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Cancer in Idaho – 2023

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Idaho Hospital Association

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CANCER IN IDAHO – 2023

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PREFACE

"Cancer in Idaho – 2023," the forty-seventh 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 2023. Cancer registry data can be used by public health and medical professionals, the Comprehensive Cancer Alliance for Idaho, and others to plan services, 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 prevention and control.

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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 and out-of-state patients who are diagnosed 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 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 since 1994. 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 of treatment; and
- follow-up data for purpose 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 Cancer Staging System, 9th 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]

Behavior and Stage

Tumor behavior refers to how it acts within the body. Behavior is classified as follows:

- benign (non-cancerous cells that grow in place without the potential for spread);
- borderline (uncertain whether benign or cancerous, but low cancerous potential);
- in situ (cancerous cells that have not yet grown beyond basement membrane);
- malignant (cancerous cells that have invaded beyond the basement membrane).

Benign and borderline cases together may also be called "non-malignant."

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.

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. 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" and online NAACCR CiNA Explorer and NAACCR Cancer Maps. Idaho data have been included in SEER-21/SEER-22 statistics published by NCI since April 2019 and the National Childhood Cancer Registry (NCCR*Explorer) since its inception in 2021.

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 calculated from SEER and the Centers for Disease Control and Prevention's National Program of Cancer Registries (NPCR) data.[9] Only registries whose data meet specified data quality criteria are included in USCS statistics. For the comparison USCS data included in this report (2022 incidence), the District of Columbia and all U.S. states are included. Section II describes incidence data by site, subsite, and gender for invasive and in situ cases. Section III describes mortality data by site and gender. Section IV contains a table of age-specific cancer rates by site and gender for 2019–2023. 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 1975–2023. Section VIII shows cancer incidence rates by race and ethnicity for the period 2019–2023. Section IX shows cancer survival statistics for Idahoans diagnosed during the period 2016–2022 with follow-up through 2023. Section X shows maps and figures of cancer incidence and mortality rates by county for the period 2019–2023.

Descriptive Summary by Gender and Race and Ethnicity

The data presented in this report focus on cancer cases diagnosed among Idaho residents from January 1, 2023 to December 31, 2023, inclusive. During this period, there were 11,791 cases of in situ and invasive cancer diagnosed among Idaho residents (6,086 among males and 5,705 among females). By race and ethnicity, there were 10,711 cases among non-Hispanic whites, 539 among Hispanic whites, 41 cases among Blacks, 108 cases among Native Americans, 135 cases among Asians/Pacific Islanders, and 257 cases among persons reporting other or unknown race. The number of cancer cases treated in outpatient settings and reported only by pathology laboratories has increased over time; 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 Northwest Portland Area Indian Health Board. Due to the government shutdown, it was not possible to conduct matches with the Indian Health Service; some cases among Native Americans may be misassigned to other races or unknown. 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 (CiNA) Explorer*.[10]

Trends

From 2022 to 2023, there was a 2.1% increase in the age-adjusted cancer incidence rates in Idaho as published in CDRI's 2022 and 2023 annual reports. Disruptions caused by the COVID-19 pandemic greatly impacted cancer healthcare services and the cancer statistics in 2020 (and possibly 2021). Disruptions in access to care, including cancer screenings, resulted in decreases

‡For more detailed statistics by county, see Section X and CDRI's *County Cancer Profiles* at https://idcancer.org/statistical-data/counties.php, and Cancer-Rates.com for Idaho at https://www.cancer-rates.com/id/.

in timely diagnosis and thus, 2020 incidence for several screening-amenable cancers. Some of these cancers rebounded in 2021 and returned to near pre-pandemic levels thereafter. For example, colorectal cancer incidence increased 17.5% from 2020 to 2021 and decreased 11.9% in 2022 relative to 2021. Colorectal cancer rates stabilized from 2022 to 2023. These impacts of the pandemic on cancer incidence are in addition to changes in health policy and screening recommendations that may have impacted cancer incidence since 2013. In May 2012, 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 7% per year in Idaho — similar to national trends — but rebounded during 2015–2023. See Section VII for more detailed long-term trends in cancer incidence. Due to severely delayed reporting by a hospital in Public Health District 7, case reporting is likely incomplete for this area, greatly impacting comparisons by health district and to a lesser degree, statewide trends.

Population Description

The population of the state of Idaho on July 1, 2023, was estimated to be 1,964,726 (988,459 males and 976,267 females). Population estimates were obtained from the National Cancer Institute.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:

Health District	Counties	Male	Female
District 1	Benewah, Bonner, Boundary, Kootenai, Shoshone	138,072	137,437
District 2	Clearwater, Latah, Lewis, Idaho, Nez Perce	58,882	56,249
District 3	Adams, Canyon, Gem, Owyhee, Payette, Washington	167,968	167,106
District 4	Ada, Boise, Elmore, Valley	291,059	284,499
District 5	Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, Twin Falls	109,138	107,457
District 6	Bannock, Bear Lake, Bingham, Butte, Caribou, Franklin, Oneida, Power	93,785	92,453
District 7	Bonneville, Clark, Custer, Fremont, Jefferson, Lemhi, Madison, Teton	129,555	131,066

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

SUMMARY MEASURES OF CANCER BURDEN IN IDAHO — 2023

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 of YPLL per Death, Persons Aged < 75 Years	% Change Incidence Rate, 2022 to 2023
All Sites	10,521	3,330	69.0	74.0	54,000	18,789	10.4	2.1%
Bladder	499	94	74.0	80.0	2,600	242	7.3	4.2%
Brain	154	128	65.0	68.0	400	1,577	16.8	5.2%
Breast	1,621	222	66.0	72.0	11,000	1,673	12.1	-2.0%
Cervix	51	14	47.0	72.5	400	123	13.6	-13.8%
Colorectal	780	283	67.0	72.0	3,900	2,349	15.0	2.1%
Corpus Uteri	308	32	65.0	73.0	2,200	166	8.3	-2.9%
Esophagus	135	108	71.0	70.0	300	662	9.7	11.1%
Hodgkin Lymphoma	39	5	37.0	-	400	-	-	-14.4%
Kidney and Renal Pelvis	423	89	68.0	76.0	2,500	374	8.5	18.1%
Larynx	46	18	68.5	68.5	300	157	14.2	-6.3%
Leukemia	377	139	71.0	77.0	1,900	855	14.0	-4.0%
Liver and Bile Duct	202	166	70.0	70.0	400	1,011	8.9	5.0%
Lung and Bronchus	1,089	627	72.0	75.0	2,800	2,492	7.4	7.2%
Melanoma of Skin	690	65	67.5	69.0	4,800	491	12.0	-13.6%
Myeloma	147	72	72.0	78.0	700	140	4.8	-2.0%
Non-Hodgkin Lymphoma	414	105	70.5	77.0	2,400	438	9.1	2.9%
Oral Cavity and Pharynx	323	65	68.0	73.0	1,600	338	8.2	18.3%
Ovary	126	69	66.0	71.0	500	456	10.4	4.1%
Pancreas	376	274	72.0	73.0	500	1,427	8.9	20.8%
Prostate	1,417	235	70.0	80.0	10,300	439	6.1	-0.2%
Stomach	110	29	70.0	71.0	300	288	16.0	-10.2%
Testis	66	6	34.0	-	500	-	-	13.7%
Thyroid	234	8	50.0	-	2,300	-	-	15.3%

Notes:

Incident cases include all invasive and bladder in situ cases newly diagnosed among Idaho residents in 2023.

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, testis, and thyroid 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 as a 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 instead grouped by their histology (e.g. leukemias, lymphomas). Melanoma of the skin is a combination of both anatomic site and histologic type. See https://seer.cancer.gov/siterecode/ for groupings of codes. Gastrointestinal stromal tumors (GIST) became reportable beginning with cases diagnosed in 2021. Beginning in 2022, low and high grade appendiceal mucinous neoplasms became reportable. These cases were included in incidence statistics but excluded from trend analysis.

Age-adjusted 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 Cancer Institute (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 2023 (11,791), 10,521 cases (10,298 invasive and 223 bladder in situ) were used to calculate age-adjusted incidence rates. Of these 10,521 cases, 5,502 occurred among males and 5,019 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 2023. 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 because 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 help 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.
Stability of estimates: Age-adjusted incidence rates and age-specific rates based on small

numbers (< 16) of cases will typically have large standard errors, i.e. standard error is ≥ 25% of the rate itself, and are likely to be unstable – meaning that rates will vary greatly from year to year with small changes in case counts.

Rate comparisons: When comparing rates among geographic areas (counties, health districts, or states), factors such as the absolute numbers of cases, rate stability, 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 *CiNA Explorer*.[10]

Risks of Developing and Dying from Cancer

Cancer incidence and mortality risks were estimated using DEVCAN Version 6.7.5 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 2019–2023. 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, 2023, and who had a cancer diagnosis within the prior 10 years.

Trend Analyses

Joinpoint Version 5.4.0 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 7) 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, including GIST.

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. Crude and net survival estimates may be calculated using either cause of death or expected survival information. 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 patient survival are useful for cancer patients and health care providers who want to estimate a patient's chance of dying from cancer, dying from other competing causes of death, or surviving for a certain amount of time post diagnosis, e.g. five years.[19] For younger and healthier patients, crude and net survival estimates are similar because competing causes of death are rare. Crude and net survival estimates may differ greatly 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 surviving for a certain amount of time post diagnosis.[21,22]

Survival statistics published in this report include all invasive and bladder in situ cases diagnosed during 2016–2022 among patients aged 15–99 with follow-up/death ascertainment through December 31, 2023. (Cases were censored at an achieved age of 100 years.) Cases reported solely via death certificates or autopsy were excluded. Using solid tumor and hematopoietic and lymphoid multiple primary and histology coding rules,[7,8] multiple primary cancers could be included for each patient, but only one cancer per patient was included in each survival estimate.

SEER*Stat (version 9.0.42.0) was used to perform survival calculations. Survival duration was calculated from complete dates and alive patients were censored on December 31, 2023, or at their date of last contact if before December 31, 2023. Survival calculations were performed using the actuarial method on monthly intervals. Using life tables matched to the patients by age, sex, year, race/ethnicity, and county-level socioeconomic status, the Ederer II approach was used to estimate expected survival.[23,24]

Because 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).[25] Crude survival estimates are not age standardized and reflect the actual prognosis of the cohort.

SECTION I

2023 SUMMARY ON ALL SITES COMBINED
AND
23 MOST COMMON SITES

ALL SITES

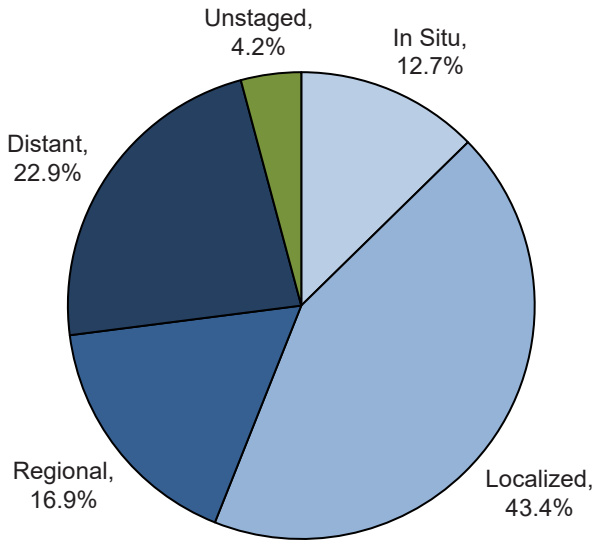
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	436.9	465.5	416.0
# of new invasive cases	10,298	5,317	4,981
# of new in situ cases	1,493	769	724
# of deaths	3,330	1,816	1,514

Total Cases by County

Ada	3,322	Cassia	137	Lewis	33
Adams	33	Clark	3	Lincoln	35
Bannock	514	Clearwater	85	Madison	95
Bear Lake	45	Custer	42	Minidoka	139
Benewah	67	Elmore	205	Nez Perce	278
Bingham	218	Franklin	99	Oneida	23
Blaine	285	Fremont	77	Owyhee	78
Boise	83	Gem	142	Payette	174
Bonner	412	Gooding	98	Power	35
Bonneville	510	Idaho	150	Shoshone	103
Boundary	95	Jefferson	111	Teton	49
Butte	19	Jerome	115	Twin Falls	601
Camas	16	Kootenai	1242	Valley	78
Canyon	1,525	Latah	195	Washington	85
Caribou	57	Lemhi	83		

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.

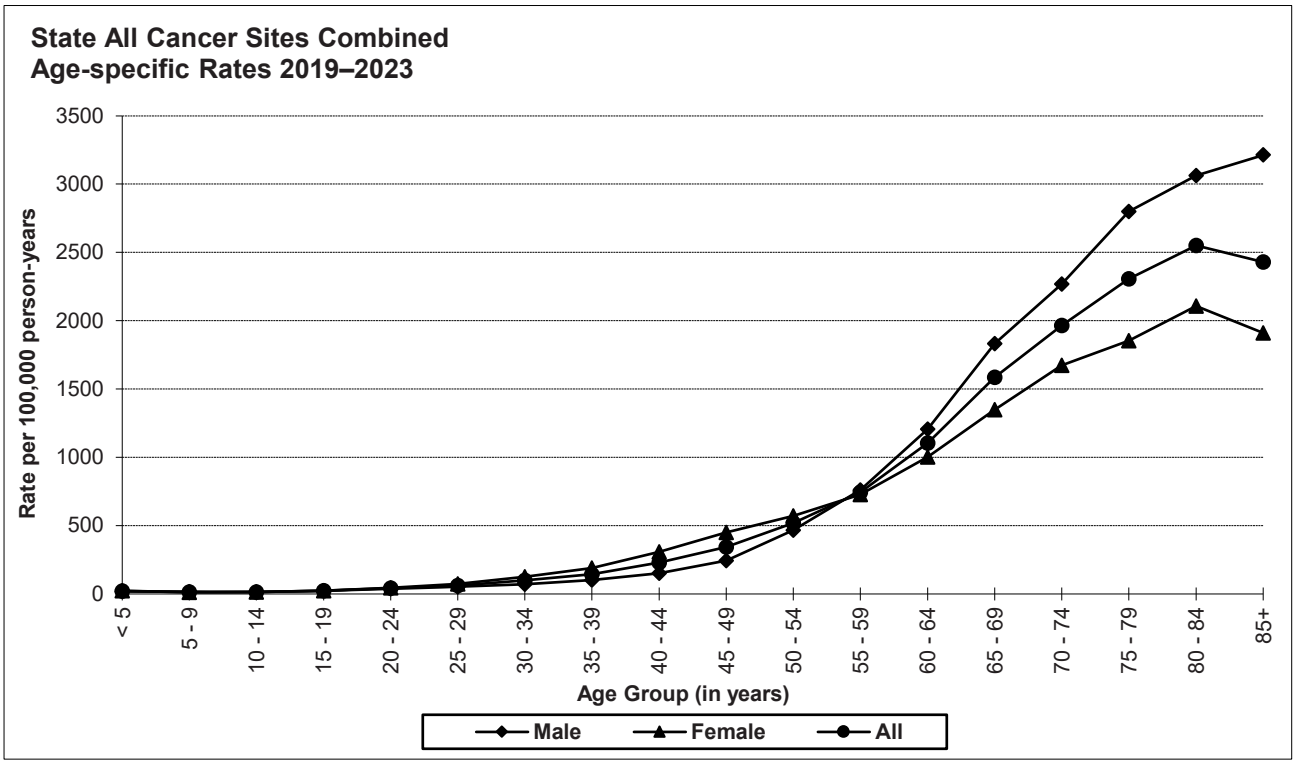
Diet Specific dietary items, such as processed meats and alcohol, increase cancer risk.

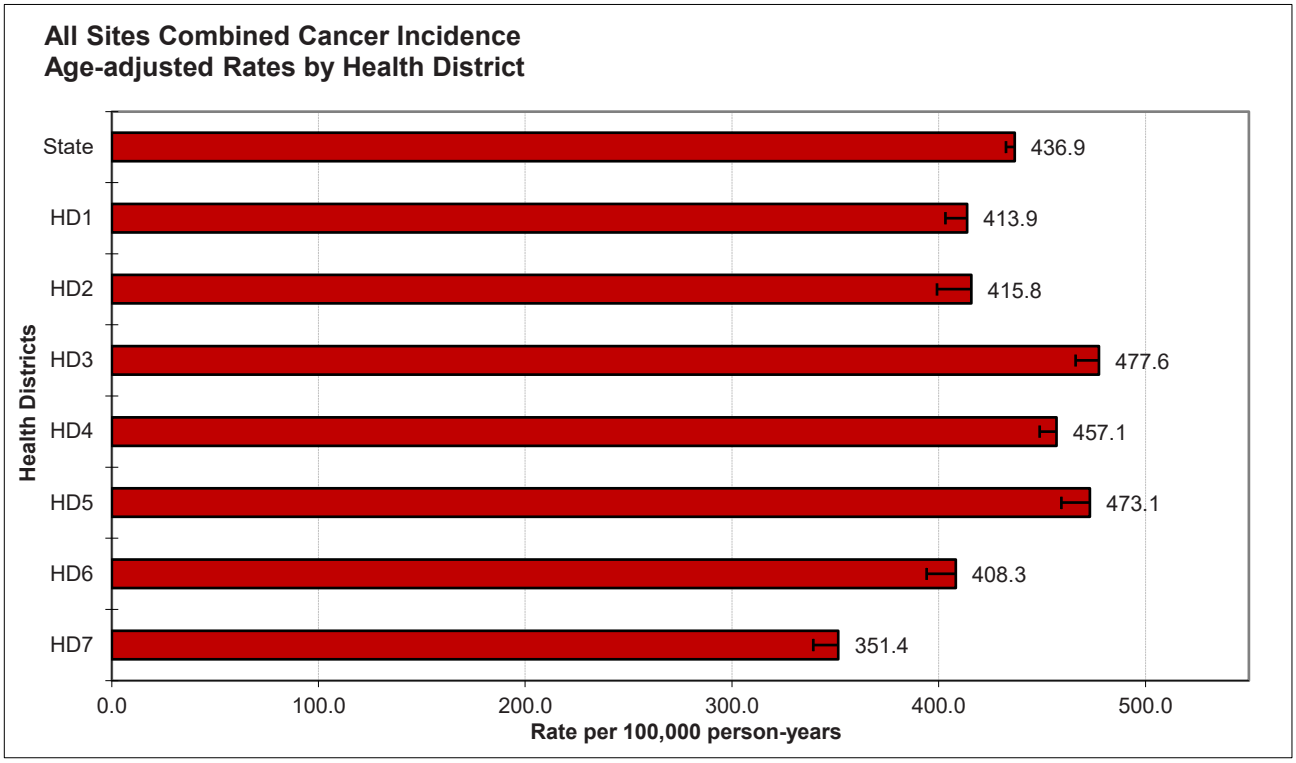
Other Tobacco use is the single most important risk factor for cancer incidence and mortality. Obesity, conditions of chronic inflammation, immunosuppression, and infection with certain infectious agents increases risk for certain cancers.

Data Summary

Mean age-adjusted incidence rate across health districts:	428.2
95% confidence interval on the mean age-adjusted incidence rate:	395.1–461.2
Median age-adjusted incidence rate of health districts:	415.8
Range of age-adjusted incidence rate for health districts:	351.4–477.6
USCS rate (2022, all races):	442.3

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 after age 79. Health Districts 3, 4, and 5 had statistically significantly more cases of cancer than expected based upon rates for the remainder of Idaho and Health Districts 1, 6, and 7 had statistically significantly fewer. (See Section V for data.)


State All Cancer Sites Combined
Age-specific Rates 2019–2023
Rate per 100,000 person-years
3500
3000
2500
2000
1500
1000
500
0
< 5
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+
Age Group (in years)
Male
Female
All


All Sites Combined Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
436.9
413.9
415.8
477.6
457.1
473.1
408.3
351.4
0.0
100.0
200.0
300.0
400.0
500.0
Rate per 100,000 person-years

BLADDER

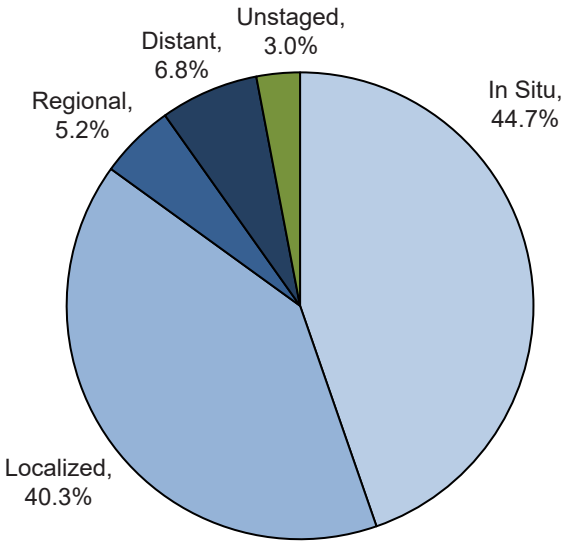
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	19.8	34.6	6.7
# of new invasive cases	276	228	48
# of new in situ cases	223	185	38
# of deaths	94	70	24

Total Cases by County

Ada	129	Cassia	5	Lewis	3
Adams	2	Clark	-	Lincoln	3
Bannock	22	Clearwater	6	Madison	3
Bear Lake	2	Custer	-	Minidoka	2
Benewah	3	Elmore	12	Nez Perce	10
Bingham	10	Franklin	6	Oneida	1
Blaine	4	Fremont	4	Owyhee	3
Boise	6	Gem	9	Payette	12
Bonner	16	Gooding	5	Power	1
Bonneville	18	Idaho	4	Shoshone	2
Boundary	4	Jefferson	3	Teton	-
Butte	4	Jerome	4	Twin Falls	30
Camas	-	Kootenai	67	Valley	4
Canyon	64	Latah	5	Washington	6
Caribou	-	Lemhi	5		

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.

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.

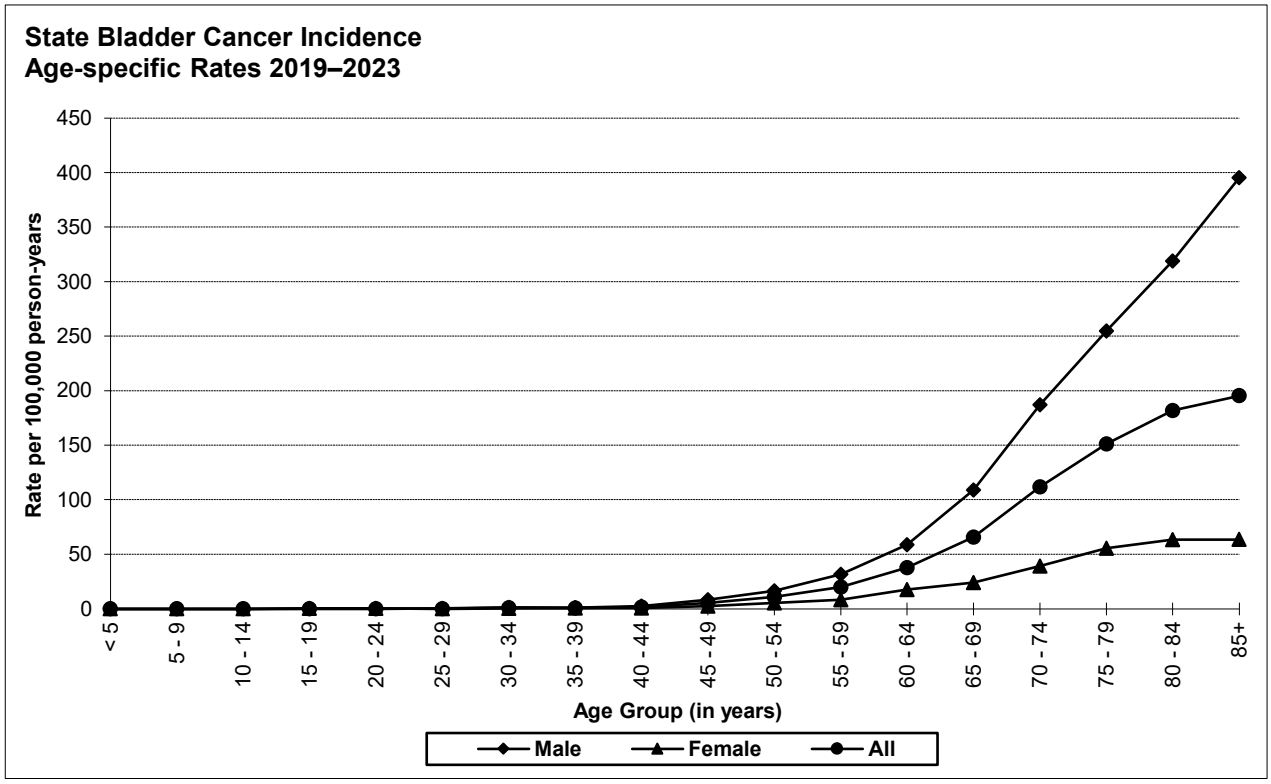
Occupation The following occupational activities or exposures have been linked to increased bladder cancer risk: painting; manufacturing of aluminum, rubber (4-aminobiphenyl, ortho-Toluidine), auramine, magenta, leather, cloth, and paper (benzidine), and certain dyes (ortho-Toluidine, 2-naphthylamine); X-radiation and gamma-radiation.

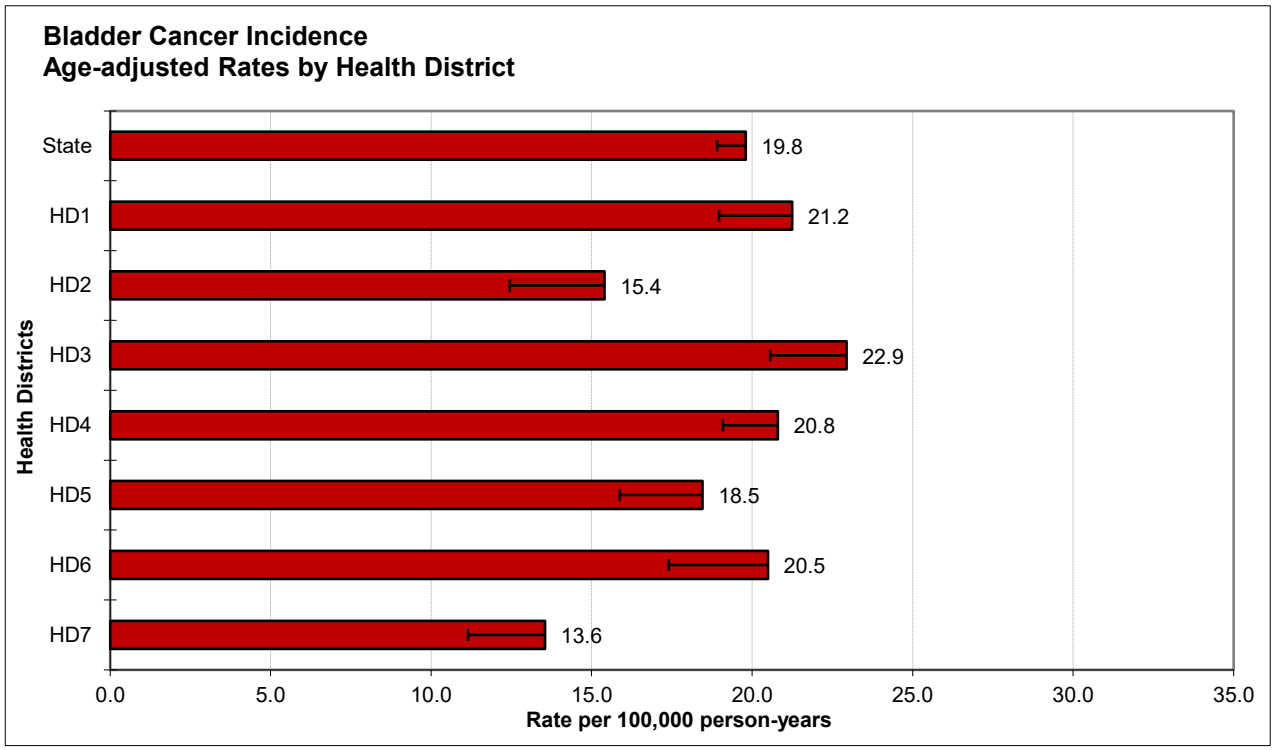
Other Tobacco consumption has been associated with a 2- to 5-fold higher incidence of bladder cancer. Arsenic and arsenic compounds – particularly in drinking water – are associated with an increased risk of bladder cancer. The chemotherapeutic agent cyclophosphamide and parasitic infection with Schistosoma haematobium are associated with increased risk of bladder cancer.

Special Notes

Mean age-adjusted incidence rate across health districts:	19.0
95% confidence interval on the mean age-adjusted incidence rate:	16.5–21.5
Median age-adjusted incidence rate of health districts:	20.5
Range of age-adjusted incidence rate for health districts:	13.6–22.9
USCS rate (2022, all races):	17.8

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. Health District 7 had statistically significantly 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 2019–2023
Rate per 100,000 person-years
450
400
350
300
250
200
150
100
50
0
< 5
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+
Age Group (in years)
Male
Female
All


Bladder Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
19.8
21.2
15.4
22.9
20.8
18.5
20.5
13.6
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
Rate per 100,000 person-years

BRAIN

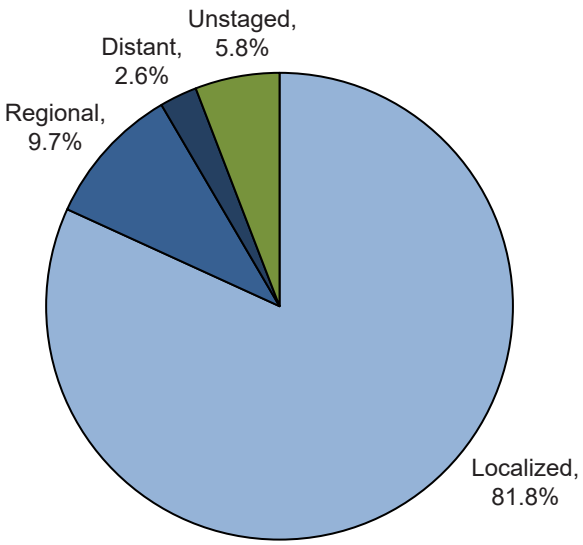
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	7.0	8.9	5.1
# of new invasive cases	154	96	58
# of new in situ cases	0	0	0
# of deaths	128	73	55

Total Cases by County

Ada	45	Cassia	1	Lewis	2
Adams	-	Clark	-	Lincoln	-
Bannock	4	Clearwater	2	Madison	-
Bear Lake	1	Custer	-	Minidoka	1
Benewah	-	Elmore	-	Nez Perce	5
Bingham	2	Franklin	4	Oneida	-
Blaine	1	Fremont	1	Owyhee	2
Boise	-	Gem	1	Payette	2
Bonner	7	Gooding	1	Power	1
Bonneville	5	Idaho	-	Shoshone	6
Boundary	1	Jefferson	1	Teton	-
Butte	-	Jerome	2	Twin Falls	9
Camas	2	Kootenai	16	Valley	-
Canyon	18	Latah	6	Washington	2
Caribou	1	Lemhi	2		

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 1–9, a decrease and subsequent gradual rise through young adulthood, a steeper increase from age 50 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.

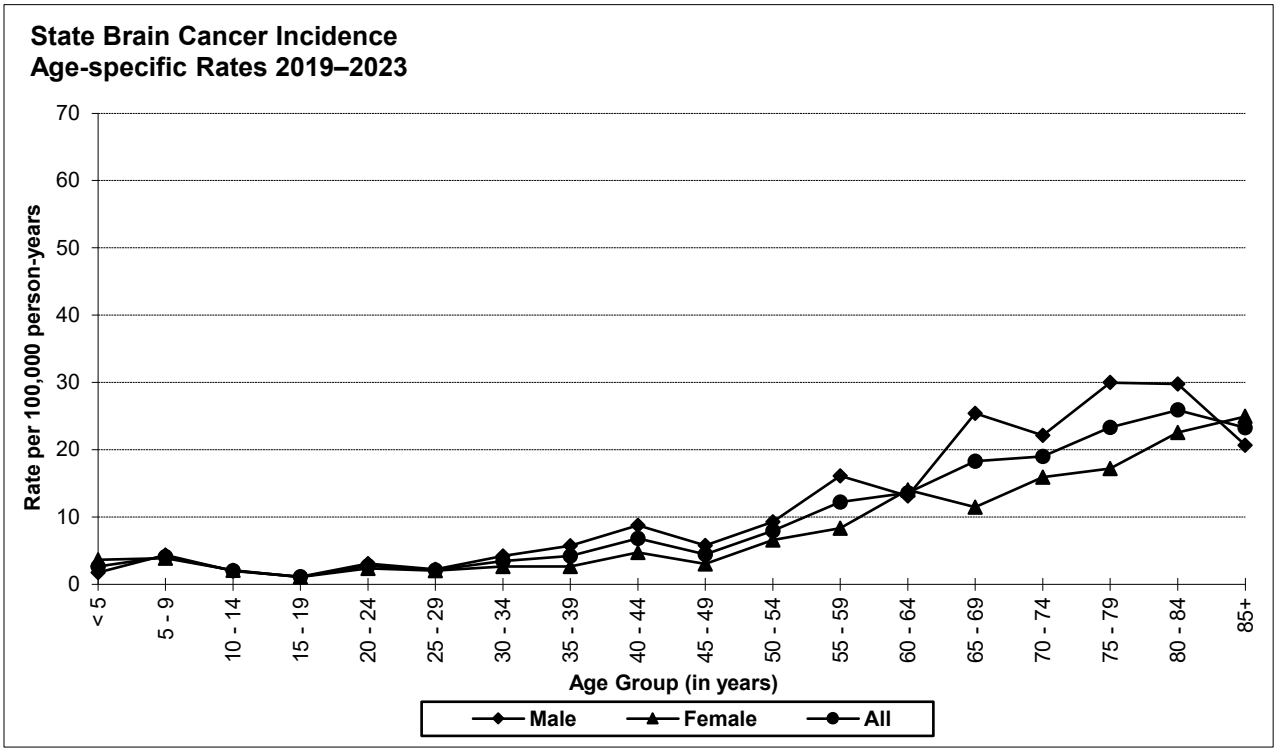
Occupation Vinyl chloride exposure is associated with increased risk for gliomas.

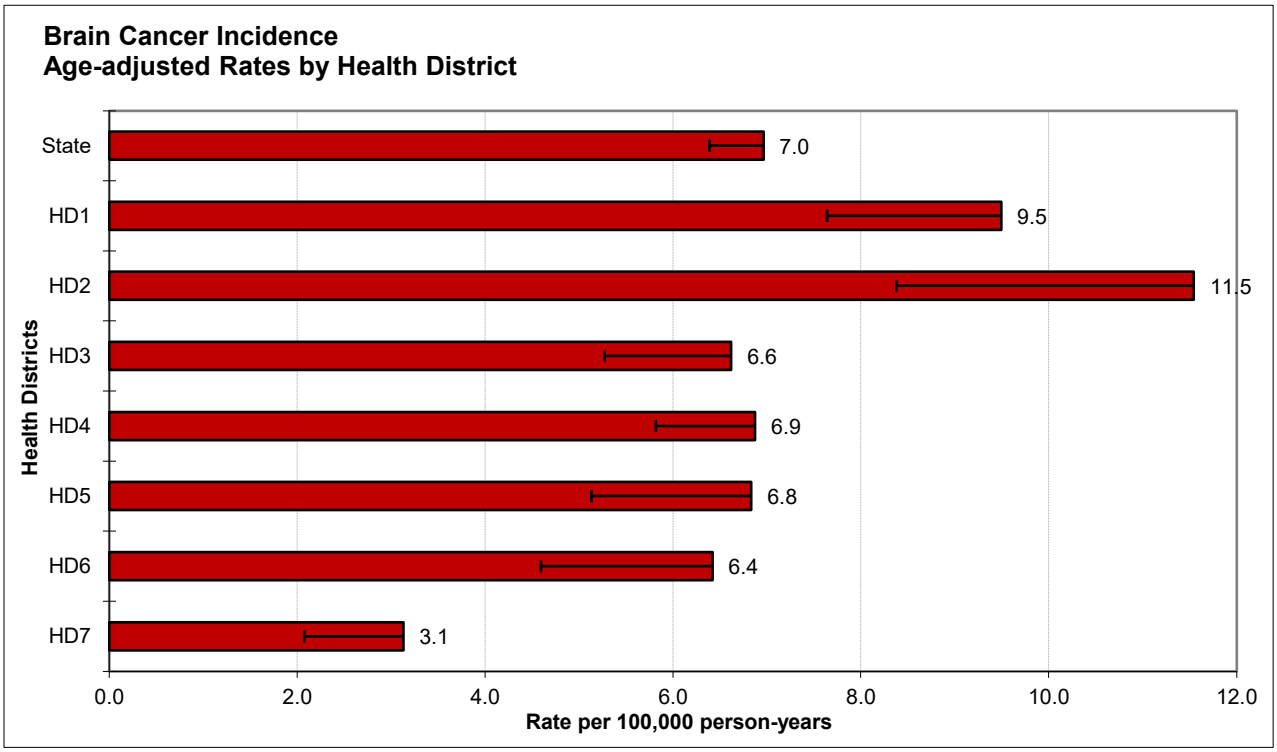
Other X-radiation and gamma-radiation are both associated with increased risk for brain tumors. Having Epstein-Barr virus, AIDS, or immunosuppression related to organ transplant are associated with increased risk for CNS lymphoma.

Data Summary

Mean age-adjusted incidence rate across health districts:	7.3
95% confidence interval on the mean age-adjusted incidence rate:	5.3–9.2
Median age-adjusted incidence rate of health districts:	6.8
Range of age-adjusted incidence rate for health districts:	3.1–11.5
USCS rate (2022, all races):	5.7

Health District 7 had statistically significantly fewer cases of malignant brain cancer than expected based upon rates for the remainder of Idaho. (See Section V for data.)


State Brain Cancer Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
70
60
50
40
30
20
10
0
< 5
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+
Age Group (in years)
Male
Female
All


Brain Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
7.0
9.5
11.5
6.6
6.9
6.8
6.4
3.1
0.0
2.0
4.0
6.0
8.0
10.0
12.0
Rate per 100,000 person-years

BRAIN & OTHER CNS NON-MALIGNANT

Incidence Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	18.4	12.7	23.8
# of new cases	418	138	280

Total Cases by County

Ada	141	Cassia	6	Lewis	4
Adams	2	Clark	1	Lincoln	-
Bannock	27	Clearwater	3	Madison	5
Bear Lake	-	Custer	-	Minidoka	5
Benewah	3	Elmore	6	Nez Perce	4
Bingham	14	Franklin	3	Oneida	3
Blaine	6	Fremont	1	Owyhee	3
Boise	-	Gem	5	Payette	5
Bonner	10	Gooding	5	Power	3
Bonneville	22	Idaho	1	Shoshone	1
Boundary	6	Jefferson	6	Teton	3
Butte	-	Jerome	7	Twin Falls	15
Camas	1	Kootenai	20	Valley	4
Canyon	57	Latah	6	Washington	3
Caribou	1	Lemhi	-		

Factors Associated with Cancer Incidence

Age In general, 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 females have higher rates than males.

