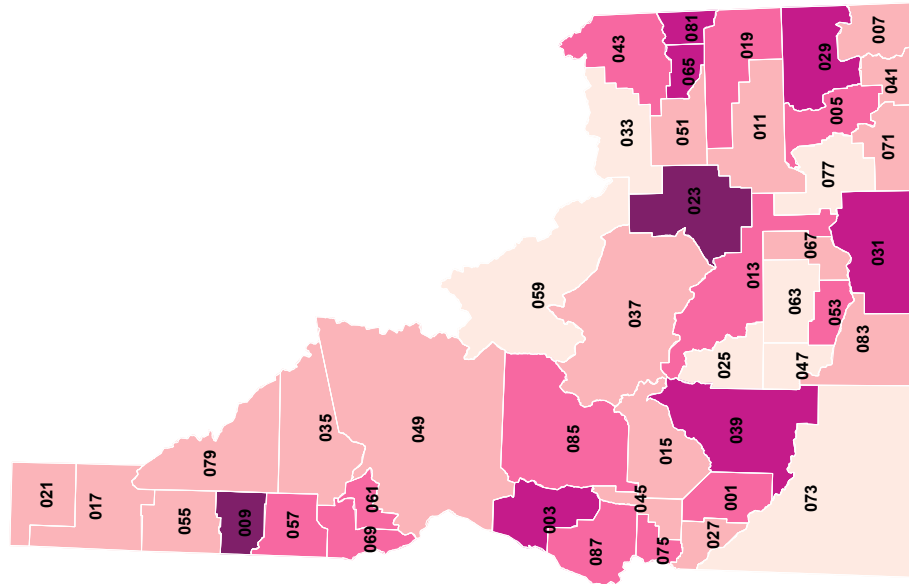
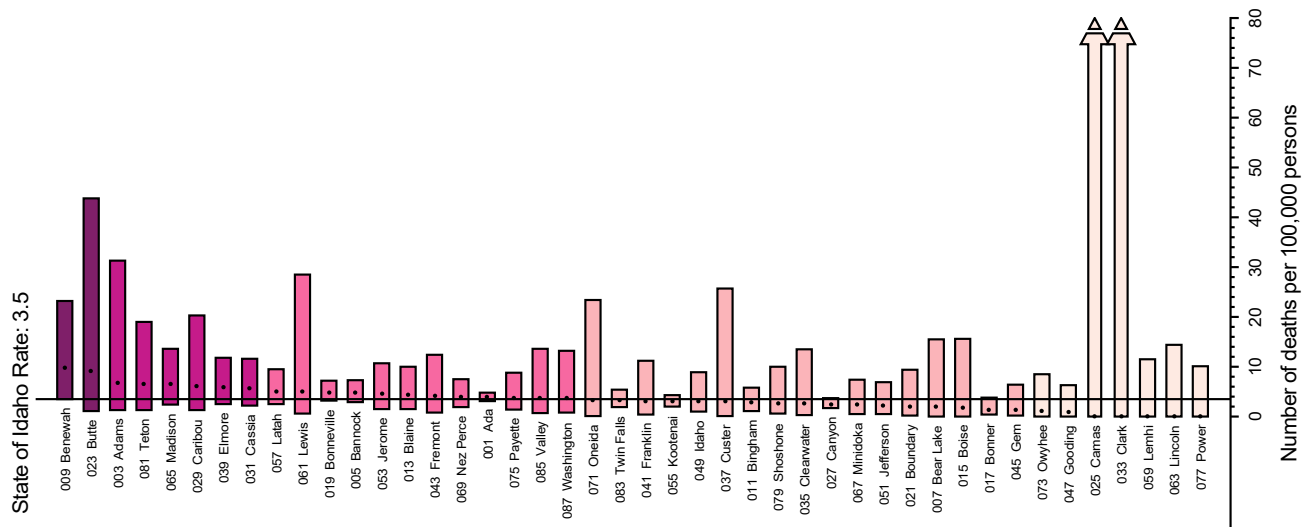
Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.

Age-Adjusted Mortality Rates

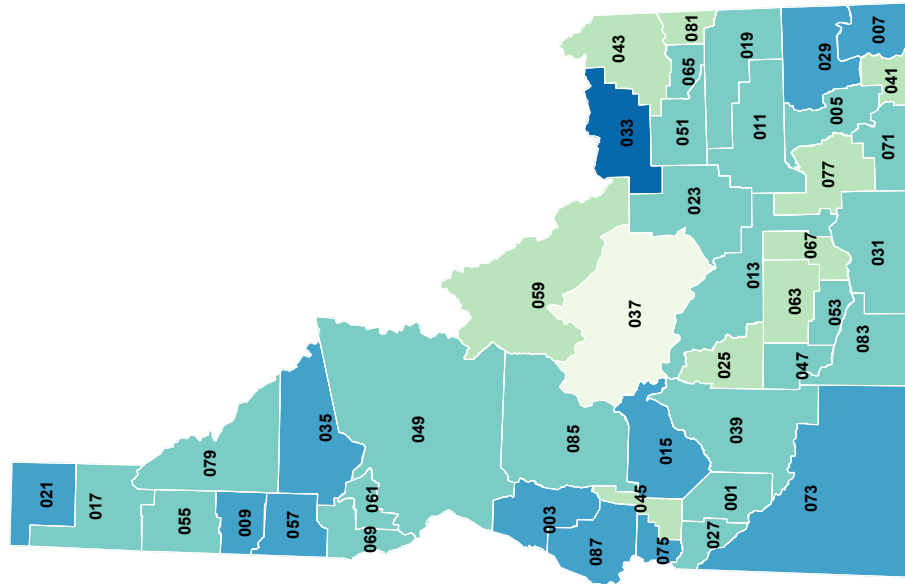
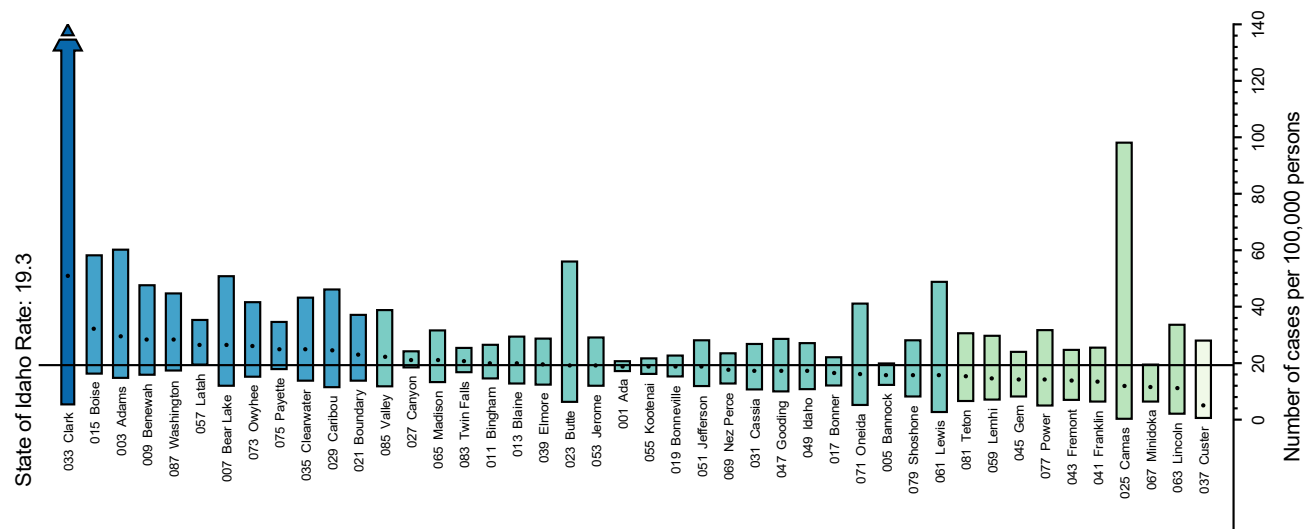
Myeloma

Both Males and Females

State of Idaho, by County, 2015–2019

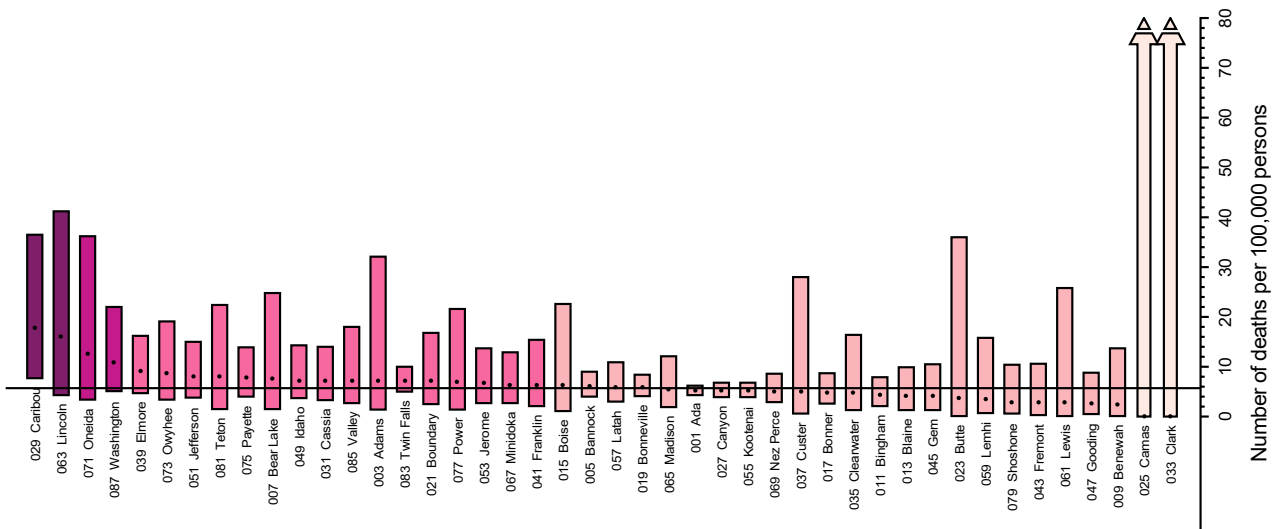


Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.