Race/Ethnicity There are no differences in incidence by race. Hispanics have a lower incidence than non-Hispanic Whites across the life course.

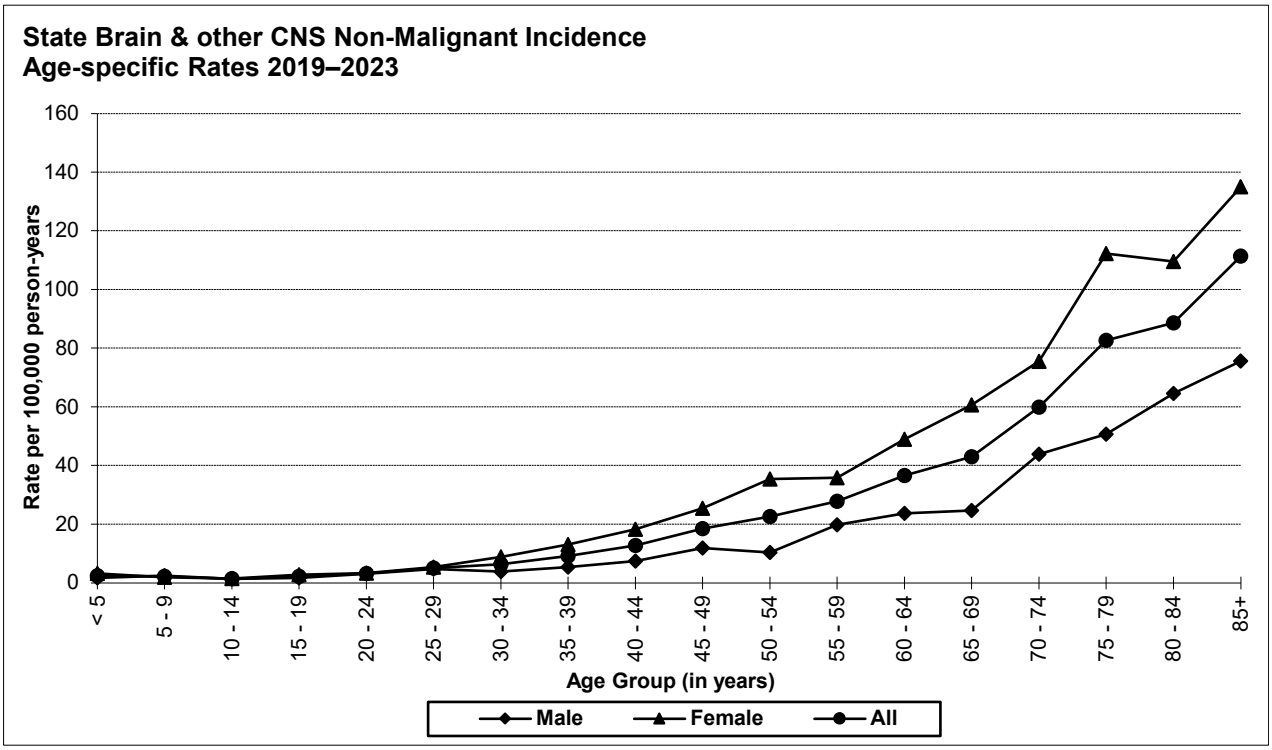
Special Notes

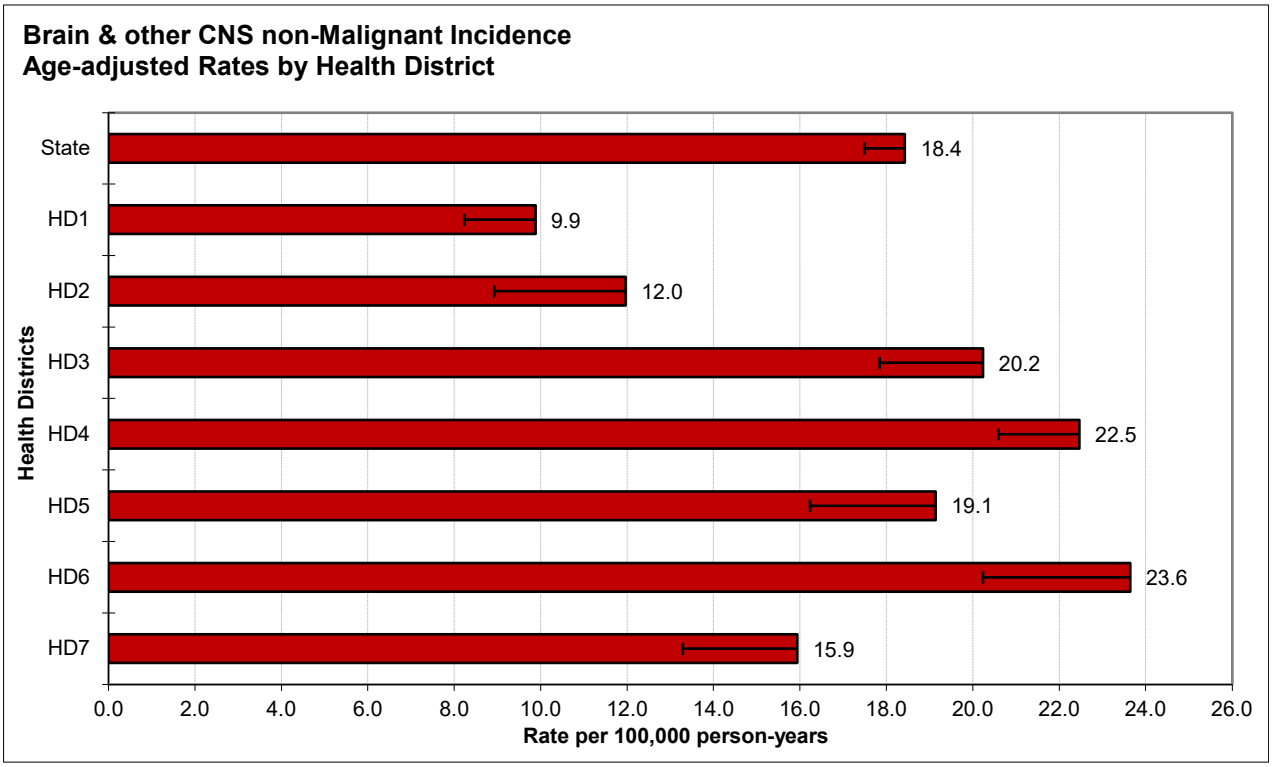
In 2007, as a result of Public Law 107-260, the publication *United States Cancer Statistics 2004 Incidence and Mortality* began to include tables for non-malignant brain tumors. Until this time, the only reference data were from the Central Brain Tumor Registry of the United States (CBTRUS; http://www.cbtrus.org),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

Data Summary

Mean age-adjusted incidence rate across health districts:	17.6
95% confidence interval on the mean age-adjusted incidence rate:	13.7–21.5
Median age-adjusted incidence rate of health districts:	19.1
Range of age-adjusted incidence rate for health districts:	9.9–23.6
USCS rate (2022, all races):	14.2

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. Health Districts 4 and 6 had statistically significantly more cases of non-malignant brain and other central nervous system tumors than expected based upon rates for the remainder of Idaho and Health Districts 1 and 2 had statistically significantly fewer. (See Section V for data.)


State Brain & other CNS Non-Malignant Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
160
140
120
100
80
60
40
20
0
< 5
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+
Age Group (in years)
Male
Female
All


Brain & other CNS non-Malignant Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
18.4
9.9
12.0
20.2
22.5
19.1
23.6
15.9
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
16.0
18.0
20.0
22.0
24.0
26.0
Rate per 100,000 person-years

BREAST

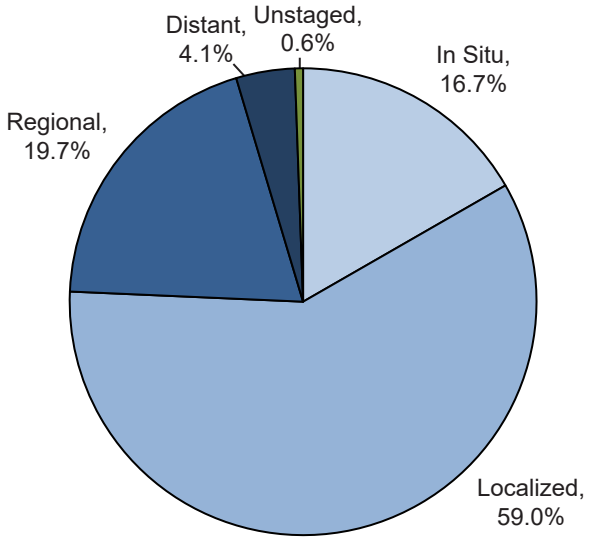
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	68.9	0.6	134.9
# of new invasive cases	1,621	9	1,612
# of new in situ cases	325	0	325
# of deaths	222	2	220

Total Cases by County

Ada	587	Cassia	17	Lewis	2
Adams	4	Clark	1	Lincoln	6
Bannock	78	Clearwater	11	Madison	20
Bear Lake	3	Custer	8	Minidoka	27
Benewah	7	Elmore	43	Nez Perce	36
Bingham	39	Franklin	19	Oneida	2
Blaine	38	Fremont	15	Owyhee	16
Boise	12	Gem	17	Payette	32
Bonner	53	Gooding	10	Power	7
Bonneville	80	Idaho	18	Shoshone	14
Boundary	16	Jefferson	11	Teton	10
Butte	2	Jerome	21	Twin Falls	87
Camas	1	Kootenai	247	Valley	14
Canyon	246	Latah	22	Washington	20
Caribou	6	Lemhi	21		

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.

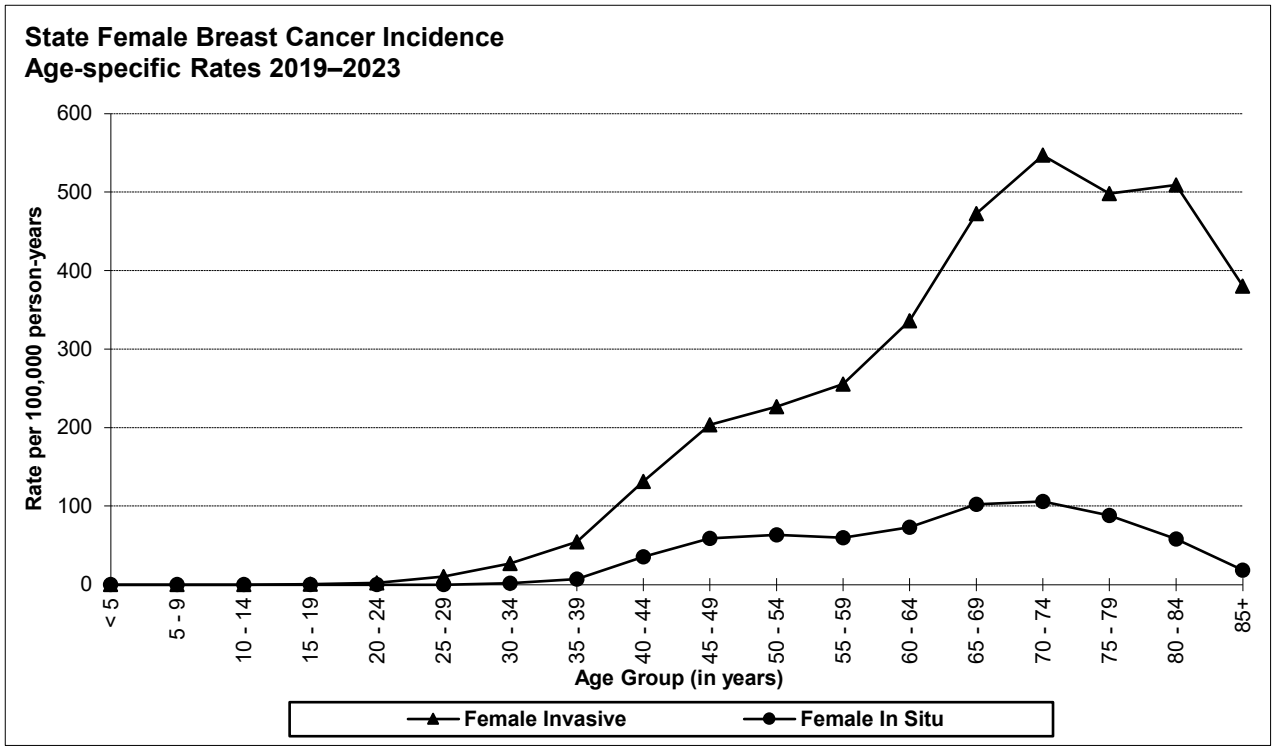
Hormonal Cumulative estrogen exposure, including use of combination hormone therapy (estrogen-progestin), early menarche, and late menopause, are associated with increased breast cancer risk.

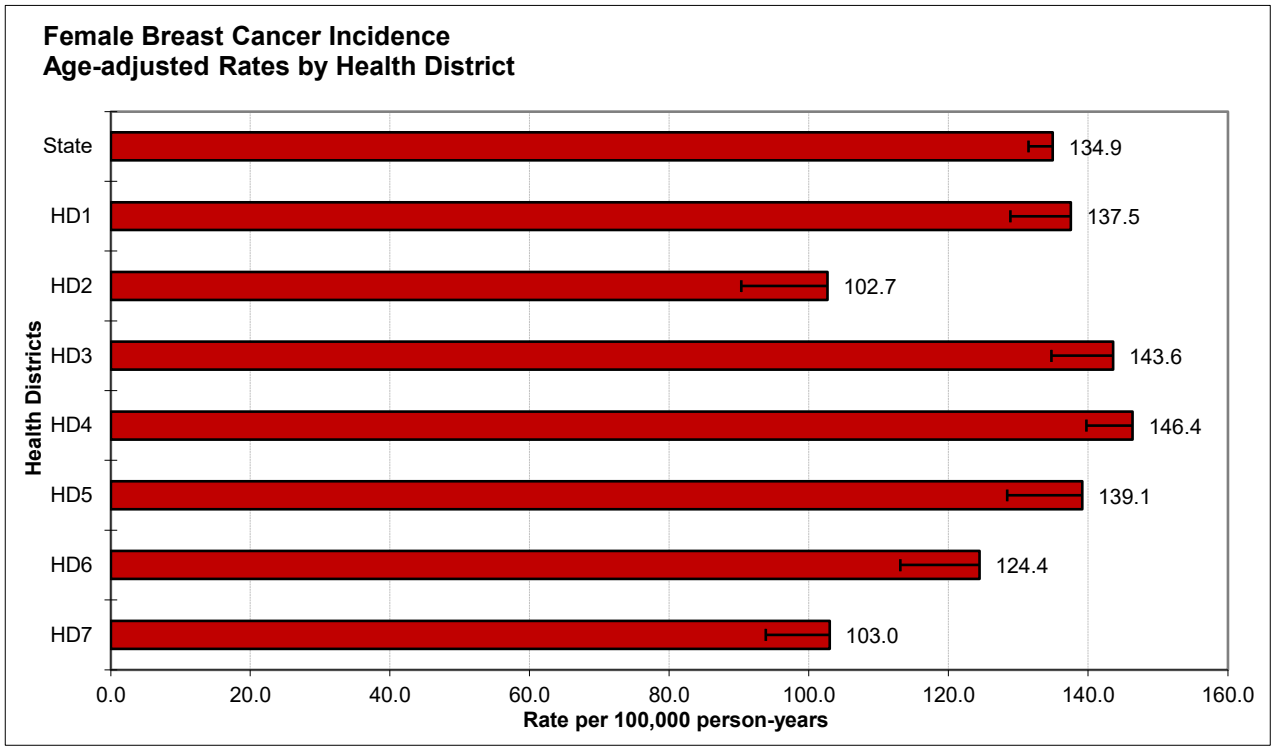
Other Heavy alcohol consumption, obesity in postmenopausal women, and exposure of breast tissue to ionizing radiation are associated with an increased risk of developing breast cancer.

Data Summary

Mean age-adjusted incidence rate across health districts:	128.1
95% confidence interval on the mean age-adjusted incidence rate:	114.3–141.9
Median age-adjusted incidence rate of health districts:	137.5
Range of age-adjusted incidence rate for health districts:	102.7–146.4
USCS rate (2022, female, all races):	132.9

During 2023, over 99.0% of invasive breast cancer cases were diagnosed among females. Age-specific incidence rates of female breast cancer peaked among 70–74-year-olds. Health District 4 had statistically significantly more cases of invasive breast cancer than expected based upon rates for the remainder of Idaho and Health Districts 2 and 7 had statistically significantly fewer. (See Section V for data.)


State Female Breast Cancer Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
600
500
400
300
200
100
0
< 5
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+
Age Group (in years)
Female Invasive
Female In Situ


Female Breast Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
134.9
137.5
102.7
143.6
146.4
139.1
124.4
103.0
0.0
20.0
40.0
60.0
80.0
100.0
120.0
140.0
160.0
Rate per 100,000 person-years

CERVIX

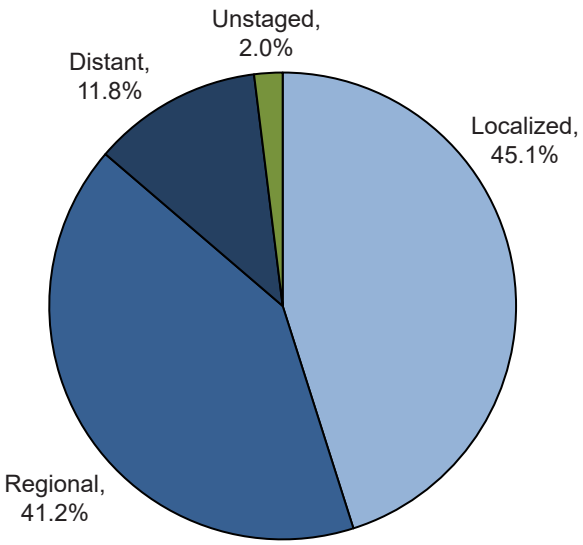
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	-	-	5.4
# of new invasive cases	-	-	51
# of new in situ cases	-	-	n/a
# of deaths	-	-	14

Total Cases by County

Ada	16	Cassia	-	Lewis	1
Adams	-	Clark	-	Lincoln	-
Bannock	6	Clearwater	1	Madison	-
Bear Lake	-	Custer	-	Minidoka	2
Benewah	3	Elmore	1	Nez Perce	-
Bingham	-	Franklin	-	Oneida	-
Blaine	-	Fremont	-	Owyhee	1
Boise	1	Gem	1	Payette	1
Bonner	1	Gooding	-	Power	-
Bonneville	2	Idaho	2	Shoshone	-
Boundary	-	Jefferson	-	Teton	1
Butte	-	Jerome	1	Twin Falls	1
Camas	1	Kootenai	2	Valley	-
Canyon	4	Latah	1	Washington	-
Caribou	1	Lemhi	-		

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 40-54. In general, rates gradually decrease among older age groups. However, most invasive cases are diagnosed in older women.

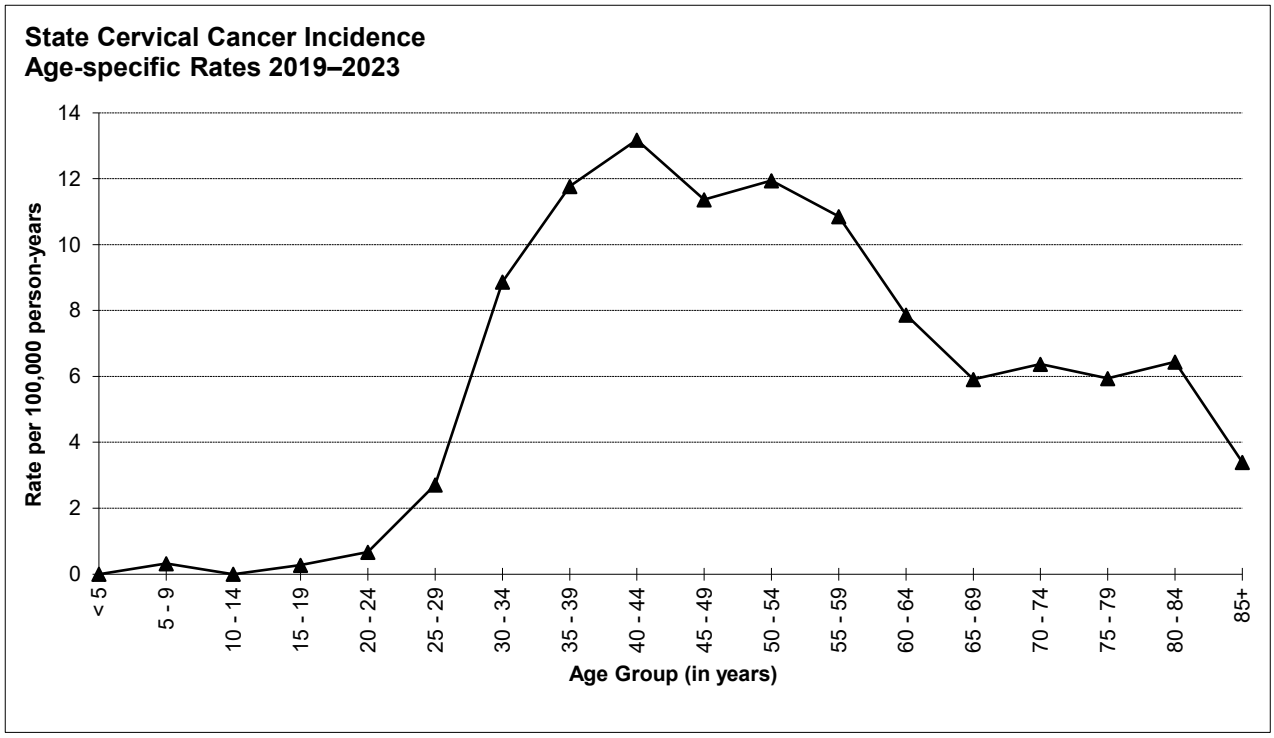
Race/Ethnicity Overall, Blacks and American Indians/Alaska Natives have higher rates of cervical cancer than Whites and Asians/Pacific Islanders, although rates among American Indians/Alaska Natives are less stable due to small case counts. From age 40 onwards, Hispanics have higher rates than non-Hispanic Whites.

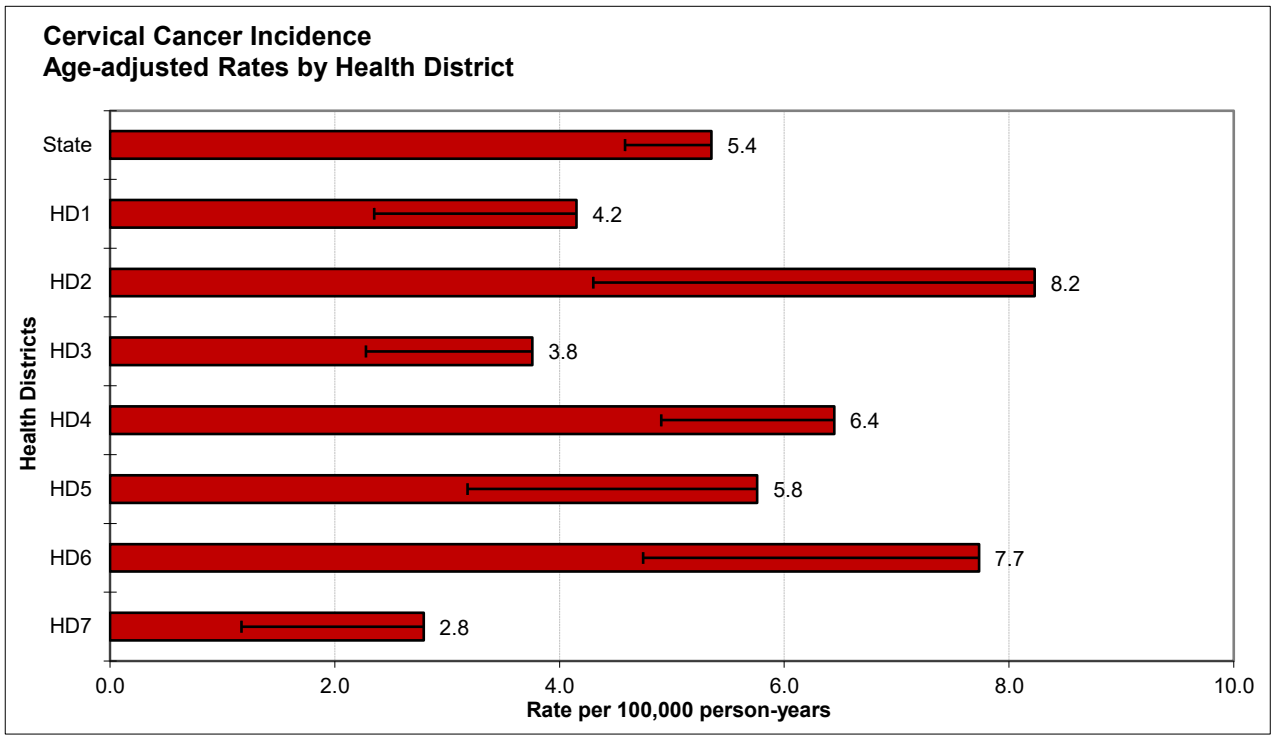
Other Human papillomavirus (HPV) is the cause of nearly all cases of cervical cancer. Of the over 100 known HPV types, types 16 and 18 are estimated to cause 70% of cervical cancers and pre-cancerous cervical lesions. Other risk factors that may be correlates or independent risk factors of HPV infection 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:	5.6
95% confidence interval on the mean age-adjusted incidence rate:	4.0–7.1
Median age-adjusted incidence rate of health districts:	5.8
Range of age-adjusted incidence rate for health districts:	2.8–8.2
USCS rate (2022, all races):	7.4

Increased screening with Pap and other 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 peaked among 40–44-year-old females. No health district had statistically significantly more, or fewer, cases of cervical cancer than expected based upon rates for the remainder of Idaho. (See Section V for data.)


State Cervical Cancer Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
0
2
4
6
8
10
12
14
< 5
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+
Age Group (in years)


Cervical Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
5.4
4.2
8.2
3.8
6.4
5.8
7.7
2.8
0.0
2.0
4.0
6.0
8.0
10.0
Rate per 100,000 person-years

COLORECTAL

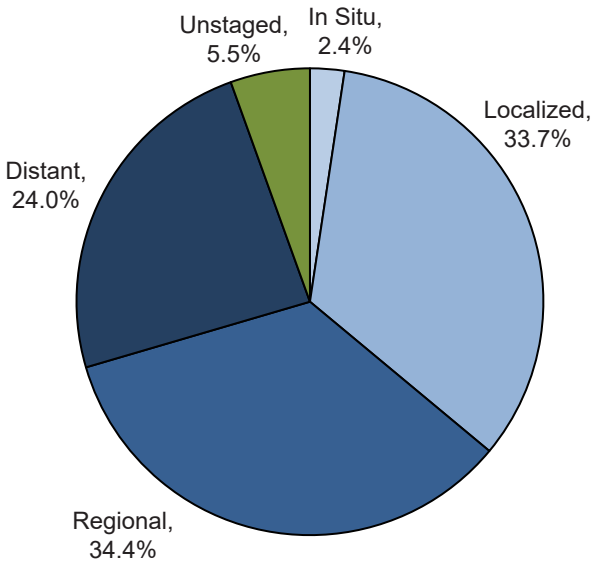
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	34.1	37.3	31.2
# of new invasive cases	780	412	368
# of new in situ cases	19	6	13
# of deaths	283	155	128

Total Cases by County

Ada	205	Cassia	6	Lewis	1
Adams	2	Clark	1	Lincoln	1
Bannock	31	Clearwater	7	Madison	9
Bear Lake	4	Custer	1	Minidoka	6
Benewah	5	Elmore	13	Nez Perce	19
Bingham	14	Franklin	7	Oneida	-
Blaine	9	Fremont	5	Owyhee	3
Boise	4	Gem	14	Payette	16
Bonner	29	Gooding	5	Power	1
Bonneville	56	Idaho	13	Shoshone	9
Boundary	7	Jefferson	10	Teton	2
Butte	1	Jerome	8	Twin Falls	40
Camas	2	Kootenai	99	Valley	4
Canyon	104	Latah	15	Washington	4
Caribou	3	Lemhi	4		

Stage at Diagnosis - Colorectal



Factors Associated with Cancer Incidence

Age RRates 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.

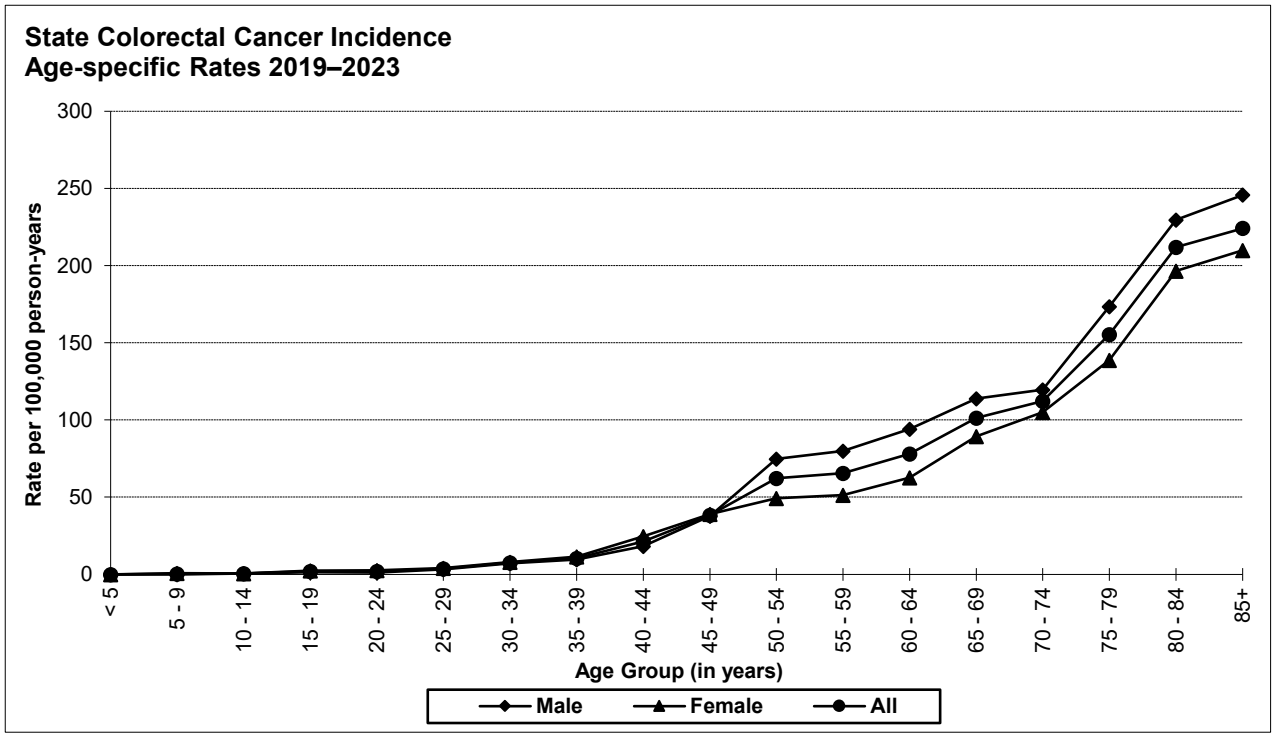
Diet Heavy alcohol consumption and processed meat consumption are both associated with an increased risk of colorectal cancer.

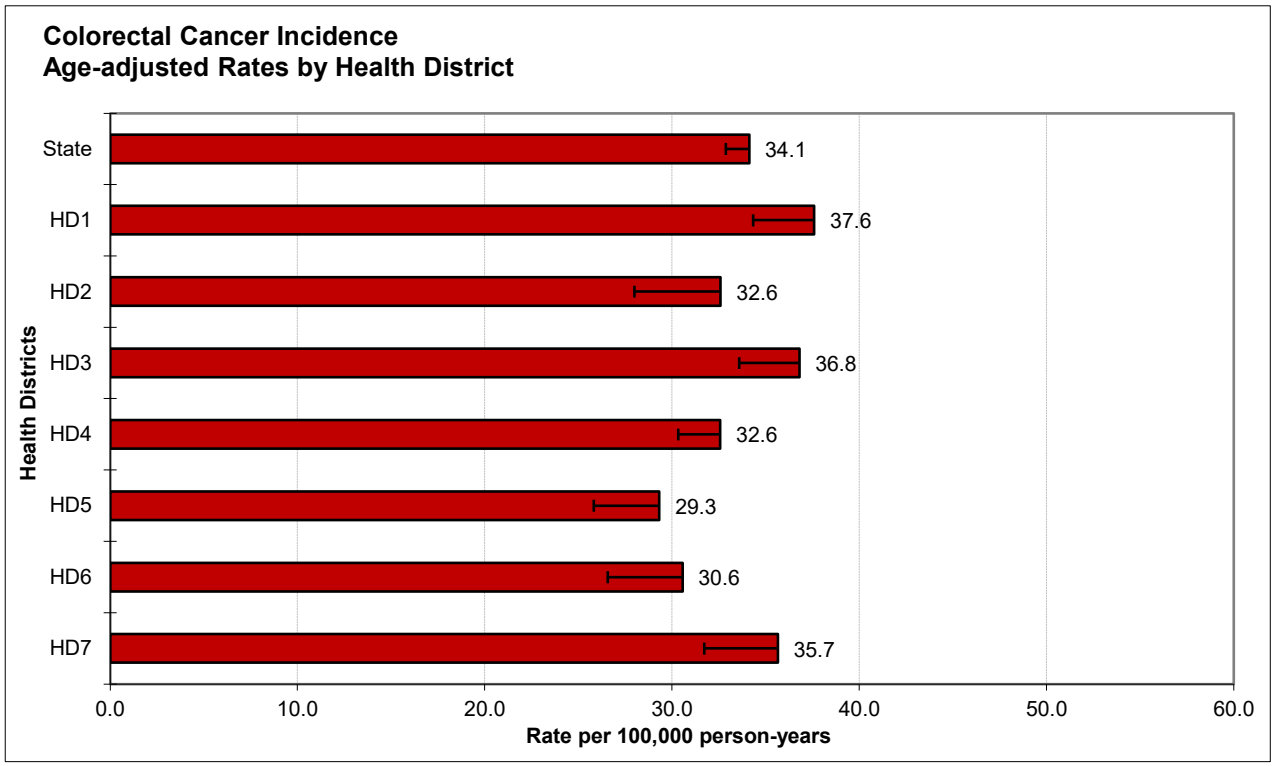
Other Cigarette smoking is significantly associated with increased colorectal cancer incidence and mortality. A sedentary lifestyle and obesity (body mass index > 29) confer increased colorectal cancer risk; colorectal cancer risk and body mass index have a positive dose-response relationship. The use of NSAIDs, including aspirin, may help prevent colon cancer.

Data Summary

Mean age-adjusted incidence rate across health districts:	33.6
95% confidence interval on the mean age-adjusted incidence rate:	31.3–35.9
Median age-adjusted incidence rate of health districts:	32.6
Range of age-adjusted incidence rate for health districts:	29.3–37.6
USCS rate (2022, all races):	36.7

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 colorectal cancer than expected based upon rates for the remainder of Idaho. (See Section V for data.)


State Colorectal Cancer Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
300
250
200
150
100
50
0
< 5
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+
Age Group (in years)
Male
Female
All


Colorectal Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
34.1
37.6
32.6
36.8
32.6
29.3
30.6
35.7
0.0
10.0
20.0
30.0
40.0
50.0
60.0
Rate per 100,000 person-years

CORPUS UTERI

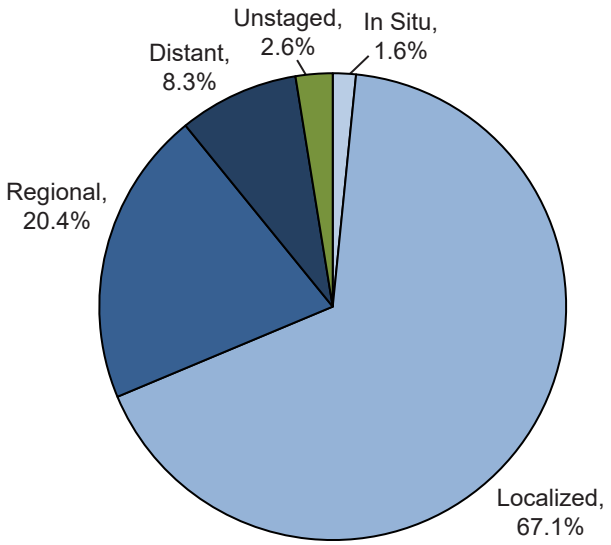
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	-	-	24.8
# of new invasive cases	-	-	308
# of new in situ cases	-	-	5
# of deaths	-	-	32

Total Cases by County

Ada	86	Cassia	4	Lewis	-
Adams	1	Clark	-	Lincoln	-
Bannock	13	Clearwater	3	Madison	5
Bear Lake	1	Custer	1	Minidoka	3
Benewah	4	Elmore	4	Nez Perce	5
Bingham	3	Franklin	3	Oneida	-
Blaine	2	Fremont	3	Owyhee	3
Boise	4	Gem	4	Payette	4
Bonner	13	Gooding	2	Power	-
Bonneville	14	Idaho	2	Shoshone	1
Boundary	4	Jefferson	6	Teton	1
Butte	-	Jerome	3	Twin Falls	13
Camas	-	Kootenai	37	Valley	2
Canyon	50	Latah	6	Washington	2
Caribou	-	Lemhi	1		

Stage at Diagnosis - Corpus Uteri



Factors Associated with Cancer Incidence

Age Occurs predominantly after menopause, with incidence rates above 80 per 100,000 among persons aged 60–79.

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).

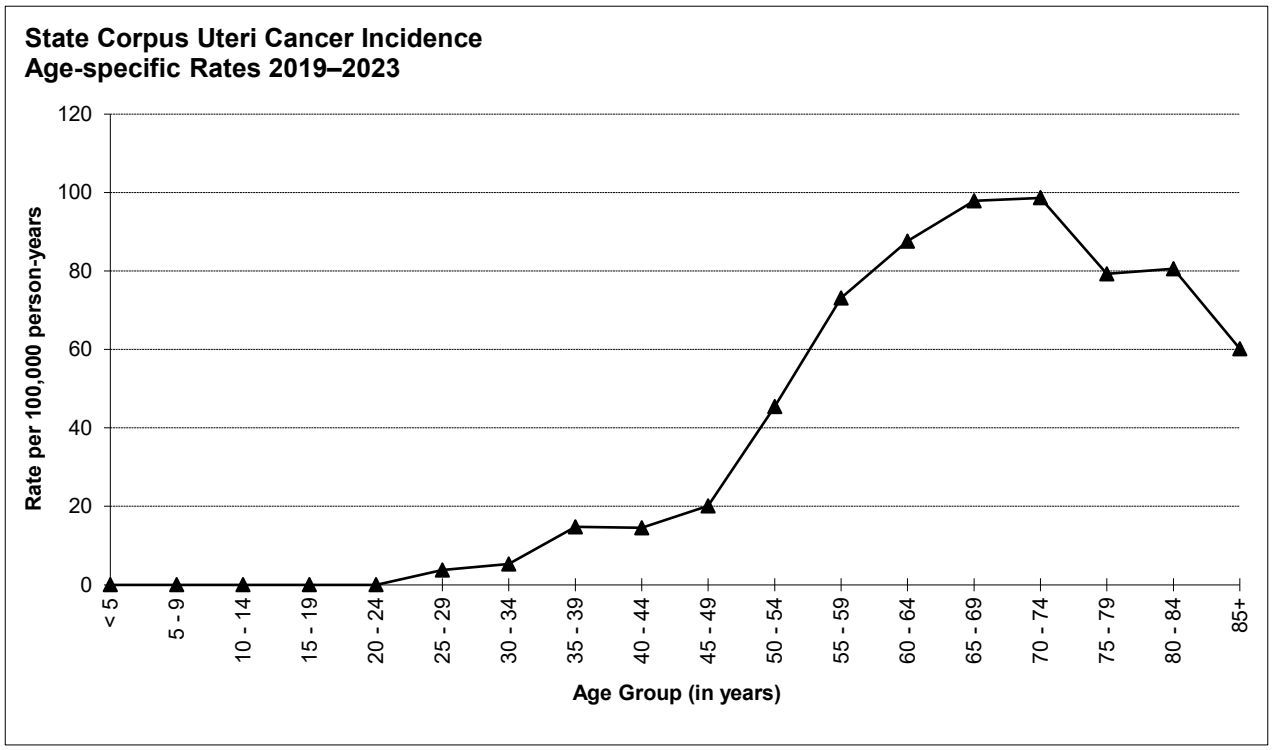
Hormonal Hormone therapy with unopposed estrogen (versus combined estrogen and progestin), use of selective estrogen receptor modulators, e.g. tamoxifen, and factors contributing to increased endogenous estrogen exposure, e.g. nulliparity, early menarche, and late menopause, are associated with increased risk.

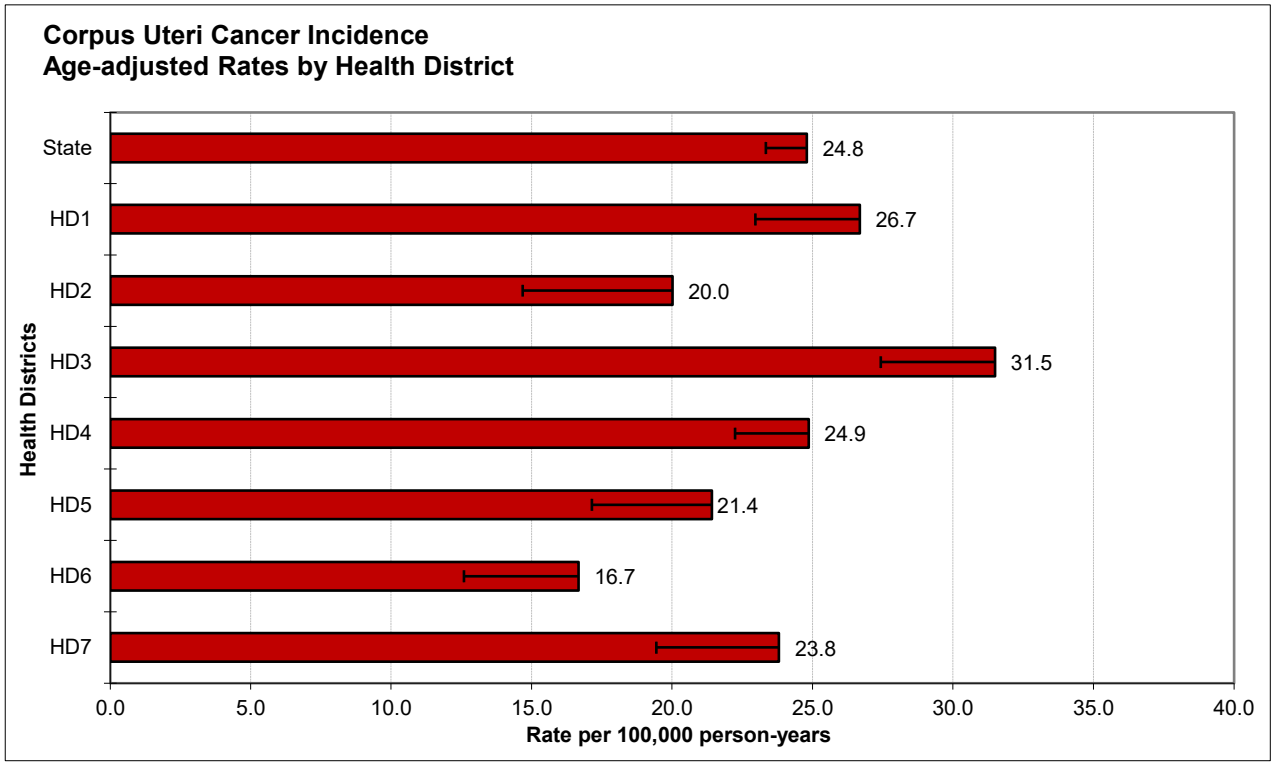
Other Endometrial hyperplasia is a common pre-cursor or concurrent condition to endometrial cancer. Obesity, high body mass index, metabolic syndrome, and post-menopausal weight gain are all associated with increased risk. Regular physical activity is associated with decreased risk.

Data Summary

Mean age-adjusted incidence rate across health districts:	23.6
95% confidence interval on the mean age-adjusted incidence rate:	20.0–27.1
Median age-adjusted incidence rate of health districts:	23.8
Range of age-adjusted incidence rate for health districts:	16.7–31.5
USCS rate (2022, all races):	27.6

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 70–74. Health District 3 had statistically significantly more 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 2019–2023
Rate per 100,000 person-years
120
100
80
60
40
20
0
< 5
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+
Age Group (in years)


Corpus Uteri Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
24.8
26.7
20.0
31.5
24.9
21.4
16.7
23.8
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
Rate per 100,000 person-years

ESOPHAGUS

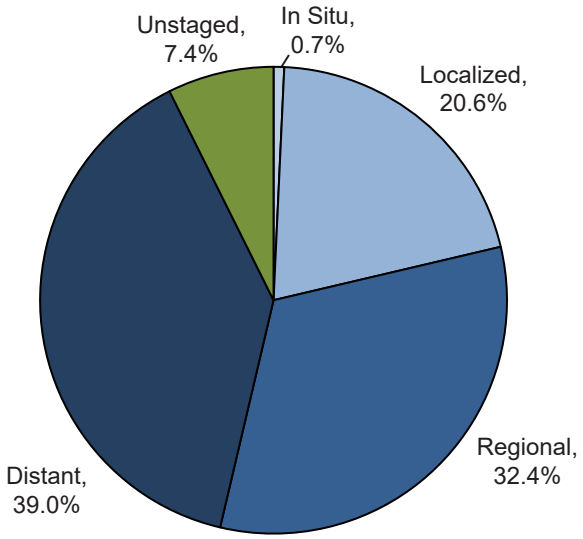
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	5.3	8.6	2.2
# of new invasive cases	135	107	28
# of new in situ cases	1	0	1
# of deaths	108	88	20

Total Cases by County

Ada	38	Cassia	3	Lewis	2
Adams	-	Clark	-	Lincoln	-
Bannock	1	Clearwater	1	Madison	-
Bear Lake	-	Custer	4	Minidoka	2
Benewah	1	Elmore	3	Nez Perce	4
Bingham	3	Franklin	-	Oneida	-
Blaine	2	Fremont	1	Owyhee	-
Boise	-	Gem	5	Payette	3
Bonner	3	Gooding	3	Power	-
Bonneville	9	Idaho	2	Shoshone	1
Boundary	4	Jefferson	1	Teton	1
Butte	1	Jerome	-	Twin Falls	12
Camas	-	Kootenai	14	Valley	-
Canyon	8	Latah	1	Washington	1
Caribou	1	Lemhi	1		

Stage at Diagnosis - Esophagus



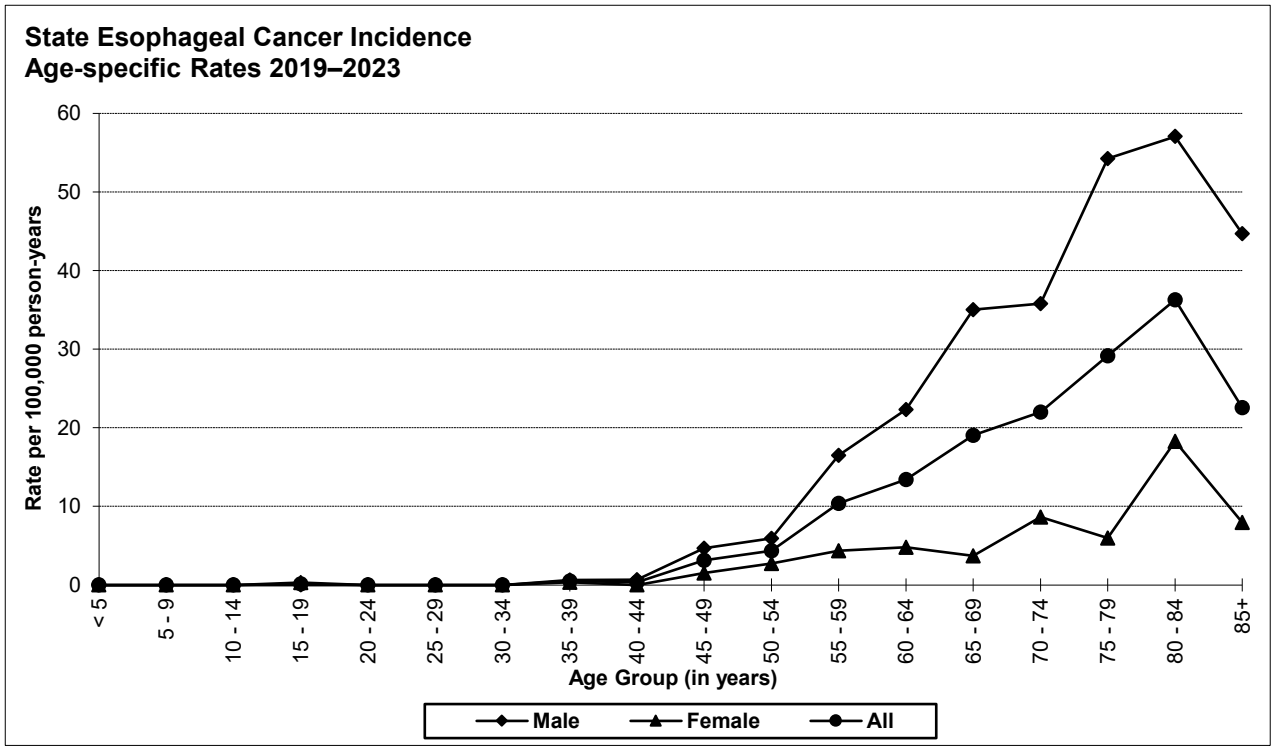
Factors Associated with Cancer Incidence

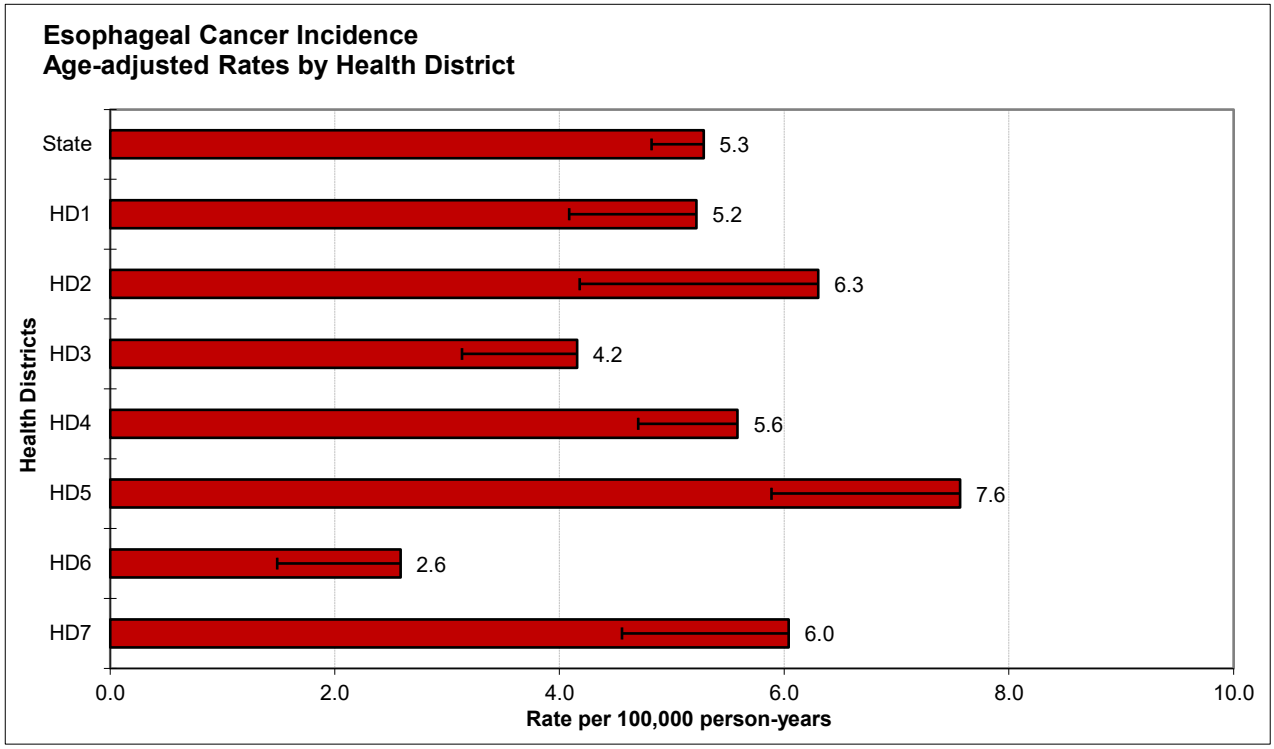
Age	Incidence of esophageal cancer increases with age, peaking among ages 80–84.
Sex	Males have higher rates of esophageal cancer overall and adenocarcinoma and squamous cell carcinoma types; male-to-female incidence ratios are 3:1 or higher.
Race/Ethnicity	Whites and Blacks have similar rates through 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:	5.4
95% confidence interval on the mean age-adjusted incidence rate:	4.2–6.5
Median age-adjusted incidence rate of health districts:	5.6
Range of age-adjusted incidence rate for health districts:	2.6–7.6
USCS rate (2022, all races):	4.6

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 80-84 for both males and females. No health district had statistically significantly more, or fewer, 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 2019–2023
Rate per 100,000 person-years
60
50
40
30
20
10
0
< 5
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+
Age Group (in years)
Male
Female
All


Esophageal Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
5.3
5.2
6.3
4.2
5.6
7.6
2.6
6.0
0.0
2.0
4.0
6.0
8.0
10.0
Rate per 100,000 person-years

HODGKIN LYMPHOMA

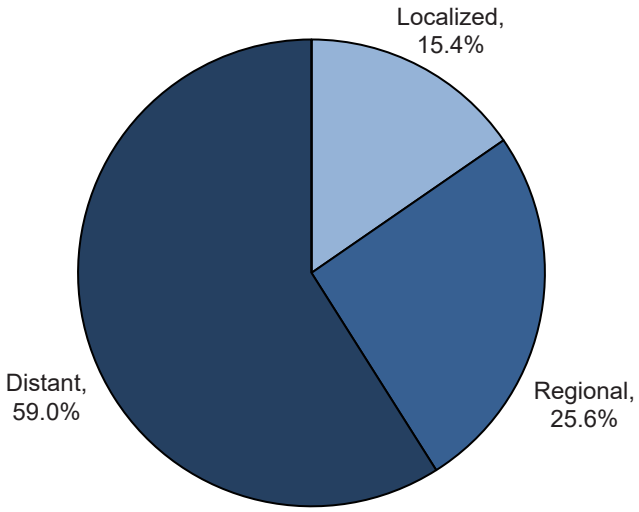
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	1.9	2.1	1.8
# of new invasive cases	39	22	17
# of new in situ cases	0	0	0
# of deaths	5	5	0

Total Cases by County

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

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.

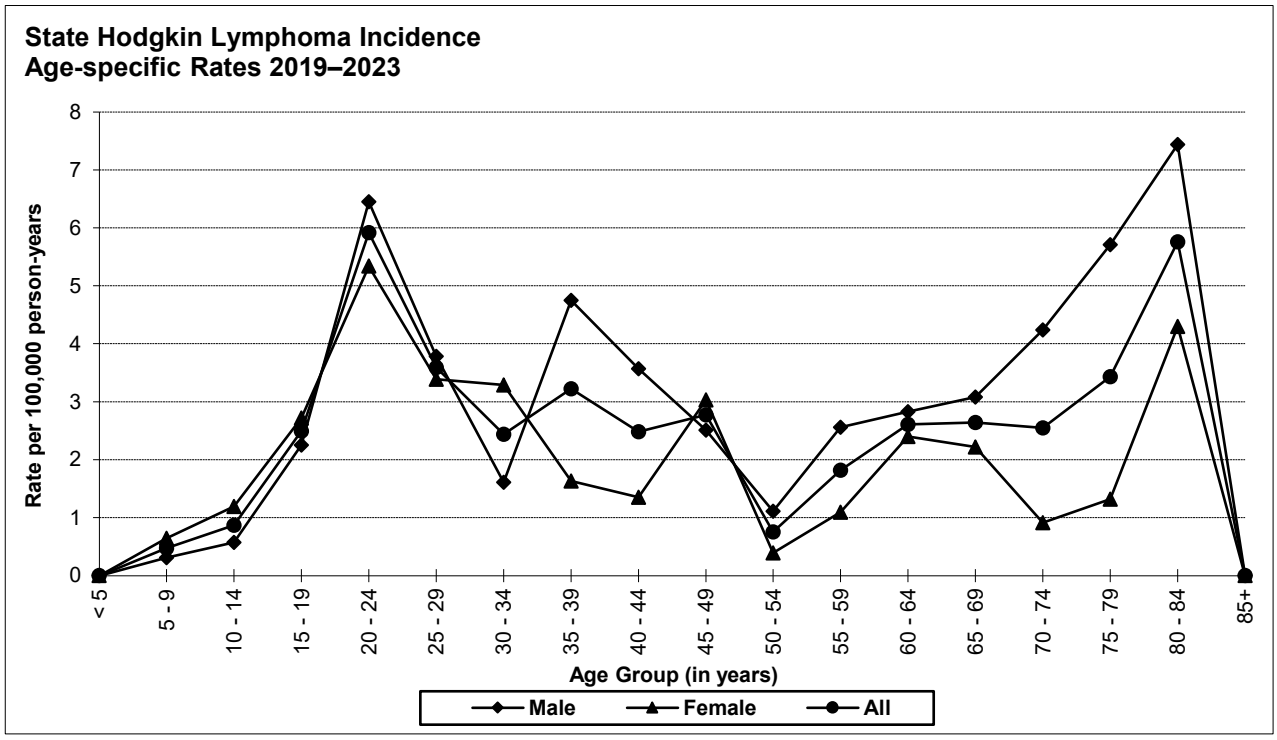
Genetics Hodgkin lymphoma risk is elevated for individuals with a family history, e.g. a sibling, but reasons for this increased risk are not well understood.

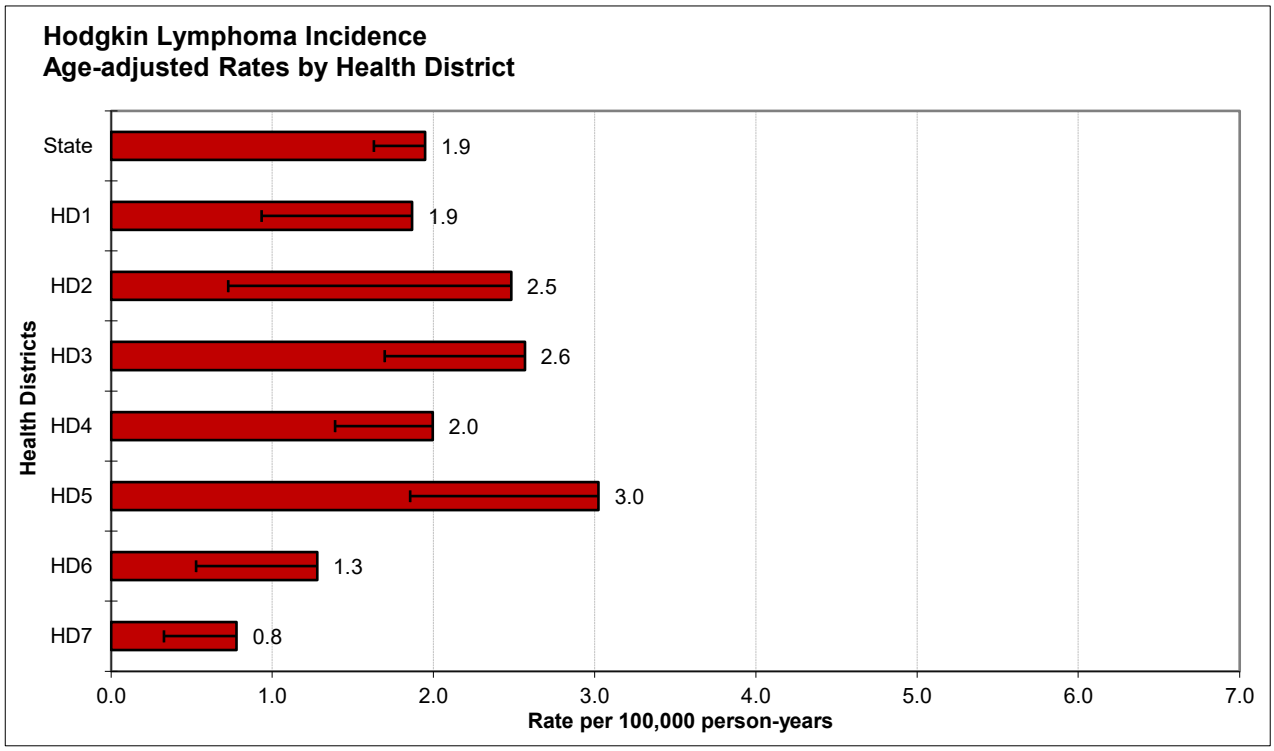
Other Epstein-Barr virus and immunosuppression (e.g. HIV infection, immunosuppressant medications related to organ transplant) are associated with increased risk of Hodgkin lymphoma

Data Summary

Mean age-adjusted incidence rate across health districts:	2.0
95% confidence interval on the mean age-adjusted incidence rate:	1.4–2.6
Median age-adjusted incidence rate of health districts:	2.0
Range of age-adjusted incidence rate for health districts:	0.8–3.0
USCS rate (2022, 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. No health district had statistically significantly more, or fewer, cases of Hodgkin lymphoma than expected based upon rates for the remainder of Idaho. (See Section V for data.)


State Hodgkin Lymphoma Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
0
1
2
3
4
5
6
7
8
< 5
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+
Age Group (in years)
Male
Female
All


Hodgkin Lymphoma Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
1.9
1.9
2.5
2.6
2.0
3.0
1.3
0.8
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
Rate per 100,000 person-years

KIDNEY AND RENAL PELVIS

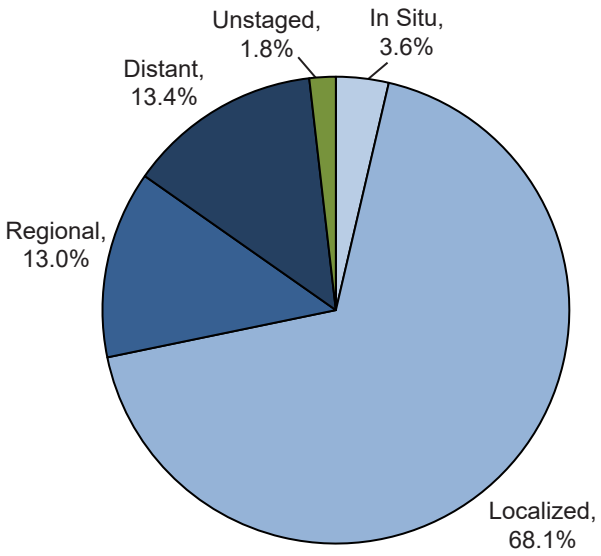
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	18.0	22.6	13.7
# of new invasive cases	423	261	162
# of new in situ cases	16	11	5
# of deaths	89	58	31

Total Cases by County

Ada	111	Cassia	10	Lewis	-
Adams	1	Clark	-	Lincoln	1
Bannock	18	Clearwater	3	Madison	5
Bear Lake	2	Custer	2	Minidoka	6
Benewah	1	Elmore	11	Nez Perce	13
Bingham	12	Franklin	2	Oneida	1
Blaine	7	Fremont	1	Owyhee	4
Boise	1	Gem	7	Payette	5
Bonner	13	Gooding	4	Power	1
Bonneville	25	Idaho	7	Shoshone	6
Boundary	1	Jefferson	3	Teton	1
Butte	-	Jerome	1	Twin Falls	19
Camas	-	Kootenai	50	Valley	4
Canyon	62	Latah	9	Washington	4
Caribou	2	Lemhi	3		

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 75–84 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.

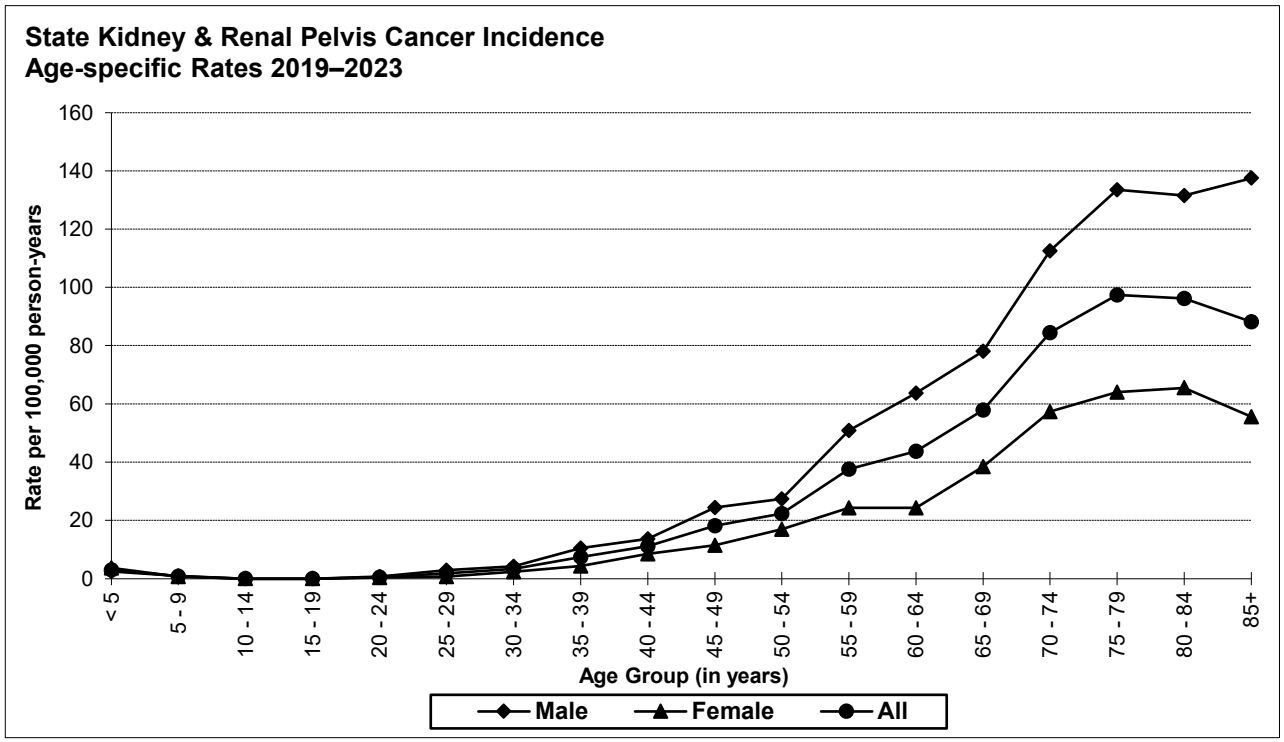
Occupation Increased kidney cancer risk is associated with occupational cadmium exposure.

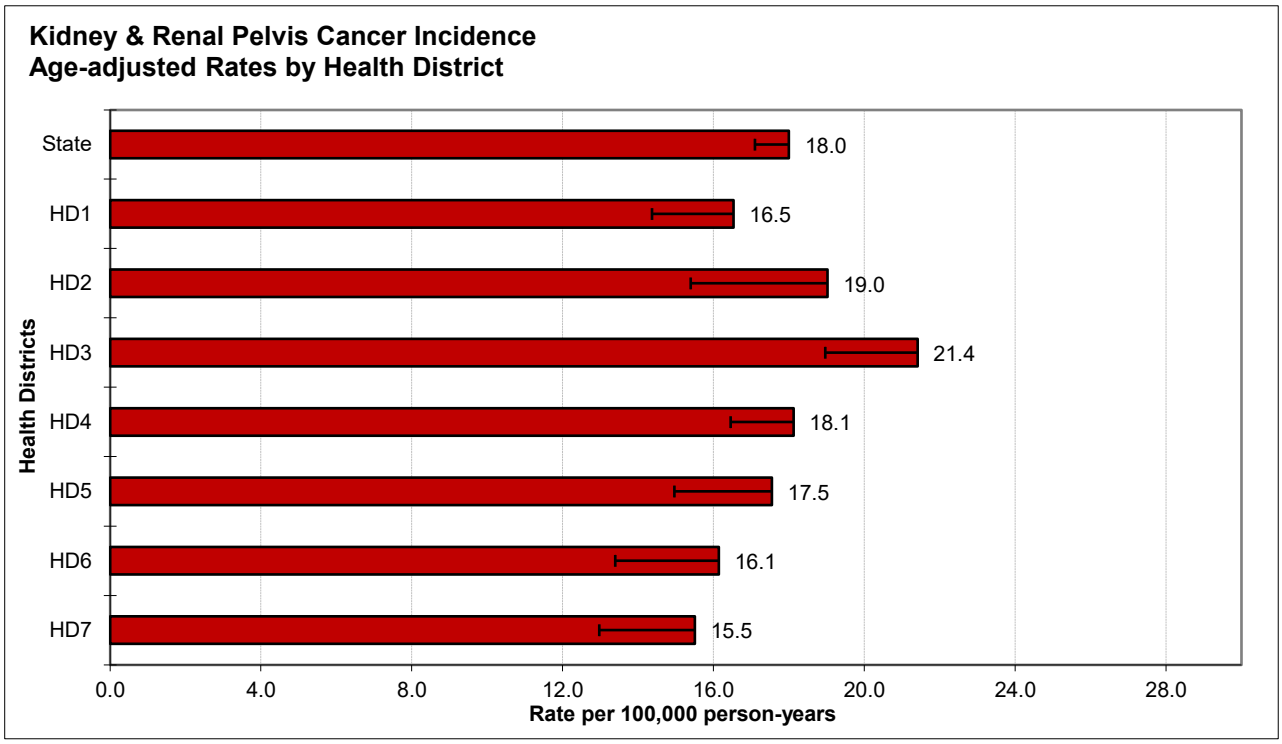
Other Cigarette smoking, obesity, and hypertension are important risk factors. Products containing aristolochic acids, which are naturally found in some plant families, are linked to increased risk for kidney and renal pelvis cancers. Trichloroethylene exposure, commonly used as a solvent or in refrigerants, is associated with increased risk.

Data Summary

Mean age-adjusted incidence rate across health districts:	17.8
95% confidence interval on the mean age-adjusted incidence rate:	16.3–19.2
Median age-adjusted incidence rate of health districts:	17.5
Range of age-adjusted incidence rate for health districts:	15.5–21.4
USCS rate (2022, all races):	17.2

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 85–89 for males and 80–84 for females. No health district had statistically significantly more, or fewer, cases of kidney or renal pelvis cancer than expected based upon rates for the remainder of Idaho. (See Section V for data.)


State Kidney & Renal Pelvis Cancer Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
160
140
120
100
80
60
40
20
0
< 5
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+
Age Group (in years)
Male
Female
All


Kidney & Renal Pelvis Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
18.0
16.5
19.0
21.4
18.1
17.5
16.1
15.5
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
Rate per 100,000 person-years

LARYNX

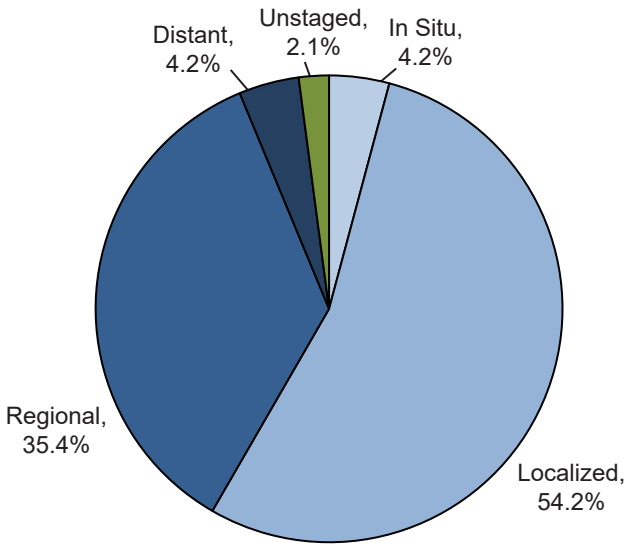
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	1.8	3.1	0.7
# of new invasive cases	46	37	9
# of new in situ cases	2	1	1
# of deaths	18	13	5

Total Cases by County

Ada	11	Cassia	1	Lewis	1
Adams	1	Clark	-	Lincoln	-
Bannock	1	Clearwater	1	Madison	-
Bear Lake	-	Custer	2	Minidoka	1
Benewah	-	Elmore	1	Nez Perce	3
Bingham	-	Franklin	-	Oneida	-
Blaine	-	Fremont	1	Owyhee	-
Boise	-	Gem	1	Payette	3
Bonner	2	Gooding	-	Power	1
Bonneville	2	Idaho	1	Shoshone	-
Boundary	-	Jefferson	1	Teton	-
Butte	-	Jerome	-	Twin Falls	2
Camas	-	Kootenai	3	Valley	-
Canyon	7	Latah	-	Washington	1
Caribou	-	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 and Hispanics have lower rates than non-Hispanic Whites.

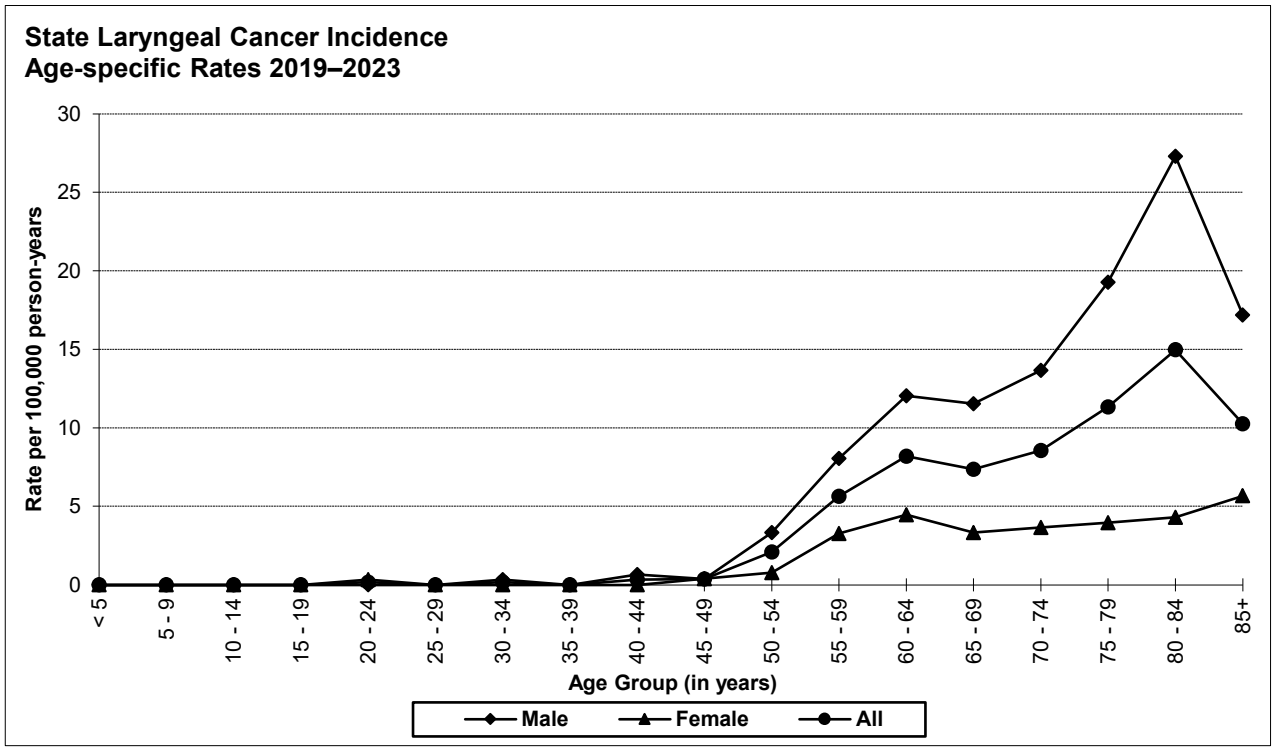
Occupation Laryngeal cancer has been associated with exposures to asbestos and wood dust.

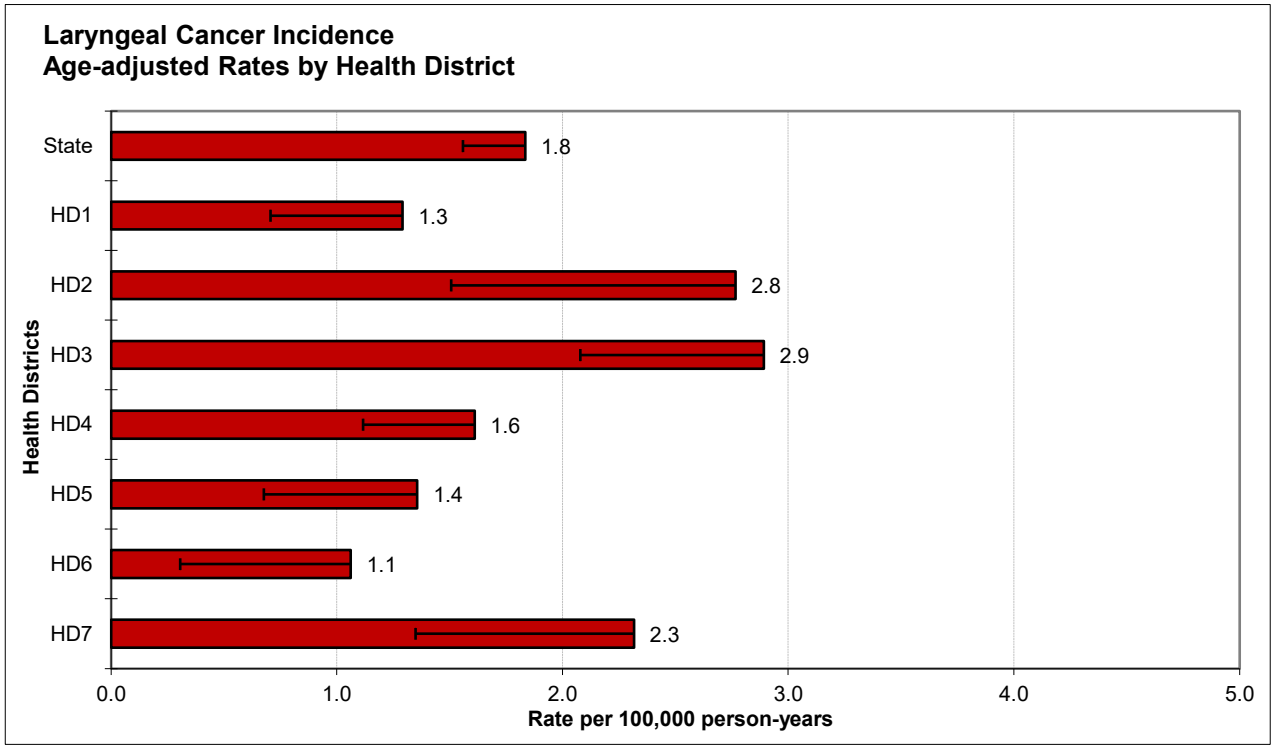
Other Cigarette smoking and excess alcohol use are both major risk factors. The combination of alcohol consumption and tobacco use (smoking or spit tobacco) acts to greatly increase the risk. A patient with a single laryngeal cancer who continues to smoke and drink alcohol has an enhanced risk of developing a second laryngeal tumor.