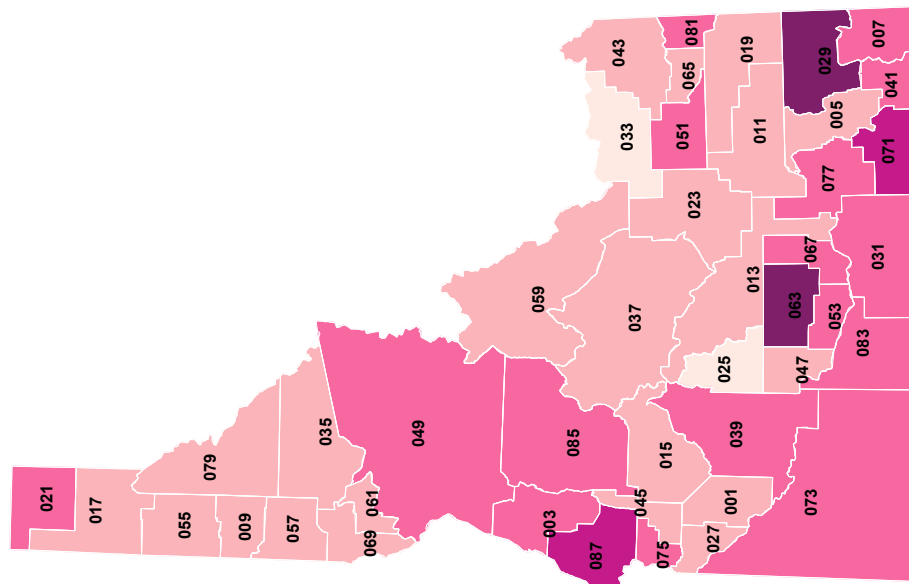


Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.

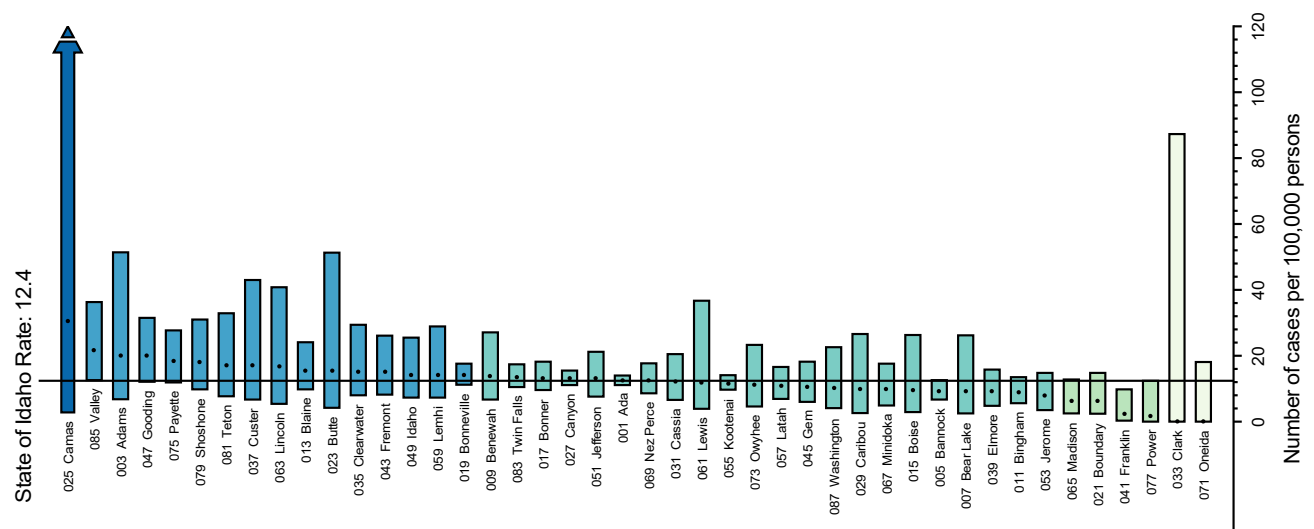
State of Idaho Rate: 5.7



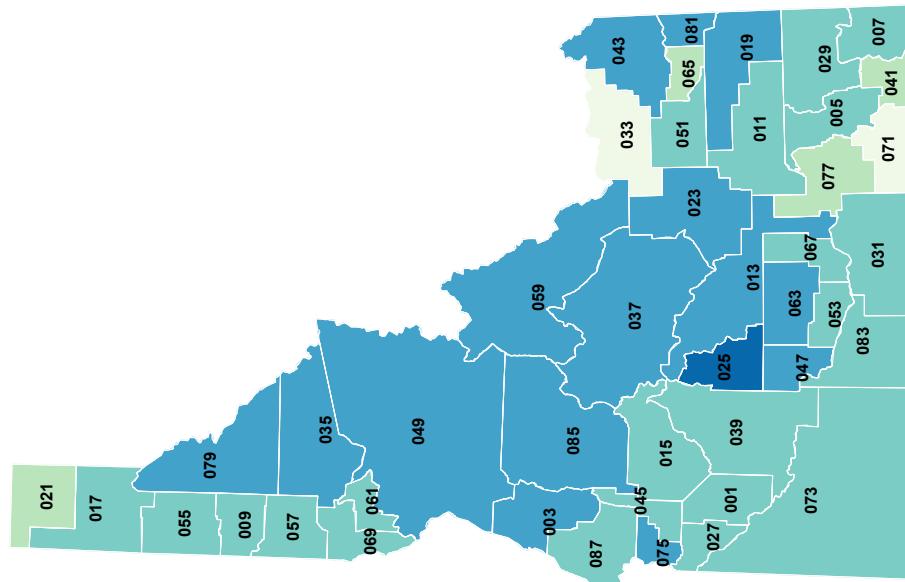
Age-Adjusted Mortality Rates Non-Hodgkin Lymphoma Both Males and Females State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.

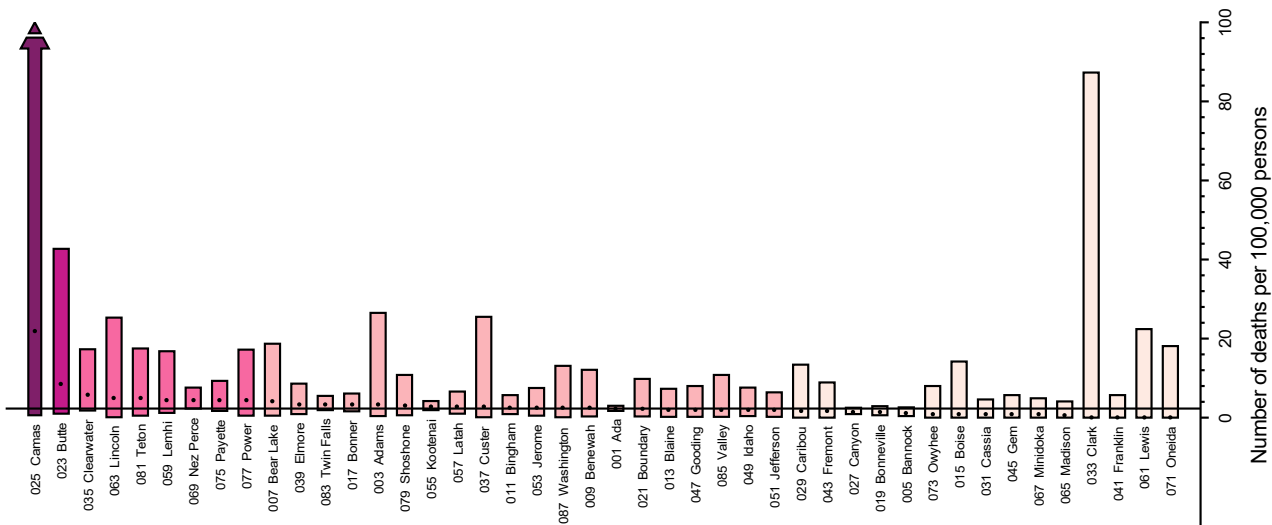


Age-Adjusted Incidence Rates Oral Cavity and Pharynx Both Males and Females State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 2.3