Data Summary

Mean age-adjusted incidence rate across health districts:	1.9
95% confidence interval on the mean age-adjusted incidence rate:	1.3–2.5
Median age-adjusted incidence rate of health districts:	1.6
Range of age-adjusted incidence rate for health districts:	1.1–2.9
USCS rate (2022, all races):	2.6

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. Health District 3 had statistically significantly more cases than expected based upon rates for the remainder of Idaho. (See Section V for data.)


State Laryngeal Cancer Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
30
25
20
15
10
5
0
< 5
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+
Age Group (in years)
Male
Female
All


Laryngeal Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
1.8
1.3
2.8
2.9
1.6
1.4
1.1
2.3
0.0
1.0
2.0
3.0
4.0
5.0
Rate per 100,000 person-years

LEUKEMIA

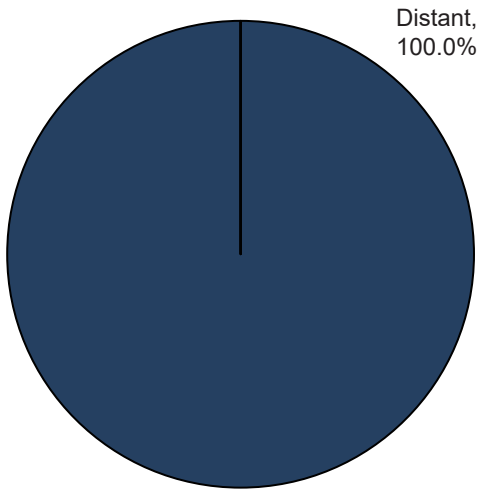
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	15.8	21.5	10.8
# of new invasive cases	377	248	129
# of new in situ cases	0	0	0
# of deaths	139	85	54

Total Cases by County

Ada	102	Cassia	6	Lewis	1
Adams	2	Clark	-	Lincoln	1
Bannock	17	Clearwater	2	Madison	-
Bear Lake	-	Custer	1	Minidoka	3
Benewah	4	Elmore	6	Nez Perce	9
Bingham	11	Franklin	1	Oneida	1
Blaine	6	Fremont	4	Owyhee	2
Boise	6	Gem	6	Payette	6
Bonner	13	Gooding	4	Power	3
Bonneville	16	Idaho	5	Shoshone	4
Boundary	5	Jefferson	4	Teton	1
Butte	-	Jerome	4	Twin Falls	18
Camas	-	Kootenai	42	Valley	2
Canyon	41	Latah	9	Washington	5
Caribou	3	Lemhi	1		

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.

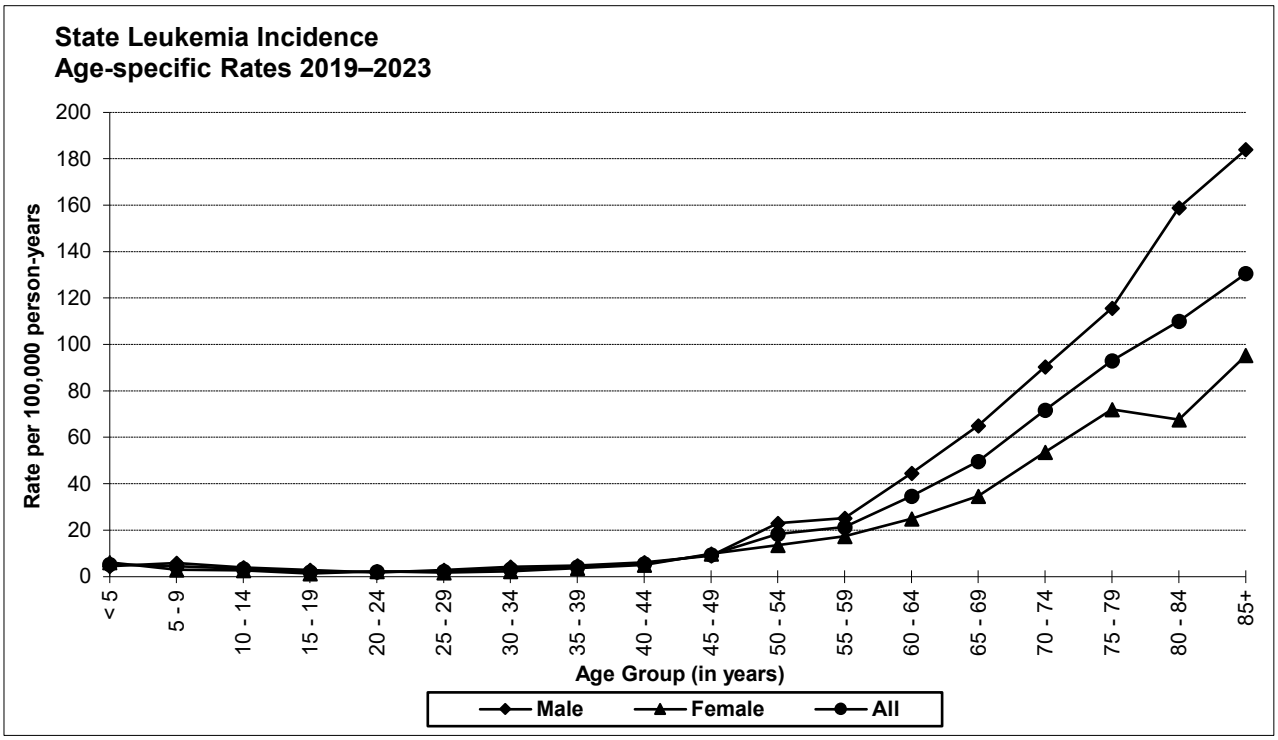
Genetics Certain congenital defects (e.g. trisomy 21, Fanconi's anemia, Bloom syndrome, ataxia-telangiectasia) increase risk for various types of leukemia in children.

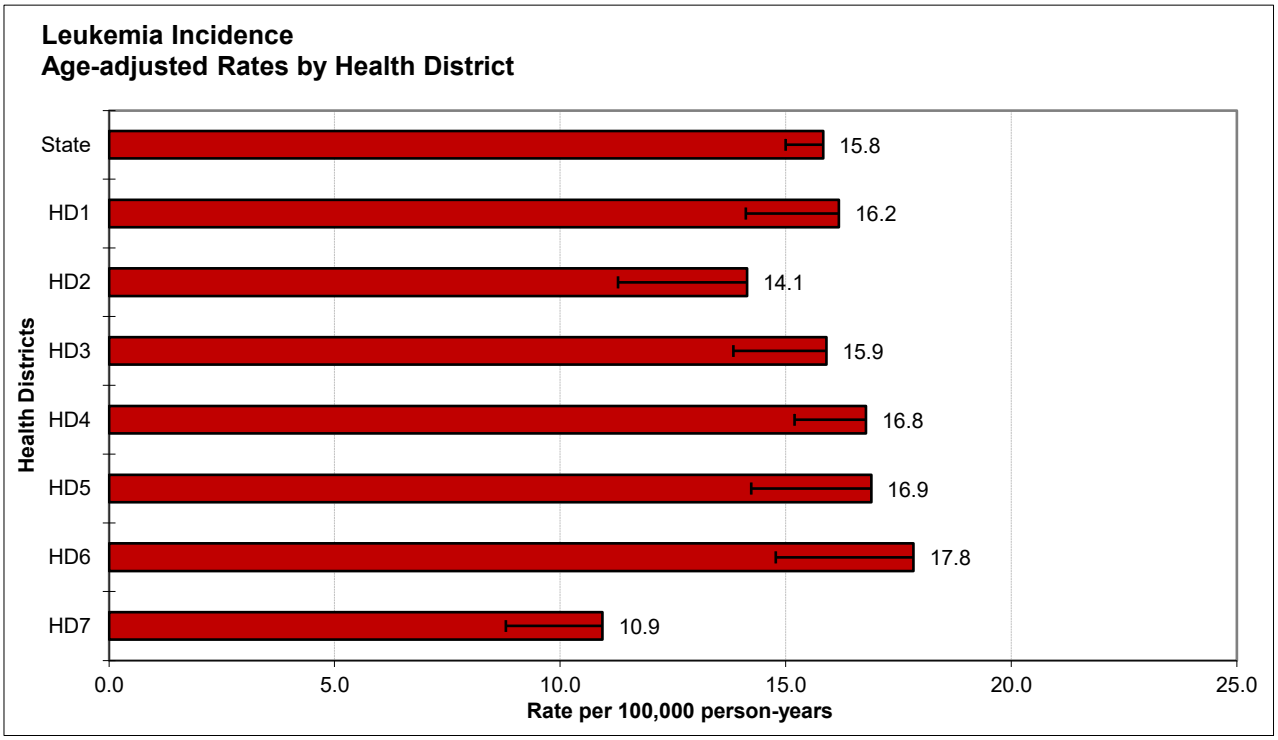
Other Ionizing radiation exposure increases leukemia risk, except for CLL. Benzene is a known cause of leukemia (predominantly AML). Treatment with some chemotherapeutic agents for other cancers increases the risk of leukemia. Exposure to herbicides used during the Vietnam War, including Agent Orange, 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:	15.5
95% confidence interval on the mean age-adjusted incidence rate:	13.8–17.2
Median age-adjusted incidence rate of health districts:	16.2
Range of age-adjusted incidence rate for health districts:	10.9–17.8
USCS rate (2022, all races):	13.6

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. Health District 7 had statistically significantly fewer cases of leukemia than expected based upon rates for the remainder of Idaho. (See Section V for data.)


State Leukemia Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
200
180
160
140
120
100
80
60
40
20
0
< 5
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+
Age Group (in years)
Male
Female
All


Leukemia Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
15.8
16.2
14.1
15.9
16.8
16.9
17.8
10.9
0.0
5.0
10.0
15.0
20.0
25.0
Rate per 100,000 person-years

LIVER AND BILE DUCT

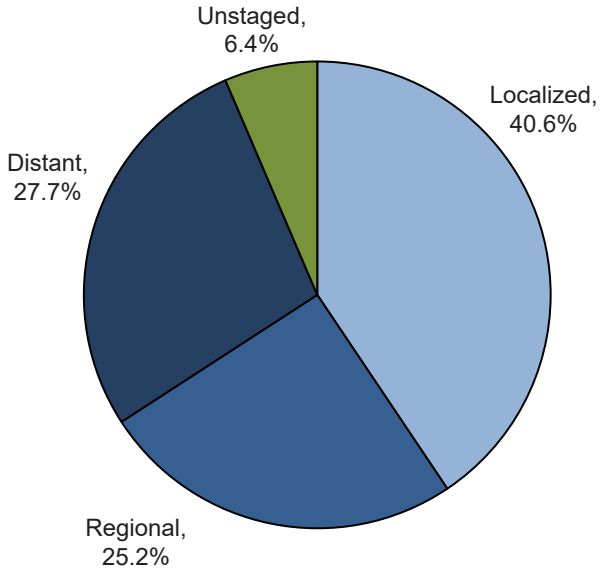
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	7.9	10.5	5.5
# of new invasive cases	202	133	69
# of new in situ cases	0	0	0
# of deaths	166	106	60

Total Cases by County

Ada	49	Cassia	4	Lewis	-
Adams	-	Clark	-	Lincoln	1
Bannock	8	Clearwater	1	Madison	-
Bear Lake	1	Custer	-	Minidoka	1
Benewah	1	Elmore	7	Nez Perce	3
Bingham	5	Franklin	1	Oneida	-
Blaine	2	Fremont	-	Owyhee	-
Boise	1	Gem	-	Payette	2
Bonner	13	Gooding	1	Power	2
Bonneville	5	Idaho	1	Shoshone	2
Boundary	-	Jefferson	6	Teton	1
Butte	-	Jerome	6	Twin Falls	12
Camas	2	Kootenai	22	Valley	1
Canyon	34	Latah	2	Washington	2
Caribou	2	Lemhi	1		

Stage at Diagnosis - Liver and Bile Duct



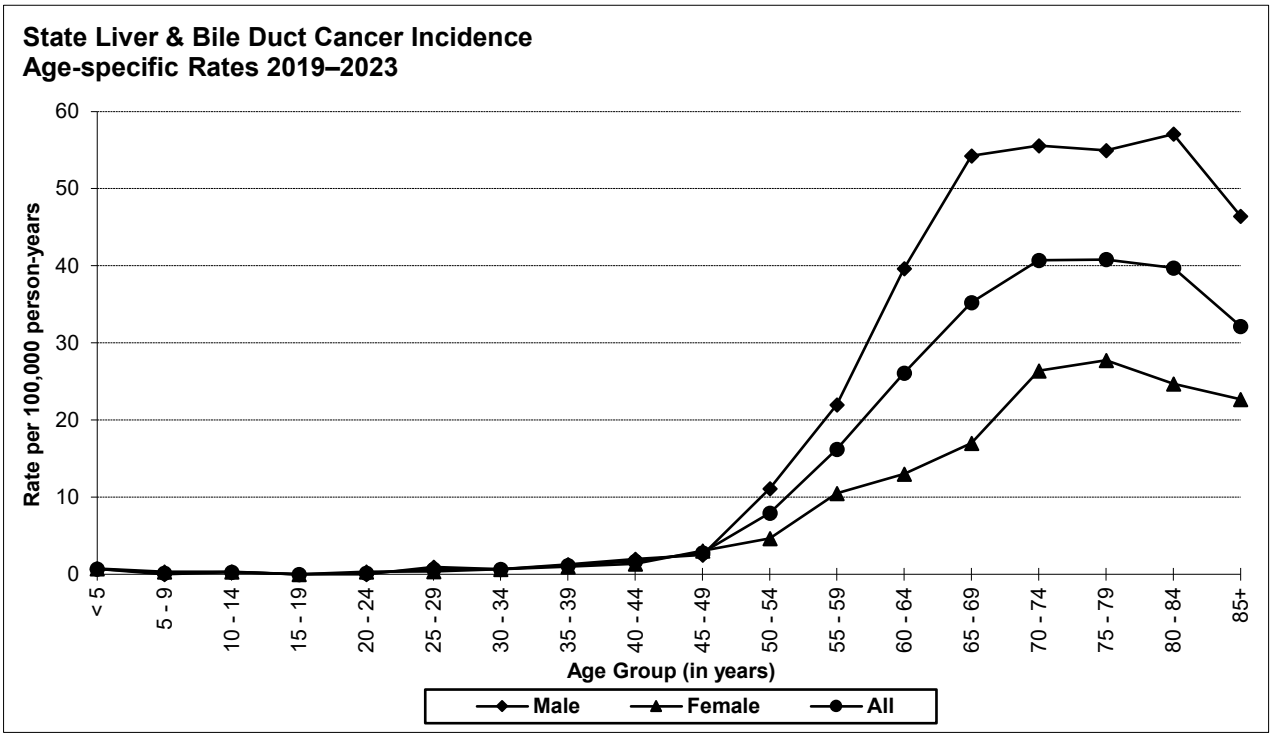
Factors Associated with Cancer Incidence

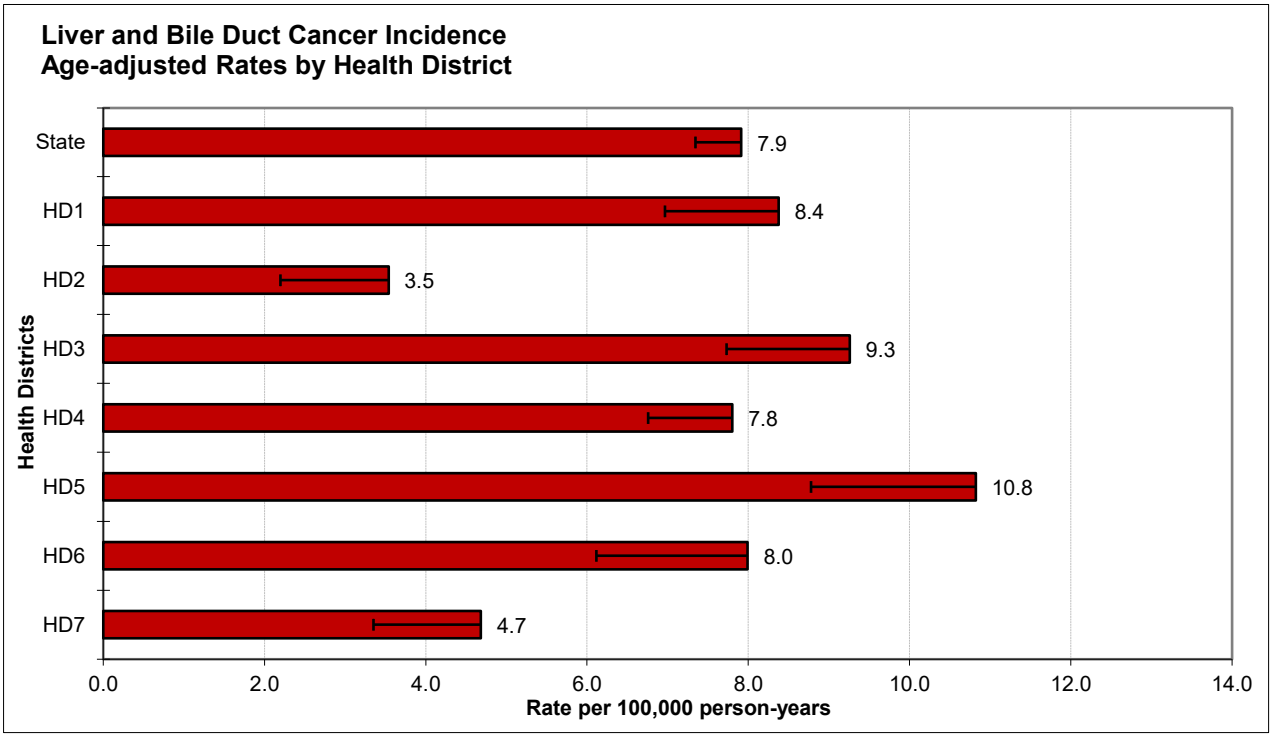
Age	The incidence rate of liver cancer increases with age.
Sex	Rates are usually higher among males than females.
Race/Ethnicity	Incidence is higher among Asian/Pacific Islanders, American Indians/Alaska Natives, and Hispanics.
Diet	Aflatoxins, which are present in certain foods such as peanut butter, 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:	7.5
95% confidence interval on the mean age-adjusted incidence rate:	5.6–9.4
Median age-adjusted incidence rate of health districts:	8.0
Range of age-adjusted incidence rate for health districts:	3.5–10.8
USCS rate (2022, 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 80–84 for males and 75–79 for females. No health district had statistically significantly more, or fewer, cases of liver and bile duct cancer than expected based upon rates for the remainder of Idaho. (See Section V for data.)


State Liver & Bile Duct Cancer Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
60
50
40
30
20
10
0
< 5
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+
Age Group (in years)
Male
Female
All


Liver and Bile Duct Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
7.9
8.4
3.5
9.3
7.8
10.8
8.0
4.7
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
Rate per 100,000 person-years

LUNG AND BRONCHUS

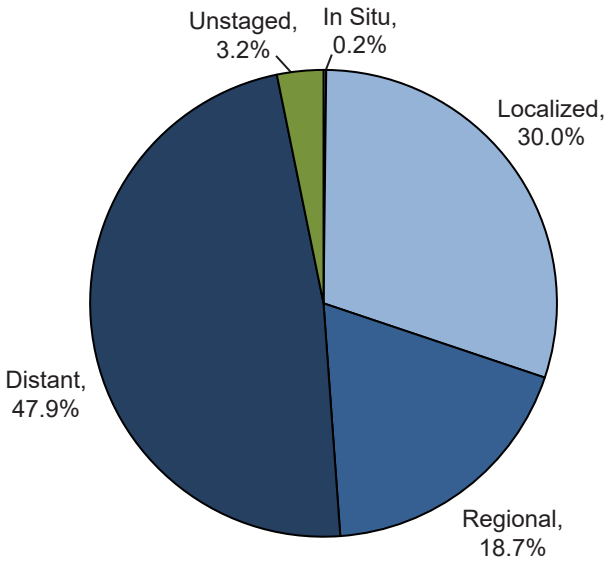
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	42.4	44.9	40.4
# of new invasive cases	1,089	542	547
# of new in situ cases	2	2	0
# of deaths	627	330	297

Total Cases by County

Ada	277	Cassia	13	Lewis	6
Adams	1	Clark	1	Lincoln	5
Bannock	50	Clearwater	13	Madison	3
Bear Lake	4	Custer	5	Minidoka	19
Benewah	15	Elmore	34	Nez Perce	29
Bingham	11	Franklin	2	Oneida	2
Blaine	11	Fremont	12	Owyhee	10
Boise	5	Gem	18	Payette	21
Bonner	46	Gooding	11	Power	5
Bonneville	41	Idaho	18	Shoshone	17
Boundary	8	Jefferson	7	Teton	1
Butte	4	Jerome	6	Twin Falls	56
Camas	-	Kootenai	100	Valley	2
Canyon	171	Latah	11	Washington	7
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 more recent decades.

Race/Ethnicity IIncidence is highest among non-Hispanic Whites and Blacks and lowest among Hispanics and Asian and Pacific Islanders.

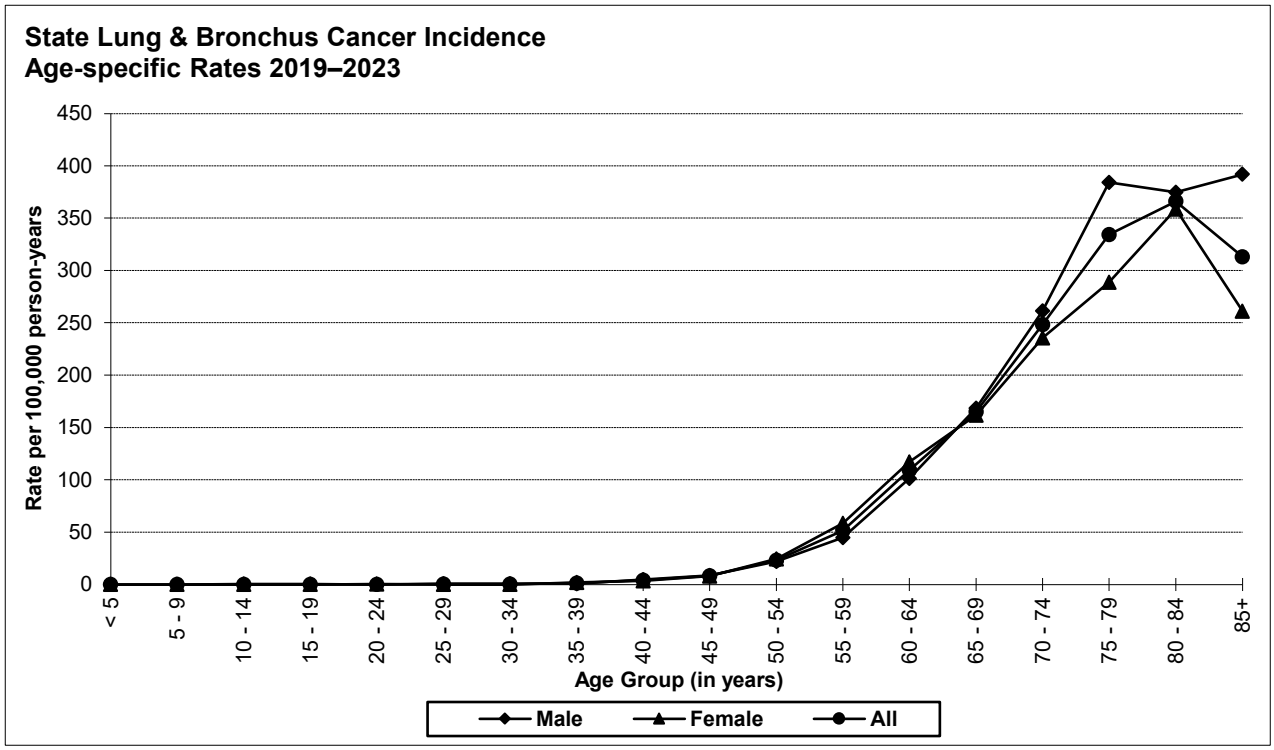
Occupation Occupational or environmental exposures to asbestos, cadmium, chromium, coal tars, crystalline silica dust, polycyclic aromatic hydrocarbons, radon, soot, chlorpyrifos insecticides, ionizing radiation, and other substances increase the risk.

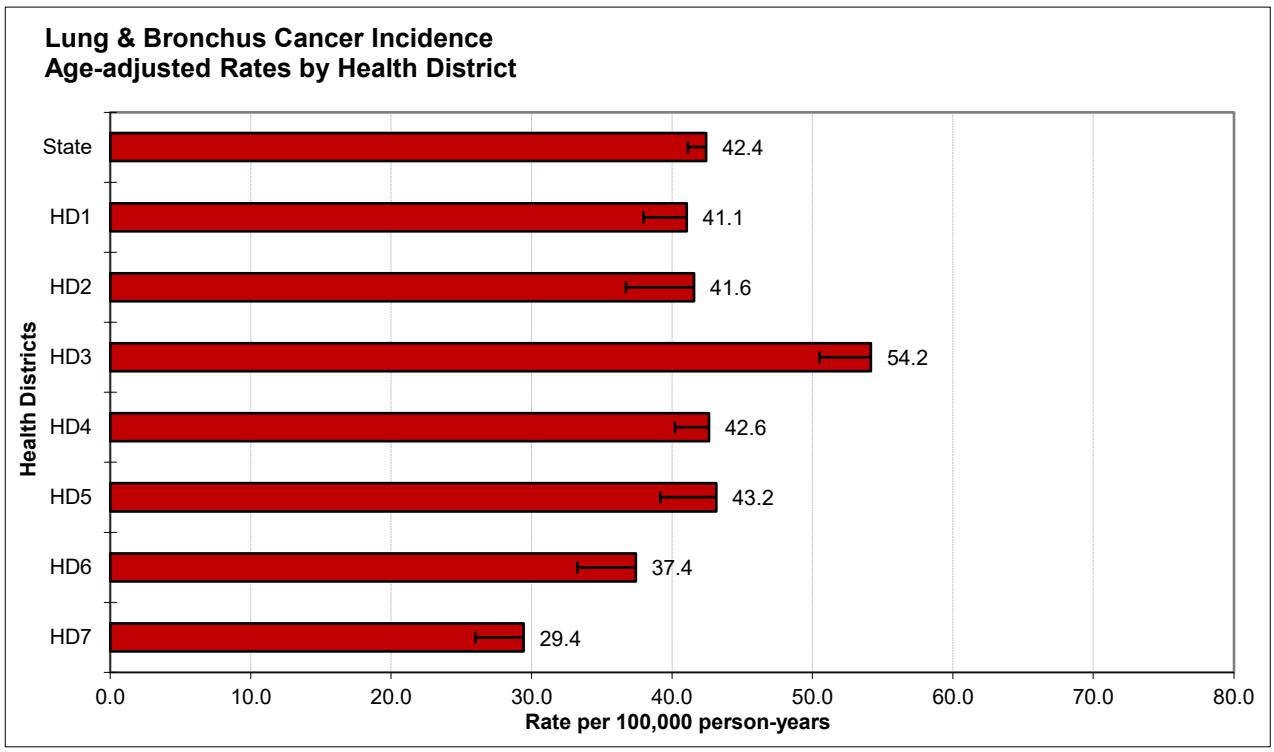
Other Cigarette smoking, including exposure to second-hand smoke, is the most important risk factor, accounting for about 80% of lung cancer deaths. Evidence exists that rates are about 1.3 times higher, adjusted for smoking, in urban areas than rural areas due to air pollution, mostly from motor vehicles.

Data Summary

Mean age-adjusted incidence rate across health districts:	41.3
95% confidence interval on the mean age-adjusted incidence rate:	35.9–46.8
Median age-adjusted incidence rate of health districts:	41.6
Range of age-adjusted incidence rate for health districts:	29.4–54.2
USCS rate (2022, all races):	49.4

There were few cases of lung cancer among persons less than 50 years of age. Age-specific rates of lung cancer are more similar among males and females than for prior years. The incidence rates increased with age, peaking in the age group 85+ for males and 80–84 for females. Health District 3 had statistically significantly more cases of lung cancer than expected based upon rates for the remainder of Idaho and Health District 7 had statistically significantly fewer. (See Section V for data.)


State Lung & Bronchus Cancer Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
450
400
350
300
250
200
150
100
50
0
< 5
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+
Age Group (in years)
Male
Female
All


Lung & Bronchus Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
42.4
41.1
41.6
54.2
42.6
43.2
37.4
29.4
0.0
10.0
20.0
30.0
40.0
50.0
60.0
70.0
80.0
Rate per 100,000 person-years

MELANOMA OF SKIN

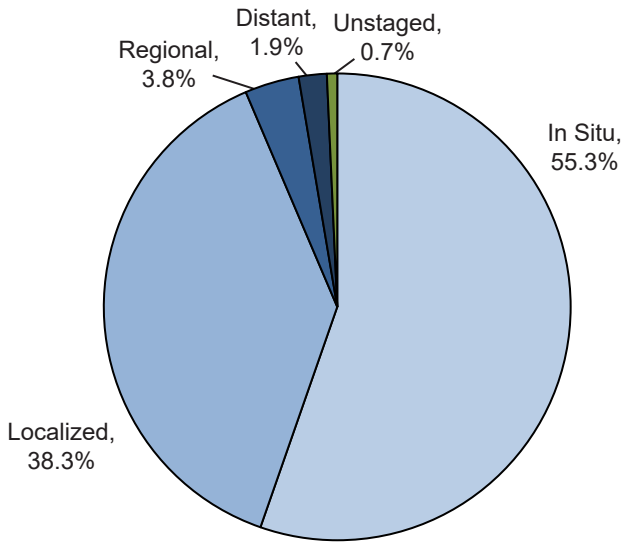
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	30.0	36.3	24.7
# of new invasive cases	690	409	281
# of new in situ cases	855	538	317
# of deaths	65	41	24

Total Cases by County

Ada	436	Cassia	22	Lewis	1
Adams	3	Clark	-	Lincoln	2
Bannock	86	Clearwater	6	Madison	13
Bear Lake	5	Custer	4	Minidoka	18
Benewah	4	Elmore	11	Nez Perce	30
Bingham	25	Franklin	20	Oneida	3
Blaine	95	Fremont	9	Owyhee	6
Boise	7	Gem	9	Payette	9
Bonner	77	Gooding	15	Power	3
Bonneville	48	Idaho	23	Shoshone	14
Boundary	13	Jefferson	12	Teton	8
Butte	2	Jerome	16	Twin Falls	83
Camas	2	Kootenai	191	Valley	16
Canyon	148	Latah	25	Washington	5
Caribou	9	Lemhi	11		

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.

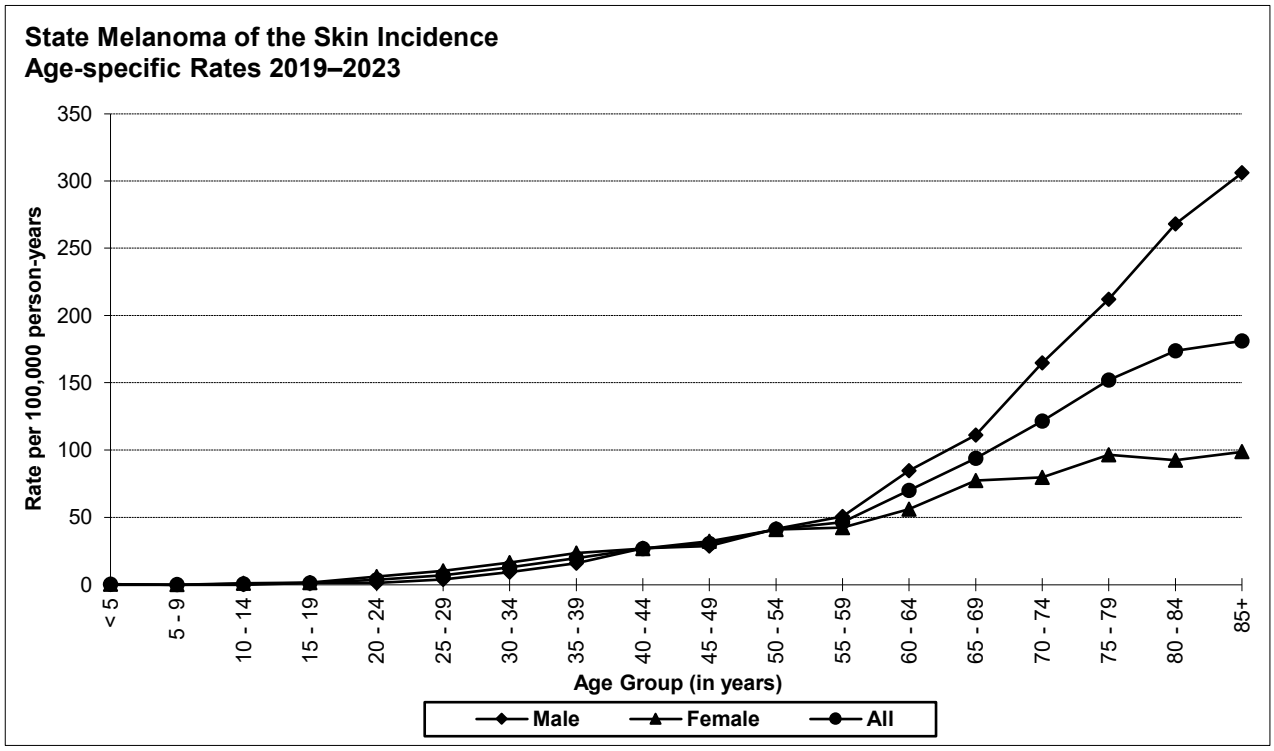
Race/Ethnicity Incidence rates are over 5-fold higher for non-Hispanic Whites than American Indian/Alaska Natives or Hispanics and lowest among Asian/Pacific Islanders and Blacks.

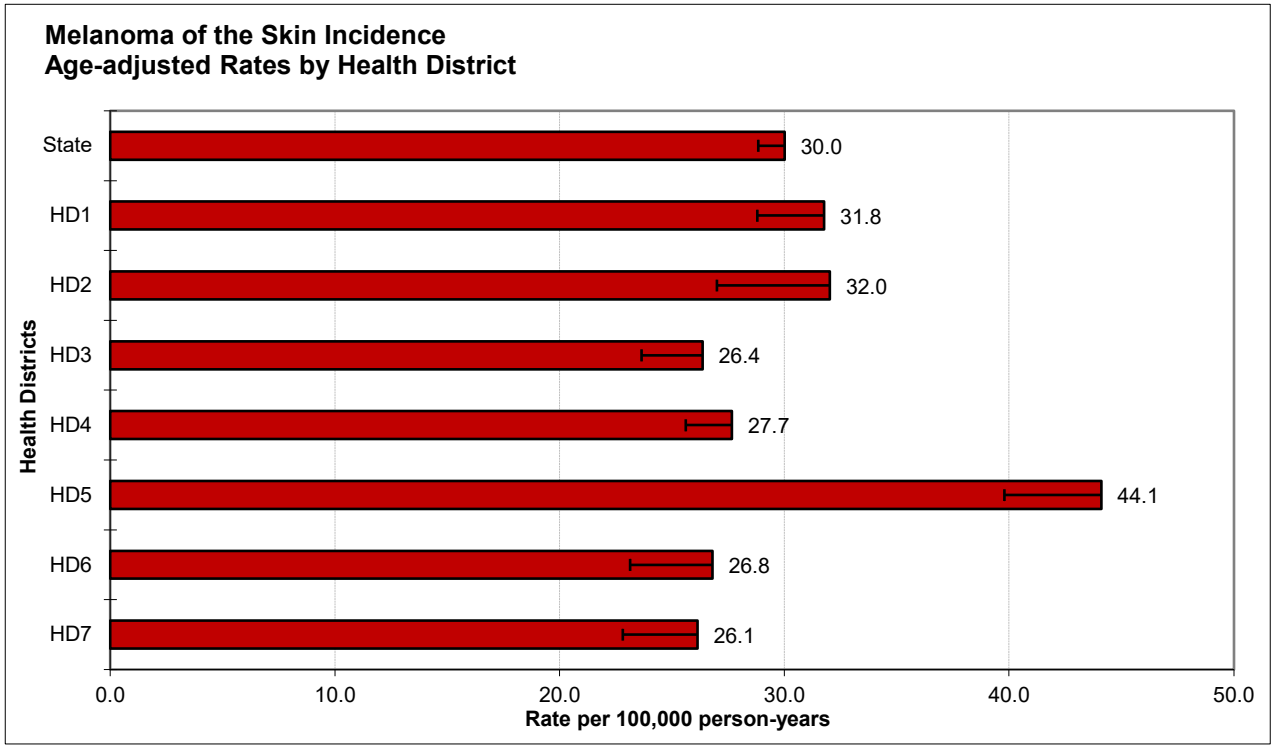
Other Ultraviolet light exposure, especially blistering sunburns during childhood and intermittent exposure of untanned skin to intense sunlight, is a major risk factor. Melanoma incidence rates are increasing around the world. Blue eyes, fair or red hair, and pale complexion are well-known risk factors 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:	30.7
95% confidence interval on the mean age-adjusted incidence rate:	25.9–35.5
Median age-adjusted incidence rate of health districts:	27.7
Range of age-adjusted incidence rate for health districts:	26.1–44.1
USCS rate (2022, all races):	23.8

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 District 5 had statistically significantly more cases of melanoma than expected based upon rates for the remainder of Idaho. (See Section V for data.)


State Melanoma of the Skin Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
350
300
250
200
150
100
50
0
< 5
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+
Age Group (in years)
Male
Female
All


Melanoma of the Skin Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
30.0
31.8
32.0
26.4
27.7
44.1
26.8
26.1
0.0
10.0
20.0
30.0
40.0
50.0
Rate per 100,000 person-years

MYELOMA

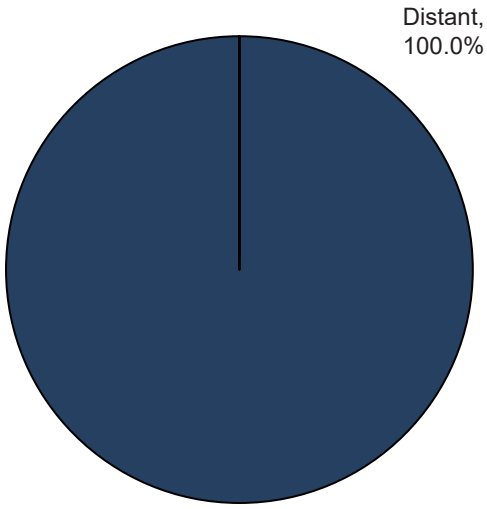
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	5.9	7.3	4.5
# of new invasive cases	147	86	61
# of new in situ cases	0	0	0
# of deaths	72	40	32

Total Cases by County

Ada	38	Cassia	1	Lewis	-
Adams	2	Clark	-	Lincoln	-
Bannock	6	Clearwater	1	Madison	1
Bear Lake	2	Custer	-	Minidoka	1
Benewah	-	Elmore	3	Nez Perce	1
Bingham	4	Franklin	2	Oneida	-
Blaine	1	Fremont	2	Owyhee	-
Boise	1	Gem	3	Payette	1
Bonner	3	Gooding	1	Power	1
Bonneville	6	Idaho	4	Shoshone	-
Boundary	1	Jefferson	2	Teton	-
Butte	-	Jerome	-	Twin Falls	8
Camas	1	Kootenai	18	Valley	2
Canyon	25	Latah	2	Washington	-
Caribou	2	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.

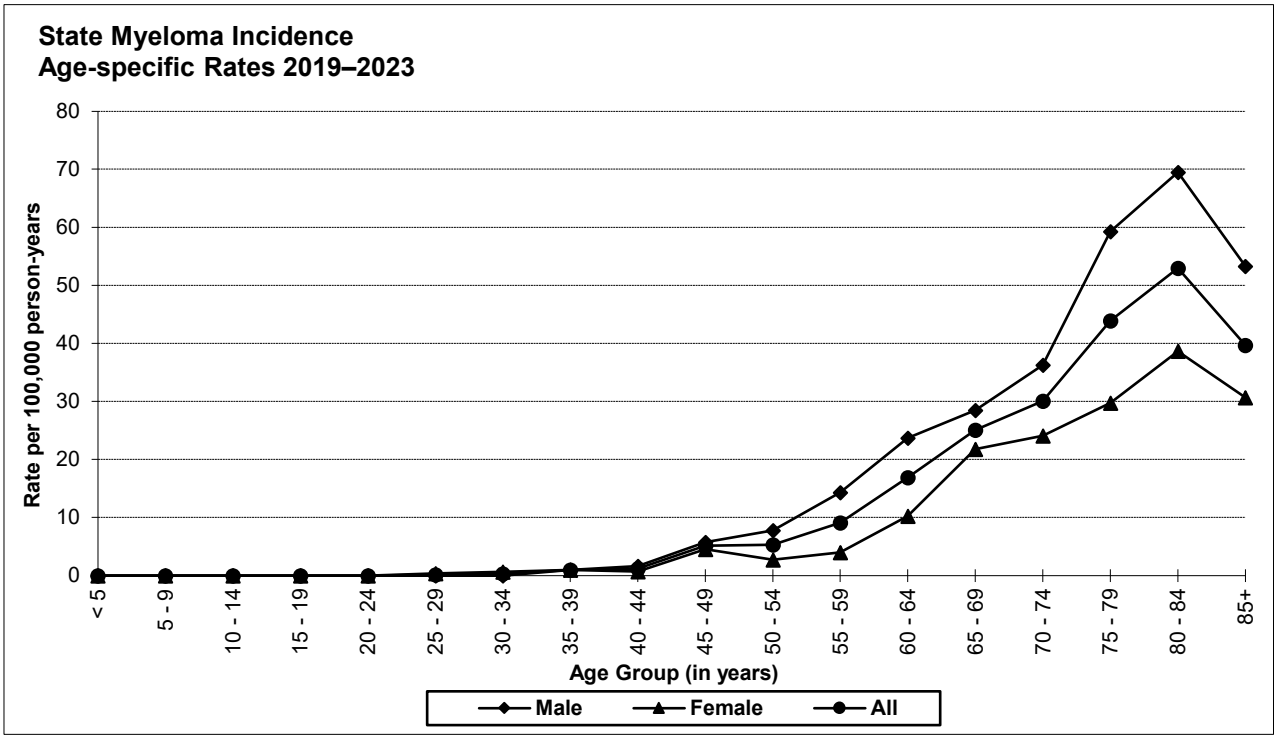
Genetics There appears to be a slight increase in the incidence of the disease in first-degree relatives (parents or siblings) of people with multiple myeloma.

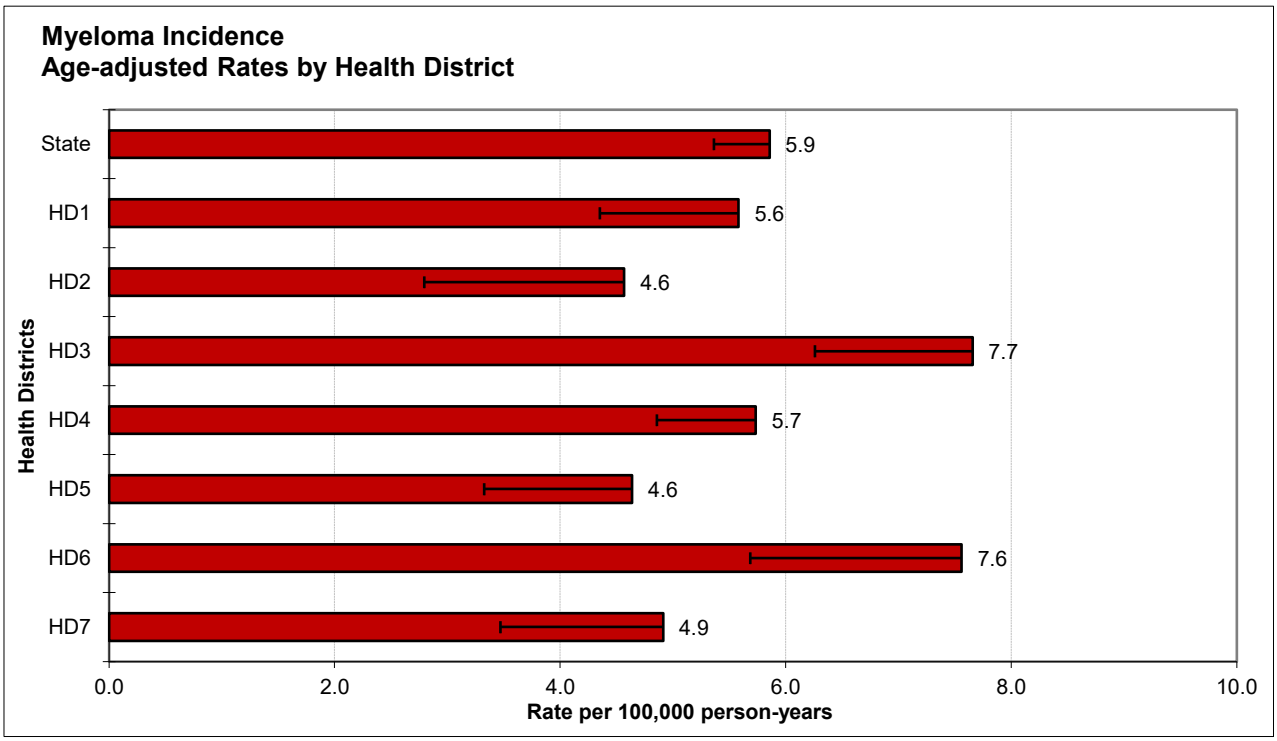
Other Being overweight or obese increases a person's risk of developing myeloma. Several specific chemical and physical substances have been linked to myeloma risk in one or more studies. Truck drivers, painters, and agricultural workers are at increased risk for multiple myeloma. Individuals with monoclonal 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:	5.8
95% confidence interval on the mean age-adjusted incidence rate:	4.8–6.8
Median age-adjusted incidence rate of health districts:	5.6
Range of age-adjusted incidence rate for health districts:	4.6–7.7
USCS rate (2022, all races):	6.9

There were no cases of myeloma among persons less than 25 years of age. The age-specific incidence rates increased rapidly for males and females after age group 55–59. No health district had statistically significantly more, or fewer, cases of myeloma than expected based upon rates for the remainder of Idaho. (See Section V for data.)


State Myeloma Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
80
70
60
50
40
30
20
10
0
< 5
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+
Age Group (in years)
Male
Female
All


Myeloma Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
5.9
5.6
4.6
7.7
5.7
4.6
7.6
4.9
0.0
2.0
4.0
6.0
8.0
10.0
Rate per 100,000 person-years

NON-HODGKIN LYMPHOMA

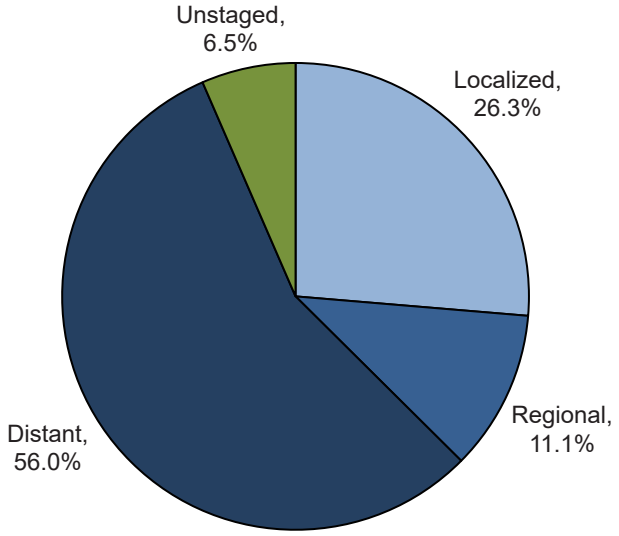
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	17.1	20.2	14.4
# of new invasive cases	414	234	180
# of new in situ cases	0	0	0
# of deaths	105	72	33

Total Cases by County

Ada	121	Cassia	8	Lewis	1
Adams	2	Clark	-	Lincoln	2
Bannock	17	Clearwater	3	Madison	4
Bear Lake	-	Custer	2	Minidoka	3
Benewah	2	Elmore	6	Nez Perce	7
Bingham	5	Franklin	5	Oneida	1
Blaine	12	Fremont	2	Owyhee	5
Boise	2	Gem	3	Payette	5
Bonner	16	Gooding	3	Power	1
Bonneville	21	Idaho	8	Shoshone	7
Boundary	6	Jefferson	4	Teton	1
Butte	-	Jerome	3	Twin Falls	14
Camas	1	Kootenai	38	Valley	2
Canyon	56	Latah	7	Washington	3
Caribou	1	Lemhi	4		

Stage at Diagnosis - Non-Hodgkin Lymphoma



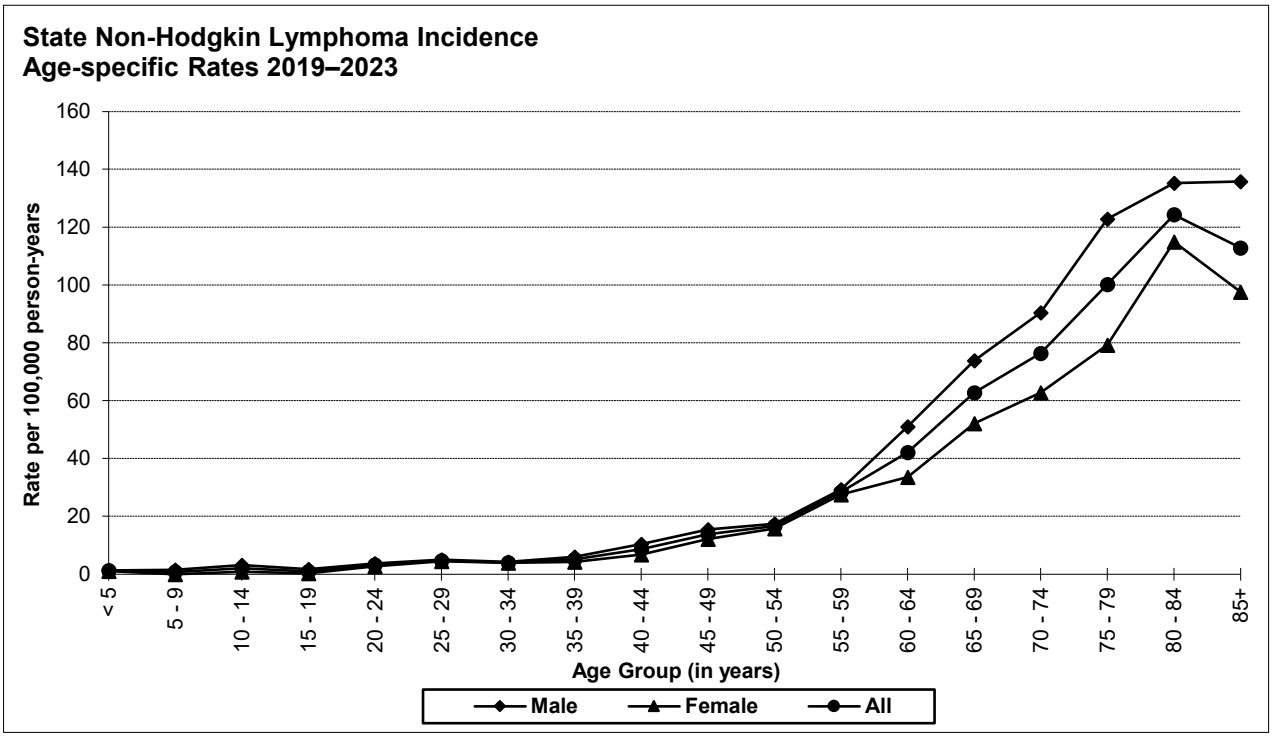
Factors Associated with Cancer Incidence

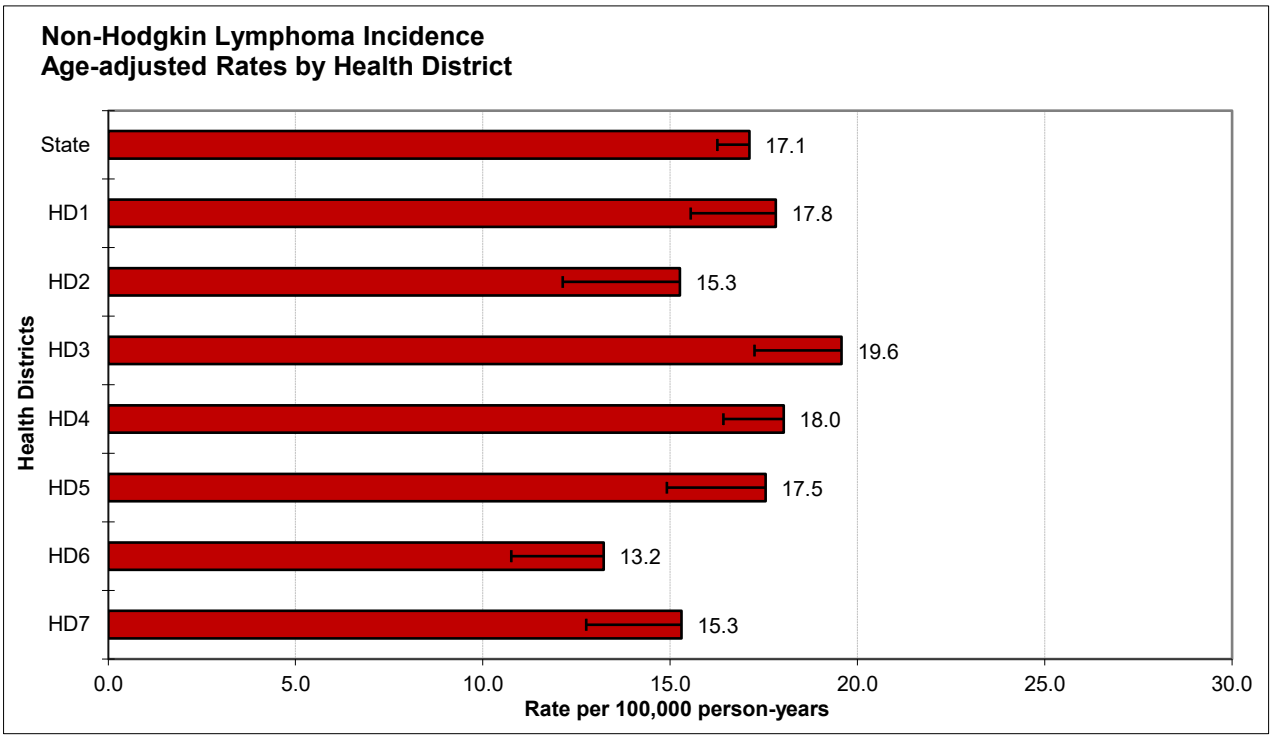
Age	Rates increase with age, reaching the highest levels in the eighth and ninth decades of life.
Sex	Males have higher rates than females.
Race/Ethnicity	In the United States, incidence rates are generally higher for non-Hispanic Whites and Hispanics than for other race/ethnicity groups.
Occupation	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:	16.7
95% confidence interval on the mean age-adjusted incidence rate:	15.1–18.3
Median age-adjusted incidence rate of health districts:	17.5
Range of age-adjusted incidence rate for health districts:	13.2–19.6
USCS rate (2022, all races):	17.6

The age-specific incidence rates of NHL increased with age, peaking in the age group 85+ 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 2019–2023
Rate per 100,000 person-years
160
140
120
100
80
60
40
20
0
< 5
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+
Age Group (in years)
Male
Female
All


Non-Hodgkin Lymphoma Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
17.1
17.8
15.3
19.6
18.0
17.5
13.2
15.3
0.0
5.0
10.0
15.0
20.0
25.0
30.0
Rate per 100,000 person-years

ORAL CAVITY AND PHARYNX

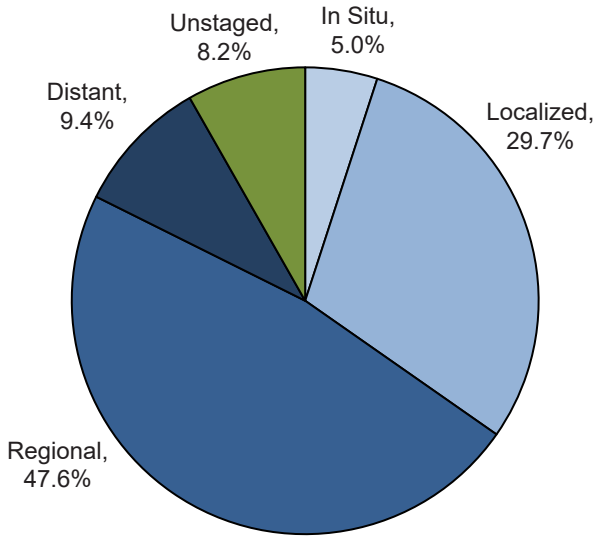
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	13.2	18.8	8.1
# of new invasive cases	323	228	95
# of new in situ cases	17	12	5
# of deaths	65	43	22

Total Cases by County

Ada	102	Cassia	5	Lewis	1
Adams	-	Clark	-	Lincoln	-
Bannock	13	Clearwater	1	Madison	1
Bear Lake	2	Custer	-	Minidoka	7
Benewah	3	Elmore	4	Nez Perce	7
Bingham	9	Franklin	4	Oneida	1
Blaine	5	Fremont	2	Owyhee	4
Boise	4	Gem	7	Payette	6
Bonner	12	Gooding	4	Power	1
Bonneville	15	Idaho	4	Shoshone	-
Boundary	2	Jefferson	4	Teton	2
Butte	-	Jerome	5	Twin Falls	19
Camas	1	Kootenai	30	Valley	-
Canyon	38	Latah	11	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.

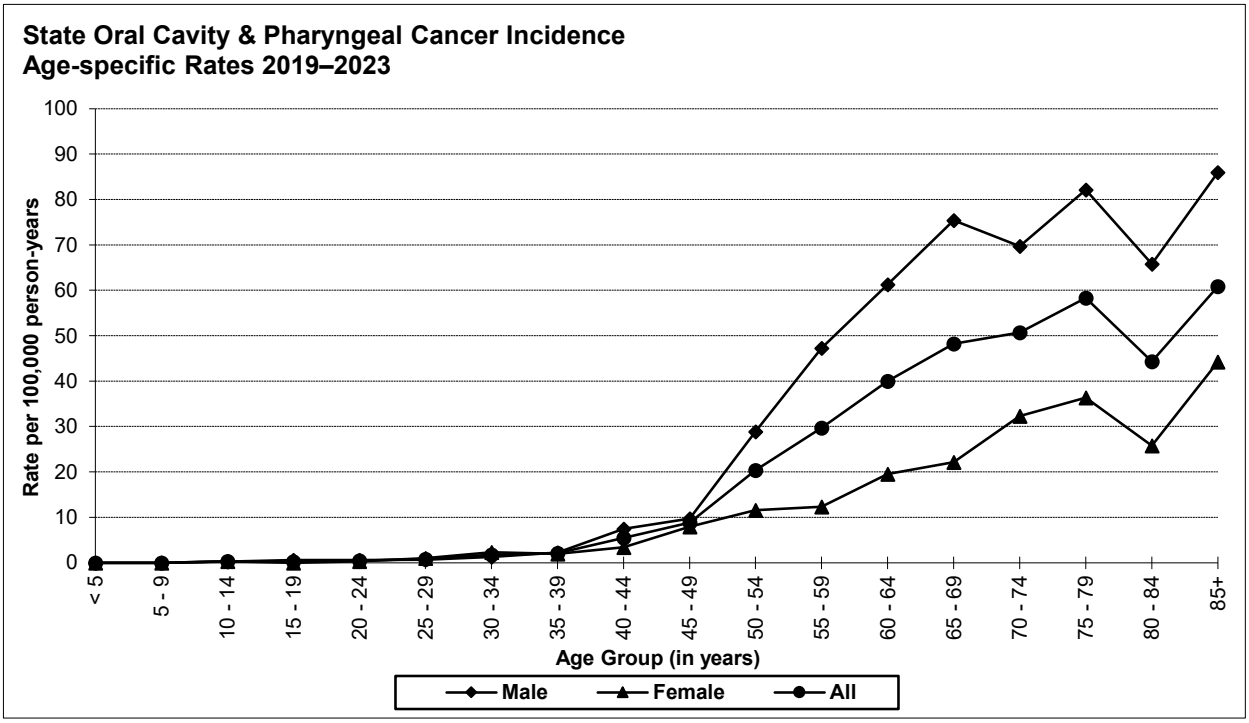
Diet Diets low in fresh fruit and vegetable consumption are associated with increased risk.

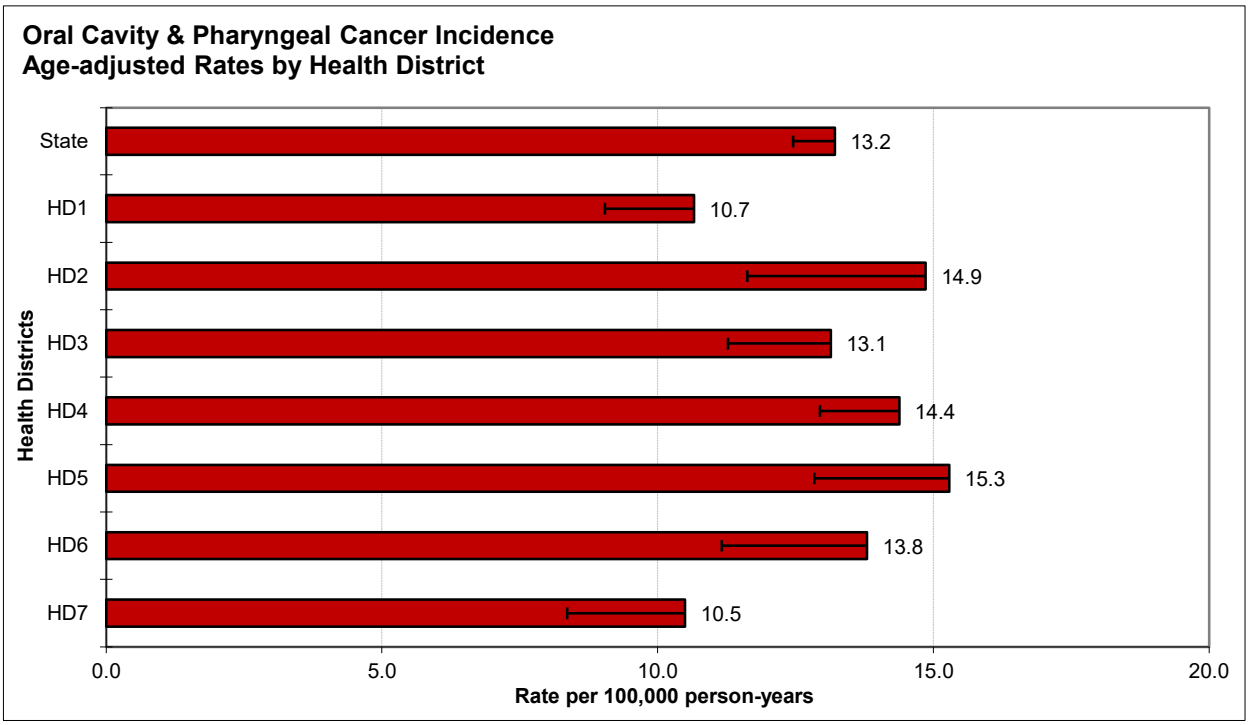
Other Smoking and spit tobacco use are major risk factors for cancers of the oral cavity and pharynx. Alcohol use, especially excessive, is a major risk factor. Combined exposure to tobacco and alcohol multiply the risks of each other. Smoking and drinking are estimated to account for 75% of all oral 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:	13.2
95% confidence interval on the mean age-adjusted incidence rate:	11.8–14.7
Median age-adjusted incidence rate of health districts:	13.8
Range of age-adjusted incidence rate for health districts:	10.5–15.3
USCS rate (2022, all races):	12.0

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 85+ for both males and 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 2019–2023
Rate per 100,000 person-years
100
90
80
70
60
50
40
30
20
10
0
< 5
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+
Age Group (in years)
Male
Female
All


Oral Cavity & Pharyngeal Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
13.2
10.7
14.9
13.1
14.4
15.3
13.8
10.5
0.0
5.0
10.0
15.0
20.0
Rate per 100,000 person-years

OVARY

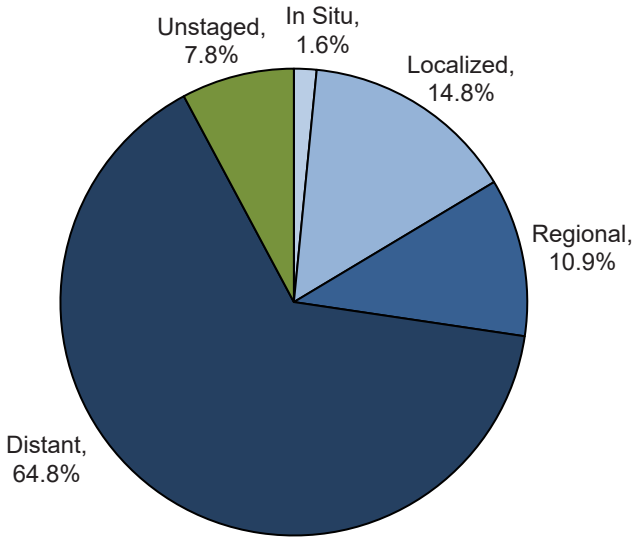
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	-	-	10.5
# of new invasive cases	-	-	126
# of new in situ cases	-	-	2
# of deaths	-	-	69

Total Cases by County

Ada	28	Cassia	2	Lewis	-
Adams	-	Clark	-	Lincoln	-
Bannock	13	Clearwater	1	Madison	2
Bear Lake	1	Custer	1	Minidoka	3
Benewah	1	Elmore	1	Nez Perce	3
Bingham	4	Franklin	1	Oneida	2
Blaine	2	Fremont	1	Owyhee	-
Boise	-	Gem	-	Payette	2
Bonner	2	Gooding	-	Power	1
Bonneville	7	Idaho	1	Shoshone	1
Boundary	1	Jefferson	1	Teton	1
Butte	-	Jerome	1	Twin Falls	8
Camas	-	Kootenai	7	Valley	3
Canyon	19	Latah	3	Washington	3
Caribou	1	Lemhi	-		

Stage at Diagnosis - Ovary



Factors Associated with Cancer Incidence

Age The rate of ovarian cancer increases with age, markedly after age 39.The rate of ovarian cancer increases with age, markedly after age 39.Incidence rates are slightly higher among non-Hispanic Whites and Hispanics than other race/ethnicity groups.

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%.

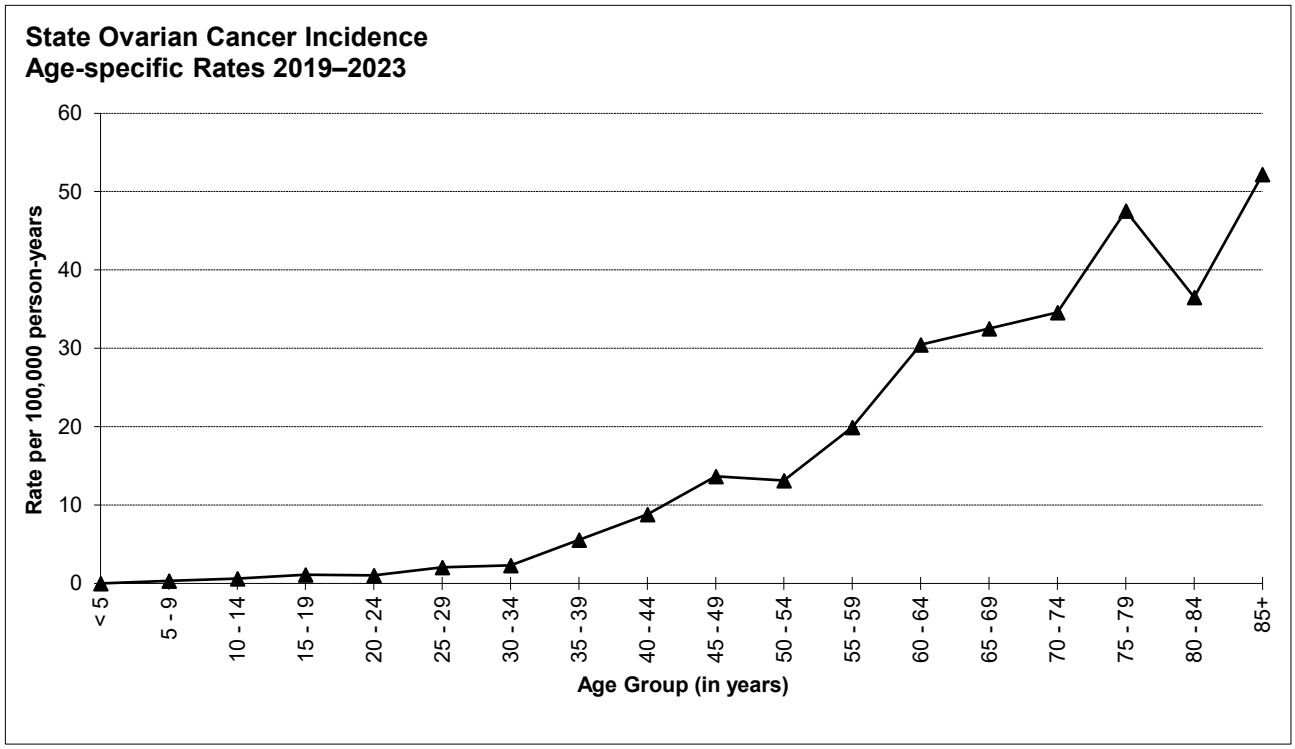
Hormonal Ovarian cancer is most frequently diagnosed in post-menopausal women. However, the strongest predictors of reduced ovarian cancer risk occur in pre-menopausal women, specifically suppression of ovulation through pregnancy or oral contraceptive use. Hormone replacement therapy is associated with increased ovarian cancer risk.

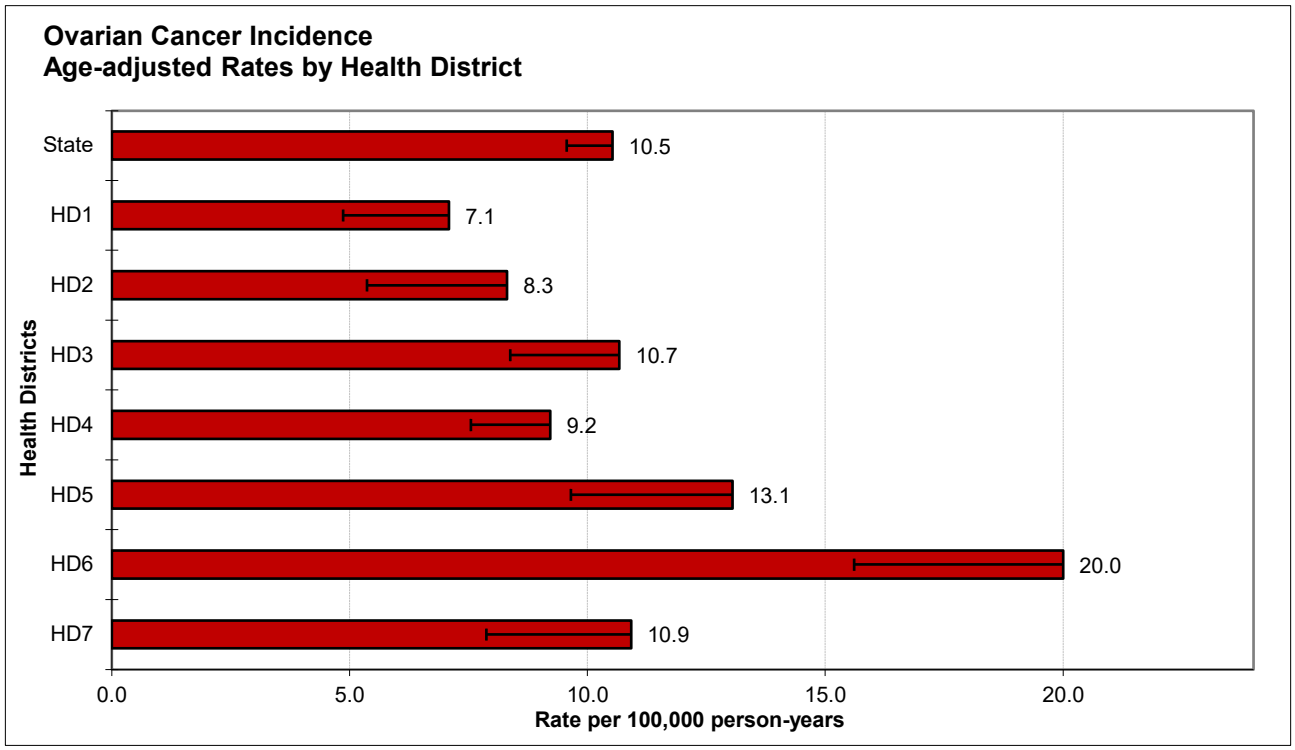
Other Exposure to asbestos and tobacco smoking increase ovarian cancer risk. Other risk factors for ovarian cancer include obesity, tall height, and endometriosis.

Data Summary

Mean age-adjusted incidence rate across health districts:	11.3
95% confidence interval on the mean age-adjusted incidence rate:	8.1–14.5
Median age-adjusted incidence rate of health districts:	10.7
Range of age-adjusted incidence rate for health districts:	7.1–20.0
USCS rate (2022, all races):	9.9

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, peaking for women aged 85+. Health District 6 had statistically significantly more cases of ovarian cancer than expected based upon rates for the remainder of Idaho and Health District 1 had significantly fewer. (See Section V for data.)


State Ovarian Cancer Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
60
50
40
30
20
10
0
< 5
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+
Age Group (in years)


Ovarian Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
10.5
7.1
8.3
10.7
9.2
13.1
20.0
10.9
0.0
5.0
10.0
15.0
20.0
Rate per 100,000 person-years

PANCREAS

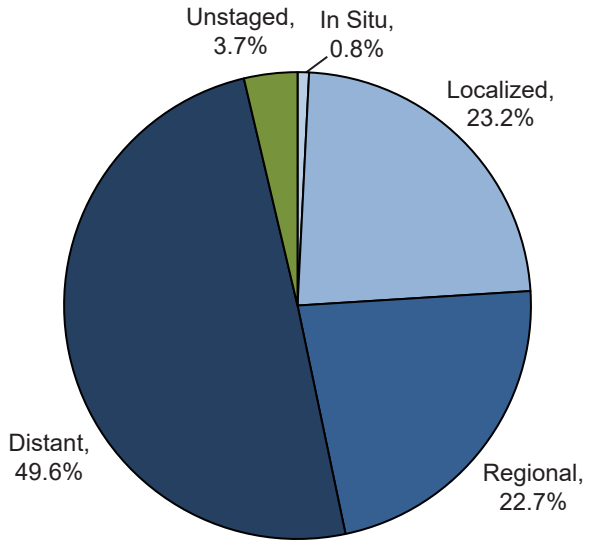
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	15.4	17.6	13.5
# of new invasive cases	376	204	172
# of new in situ cases	3	2	1
# of deaths	274	146	128

Total Cases by County

Ada	92	Cassia	3	Lewis	3
Adams	1	Clark	-	Lincoln	1
Bannock	16	Clearwater	7	Madison	3
Bear Lake	2	Custer	-	Minidoka	3
Benewah	2	Elmore	4	Nez Perce	9
Bingham	13	Franklin	-	Oneida	1
Blaine	14	Fremont	3	Owyhee	-
Boise	3	Gem	5	Payette	2
Bonner	16	Gooding	5	Power	2
Bonneville	15	Idaho	-	Shoshone	2
Boundary	2	Jefferson	10	Teton	-
Butte	-	Jerome	4	Twin Falls	20
Camas	-	Kootenai	48	Valley	3
Canyon	53	Latah	6	Washington	3
Caribou	1	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.