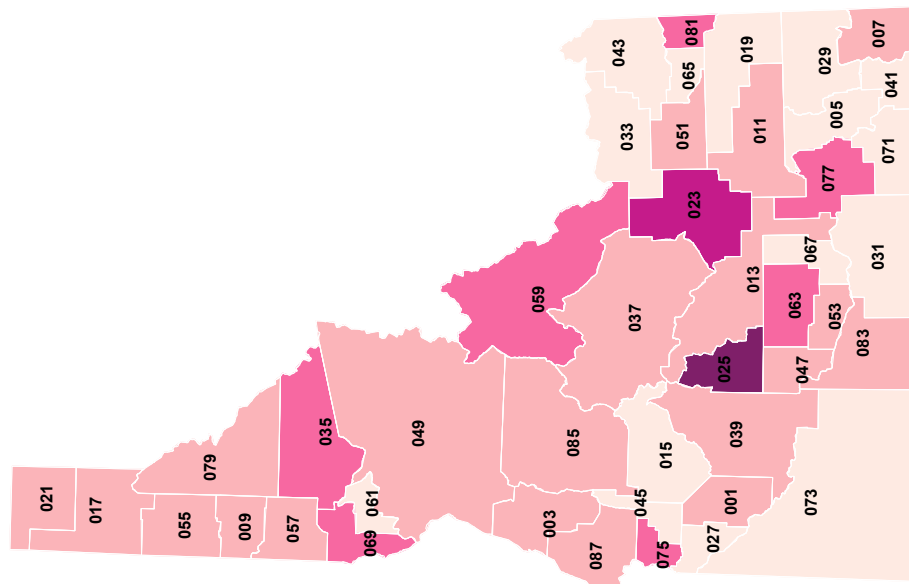


Age-Adjusted Mortality Rates

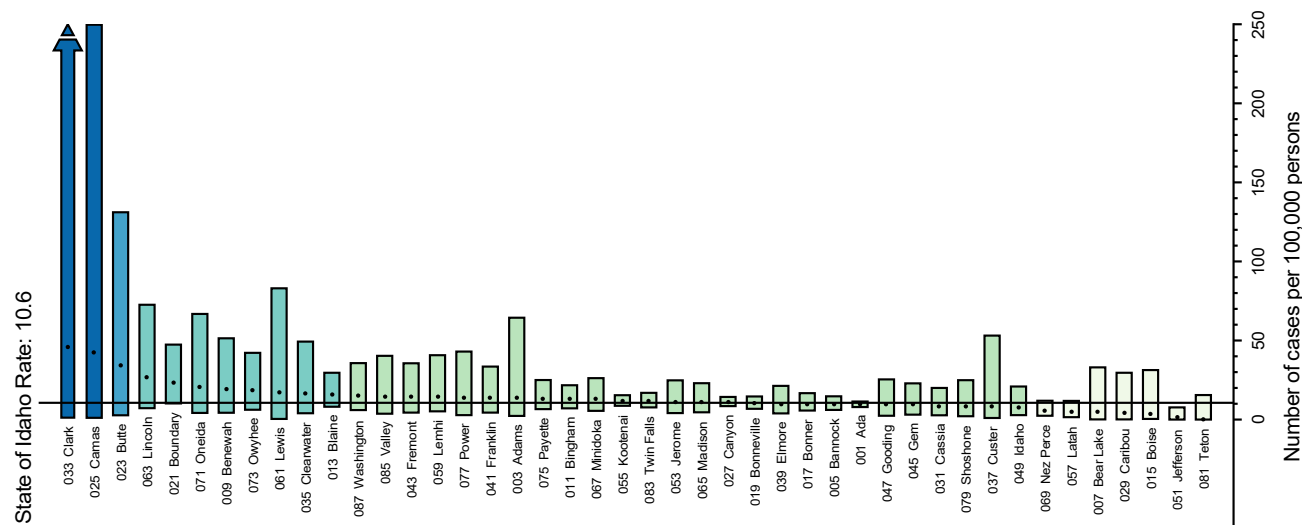
Oral Cavity and Pharynx

Both Males and Females

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.

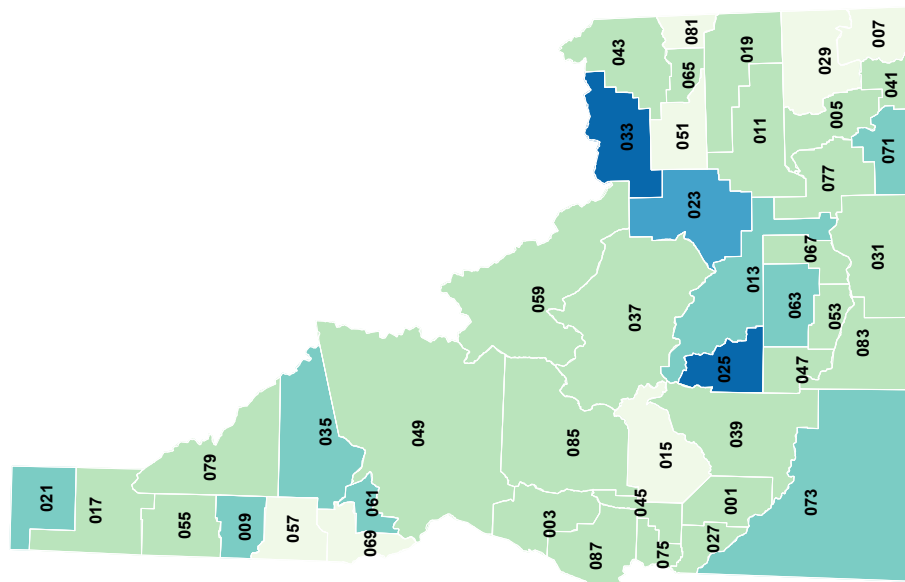


Age-Adjusted Incidence Rates

Ovary

Females

State of Idaho, by County, 2015–2019

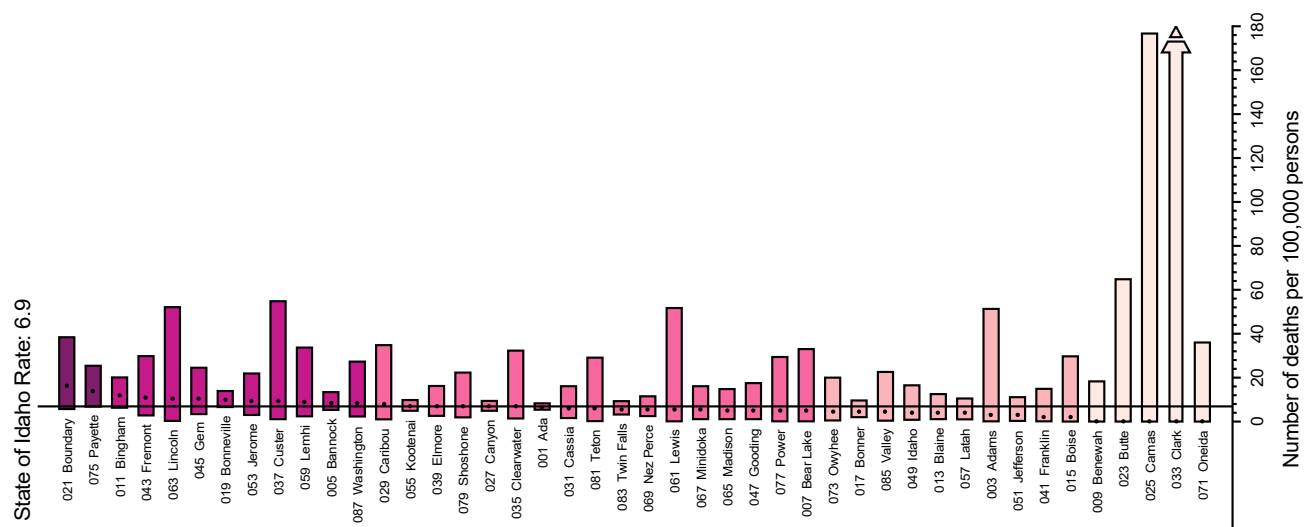


Cancer Data Registry of Idaho.

Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.

Colors denote rate clustering. Width of bars indicate 95% confidence intervals.

Arrows indicate upper confidence interval extends beyond graphic area.