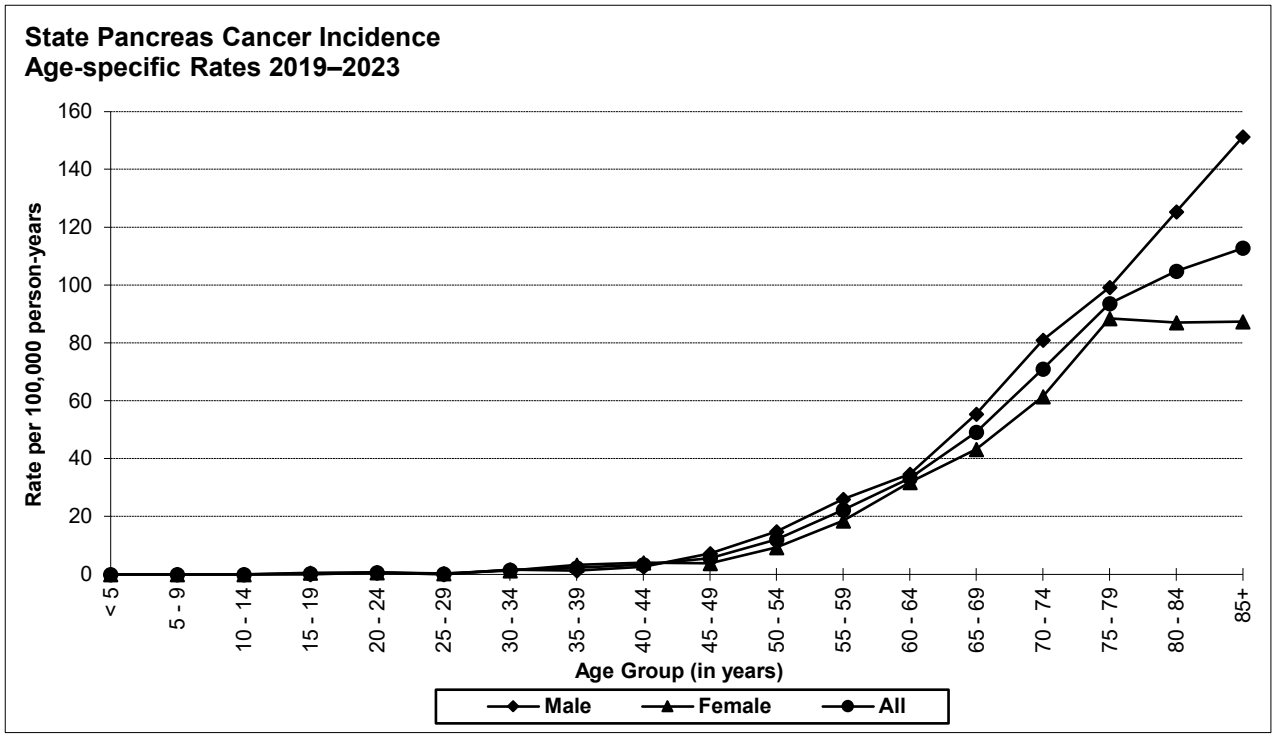
Occupation Occupational exposures to chlorinated hydrocarbon solvents as used in dry cleaning, nickel and nickel compounds, benzene, asbestos, and pesticides are associated with increased risk.

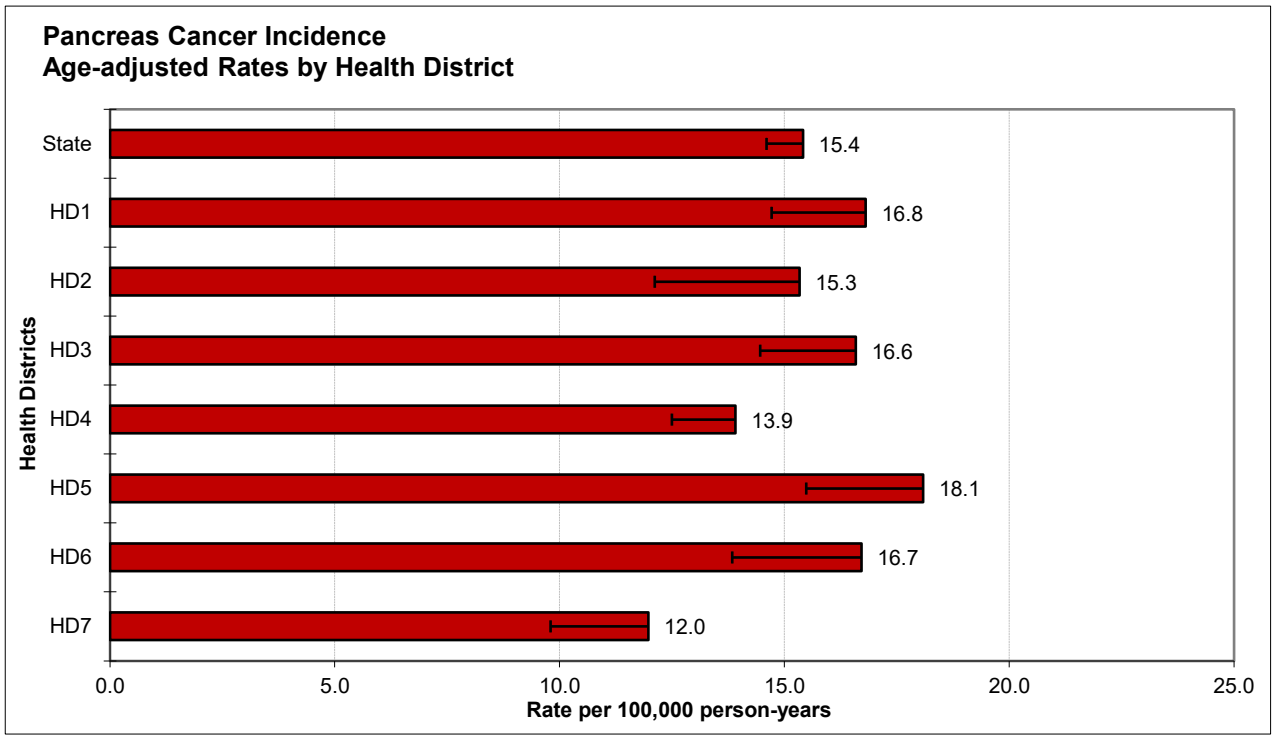
Other Smoking is the most important risk factor for pancreatic cancer. Hereditary and genetic factors, such as family history of pancreatic cancer, gene mutations (e.g. BRCA2, p16/CDKN2A gene), and inherited genetic syndromes (e.g. familial pancreatitis, Lynch syndrome) are associated with increased risk. Co-morbidities such as obesity, diabetes, and chronic pancreatitis also confer increased risk.

Data Summary

Mean age-adjusted incidence rate across health districts:	15.6
95% confidence interval on the mean age-adjusted incidence rate:	14.1–17.2
Median age-adjusted incidence rate of health districts:	16.6
Range of age-adjusted incidence rate for health districts:	12.0–18.1
USCS rate (2022, all races):	13.6

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 75–79 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 Pancreas Cancer Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
160
140
120
100
80
60
40
20
0
< 5
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+
Age Group (in years)
Male
Female
All


Pancreas Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
15.4
16.8
15.3
16.6
13.9
18.1
16.7
12.0
0.0
5.0
10.0
15.0
20.0
25.0
Rate per 100,000 person-years

PROSTATE

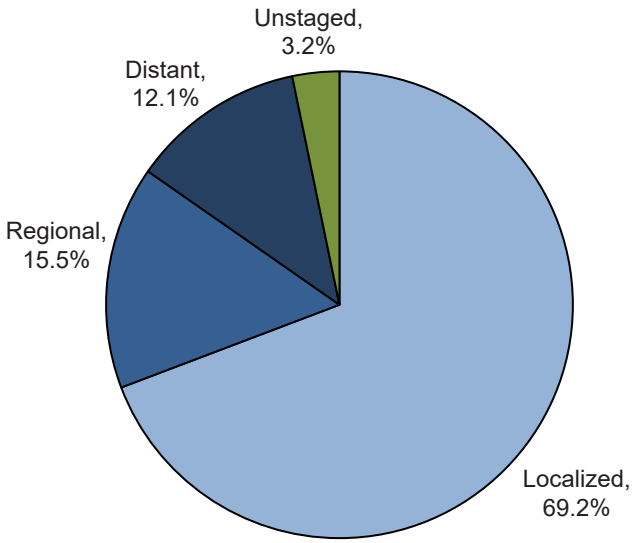
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	-	110.4	-
# of new invasive cases	-	1,417	-
# of new in situ cases	-	0	-
# of deaths	-	235	-

Total Cases by County

Ada	475	Cassia	13	Lewis	5
Adams	7	Clark	-	Lincoln	4
Bannock	47	Clearwater	10	Madison	12
Bear Lake	6	Custer	7	Minidoka	11
Benewah	3	Elmore	21	Nez Perce	32
Bingham	23	Franklin	13	Oneida	3
Blaine	47	Fremont	7	Owyhee	9
Boise	20	Gem	17	Payette	29
Bonner	28	Gooding	12	Power	3
Bonneville	42	Idaho	24	Shoshone	8
Boundary	7	Jefferson	12	Teton	15
Butte	3	Jerome	13	Twin Falls	81
Camas	3	Kootenai	77	Valley	11
Canyon	195	Latah	32	Washington	9
Caribou	10	Lemhi	11		

Stage at Diagnosis - Prostate



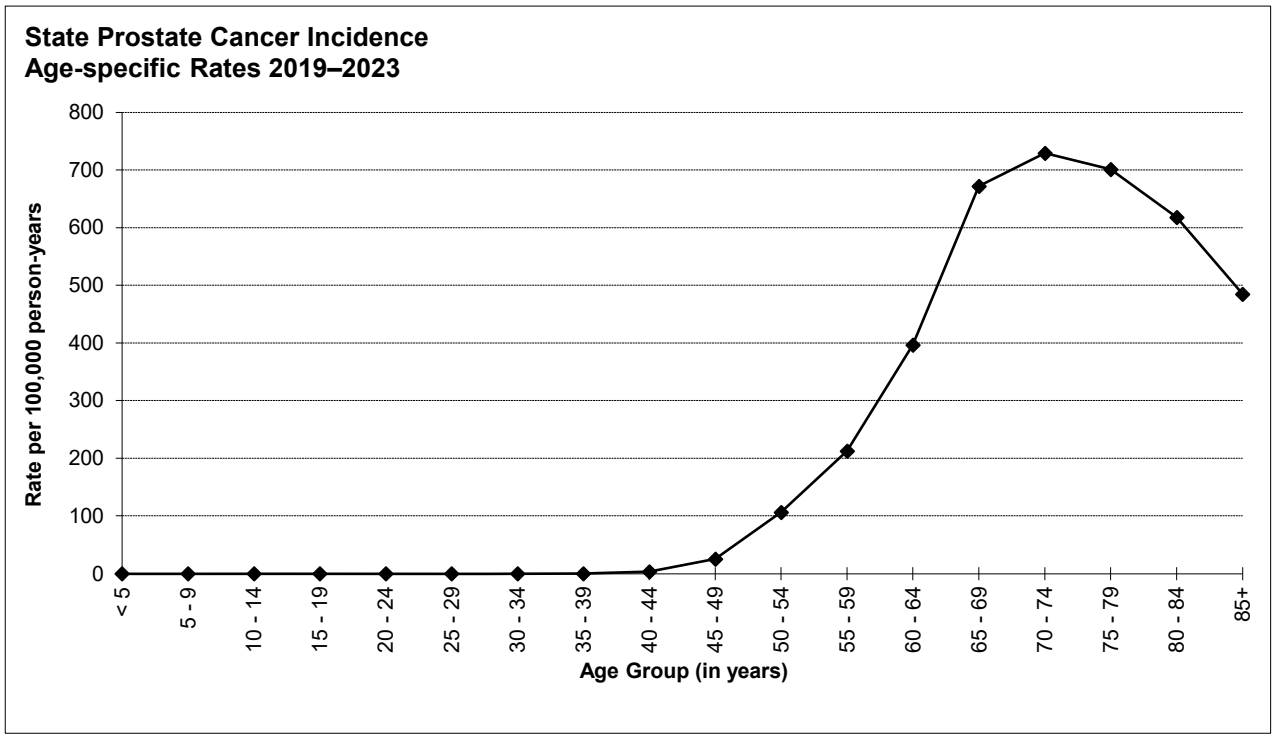
Factors Associated with Cancer Incidence

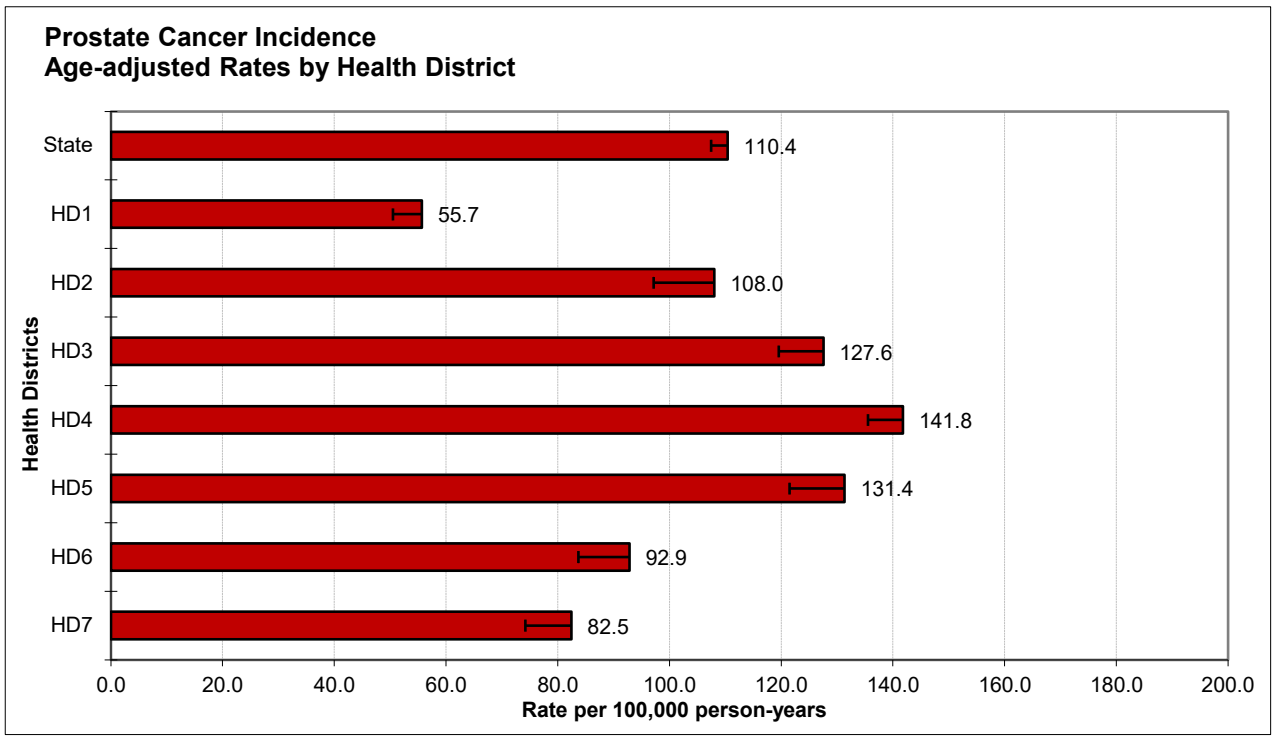
Age	Prostate cancer is primarily a disease of older males, and is rarely diagnosed before age 50.
Race/Ethnicity	Black males have substantially higher incidence and mortality rates than other race/ethnicity groups, with non-Hispanic Whites and Hispanic males having higher rates than American Indian/Alaska 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:	105.7
95% confidence interval on the mean age-adjusted incidence rate:	83.0–128.4
Median age-adjusted incidence rate of health districts:	108.0
Range of age-adjusted incidence rate for health districts:	55.7–141.8
USCS rate (2022, all races):	119.1

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 70–74 age group. Health Districts 3, 4, and 5 had statistically significantly more cases than expected based upon rates for the remainder of Idaho and Health Districts 1 and 7 had statistically significantly fewer. (See Section V for data.)


State Prostate Cancer Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
800
700
600
500
400
300
200
100
0
< 5
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+
Age Group (in years)


Prostate Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
110.4
55.7
108.0
127.6
141.8
131.4
92.9
82.5
0.0
20.0
40.0
60.0
80.0
100.0
120.0
140.0
160.0
180.0
200.0
Rate per 100,000 person-years

STOMACH

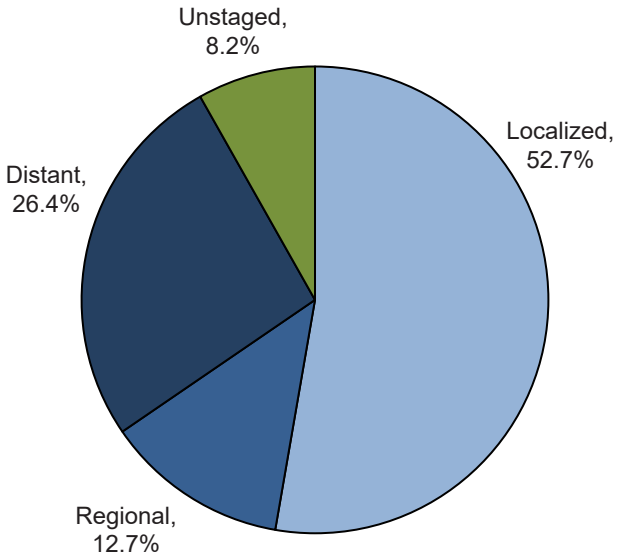
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	4.8	6.2	3.6
# of new invasive cases	110	68	42
# of new in situ cases	0	0	0
# of deaths	29	15	14

Total Cases by County

Ada	25	Cassia	-	Lewis	1
Adams	1	Clark	-	Lincoln	2
Bannock	5	Clearwater	1	Madison	-
Bear Lake	1	Custer	-	Minidoka	-
Benewah	-	Elmore	1	Nez Perce	4
Bingham	2	Franklin	2	Oneida	-
Blaine	-	Fremont	-	Owyhee	-
Boise	-	Gem	2	Payette	-
Bonner	4	Gooding	3	Power	-
Bonneville	4	Idaho	1	Shoshone	1
Boundary	-	Jefferson	1	Teton	-
Butte	-	Jerome	2	Twin Falls	11
Camas	-	Kootenai	11	Valley	-
Canyon	20	Latah	1	Washington	2
Caribou	-	Lemhi	2		

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.

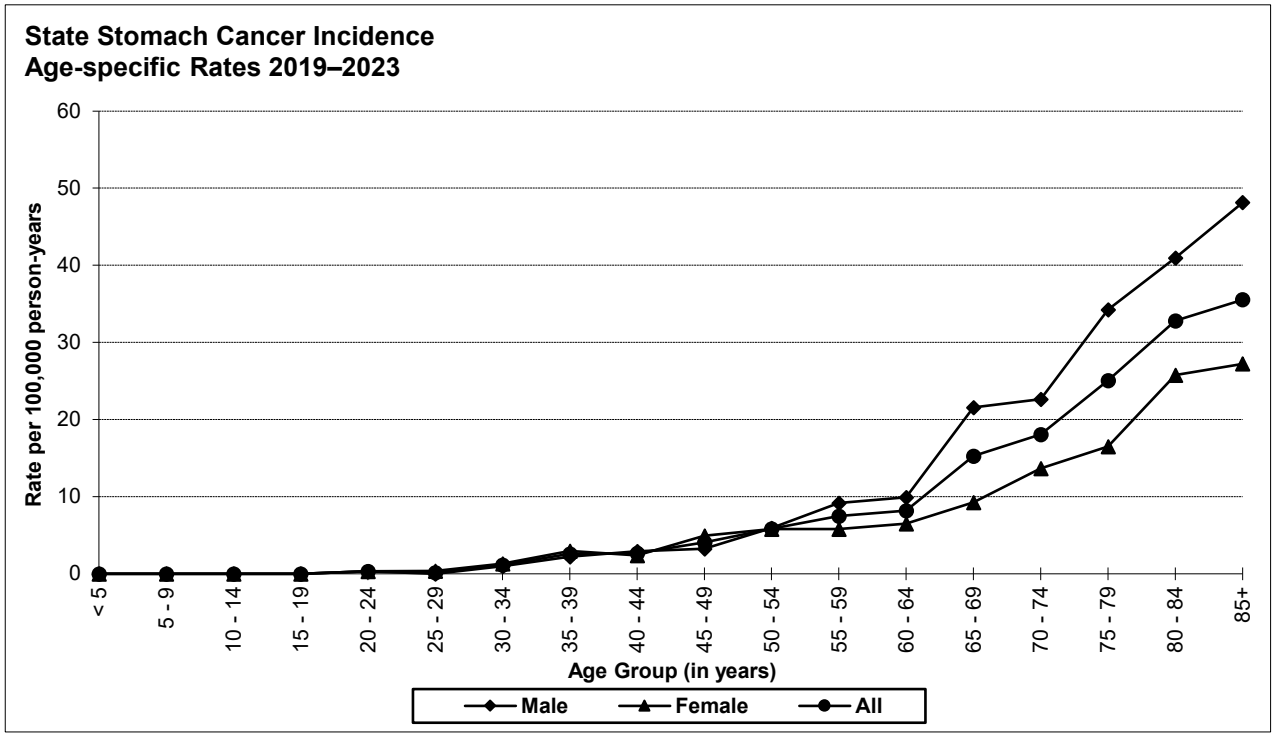
Occupation Workers in the rubber and coal industries are at increased risk of stomach cancer.

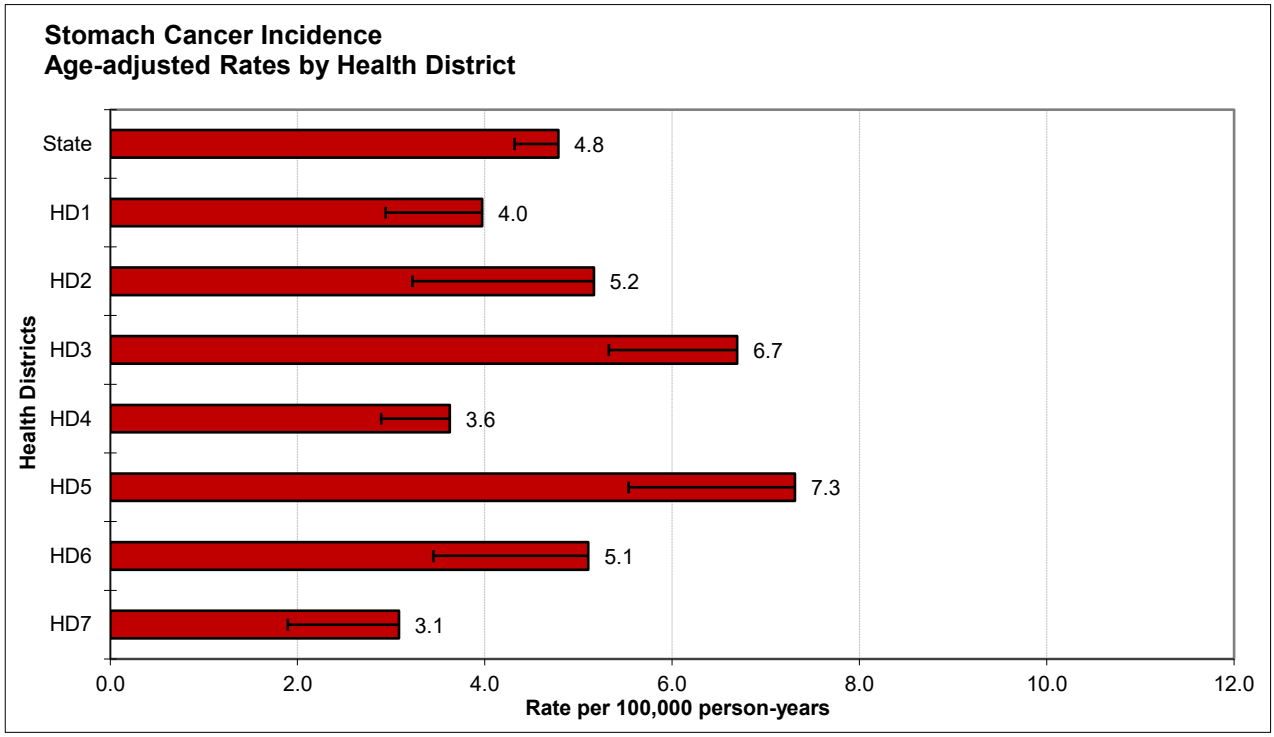
Other *Helicobacter pylori* infection and smoking are associated with increased risk of stomach cancer. Genetic risk factors include a family history of stomach cancer, Li Fraumeni syndrome, and type A blood type. Worldwide, stomach cancer is more common in Japan, China, Southern and Eastern Europe, and South and Central America.

Data Summary

Mean age-adjusted incidence rate across health districts:	5.0
95% confidence interval on the mean age-adjusted incidence rate:	3.8–6.2
Median age-adjusted incidence rate of health districts:	5.1
Range of age-adjusted incidence rate for health districts:	3.1–7.3
USCS rate (2022, all races):	6.7

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 than expected based upon rates for the remainder of Idaho. (See Section V for data.)


State Stomach Cancer Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
60
50
40
30
20
10
0
< 5
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+
Age Group (in years)
Male
Female
All


Stomach Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
4.8
4.0
5.2
6.7
3.6
7.3
5.1
3.1
0.0
2.0
4.0
6.0
8.0
10.0
12.0
Rate per 100,000 person-years

TESTIS

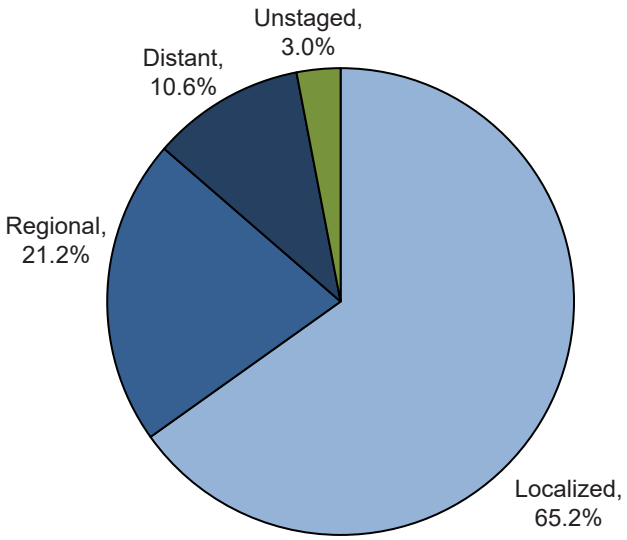
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	-	7.1	-
# of new invasive cases	-	66	-
# of new in situ cases	-	0	-
# of deaths	-	6	-

Total Cases by County

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

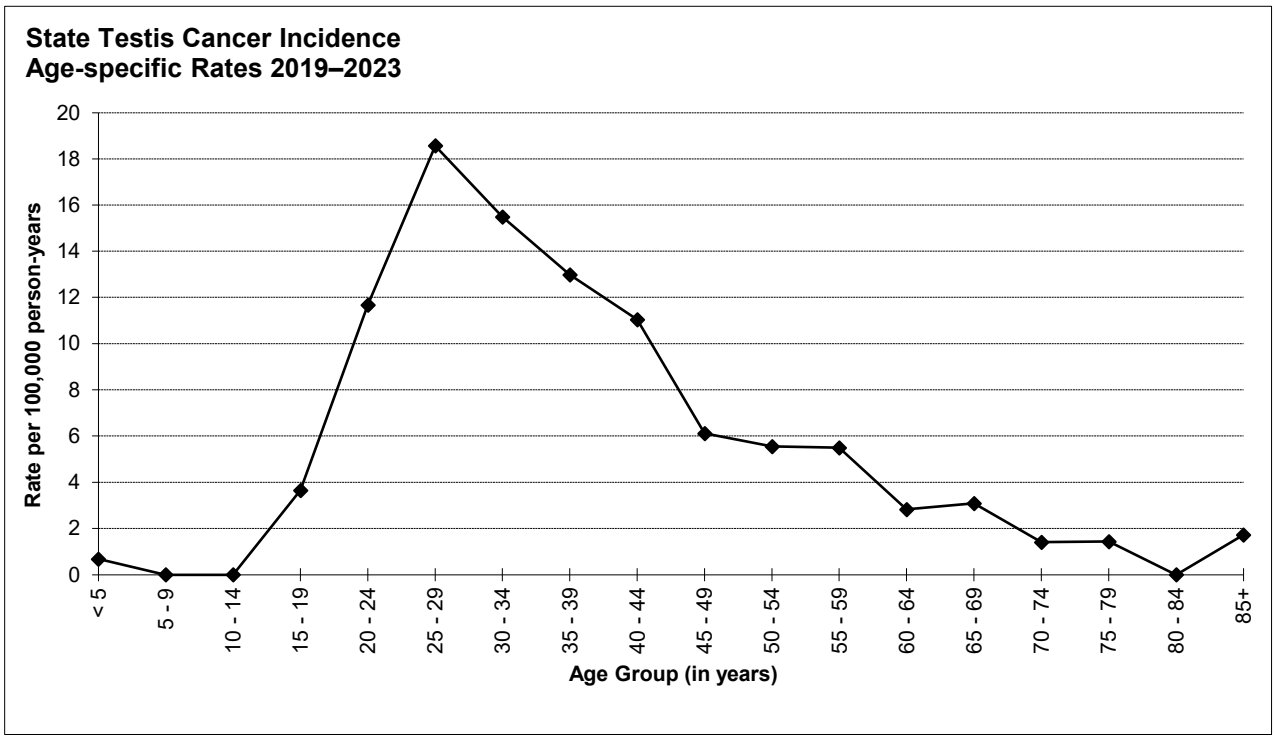
Race/Ethnicity Incidence rates are higher in non-Hispanic Whites, Hispanics, and American Indian/Alaska Natives and lower in Asian and Pacific Islanders and Blacks.

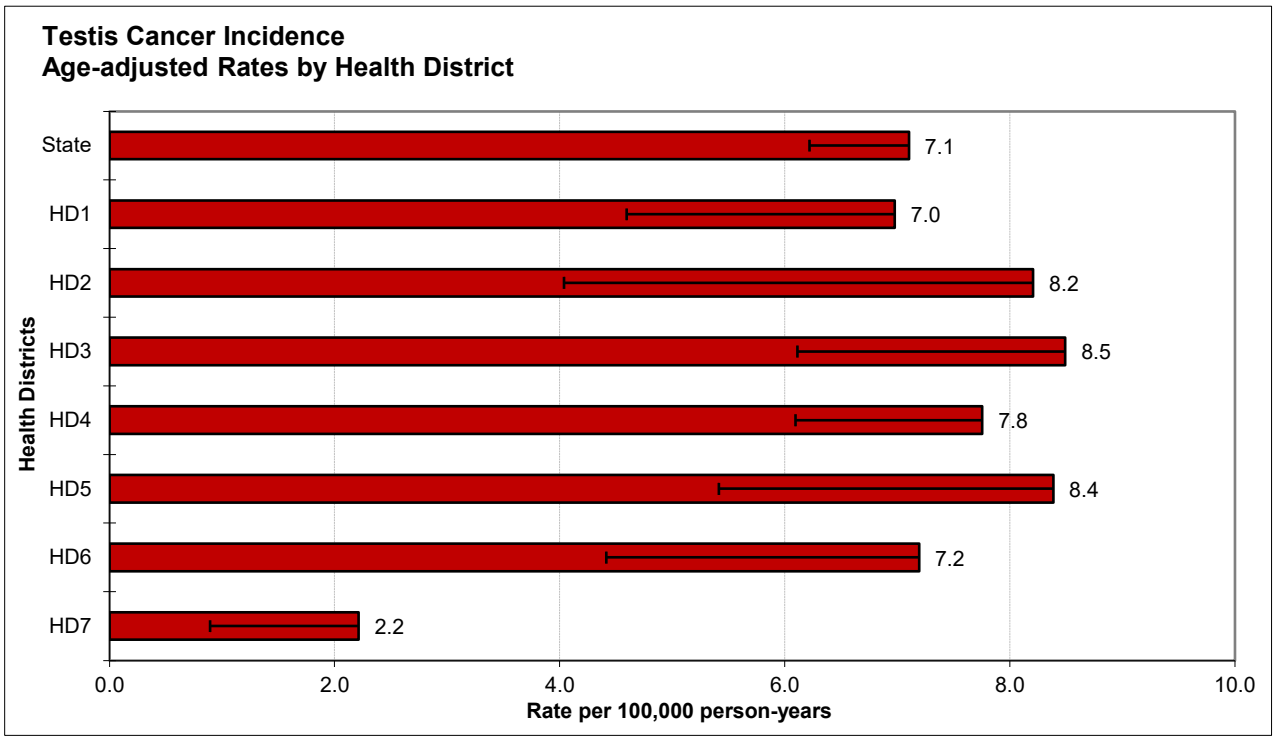
Other Undescended testis, a minor abnormality that can usually be detected and corrected with surgery in childhood, is responsible for a substantially higher risk for testicular cancer when uncorrected. With current treatment, long term survival rates for testicular cancer are about 95%.

Data Summary

Mean age-adjusted incidence rate across health districts:	7.0
95% confidence interval on the mean age-adjusted incidence rate:	5.4–8.7
Median age-adjusted incidence rate of health districts:	7.8
Range of age-adjusted incidence rate for health districts:	2.2–8.5
USCS rate (2022, all races):	5.7

The highest age-specific incidence rates were in the 20–44 age range. Health District 7 had statistically significantly fewer cases of testicular cancer than expected based upon rates for the remainder of Idaho. (See Section V for data.)


State Testis Cancer Incidence
Age-specific Rates 2019–2023
Rate per 100,000 person-years
20
18
16
14
12
10
8
6
4
2
0
< 5
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+
Age Group (in years)


Testis Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
7.1
7.0
8.2
8.5
7.8
8.4
7.2
2.2
0.0
2.0
4.0
6.0
8.0
10.0
Rate per 100,000 person-years

THYROID

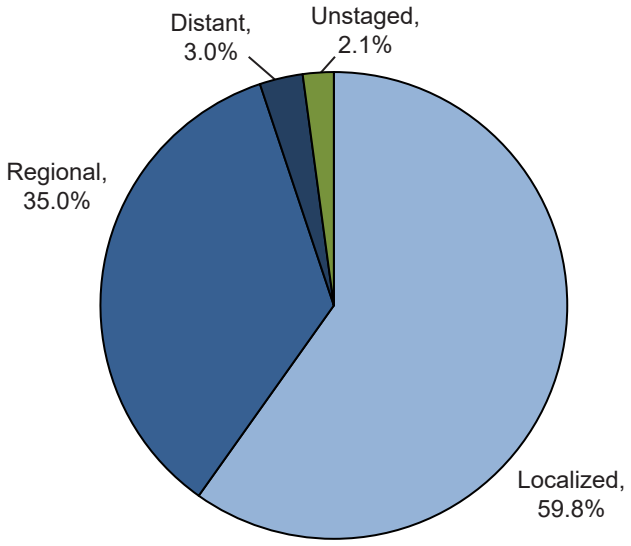
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	11.8	7.1	16.6
# of new invasive cases	234	72	162
# of new in situ cases	0	0	0
# of deaths	8	3	5

Total Cases by County

Ada	76	Cassia	2	Lewis	-
Adams	-	Clark	-	Lincoln	-
Bannock	12	Clearwater	1	Madison	5
Bear Lake	-	Custer	-	Minidoka	5
Benewah	-	Elmore	4	Nez Perce	7
Bingham	2	Franklin	1	Oneida	1
Blaine	2	Fremont	1	Owyhee	-
Boise	-	Gem	5	Payette	1
Bonner	8	Gooding	2	Power	-
Bonneville	22	Idaho	1	Shoshone	-
Boundary	2	Jefferson	2	Teton	-
Butte	1	Jerome	2	Twin Falls	11
Camas	-	Kootenai	25	Valley	-
Canyon	27	Latah	5	Washington	-
Caribou	-	Lemhi	1		

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.

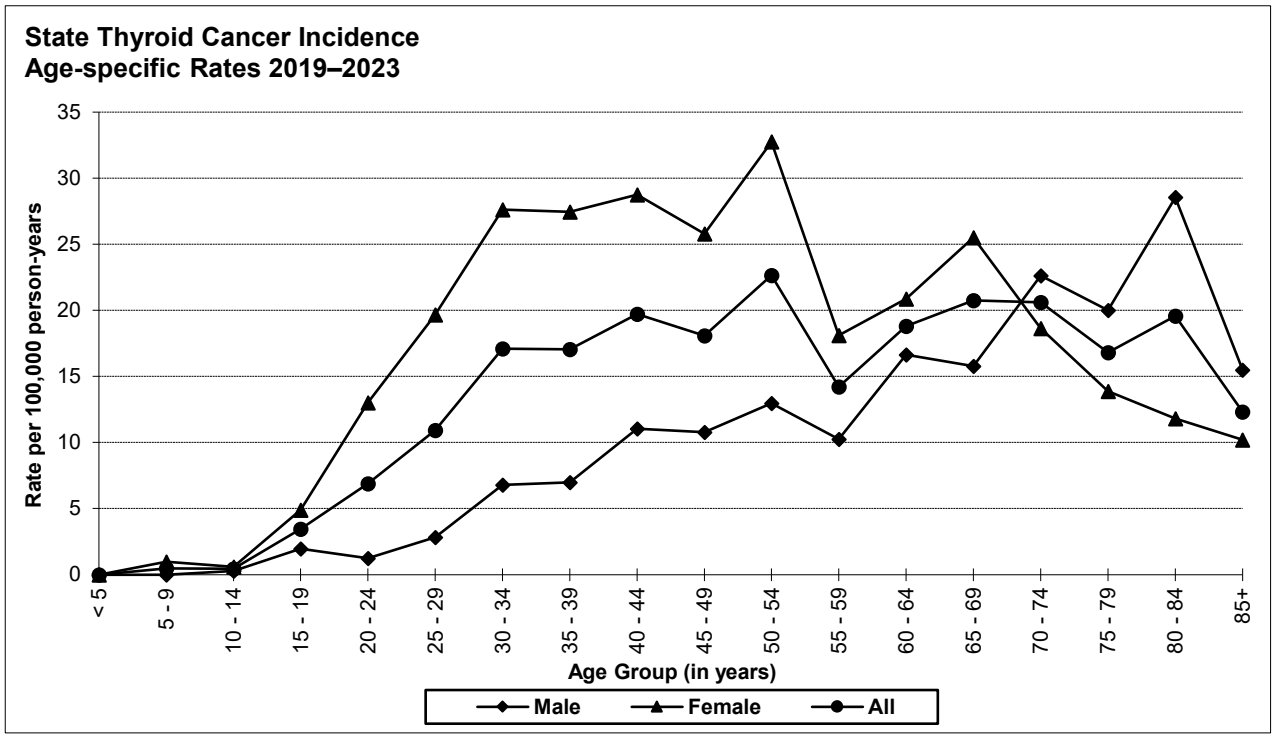
Race/Ethnicity Incidence rates are higher among non-Hispanic Whites, Asian and Pacific Islanders, and Hispanics and lower among American Indian/Alaska Natives and Blacks.