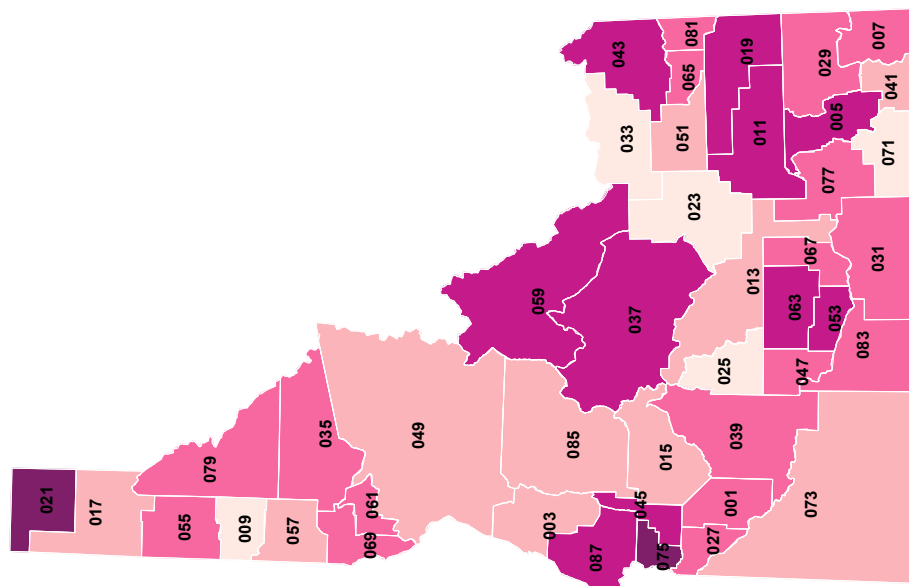


Age-Adjusted Mortality Rates

Ovary

Females

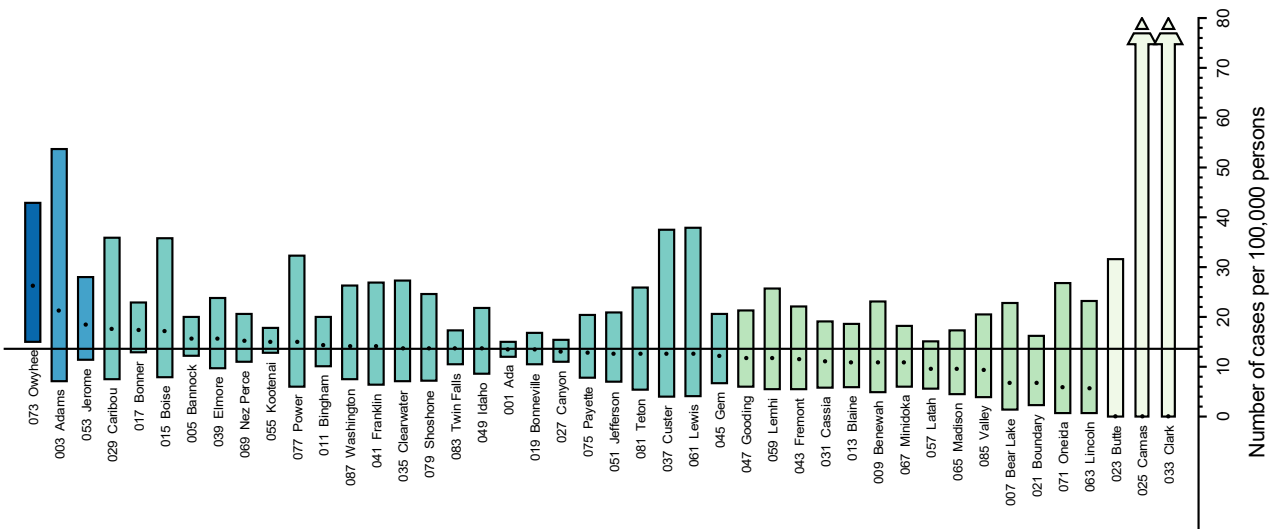
State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.

Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties. Colors denote rate clustering. Width of bars indicate 95% confidence intervals. Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 13.6

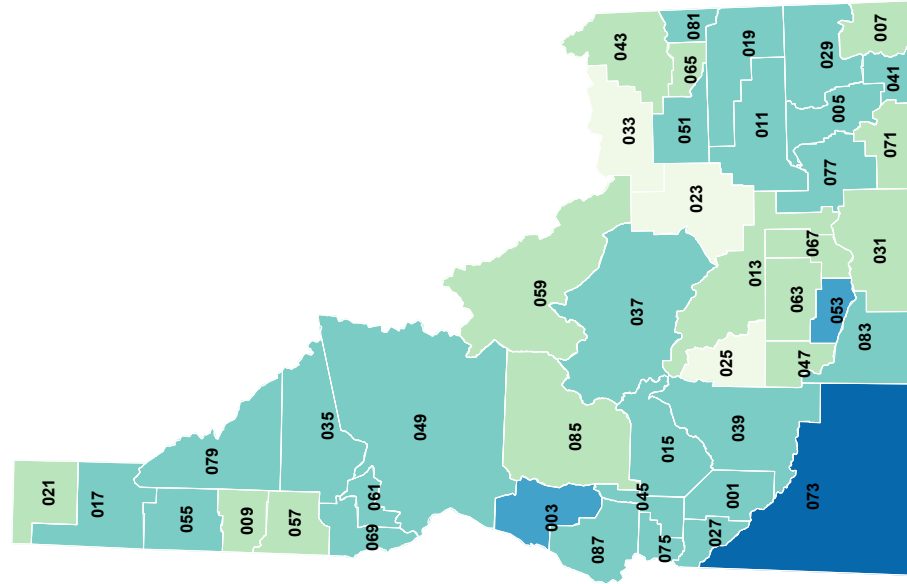


Age-Adjusted Incidence Rates

Pancreas

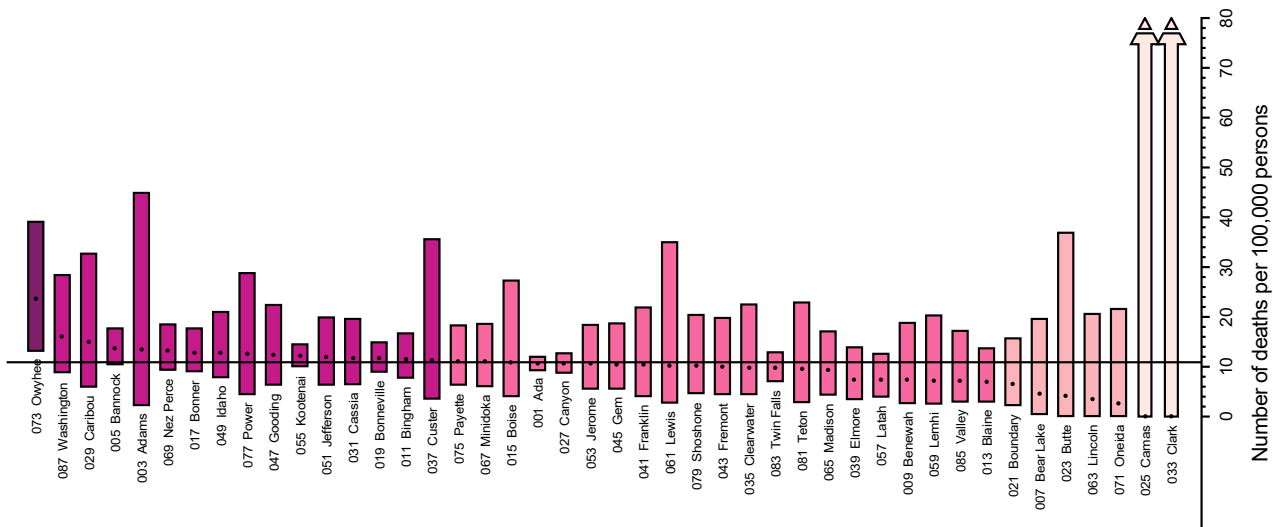
Both Males and Females

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 10.9

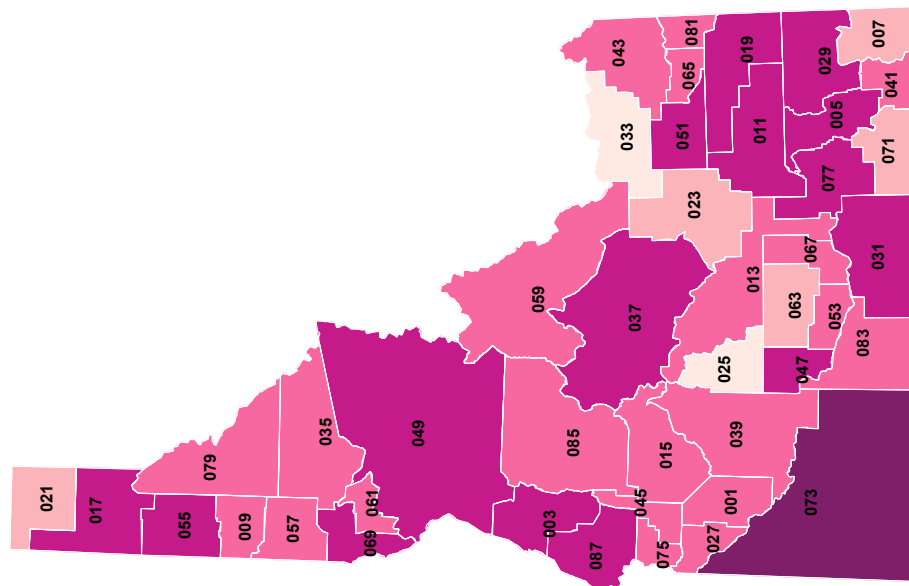


Age-Adjusted Mortality Rates

Pancreas

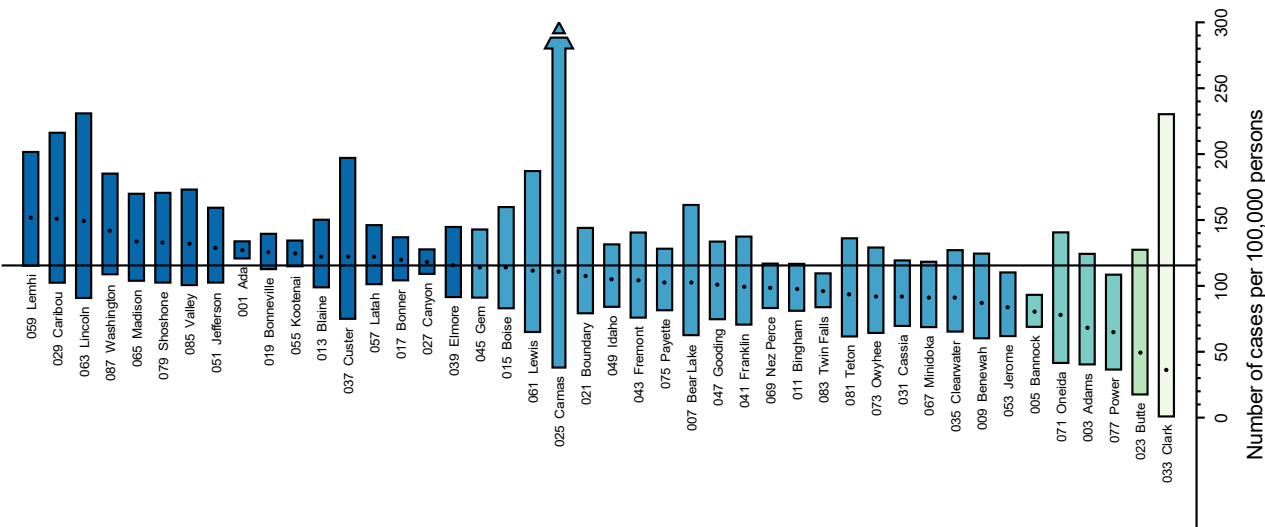
Both Males and Females

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 115.5

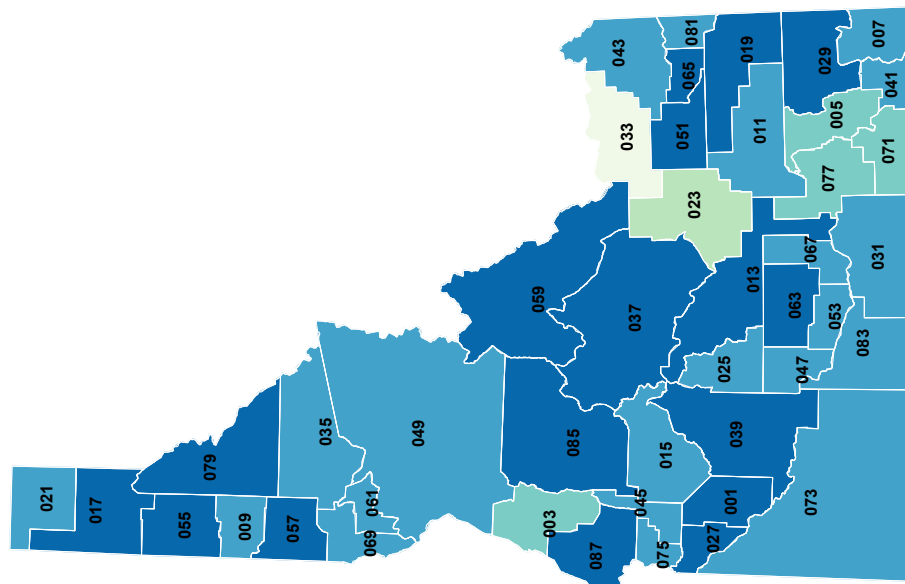


Age-Adjusted Incidence Rates

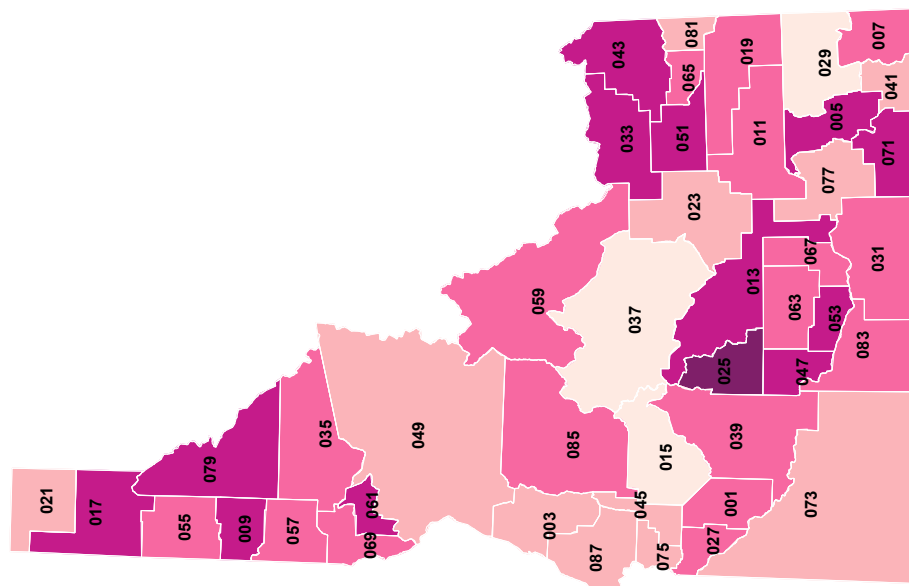
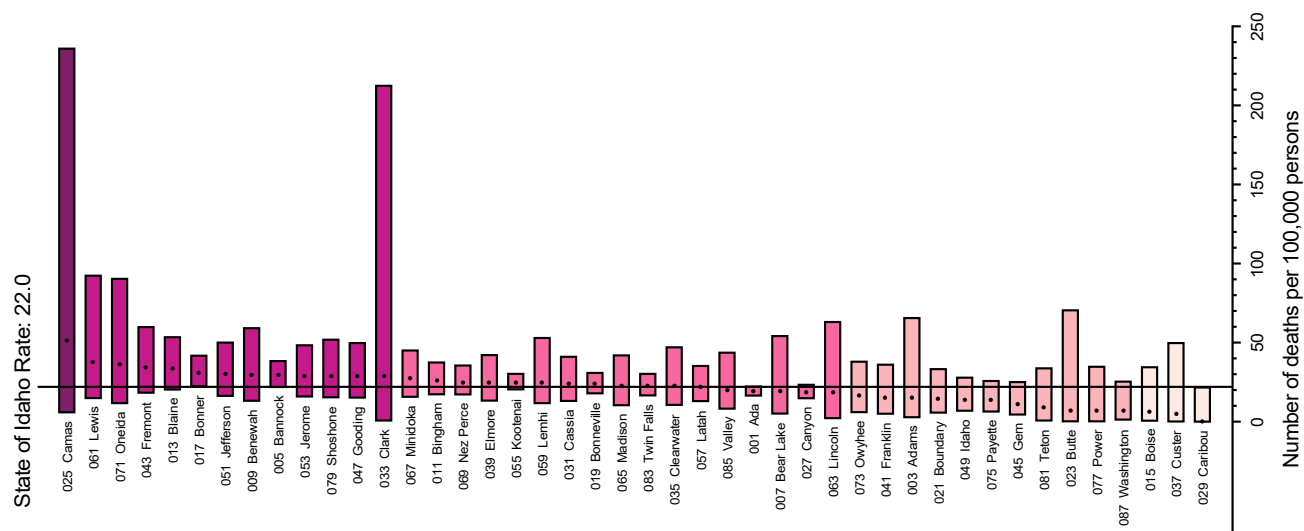
Prostate

Males

State of Idaho, by County, 2015–2019

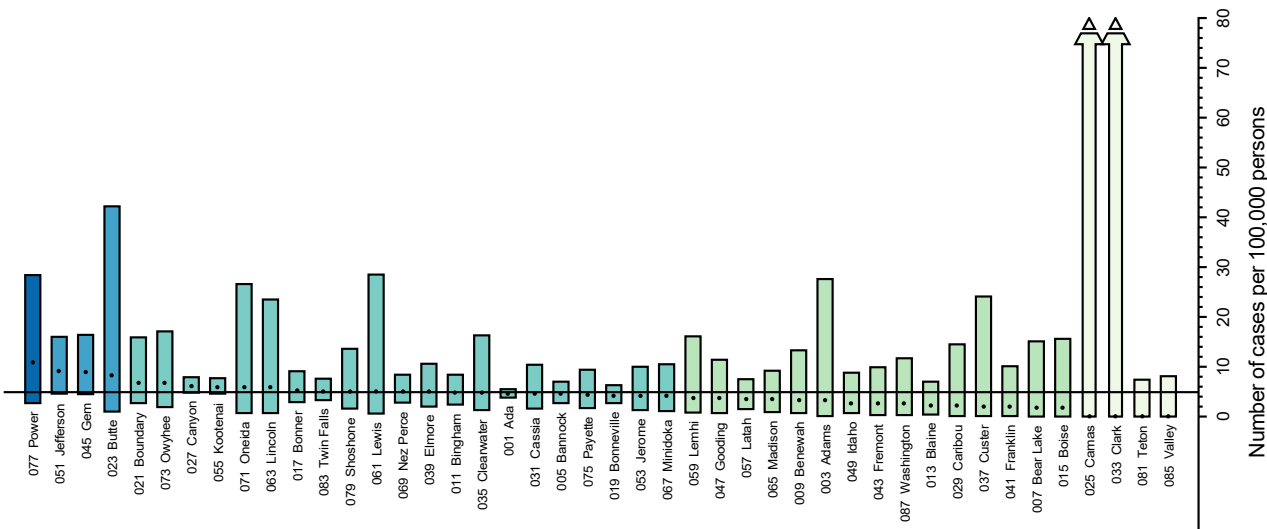


Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.