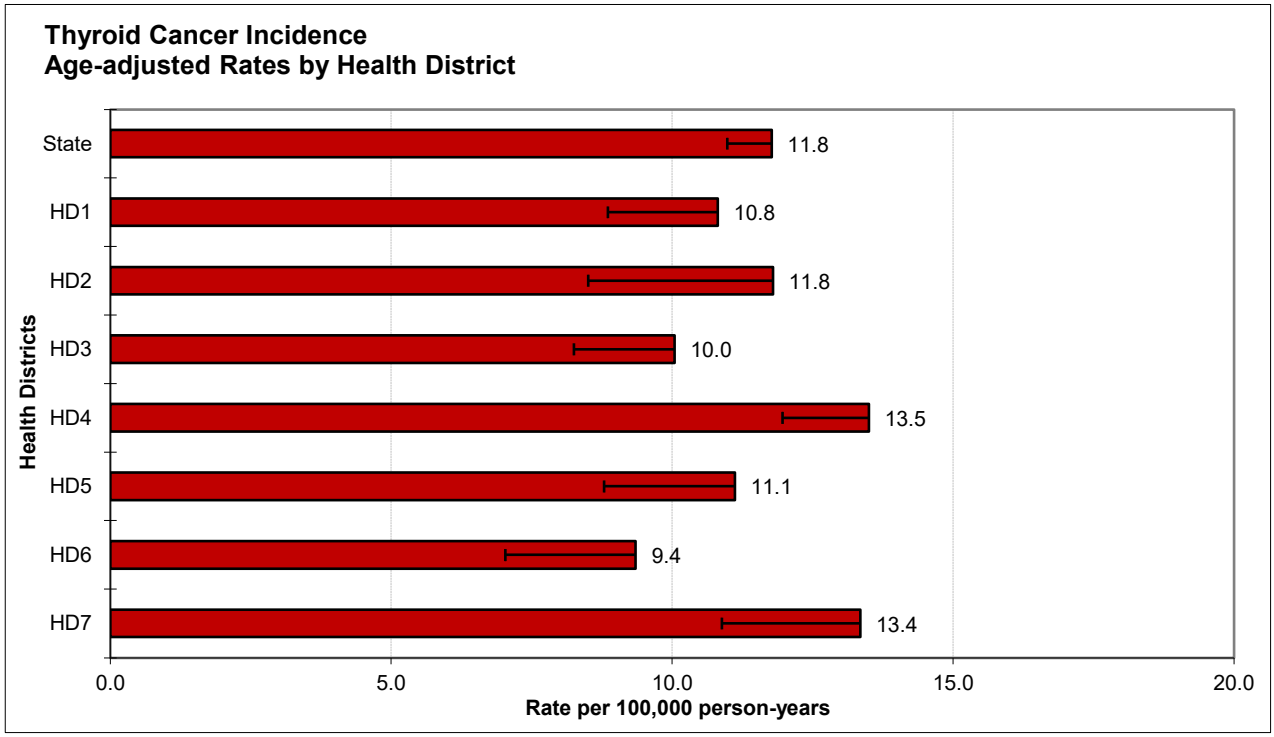
Other Occupational and environmental exposures to ionizing radiation have been associated with higher rates of thyroid cancer. Radiation exposure to the head and neck in childhood is a well-known risk factor. About 2 out of 10 medullary thyroid carcinomas result from inheriting an abnormal gene. Thyroid 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:	11.4
95% confidence interval on the mean age-adjusted incidence rate:	10.3–12.6
Median age-adjusted incidence rate of health districts:	11.1
Range of age-adjusted incidence rate for health districts:	9.4–13.5
USCS rate (2022, all races):	12.7

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 2019–2023
Rate per 100,000 person-years
35
30
25
20
15
10
5
0
< 5
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+
Age Group (in years)
Male
Female
All


Thyroid Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
11.8
10.8
11.8
10.0
13.5
11.1
9.4
13.4
0.0
5.0
10.0
15.0
20.0
Rate per 100,000 person-years

SECTION II

INCIDENCE DATA BY SITE AND GENDER — STATE OF IDAHO, 2023

Primary Site of Cancer	Invasive			In situ		
	Total	Male	Female	Total	Male	Female
All Sites	10,298	5,317	4,981	1,493	769	724
Oral Cavity and Pharynx	323	228	95	17	12	5
Lip	29	19	10	15	11	4
Tongue	102	75	27	1	1	-
Salivary Gland	42	21	21	1	-	1
Floor of Mouth	10	7	3	-	-	-
Gum and Other Mouth	48	23	25	-	-	-
Nasopharynx	3	3	-	-	-	-
Tonsil	56	48	8	-	-	-
Oropharynx	21	21	-	-	-	-
Hypopharynx	9	8	1	-	-	-
Other Oral Cavity and Pharynx	3	3	-	-	-	-
Digestive System	1,824	1,016	808	29	10	19
Esophagus	135	107	28	1	-	1
Stomach	110	68	42	-	-	-
Small Intestine	71	40	31	-	-	-
Colon and Rectum	780	412	368	19	6	13
Colon excluding Rectum	549	264	285	18	6	12
Cecum	99	49	50	-	-	-
Appendix	57	19	38	14	5	9
Ascending Colon	102	41	61	-	-	-
Hepatic Flexure	23	15	8	-	-	-
Transverse Colon	46	22	24	1	-	1
Splenic Flexure	8	5	3	-	-	-
Descending Colon	31	16	15	-	-	-
Sigmoid Colon	154	80	74	3	1	2
Large Intestine, NOS	29	17	12	-	-	-
Rectum and Rectosigmoid Junction	231	148	83	1	-	1
Rectosigmoid Junction	41	30	11	-	-	-
Rectum	190	118	72	1	-	1
Anus, Anal Canal and Anorectum	61	15	46	5	2	3
Liver and Intrahepatic Bile Duct	202	133	69	-	-	-
Liver	139	104	35	-	-	-
Intrahepatic Bile Duct	63	29	34	-	-	-
Gallbladder	16	6	10	1	-	1
Other Biliary	30	18	12	-	-	-
Pancreas	376	204	172	3	2	1
Retroperitoneum	10	6	4	-	-	-
Peritoneum, Omentum and Mesentery	9	-	9	-	-	-
Other Digestive Organs	24	7	17	-	-	-
Respiratory System	1,149	589	560	4	3	1
Nose, Nasal Cavity and Middle Ear	11	8	3	-	-	-
Larynx	46	37	9	2	1	1
Lung and Bronchus	1,089	542	547	2	2	-
Pleura	1	1	-	-	-	-
Trachea, Mediastinum and Other Respiratory Organs	2	1	1	-	-	-
Skin excluding Basal and Squamous	727	435	292	855	538	317
Melanoma of the Skin	690	409	281	855	538	317
Other Non-Epithelial Skin	37	26	11	-	-	-
Breast	1,621	9	1,612	325	-	325

Primary Site of Cancer	Invasive			In situ		
	Total	Male	Female	Total	Male	Female
Female Genital System	557	-	557	9	-	9
Cervix Uteri	51	-	51	-	-	-
Corpus and Uterus, NOS	321	-	321	5	-	5
Corpus Uteri	308	-	308	5	-	5
Uterus, NOS	13	-	13	-	-	-
Ovary	126	-	126	2	-	2
Vagina	5	-	5	-	-	-
Vulva	38	-	38	2	-	2
Other Female Genital Organs	16	-	16	-	-	-
Male Genital System	1,490	1,490	-	4	4	-
Prostate	1,417	1,417	-	-	-	-
Testis	66	66	-	-	-	-
Penis	5	5	-	4	4	-
Other Male Genital Organs	2	2	-	-	-	-
Urinary System	719	501	218	248	200	48
Urinary Bladder	276	228	48	223	185	38
Kidney and Renal Pelvis	423	261	162	16	11	5
Ureter	14	11	3	7	4	3
Other Urinary Organs	6	1	5	2	-	2
Brain and Other Nervous System	158	99	59	-	-	-
Brain	154	96	58	-	-	-
Cranial Nerves Other Nervous System	4	3	1	-	-	-
Endocrine System	281	93	188	-	-	-
Thyroid	234	72	162	-	-	-
Other Endocrine including Thymus	47	21	26	-	-	-
Lymphoma	453	256	197	-	-	-
Hodgkin Lymphoma	39	22	17	-	-	-
Non-Hodgkin Lymphoma	414	234	180	-	-	-
Myeloma	147	86	61	-	-	-
Leukemia	377	248	129	-	-	-
Lymphocytic Leukemia	206	139	67	-	-	-
Acute Lymphocytic Leukemia	27	16	11	-	-	-
Chronic Lymphocytic Leukemia	164	109	55	-	-	-
Other Lymphocytic Leukemia	15	14	1	-	-	-
Myeloid and Monocytic Leukemia	154	98	56	-	-	-
Acute Myeloid Leukemia	99	61	38	-	-	-
Acute Monocytic Leukemia	4	3	1	-	-	-
Chronic Myeloid Leukemia	51	34	17	-	-	-
Other Myeloid/Monocytic Leukemia	-	-	-	-	-	-
Other Leukemia	17	11	6	-	-	-
Other Acute Leukemia	7	5	2	-	-	-
Aleukemic, Subleukemic and NOS	10	6	4	-	-	-
Other or Unknown Sites	472	267	205	2	2	-
Bones and Joints	17	7	10	-	-	-
Soft Tissue including Heart	66	46	20	-	-	-
Eye and Orbit	23	11	12	2	2	-
Mesothelioma	12	9	3	-	-	-
Kaposi Sarcoma	3	3	-	-	-	-
Miscellaneous	351	191	160	-	-	-

SECTION III

MORTALITY RATES BY SITE AND GENDER — STATE OF IDAHO, 2023

Idaho Resident Cancer Mortality Rates – 2023

Cause of Death	Total			Male			Female		
	Rate	Deaths	Pop	Rate	Deaths	Pop	Rate	Deaths	Pop
All Causes of Death	732.2	16,448	1,964,726	834.3	8,761	988,459	636.3	7,687	976,267
All Malignant Cancers	138.8	3,330	1,964,726	160.8	1,816	988,459	120.6	1,514	976,267
Bladder	4.0	94	1,964,726	6.7	70	988,459	1.9	24	976,267
Brain and Other Nervous System	5.4	131	1,964,726	6.2	75	988,459	4.7	56	976,267
Breast	9.5	222	1,964,726	0.2	2	988,459	18.0	220	976,267
Cervix	-	-	-	-	-	-	1.2	14	976,267
Colorectal	12.6	283	1,964,726	14.4	155	988,459	10.9	128	976,267
Corpus Uteri	-	-	-	-	-	-	2.5	32	976,267
Esophagus	4.3	108	1,964,726	7.3	88	988,459	1.6	20	976,267
Hodgkin Lymphoma	0.2	5	1,964,726	0.3	5	988,459	0.0	0	976,267
Kidney	3.6	89	1,964,726	5.3	58	988,459	2.3	31	976,267
Larynx	0.8	18	1,964,726	1.2	13	988,459	0.4	5	976,267
Leukemia	5.9	139	1,964,726	7.7	85	988,459	4.5	54	976,267
Liver and Bile Duct	6.4	166	1,964,726	8.3	106	988,459	4.8	60	976,267
Lung and Bronchus	25.2	627	1,964,726	27.9	330	988,459	22.8	297	976,267
Melanoma of the Skin	2.7	65	1,964,726	3.4	41	988,459	2.0	24	976,267
Myeloma	3.0	72	1,964,726	3.5	40	988,459	2.5	32	976,267
Non-Hodgkin Lymphoma	4.4	105	1,964,726	6.5	72	988,459	2.6	33	976,267
Oral Cavity and Pharynx	2.6	65	1,964,726	3.5	43	988,459	1.7	22	976,267
Ovary	-	-	-	-	-	-	5.4	69	976,267
Pancreas	11.1	274	1,964,726	12.7	146	988,459	9.6	128	976,267
Prostate	-	-	-	22.6	235	988,459	-	-	-
Stomach	1.3	29	1,964,726	1.4	15	988,459	1.3	14	976,267
Testis	-	-	-	0.6	6	988,459	-	-	-
Thyroid	0.4	8	1,964,726	0.3	3	988,459	0.5	5	976,267

Data source: Bureau of Vital Records and Health Statistics (BVRHS), Idaho Department of Health and Welfare, 2024.[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/codrecode/), which differ from official BVRHS cancer mortality categories. Death counts may differ from official BVRHS statistics due to late filings.

SECTION IV

2019–2023 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** **2019–2023**

Age (years)	< 5	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	19.5	13.4	13.5	21.7	40.6	60.7	97.7	143.3	227.7	343.6	518.1	742.7	1102.8	1585.1	1965.2	2306.8	2550.1	2428.7
Male	17.1	14.8	14.2	21.7	37.5	50.7	71.0	99.8	151.0	243.2	467.0	760.1	1206.5	1832.0	2269.0	2798.0	3062.0	3213.1
Female	22.0	11.9	12.8	21.8	44.1	71.5	124.9	188.3	307.6	449.6	571.2	725.6	1002.5	1347.9	1672.0	1852.4	2107.0	1910.9
Bladder																		
All	0.0	0.0	0.0	0.1	0.2	0.2	0.8	0.8	1.5	5.4	11.0	19.8	37.8	65.6	111.8	151.3	181.9	195.5
Male	0.0	0.0	0.0	0.0	0.0	0.3	1.3	1.0	2.3	8.3	16.3	31.5	58.8	108.9	187.0	254.8	318.9	395.4
Female	0.0	0.0	0.0	0.3	0.3	0.0	0.3	0.7	0.7	2.3	5.4	8.3	17.5	24.0	39.1	55.5	63.4	63.6
Brain																		
All	2.6	4.1	2.0	1.1	2.7	2.1	3.4	4.2	6.8	4.4	7.9	12.2	13.6	18.3	19.0	23.3	25.9	23.2
Male	1.7	4.3	2.0	1.1	3.1	2.2	4.2	5.7	8.8	5.8	9.3	16.1	13.1	25.4	22.1	30.0	29.8	20.6
Female	3.6	3.9	2.1	1.1	2.3	2.0	2.6	2.6	4.7	3.0	6.6	8.3	14.0	11.5	15.9	17.2	22.6	25.0
Brain & Other Central Nervous System (Non-Malignant)																		
All	2.5	2.2	1.5	2.2	3.2	5.1	6.4	9.2	12.8	18.5	22.7	27.9	36.5	43.0	59.9	82.7	88.7	111.4
Male	1.7	2.5	1.4	1.7	3.1	4.7	3.9	5.4	7.5	11.9	10.4	19.8	23.7	24.6	43.8	50.7	64.5	75.6
Female	3.3	1.9	1.5	2.7	3.3	5.4	8.9	13.1	18.3	25.4	35.4	35.9	48.9	60.6	75.5	112.3	109.5	135.0
Breast																		
Female Invasive	0.0	0.0	0.0	0.3	2.0	10.2	26.9	54.3	131.1	203.6	226.5	255.3	336.0	472.6	547.0	497.9	509.0	380.1
Female In Situ	0.0	0.0	0.0	0.0	0.0	0.0	1.6	6.9	35.5	58.8	63.2	59.7	72.9	102.4	106.0	87.8	58.0	18.2
Cervix																		
Female	0.0	0.3	0.0	0.3	0.7	2.7	8.9	11.8	13.2	11.4	11.9	10.9	7.9	5.9	6.4	5.9	6.4	3.4
Colorectal																		
All	0.0	0.3	0.6	1.9	1.9	3.6	7.5	10.5	21.4	38.4	62.3	65.5	78.1	101.4	112.2	155.4	211.8	224.2
Male	0.0	0.0	0.6	1.4	1.2	3.2	7.1	9.5	18.2	37.7	74.8	79.8	94.1	113.9	119.6	173.5	229.5	245.8
Female	0.0	0.6	0.6	2.5	2.7	4.1	7.9	11.4	24.7	39.0	49.3	51.4	62.6	89.4	105.0	138.7	196.5	209.9
Corpus Uteri																		
Female	0.0	0.0	0.0	0.0	0.0	3.7	5.3	14.7	14.5	20.1	45.5	73.1	87.6	97.9	98.7	79.3	80.5	60.1
Esophagus																		
All	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.5	0.3	3.1	4.3	10.4	13.4	19.0	22.0	29.2	36.3	22.6
Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.7	4.7	5.9	16.5	22.3	35.0	35.8	54.3	57.1	44.7
Female	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0	1.5	2.7	4.3	4.8	3.7	8.6	5.9	18.3	7.9

Age (years)	< 5	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	0.5	0.9	2.5	5.9	3.6	2.4	3.2	2.5	2.8	0.8	1.8	2.6	2.6	2.6	3.4	5.8	0.0
Male	0.0	0.3	0.6	2.3	6.5	3.8	1.6	4.8	3.6	2.5	1.1	2.6	2.8	3.1	4.2	5.7	7.4	0.0
Female	0.0	0.6	1.2	2.7	5.3	3.4	3.3	1.6	1.4	3.0	0.4	1.1	2.4	2.2	0.9	1.3	4.3	0.0
Kidney & Renal Pelvis																		
All	3.0	0.8	0.0	0.0	0.5	1.8	3.3	7.4	11.1	18.1	22.3	37.5	43.7	57.9	84.5	97.4	96.1	88.2
Male	2.4	0.9	0.0	0.0	0.6	2.8	4.2	10.5	13.6	24.4	27.4	50.9	63.7	78.1	112.6	133.5	131.5	137.5
Female	3.6	0.6	0.0	0.0	0.3	0.7	2.3	4.3	8.5	11.4	17.0	24.3	24.3	38.4	57.3	64.1	65.5	55.6
Larynx																		
All	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.3	0.4	2.1	5.6	8.2	7.4	8.6	11.3	15.0	10.3
Male	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.7	0.4	3.3	8.1	12.0	11.5	13.7	19.3	27.3	17.2
Female	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.4	0.8	3.3	4.5	3.3	3.6	4.0	4.3	5.7
Leukemia																		
All	5.3	4.4	3.3	2.1	2.1	2.3	3.3	4.2	5.6	9.4	18.3	21.3	34.6	49.6	71.7	93.0	110.0	130.6
Male	4.4	5.9	4.0	2.8	1.8	2.8	4.2	4.8	6.2	9.0	22.9	25.3	44.6	65.0	90.4	115.6	158.8	184.0
Female	6.1	2.9	2.7	1.4	2.3	1.7	2.3	3.6	5.1	9.9	13.5	17.4	25.0	34.7	53.7	72.0	67.7	95.3
Liver & Bile Duct																		
All	0.7	0.2	0.3	0.0	0.2	0.7	0.7	1.1	1.7	2.8	7.9	16.2	26.1	35.2	40.7	40.8	39.7	32.1
Male	0.7	0.0	0.3	0.0	0.0	0.9	0.7	1.3	2.0	2.5	11.1	22.0	39.6	54.2	55.6	55.0	57.1	46.4
Female	0.7	0.3	0.3	0.0	0.3	0.3	0.7	1.0	1.4	3.0	4.6	10.5	13.0	17.0	26.4	27.7	24.7	22.7
Lung & Bronchus																		
All	0.0	0.0	0.2	0.1	0.2	0.3	0.3	1.3	4.0	8.3	23.0	51.5	109.3	165.1	248.3	334.5	366.1	313.1
Male	0.0	0.0	0.3	0.3	0.0	0.6	0.7	0.6	4.6	8.6	21.8	44.7	101.2	168.5	261.4	384.0	374.7	392.0
Female	0.0	0.0	0.0	0.0	0.3	0.0	0.0	2.0	3.4	8.0	24.3	58.3	117.0	161.8	235.5	288.6	358.7	261.0
Melanoma of the Skin																		
All	0.2	0.0	0.4	1.2	3.5	6.9	12.9	19.6	26.8	30.4	41.1	46.4	70.1	93.9	121.5	152.0	173.9	181.1
Male	0.0	0.0	0.0	1.1	1.2	3.8	9.4	15.8	27.0	28.7	41.4	50.5	84.6	111.2	164.9	212.0	268.0	306.0
Female	0.4	0.0	0.9	1.4	6.0	10.2	16.4	23.5	26.7	32.2	40.8	42.4	56.1	77.2	79.6	96.4	92.4	98.7
Myeloma																		
All	0.0	0.0	0.0	0.0	0.0	0.2	0.3	1.0	1.2	5.2	5.3	9.1	16.9	25.1	30.1	43.9	53.0	39.7
Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.6	5.8	7.8	14.3	23.7	28.5	36.3	59.2	69.5	53.3
Female	0.0	0.0	0.0	0.0	0.0	0.3	0.7	1.0	0.7	4.6	2.7	4.0	10.3	21.8	24.1	29.7	38.7	30.6

IDAHO **AGE-SPECIFIC CANCER RATES, PER 100,000 POPULATION, BY SITE AND GENDER** **2019–2023**

Age (years)	< 5	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	1.2	0.8	2.0	1.0	3.2	4.7	4.1	5.2	8.6	13.8	16.6	28.4	42.1	62.8	76.4	100.2	124.3	112.8
Male	1.4	1.5	3.1	1.7	3.7	5.0	4.2	6.0	10.4	15.5	17.4	29.3	51.0	73.9	90.4	122.8	135.2	135.8
Female	1.1	0.0	0.9	0.3	2.7	4.4	3.9	4.3	6.8	12.1	15.8	27.5	33.5	52.1	62.8	79.3	114.9	97.6
Oral Cavity & Pharynx																		
All	0.0	0.0	0.3	0.3	0.5	0.8	1.8	2.1	5.5	8.9	20.4	29.7	40.0	48.2	50.7	58.3	44.3	60.8
Male	0.0	0.0	0.3	0.6	0.6	0.6	1.3	2.2	7.5	9.7	28.9	47.2	61.2	75.4	69.7	82.1	65.8	86.0
Female	0.0	0.0	0.3	0.0	0.3	1.0	2.3	2.0	3.4	8.0	11.6	12.3	19.5	22.2	32.3	36.3	25.8	44.3
Ovary																		
Female	0.0	0.3	0.6	1.1	1.0	2.0	2.3	5.6	8.8	13.7	13.1	19.9	30.5	32.5	34.6	47.6	36.5	52.2
Pancreas																		
All	0.0	0.0	0.0	0.3	0.6	0.2	1.5	2.3	3.3	5.5	12.1	22.2	33.2	49.2	71.0	93.7	104.8	112.8
Male	0.0	0.0	0.0	0.0	0.6	0.0	1.6	1.3	2.6	7.2	14.8	26.0	34.7	55.4	81.0	99.2	125.3	151.3
Female	0.0	0.0	0.0	0.5	0.7	0.3	1.3	3.3	4.1	3.8	9.2	18.5	31.8	43.2	61.4	88.5	87.0	87.4
Prostate																		
Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	3.6	25.2	106.2	212.4	396.7	672.0	729.2	700.9	617.9	484.8
Stomach																		
All	0.0	0.0	0.0	0.0	0.3	0.2	1.1	2.6	2.7	4.1	5.9	7.5	8.2	15.3	18.1	25.0	32.8	35.5
Male	0.0	0.0	0.0	0.0	0.3	0.0	1.0	2.2	2.9	3.2	5.9	9.2	9.9	21.5	22.6	34.3	40.9	48.1
Female	0.0	0.0	0.0	0.0	0.3	0.3	1.3	2.9	2.4	4.9	5.8	5.8	6.5	9.2	13.6	16.5	25.8	27.2
Testis																		
Male	0.7	0.0	0.0	3.7	11.7	18.6	15.5	13.0	11.0	6.1	5.6	5.5	2.8	3.1	1.4	1.4	0.0	1.7
Thyroid																		
All	0.0	0.5	0.4	3.5	6.9	10.9	17.1	17.1	19.7	18.1	22.7	14.2	18.8	20.7	20.6	16.8	19.6	12.3
Male	0.0	0.0	0.3	2.0	1.2	2.8	6.8	7.0	11.0	10.8	13.0	10.3	16.6	15.8	22.6	20.0	28.5	15.5
Female	0.0	1.0	0.6	4.9	13.0	19.7	27.6	27.5	28.7	25.8	32.7	18.1	20.9	25.5	18.6	13.9	11.8	10.2

SECTION V

2023 OBSERVED VS. EXPECTED NUMBERS BY HEALTH DISTRICT

2023 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	1,689	1,796.0+	688	715.6	1,889	1,698.0*	3,241	3,053.0*	1,248	1,136.3*	875	937.7+	891	1,135.2*
Bladder	92	86.2	28	36.2	96	78.5	151	143.3	53	55.0	46	43.5	33	53.0*
Brain	30	24.0	15	9.6	25	25.8	45	46.0	17	16.9	13	14.1	9	18.3+
Brain & CNS non-Malignant	40	73.9*	18	28.5+	75	67.9	151	112.6*	45	45.9	51	36.1+	38	46.7
Breast	290	265.7	81	108.1*	284	264.1	521	468.0+	182	175.6	129	145.6	134	176.2*
Breast (in situ)	47	54.5	8	21.5*	51	54.4	135	82.5*	25	36.5	27	29.3	32	35.2
Cervix	6	8.0	5	2.8	7	9.1	18	14.6	5	5.5	7	4.5	3	6.2
Colorectal	148	125.0+	55	51.7	137	126.9	218	238.6	74	86.7	61	69.9	87	82.4
Corpus Uteri	58	50.6	16	20.1	64	48.9+	94	91.9	27	33.9	18	28.0	31	32.1
Esophagus	23	23.7	10	9.3	17	23.1	41	39.1	21	13.9	6	12.4	17	13.6
Hodgkin lymphoma	4	5.6	2	2.5	9	6.0	11	11.6	7	3.9	3	3.7	3	5.8
Kidney & renal pelvis	65	72.2	31	28.1	81	67.6	123	125.9	48	46.0	36	37.7	39	45.4
Larynx	5	8.5	5	3.0	13	6.5+	11	14.6	4	5.2	2	4.3	6	4.6
Leukemia	68	62.4	26	26.0	62	61.9	116	108.3	42	41.3	36	33.3	27	42.0+
Liver & bile duct	38	34.1	7	14.3	38	32.2	58	59.7	29	21.2	19	17.7	13	22.0
Lung & bronchus	186	191.2	76	77.2	228	167.7*	317	317.4	121	119.0	85	96.8	76	115.5*
Melanoma of skin	126	112.5	46	46.2	100	116.5	188	213.6	110	71.1*	56	61.6	64	73.7
Myeloma	22	26.3	8	10.4	31	22.7	44	42.9	13	16.4	17	12.5	12	15.5
N-H Lymphoma	69	70.7	26	28.9	74	66.9	131	117.7	46	45.4	30	37.2	38	44.4
Oral cavity & pharynx	47	56.0	24	21.6	53	53.3	104	92.5	41	34.4	29	28.6	25	34.9
Ovary	12	23.1+	8	8.1	23	20.5	32	40.4	16	13.4	22	10.1*	13	13.3
Pancreas	70	63.5	25	26.5	64	60.8	100	115.0	50	40.2	35	33.0	32	39.6
Prostate	123	273.5*	103	100.6	266	223.3*	527	361.2*	184	151.2+	108	128.1	106	153.3*
Stomach	16	18.8	8	7.5	25	16.7	26	35.6	18	11.3	10	9.7	7	12.1
Testis	9	8.4	4	3.9	13	10.7	22	19.8	8	6.9	7	6.1	3	9.7+
Thyroid	35	34.8	14	14.0	33	40.6	80	67.5	24	25.5	17	21.8	31	27.3
Pediatric (age 0-19)	11	10.7	4	4.7	17	15.6	25	22.8	13	10.1	10	9.1	10	17.2

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.

Due to severely delayed reporting by a hospital in Public Health District 7, case reporting is likely incomplete for this area, greatly impacting comparisons by health district and to a lesser degree, statewide trends.

2023 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	818	962.6*	384	390.1	1,018	873.6*	1,710	1,558.3*	670	594.9*	457	492.9	445	599.4*
Bladder	73	72.1	23	31.2	76	65.2	126	115.5	48	45.0	37	36.5	30	44.1+
Brain	24	13.9+	7	6.2	17	15.7	23	30.9	11	10.5	7	8.9	7	11.3
Brain & CNS non-Malignant	13	23.7+	10	9.2	21	23.1	47	38.0	14	15.3	18	12.0	15	16.1
Breast	4	1.1+	1	0.6	3	1.2	1	3.2	0	1.1	0	0.9	0	1.1
Breast (in situ)	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Colorectal	69	67.3	26	28.0	78	65.6	113	126.3	45	45.3	35	36.7	46	43.8
Esophagus	18	18.9	10	7.5	14	18.1	30	31.4	16	11.2	5	9.9	14	10.8
Hodgkin lymphoma	3	3.0	0	1.6	6	3.1	5	7.0	4	2.1	2	2.1	2	3.3
Kidney & renal pelvis	40	44.5	20	17.8	53	40.7	74	77.6	29	28.6	21	23.5	24	28.4
Larynx	4	6.9	4	2.5	10	5.3	8	11.9	4	4.1	2	3.4	5	3.7
Leukemia	41	42.3	18	17.8	36	41.4	79	68.9	29	27.1	27	21.7	18	27.7
Liver & bile duct	26	22.5	6	9.6	27	20.6	41	37.4	18	14.3	9	12.1	6	15.0+
Lung & bronchus	87	96.7	37	39.9	116	82.5*	160	154.3	52	60.4	55	47.3	35	58.5*
Melanoma of skin	80	66.4	33	28.2	58	68.6	108	125.8	67	42.2*	25	37.3+	38	43.8
Myeloma	12	15.5	4	6.3	25	11.9*	22	26.2	6	9.9	9	7.4	8	9.0
N-H Lymphoma	42	39.4	15	16.8	43	37.3	77	64.0	20	26.5	20	20.9	17	25.9
Oral cavity & pharynx	35	39.4	19	15.7	37	37.3	71	65.5	30	24.3	17	20.5	19	24.7
Pancreas	38	34.2	13	15.0	35	32.8	53	62.1	28	21.7	22	17.7	15	22.1
Prostate	123	273.5*	103	100.6	266	223.3*	527	361.2*	184	151.2+	108	128.1	106	153.3*
Stomach	11	11.4	6	4.7	16	10.2	16	21.6	10	7.2	5	6.2	4	7.6
Testis	9	8.4	4	3.9	13	10.7	22	19.8	8	6.9	7	6.1	3	9.7+
Thyroid	13	10.5	4	4.5	12	12.0	24	20.7	10	7.6	2	7.0	7	8.5
Pediatric (age 0-19)	5	5.4	2	2.4	11	7.2	9	12.6	6	5.1	4	4.6	7	7.1

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

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2023 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	871	834.6	304	329.3	871	824.9	1,531	1,487.6	578	540.9	418	446.2	446	536.5*
Bladder	19	14.0	5	6.0	20	13.0	25	25.7	5	10.0	9	7.3	3	9.4+
Brain	6	10.1	8	3.4+	8	10.1	22	15.0	6	6.5	6	5.2	2	7.1
Brain & CNS non-Malignant	27	50.3*	8	19.0*	54	45.1	104	74.9*	31	30.6	33	24.1	23	30.3
Breast	286	266.1	80	105.1+	281	265.6	520	469.4+	182	173.2	129	144.0	134	172.3*
Breast (in situ)	47	54.9	8	21.1*	51	55.0	135	82.9 *	25	36.1	27	29.2	32	34.6
Cervix	6	8.0	5	2.8	7	9.1	18	14.6	5	5.5	7	4.5	3	6.2
Colorectal	79	57.5*	29	23.8	59	61.1	105	112.2	29	41.5	26	33.2	41	39.0
Corpus Uteri	58	50.6	16	20.1	64	48.9+	94	91.9	27	33.9	18	28.0	31	32.1
Esophagus	5	4.8	0	2.0	3	5.0	11	7.3	5	2.8	1	2.5	3	2.9
Hodgkin lymphoma	1	2.6	2	0.9	3	2.8	6	4.7	3	1.7	1	1.7	1	2.4
Kidney & renal pelvis	25	27.6	11	10.5	28	26.7	49	47.9	19	17.5	15	14.2	15	17.2
Larynx	1	1.6	1	0.6	3	1.2	3	2.5	0	1.1	0	0.9	1	0.9
Leukemia	27	20.2	8	8.6	26	20.5	37	38.7	13	14.3	9	11.7	9	14.2
Liver & bile duct	12	11.6	1	4.8	11	11.5	17	22.0	11	7.1	10	5.7	7	7.2
Lung & bronchus	99	94.7	39	37.5	112	85.2*	157	163.0	69	58.6	30	49.4 *	41	56.9+
Melanoma of skin	46	46.1	13	18.3	42	47.9	80	86.9	43	28.9+	31	24.4	26	30.1
Myeloma	10	10.9	4	4.2	6	10.7	22	16.5	7	6.6	8	5.1	4	6.4
N-H Lymphoma	27	31.4	11	12.2	31	29.5	54	53.4	26	18.9	10	16.3	21	18.5
Oral cavity & pharynx	12	16.5	5	6.2	16	15.9	33	26.5	11	10.2	12	8.1	6	10.5
Ovary	12	23.1+	8	8.1	23	20.5	32	40.4	16	13.4	22	10.1*	13	13.3
Pancreas	32	29.2	12	11.7	29	28.0	47	52.7	22	18.4	13	15.3	17	17.6
Stomach	5	7.5	2	2.8	9	6.5	10	13.8	8	4.2	5	3.6	3	4.5
Thyroid	22	24.5	10	9.4	21	28.8	56	46.6	14	17.9	15	14.9	24	18.8
Pediatric (age 0-19)	6	5.4	2	2.3	6	8.5	16	10.4	7	5.0	6	4.5	3	9.8+

Notes:
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* 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.

Due to severely delayed reporting by a hospital in Public Health District 7, case reporting is likely incomplete for this area, greatly impacting comparisons by health district and to a lesser degree, statewide trends.

SECTION VI

RISKS OF BEING DIAGNOSED WITH 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 being diagnosed with cancer 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 19	1 in 9	1 in 5	1 in 3	1 in 2
40		1 in 27	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 6	1 in 3
80						1 in 4

If your current age is:	Then your risk of dying from cancer by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 647	1 in 173	1 in 57	1 in 23	1 in 11	1 in 6
40		1 in 233	1 in 62	1 in 24	1 in 11	1 in 6
50			1 in 82	1 in 26	1 in 12	1 in 6
60				1 in 36	1 in 13	1 in 6
70					1 in 18	1 in 7
80						1 in 9

All Sites, Invasive in Males

If your current age is:	Then your risk of being diagnosed with cancer by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 117	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 17	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 dying from cancer by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 955	1 in 227	1 in 60	1 in 21	1 in 10	1 in 5
40		1 in 291	1 in 63	1 in 21	1 in 10	1 in 5
50			1 in 77	1 in 22	1 in 10	1 in 5
60				1 in 29	1 in 10	1 in 5
70					1 in 14	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 being diagnosed with breast cancer by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 229	1 in 50	1 in 23	1 in 13	1 in 9	1 in 7
40		1 in 63	1 in 26	1 in 13	1 in 9	1 in 7
50			1 in 42	1 in 17	1 in 10	1 in 8
60				1 in 26	1 in 12	1 in 9
70					1 in 20	1 in 12
80						1 in 23

If your current age is:	Then your risk of dying from breast cancer by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 2218	1 in 653	1 in 247	1 in 128	1 in 71	1 in 40
40		1 in 916	1 in 275	1 in 135	1 in 73	1 in 41
50			1 in 384	1 in 155	1 in 78	1 in 42
60				1 in 247	1 in 93	1 in 45
70					1 in 136	1 in 49
80						1 in 60

Prostate Cancer

If your current age is:	Then your risk of being diagnosed with prostate cancer by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 28122	1 in 533	1 in 59	1 in 17	1 in 9	1 in 8
40		1 in 532	1 in 58	1 in 16	1 in 9	1 in 7
50			1 in 63	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 19

If your current age is:	Then your risk of dying from prostate cancer 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 23083	1 in 1466	1 in 347	1 in 104	1 in 37
40		1 in 22600	1 in 1435	1 in 340	1 in 102	1 in 37
50			1 in 1482	1 in 334	1 in 99	1 in 35
60				1 in 402	1 in 99	1 in 34
70					1 in 114	1 in 32
80						1 in 31

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 being diagnosed with colorectal cancer by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 1028	1 in 249	1 in 115	1 in 66	1 in 41	1 in 28
40		1 in 324	1 in 128	1 in 69	1 in 42	1 in 28
50			1 in 206	1 in 86	1 in 47	1 in 30
60				1 in 141	1 in 59	1 in 34
70					1 in 91	1 in 41
80						1 in 56

If your current age is:	Then your risk of dying from colorectal cancer by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 4852	1 in 1148	1 in 489	1 in 257	1 in 143	1 in 70
40		1 in 1488	1 in 538	1 in 269	1 in 145	1 in 70
50			1 in 825	1 in 321	1 in 158	1 in 72
60				1 in 503	1 in 186	1 in 76
70					1 in 269	1 in 81
80						1 in 89

Colon/Rectal Cancer in Males

If your current age is:	Then your risk of being diagnosed with colorectal cancer by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 1201	1 in 276	1 in 97	1 in 54	1 in 36	1 in 27
40		1 in 350	1 in 103	1 in 55	1 in 36	1 in 27
50			1 in 141	1 in 63	1 in 39	1 in 28
60				1 in 107	1 in 50	1 in 32
70					1 in 81	1 in 39
80						1 in 53

If your current age is:	Then your risk of dying from colorectal cancer by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 6076	1 in 1034	1 in 335	1 in 171	1 in 105	1 in 64
40		1 in 1219	1 in 347	1 in 173	1 in 104	1 in 63
50			1 in 470	1 in 194	1 in 110	1 in 64
60				1 in 310	1 in 135	1 in 70
70					1 in 206	1 in 78
80						1 in 87

Risks of Being Diagnosed with and Dying from Cancer

Melanoma in Females

If your current age is:	Then your risk of being diagnosed with melanoma by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 520	1 in 209	1 in 115	1 in 70	1 in 48	1 in 39
40		1 in 344	1 in 146	1 in 80	1 in 53	1 in 41
50			1 in 248	1 in 101	1 in 61	1 in 46
60				1 in 162	1 in 77	1 in 53
70					1 in 131	1 in 72
80						1 in 121

If your current age is:	Then your risk of dying from melanoma by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 25643	1 in 7177	1 in 2728	1 in 1247	1 in 725	1 in 406
40		1 in 9858	1 in 3020	1 in 1296	1 in 738	1 in 408
50			1 in 4265	1 in 1463	1 in 781	1 in 417
60				1 in 2128	1 in 915	1 in 442
70					1 in 1456	1 in 506
80						1 in 597

Melanoma in Males

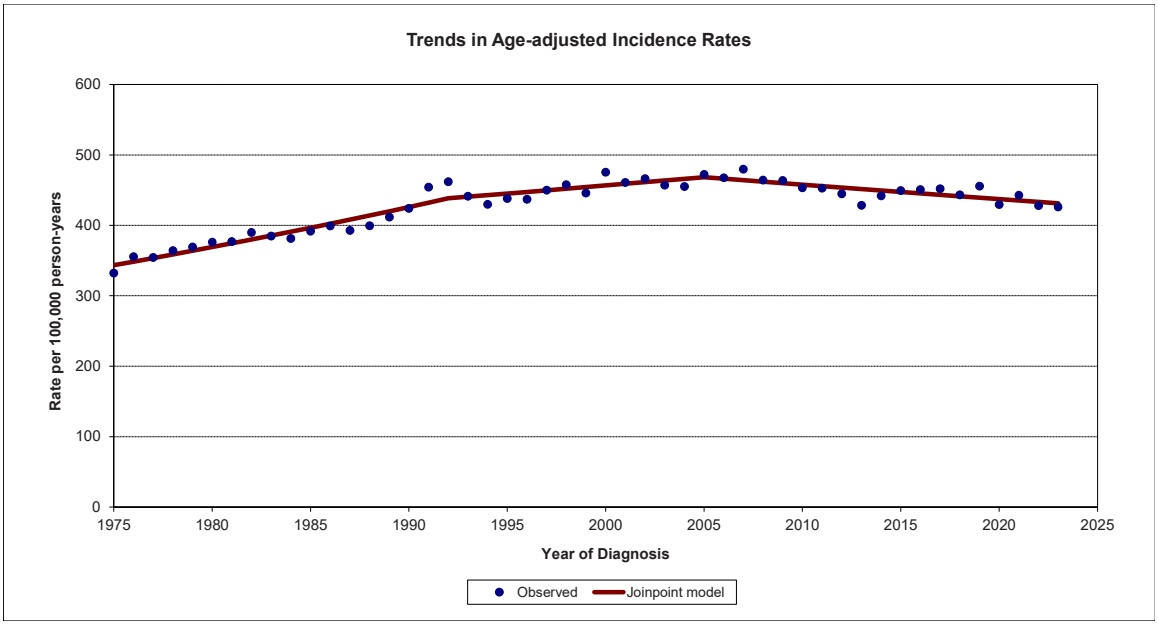
If your current age is:	Then your risk of being diagnosed with melanoma by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 795	1 in 258	1 in 123	1 in 63	1 in 36	1 in 25
40		1 in 373	1 in 142	1 in 67	1 in 37	1 in 26
50			1 in 220	1 in 78	1 in 40	1 in 27
60				1 in 113	1 in 45	1 in 28
70					1 in 64	1 in 32
80						1 in 45