State of Idaho Rate: 4.9

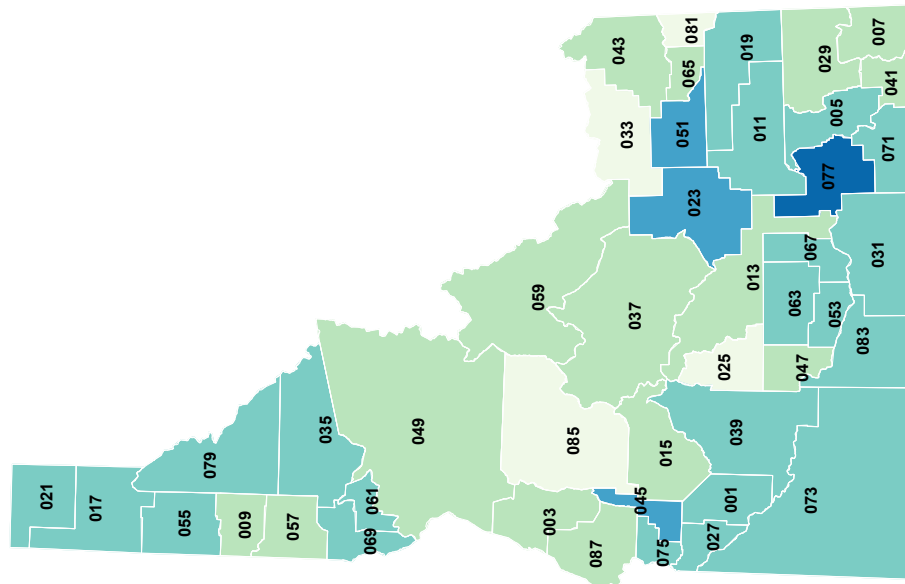


Age-Adjusted Incidence Rates

Stomach

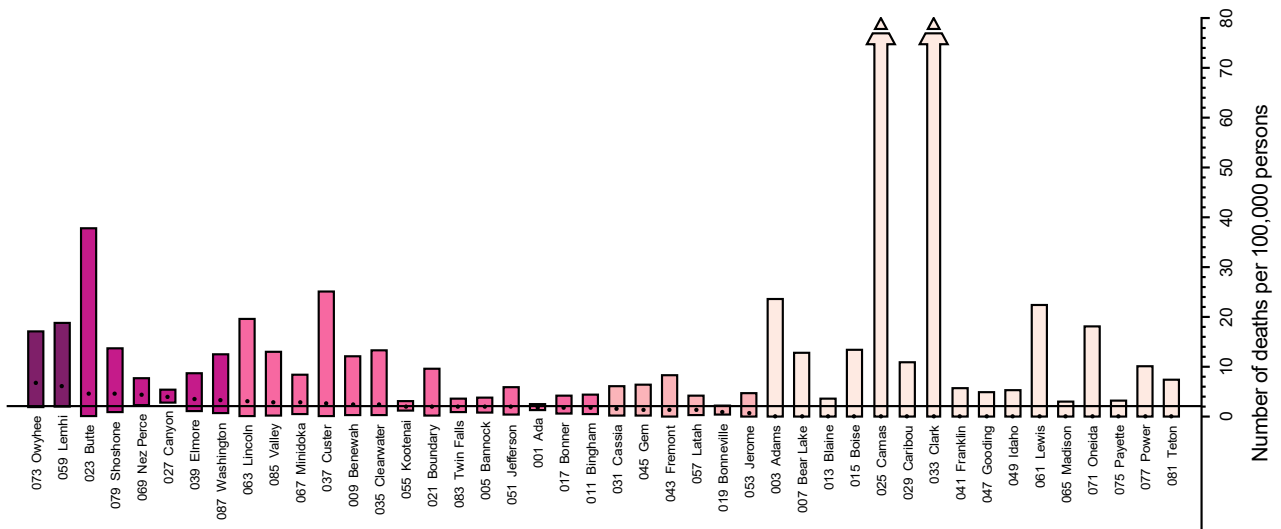
Both Males and Females

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 2.1

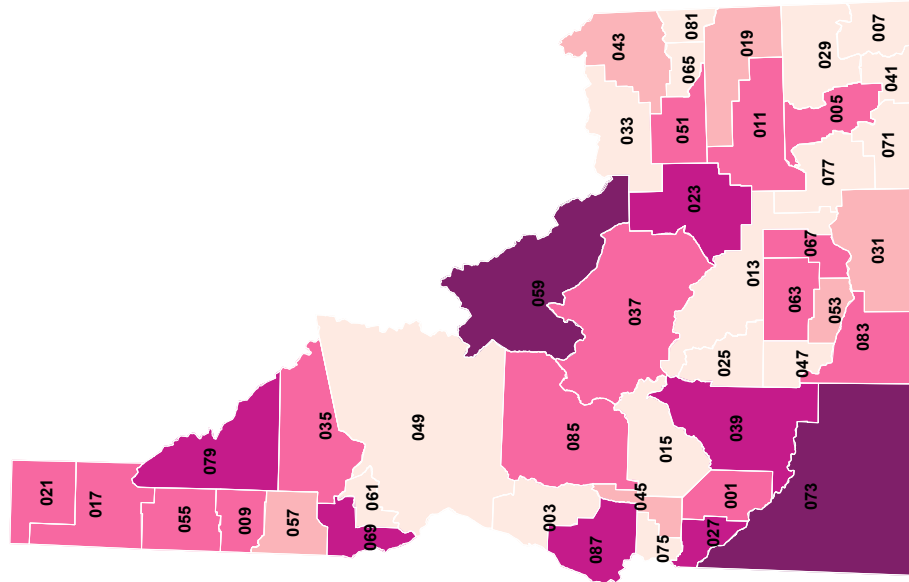


Age-Adjusted Mortality Rates

Stomach

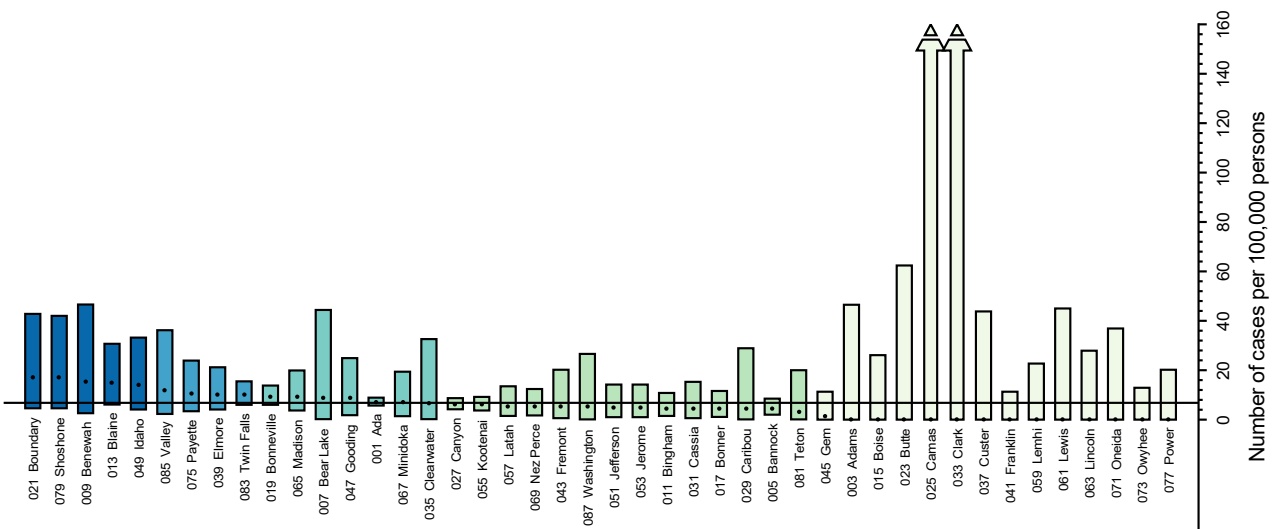
Both Males and Females

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 6.8

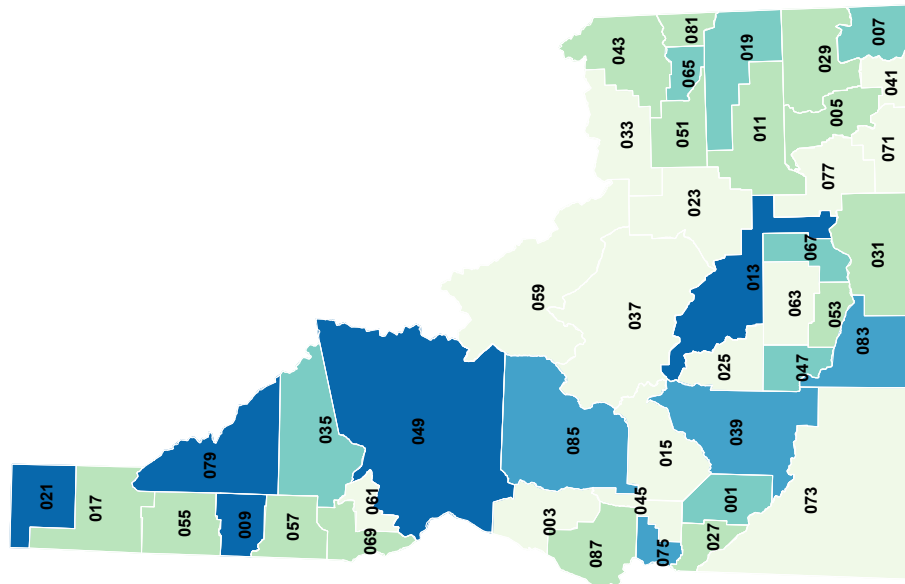


Age-Adjusted Incidence Rates

Testis

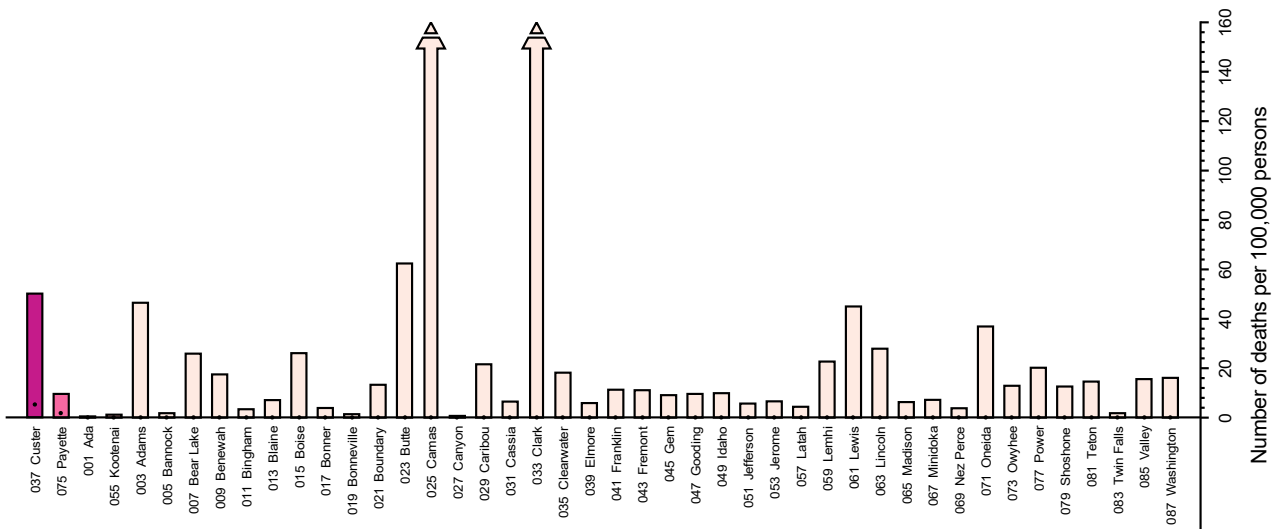
Males

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 0.1

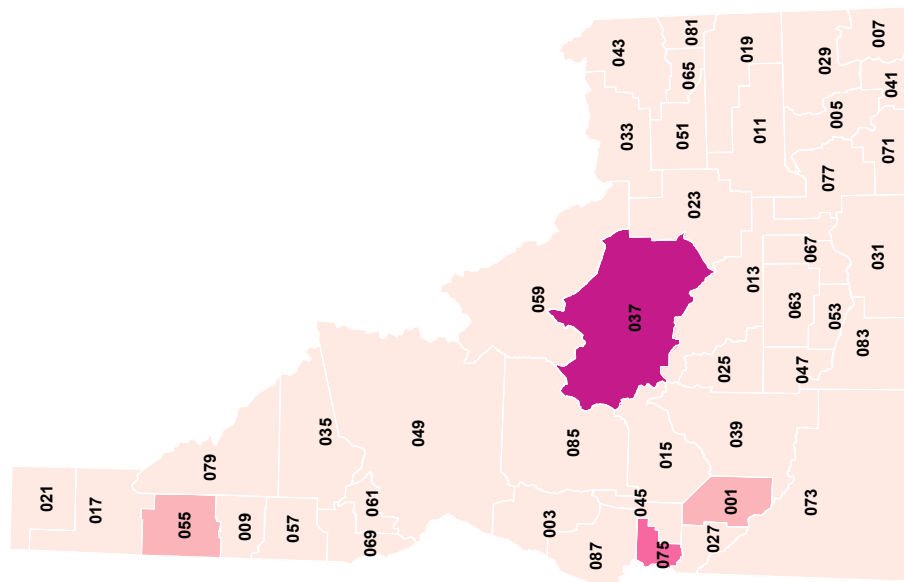


Age-Adjusted Mortality Rates

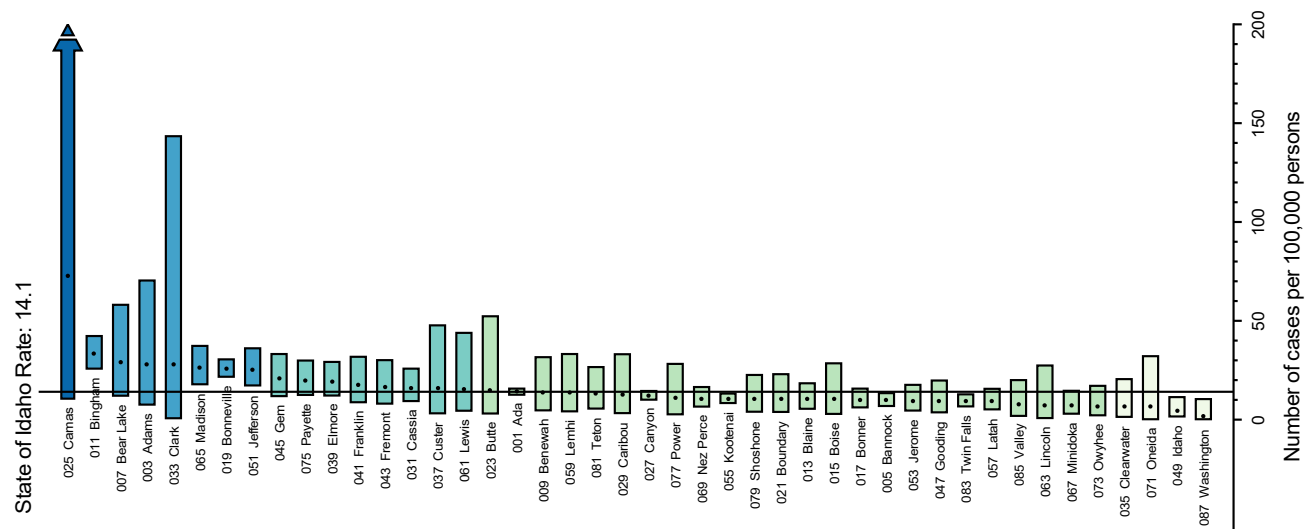
Testis

Males

State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.

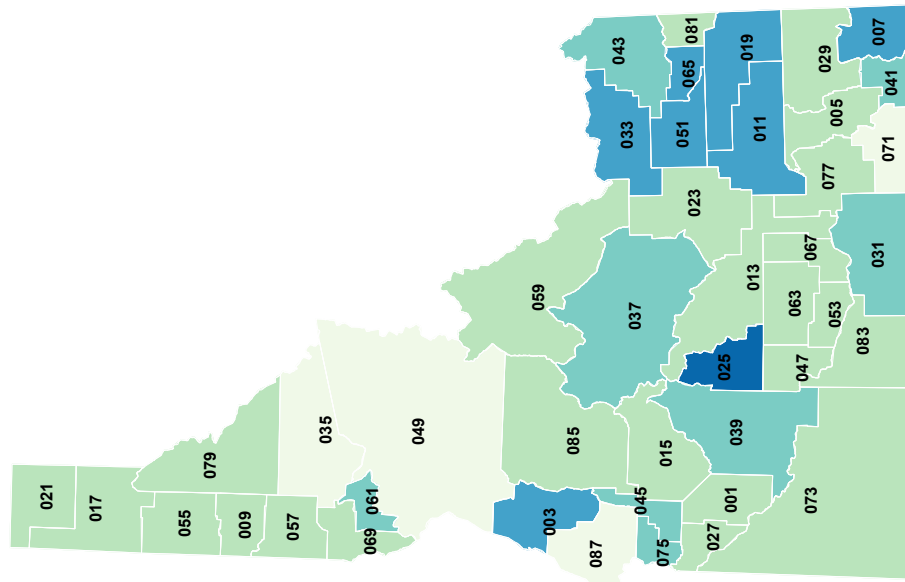


Age-Adjusted Incidence Rates

Thyroid

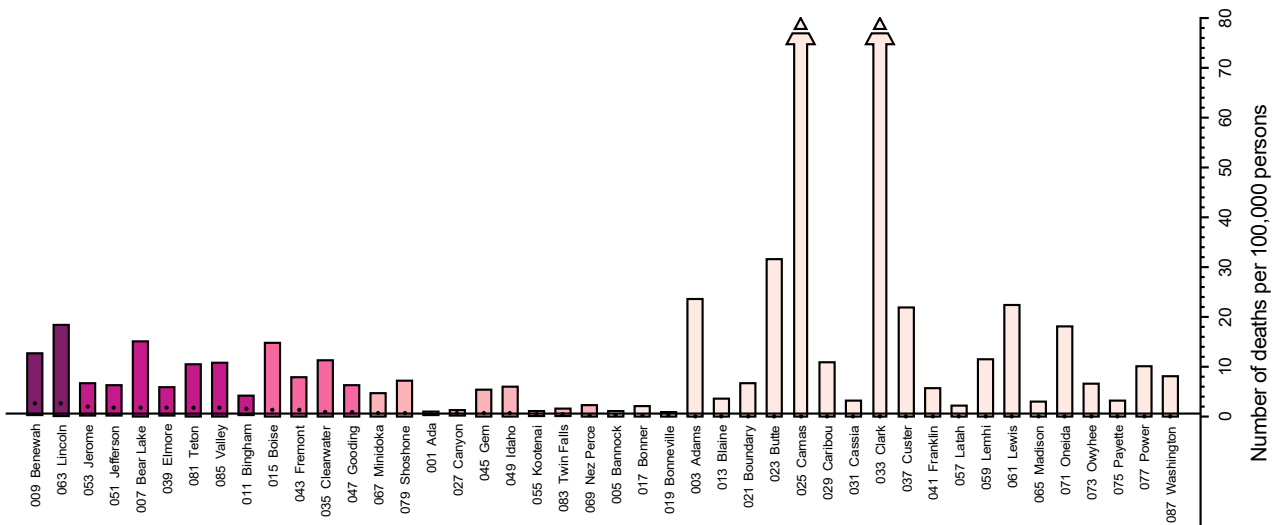
Both Males and Females

State of Idaho, by County, 2015–2019



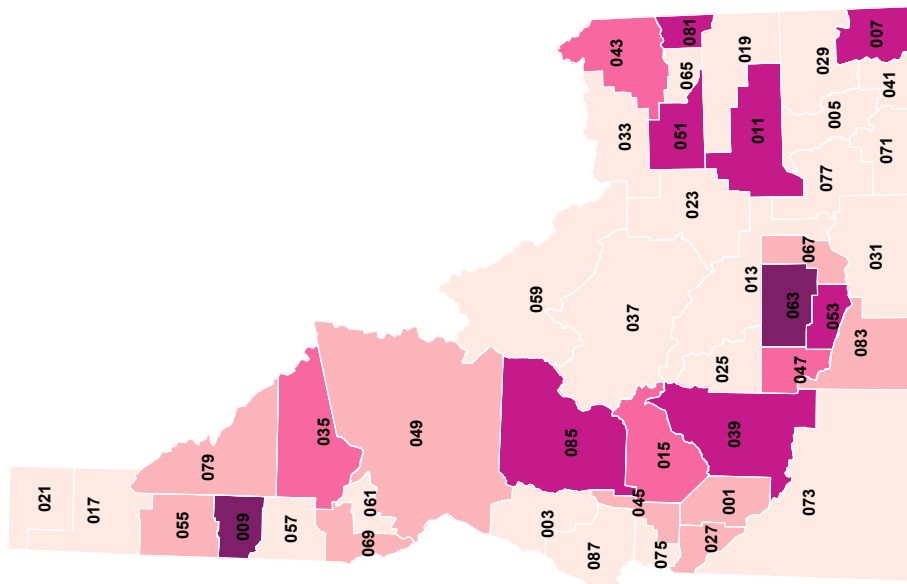
Cancer Data Registry of Idaho.
 Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
 Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
 Arrows indicate upper confidence interval extends beyond graphic area.

State of Idaho Rate: 0.6



Age-Adjusted Mortality Rates Thyroid

Both Males and Females State of Idaho, by County, 2015–2019



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.

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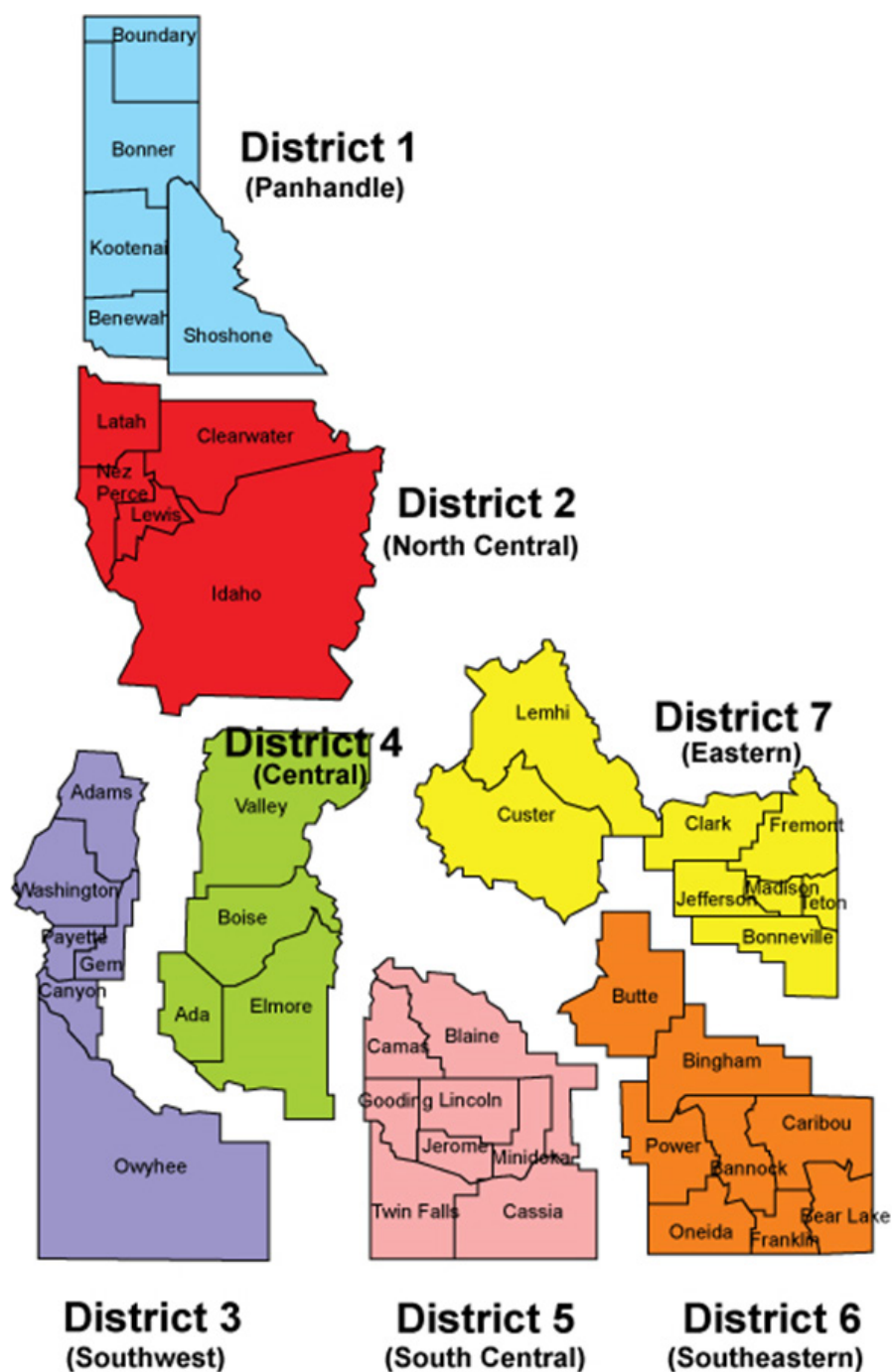
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APPENDICES

APPENDIX A

Map of Idaho Public Health Districts and Counties



Source: <https://healthandwelfare.idaho.gov/health-wellness/community-health/public-health-districts>

APPENDIX B

2000 U.S. STANDARD POPULATION

Age Group	2000 US Standard Population (Census P25-1130)
0	3,794,901
1-4	15,191,619
5-9	19,919,840
10-14	20,056,779
15-19	19,819,518
20-24	18,257,225
25-29	17,722,067
30-34	19,511,370
35-39	22,179,956
40-44	22,479,229
45-49	19,805,793
50-54	17,224,359
55-59	13,307,234
60-64	10,654,272
65-69	9,409,940
70-74	8,725,574
75-79	7,414,559
80-84	4,900,234
85+	4,259,173
Total	274,633,642

Source: SEER Program, National Cancer Institute, 2021.

APPENDIX C

2019 POPULATION BY HEALTH DISTRICT, GENDER, AND AGE GROUP

	HD 1	HD 2	HD 3	HD 4	HD 5	HD 6	HD 7	STATE
Males								
< 5	7,258	2,907	10,681	15,368	7,232	6,286	9,568	59,300
5 to 9	7,653	3,008	11,427	17,002	7,844	6,942	8,906	62,782
10 to 14	7,994	3,149	12,016	18,757	8,429	7,449	9,547	67,341
15 to 19	7,446	3,939	11,157	18,189	7,239	7,079	8,730	63,779
20 to 24	6,350	5,666	9,634	17,010	5,892	5,862	10,630	61,044
25 to 29	7,541	4,133	10,021	19,781	6,705	5,873	8,795	62,849
30 to 34	7,136	3,198	9,314	19,013	6,500	5,641	7,066	57,868
35 to 39	7,419	3,253	9,470	19,631	6,633	5,916	7,395	59,717
40 to 44	7,080	2,832	8,925	17,946	6,233	5,364	6,823	55,203
45 to 49	7,091	2,910	8,612	17,619	5,498	4,622	5,763	52,115
50 to 54	7,214	2,944	8,325	16,077	5,521	4,273	5,333	49,687
55 to 59	8,398	3,423	8,584	16,244	6,042	4,968	6,013	53,672
60 to 64	8,840	3,681	8,158	15,218	5,793	5,161	5,846	52,697
65 to 69	8,510	3,551	7,450	13,499	5,007	4,525	5,119	47,661
70 to 74	7,017	2,895	6,194	10,778	4,077	3,463	3,905	38,329
75 to 79	4,628	1,987	4,230	6,556	2,887	2,294	2,536	25,118
80 to 84	2,729	1,255	2,476	3,775	1,766	1,385	1,583	14,969
85+	1,935	1,083	1,816	3,072	1,408	1,163	1,320	11,797
Total	122,239	55,814	148,490	265,535	100,706	88,266	114,878	895,928
	HD 1	HD 2	HD 3	HD 4	HD 5	HD 6	HD 7	STATE
Females								
< 5	6,921	2,837	10,201	14,821	7,029	6,182	8,909	56,900
5 to 9	7,275	3,010	10,886	16,184	7,717	6,815	8,648	60,535
10 to 14	7,453	2,825	11,494	18,018	8,076	7,122	9,142	64,130
15 to 19	7,019	3,692	10,653	17,035	6,944	6,546	9,517	61,406
20 to 24	5,868	4,875	9,065	15,009	5,619	5,351	9,603	55,390
25 to 29	7,184	3,467	9,887	18,139	6,543	5,758	7,804	58,782
30 to 34	7,362	3,011	9,462	18,354	6,325	5,693	6,784	56,991
35 to 39	7,379	3,041	9,628	18,919	6,400	5,842	7,307	58,516
40 to 44	7,071	2,750	9,021	17,395	5,811	5,359	6,329	53,736
45 to 49	7,066	2,762	8,744	16,518	5,365	4,587	5,635	50,677
50 to 54	7,573	2,939	8,206	15,686	5,245	4,451	5,187	49,287
55 to 59	8,935	3,628	9,146	16,925	6,163	5,130	5,942	55,869
60 to 64	9,604	3,824	8,785	16,612	6,098	5,352	5,847	56,122
65 to 69	9,140	3,477	7,872	14,612	5,266	4,651	5,205	50,223
70 to 74	7,153	2,779	6,577	11,387	4,252	3,558	3,947	39,653
75 to 79	4,803	2,087	4,729	7,566	3,225	2,500	2,913	27,823
80 to 84	2,845	1,359	2,696	4,667	2,071	1,679	1,803	17,120
85+	2,971	1,600	2,681	4,939	2,176	1,742	1,868	17,977
Total	123,622	53,963	149,733	262,786	100,325	88,318	112,390	891,137
Total	245,861	109,777	298,223	528,321	201,031	176,584	227,268	1,787,065

Source: National Center for Health Statistics, 2020.