If your current age is:	Then your risk of dying from melanoma by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 15303	1 in 4286	1 in 1430	1 in 715	1 in 382	1 in 225
40		1 in 5829	1 in 1545	1 in 734	1 in 383	1 in 223
50			1 in 2033	1 in 812	1 in 397	1 in 225
60				1 in 1262	1 in 460	1 in 236
70					1 in 626	1 in 250
80						1 in 292

SECTION VII

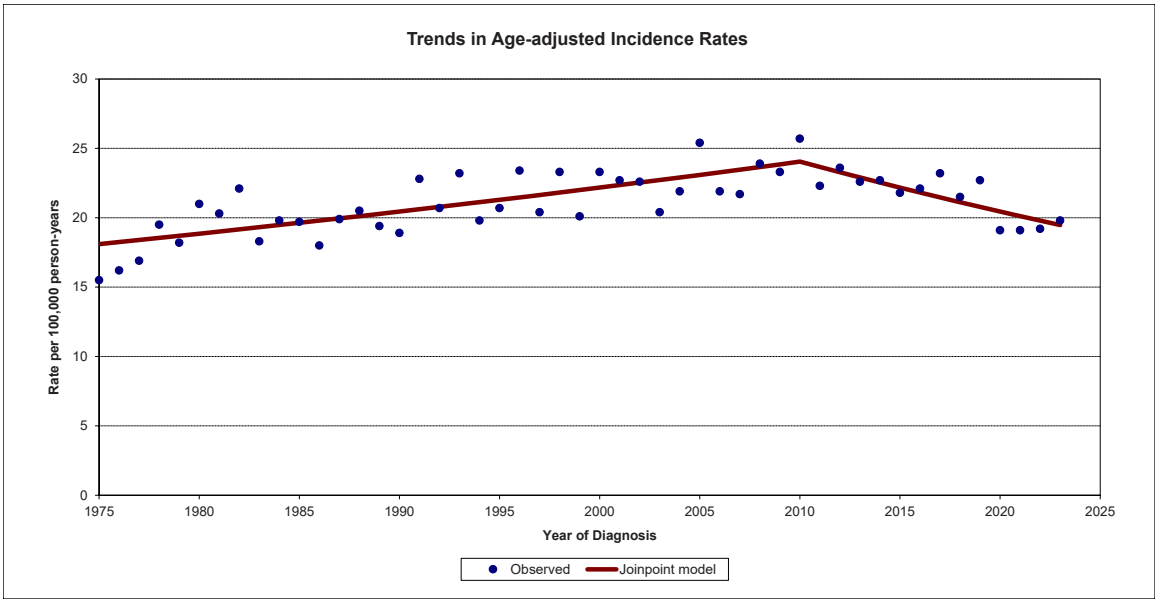
CANCER TRENDS IN IDAHO
1975–2023

All Sites



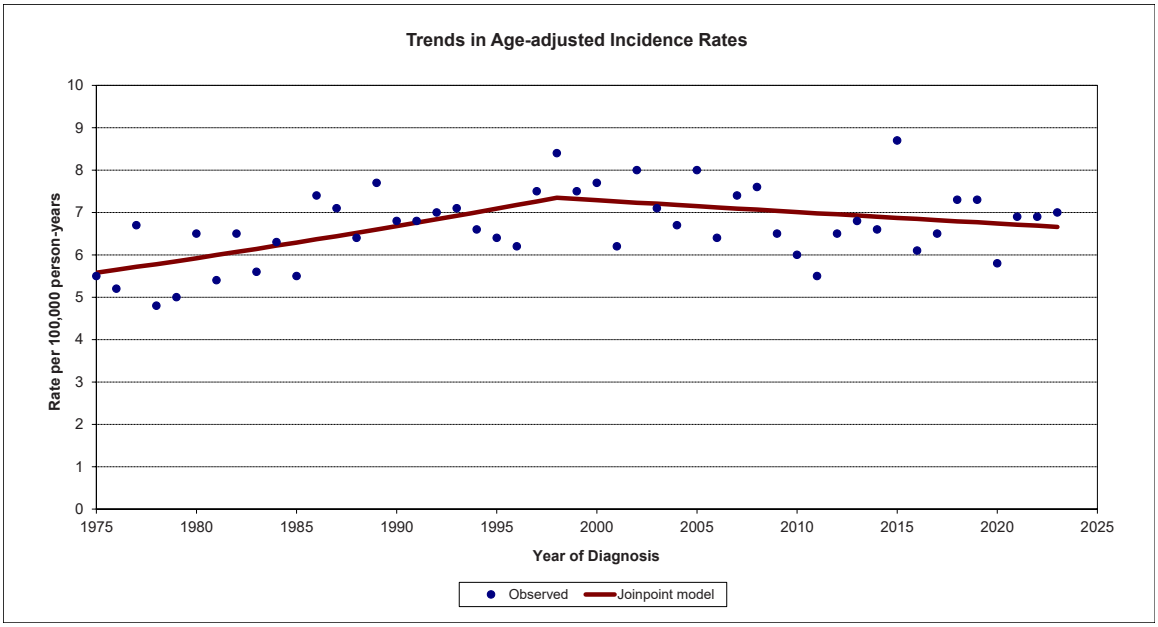
Cancer incidence increased at a rate of about 1.4% per year in Idaho from 1975 to 1992, and at a rate of about 0.5% per year from 1992 to 2005. Since 2005, overall cancer incidence has declined about 0.5% per year. Cancer incidence trends over time were different for males and females. For males, much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



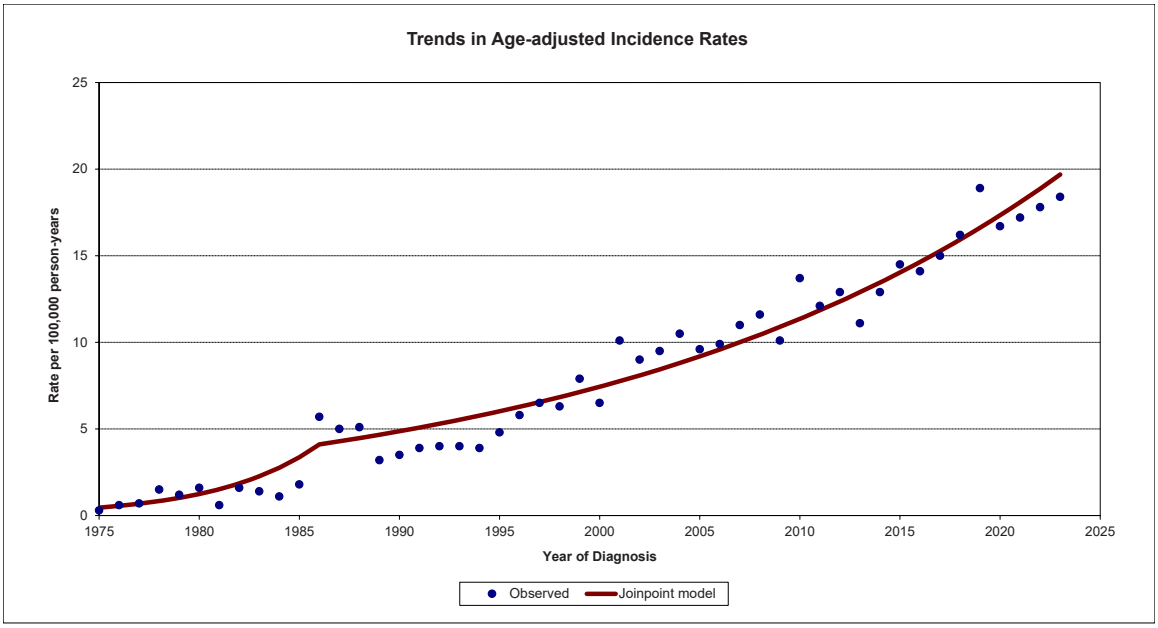
Bladder cancer incidence includes in situ and invasive cases. Bladder cancer incidence increased at a rate of about 0.8% per year in Idaho from 1975 to 2010, then decreased at a rate of about 1.6% per year since 2010. The trends in bladder cancer incidence are driven by males, who have rates of bladder cancer incidence about 4–5 times those of females.

Brain



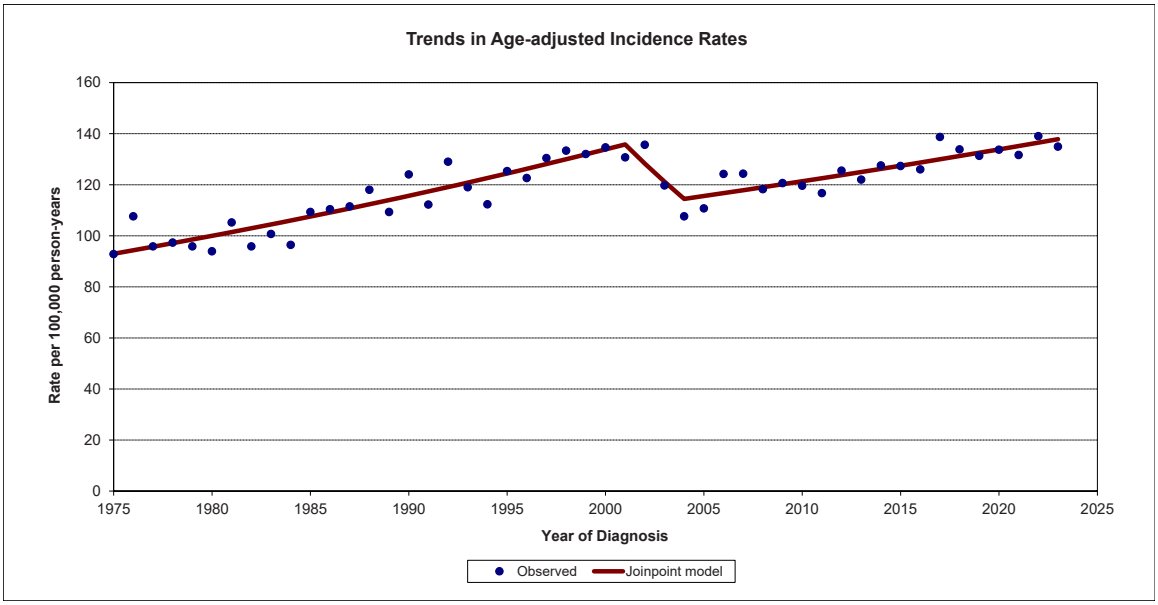
Malignant brain cancer incidence increased at a rate of about 1.2% per year in Idaho from 1975 to 1998, after which the rate has declined about 0.4% per year. Among males, malignant brain cancer incidence rates followed the same pattern. Among females, the rate has been stable 1975 to present.

Brain and Other CNS, Non-Malignant



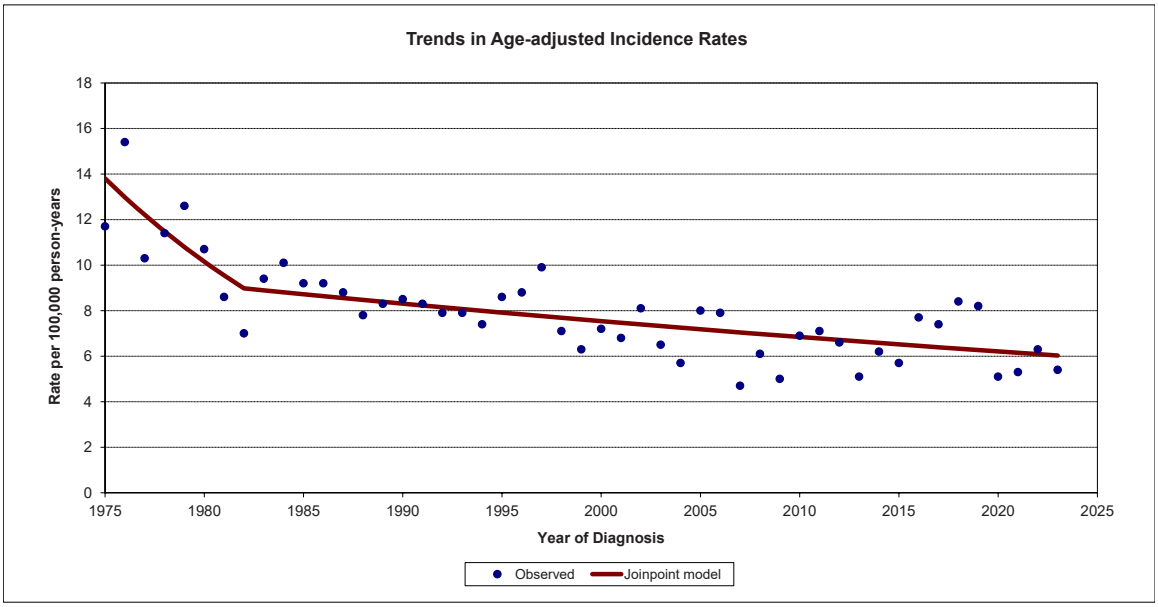
Non-malignant brain and other central nervous system tumors include those with benign and borderline behavior. Non-malignant brain and other CNS tumor incidence increased at a rate of about 22% per year in Idaho from 1975 to 1986 (some of which was due to improved reporting), after which the rate increased by about 4.3% per year.

Breast Female



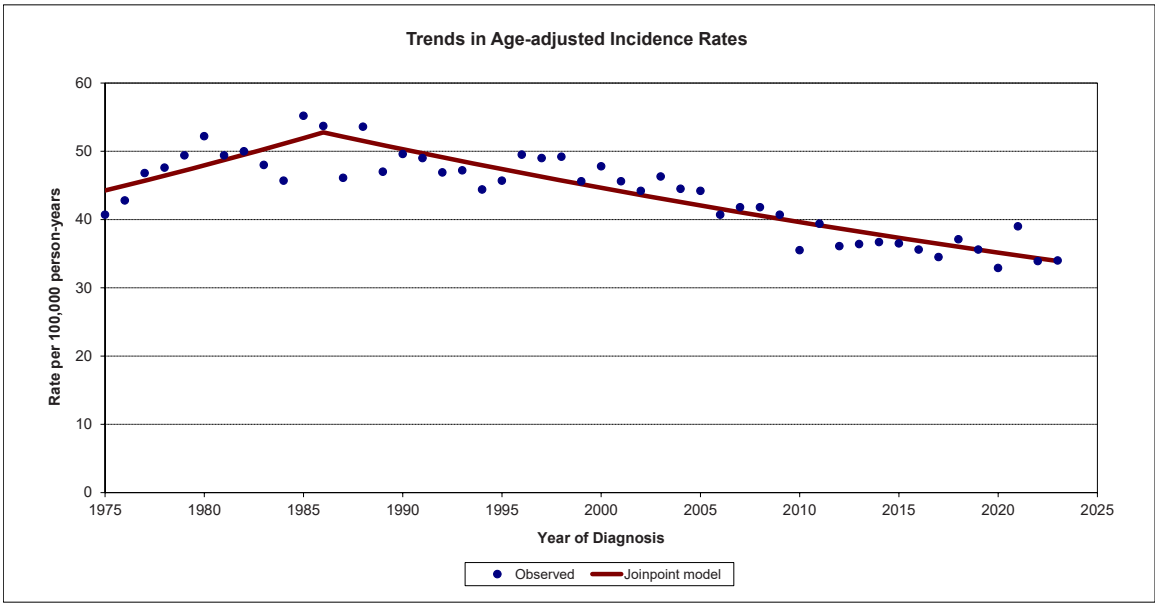
Invasive breast cancer incidence increased at a rate of about 1.5% per year among female Idahoans from 1975 to 2001. From 2001 to 2004, the rate decreased sharply by about 5.5% per year. This decrease may be due in part to a decrease in the use of hormone replacement therapy. Since 2004, the invasive breast cancer incidence rate has increased about 1.0% per year. In situ breast cancer rates increased at a rate of about 13.1% per year from 1975 to 1992 and 0.9% since 1992 (data not shown).

Cervix



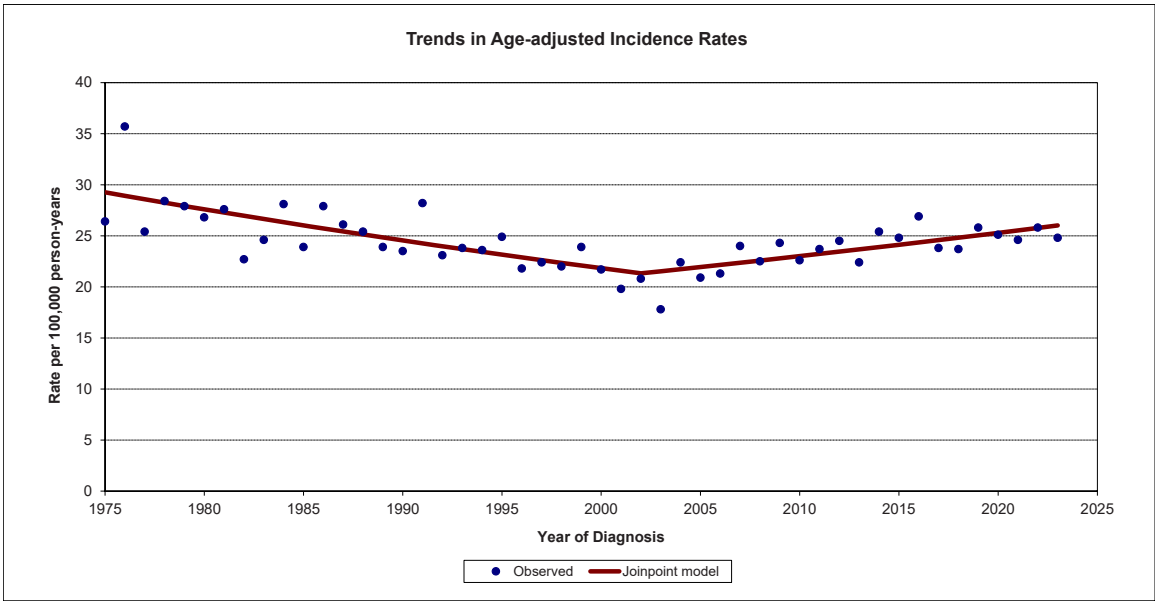
Invasive cervical cancer incidence decreased about 6.9% per year in Idaho from 1975 to 1982 and has decreased about 1% per year since 1982.

Colorectal



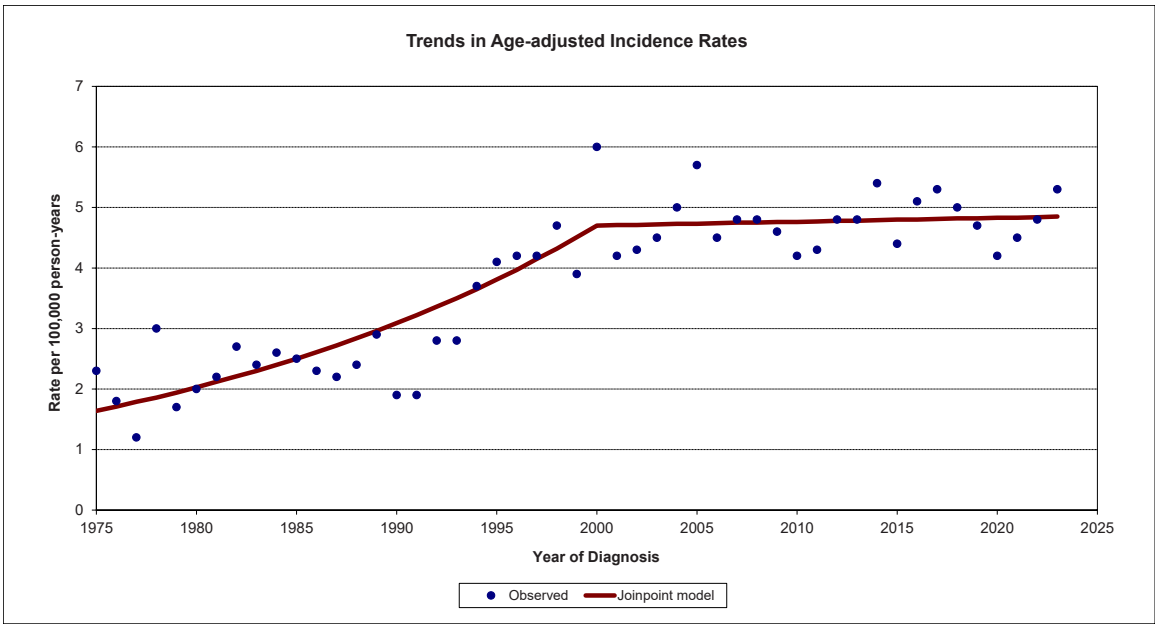
Colorectal cancer incidence rates in Idaho increased about 1.6% per year from 1975 to 1986 and have since decreased about 1.2% per year. Colorectal cancer incidence trends over time were different for males and females. For males, rates increased about 2.0% per year from 1975 to 1988, then decreased about 1.5% per year. For females, rates increased about 6.0% per year from 1975 to 1979, then decreased about 1.0% per year.

Corpus Uteri



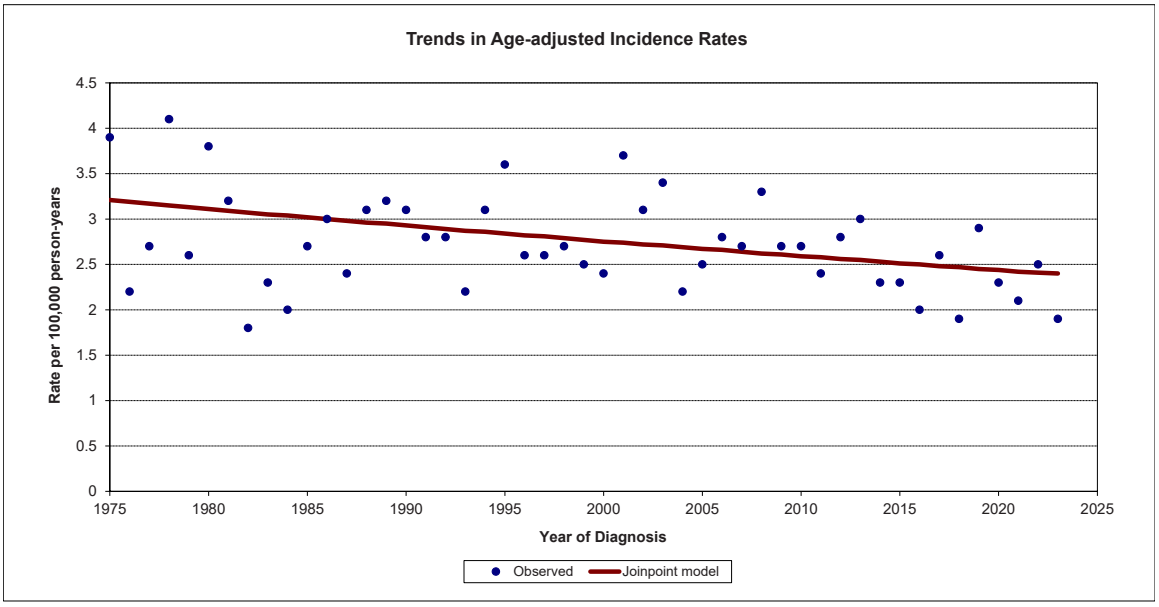
Corpus uteri cancer incidence rates decreased about 1.2% per year in Idaho from 1975 to 2002 and have increased by 1.0% per year since 2002.

Esophagus



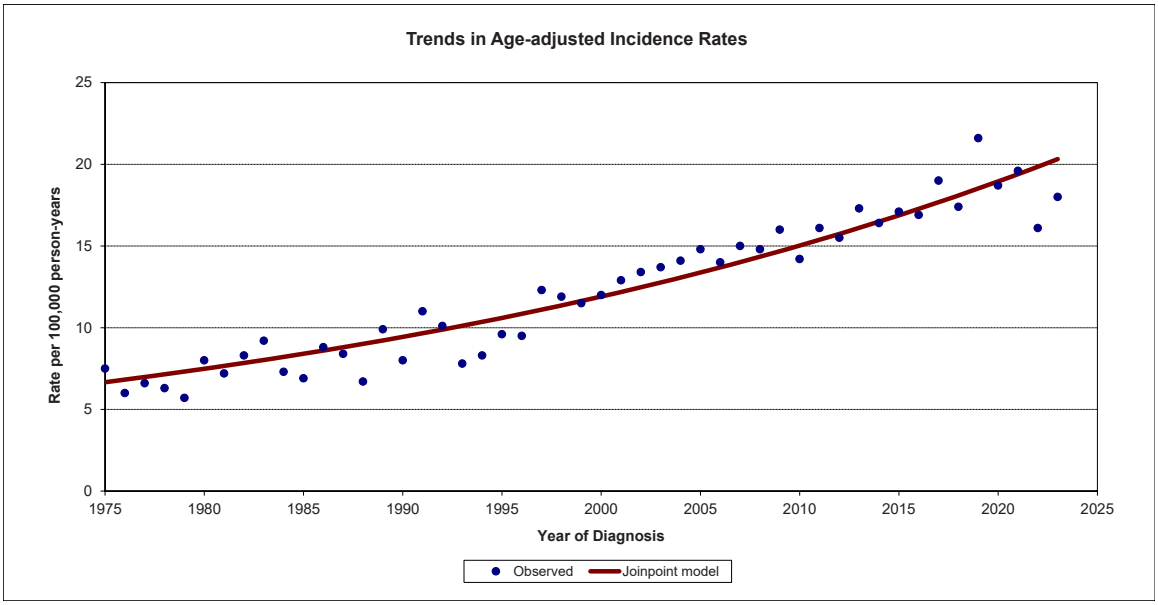
Esophageal cancer incidence increased at a rate of about 4.3% per year in Idaho from 1975 to 2000, after which incidence rates have been stable. Rates of esophageal cancers were about 3-4 times higher among males versus females.

Hodgkin Lymphoma



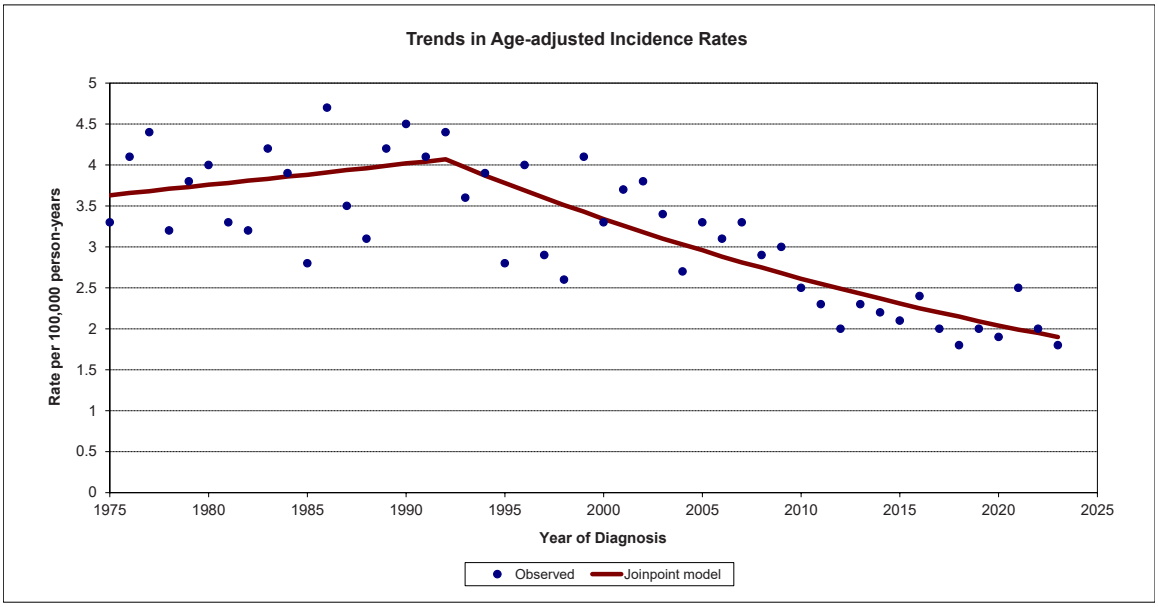
Hodgkin lymphoma incidence has decreased about 0.6% per year in Idaho from 1975 to 2023. Rates showed high year-to-year variability due to the relatively small numbers of cases diagnosed annually.

Kidney and Renal Pelvis



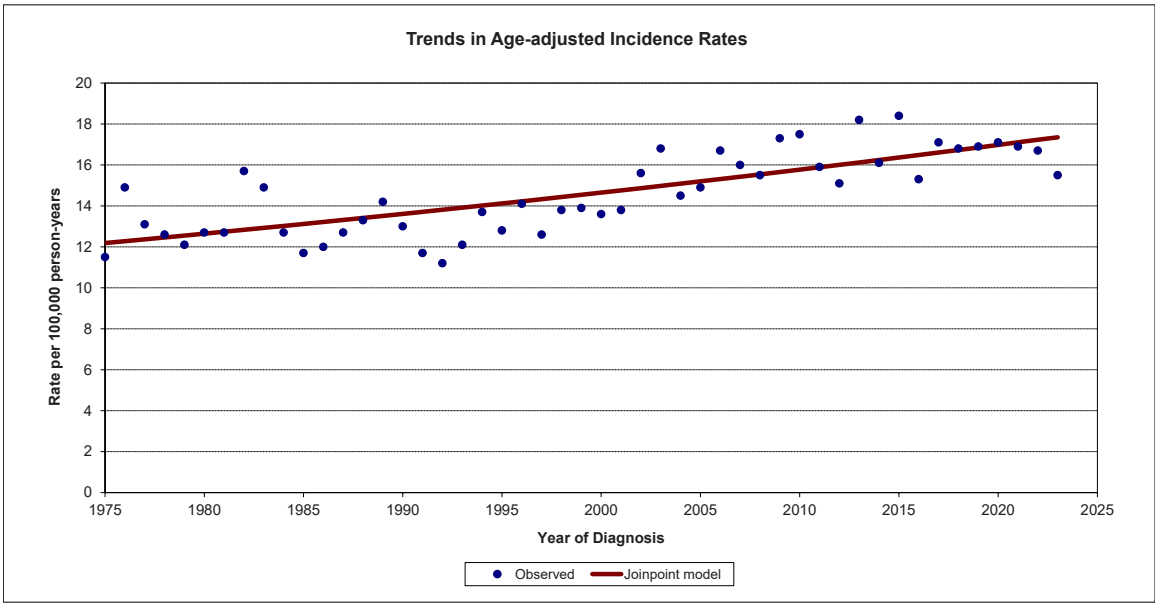
Kidney and renal pelvis cancer incidence increased at a rate of about 2.4% per year in Idaho from 1975 to 2023. The rate of increase was similar for males and females, although rates of kidney and renal pelvis cancer rates among males were about twice as high as among females.

Larynx



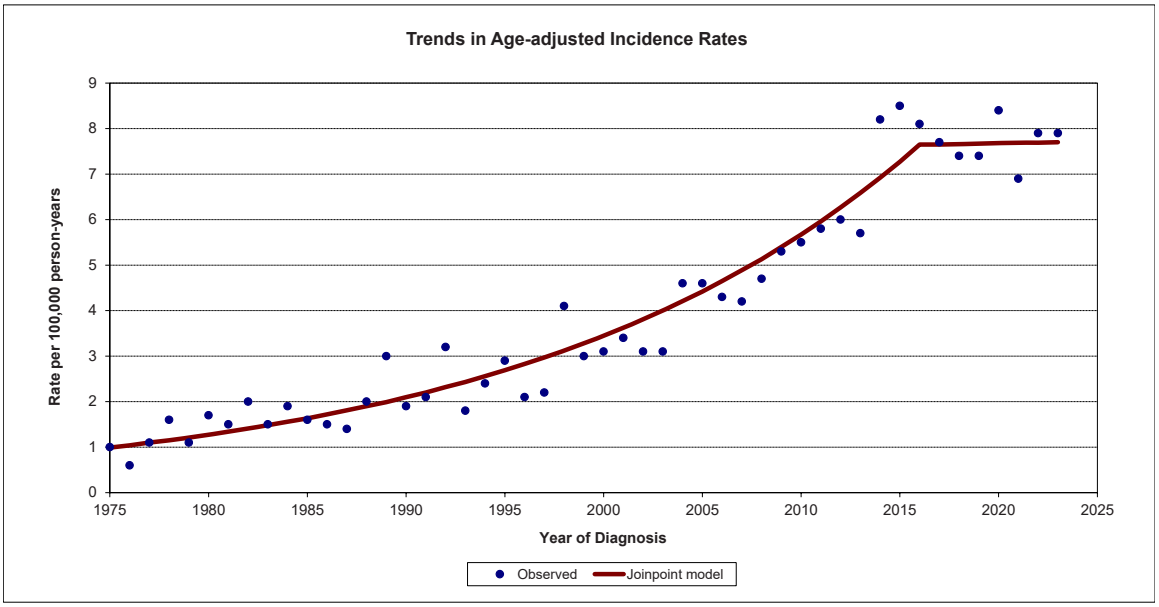
Laryngeal cancer incidence was statistically stable in Idaho from 1975 to 1992 and decreased about 2.4% per year since 1992. Rates showed year-to-year variability due to the relatively small numbers of cases diagnosed annually. The temporal pattern was similar for males. Among females, incidence rates of laryngeal cancer decreased about 1.4% per year from 1975 to 2023. Incidence rates of laryngeal cancers among males were about four times as high as among females.

Leukemia



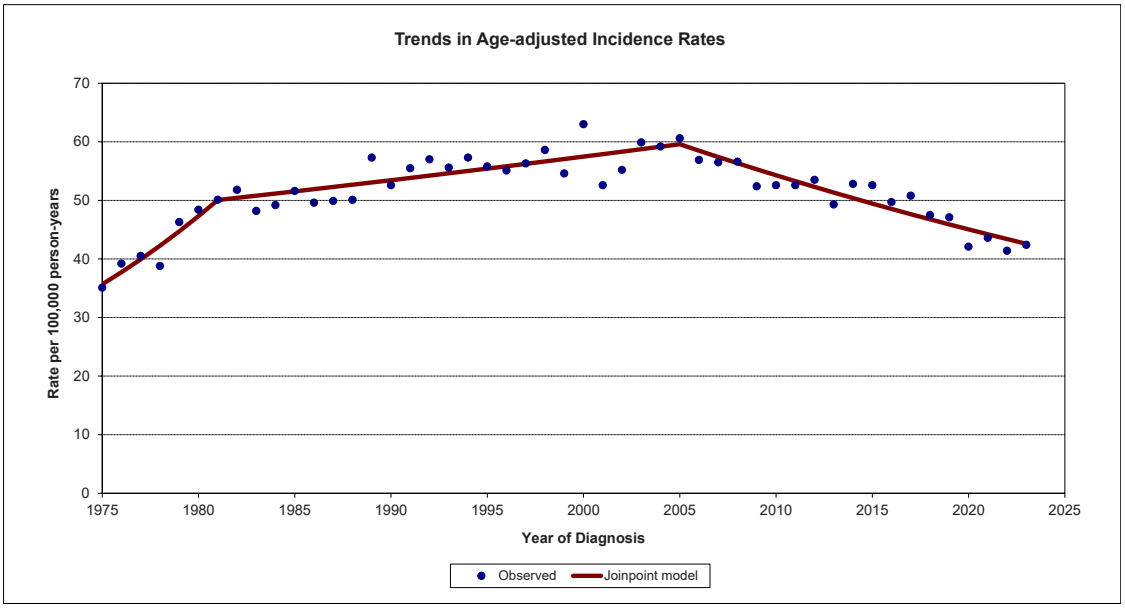
Leukemia incidence has increased about 0.7% per year from 1975 to 2023. Rates showed high year-to-year variability due to the relatively small numbers of cases diagnosed annually.

Liver and Bile Duct



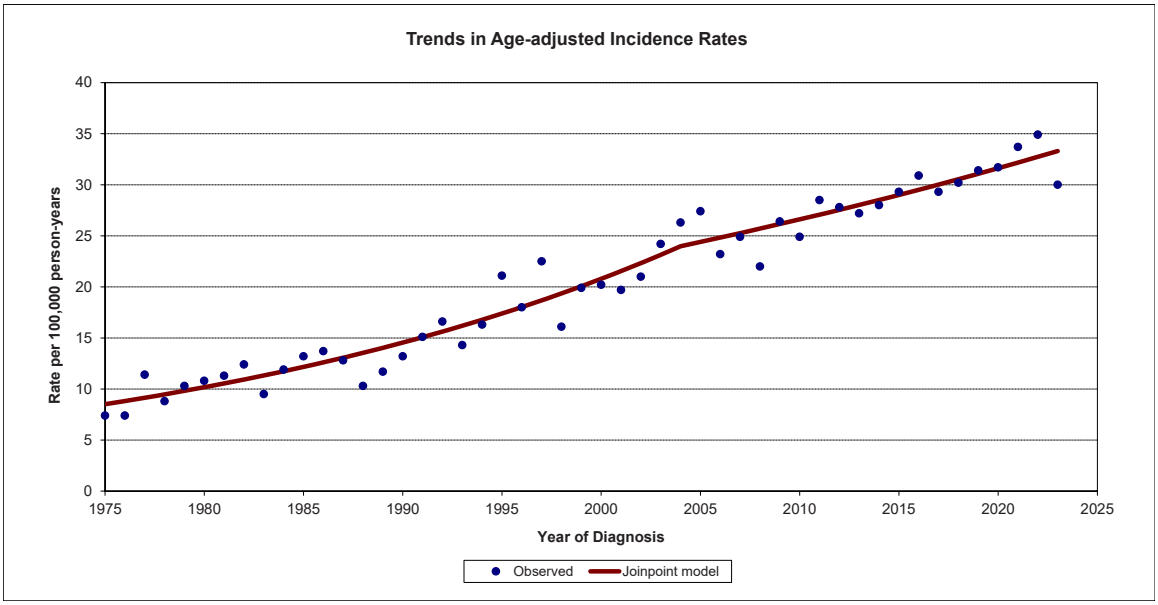
Liver cancer incidence increased at a rate of about 5.0% per year in Idaho from 1975 to 2016, after which rates showed year-to-year variability but were overall stable. The pattern was similar for males. Among females, liver cancer rates increased about 3.6% per year 1975–2023. Rates of liver cancer among males were about twice as high as among females.

Lung and Bronchus



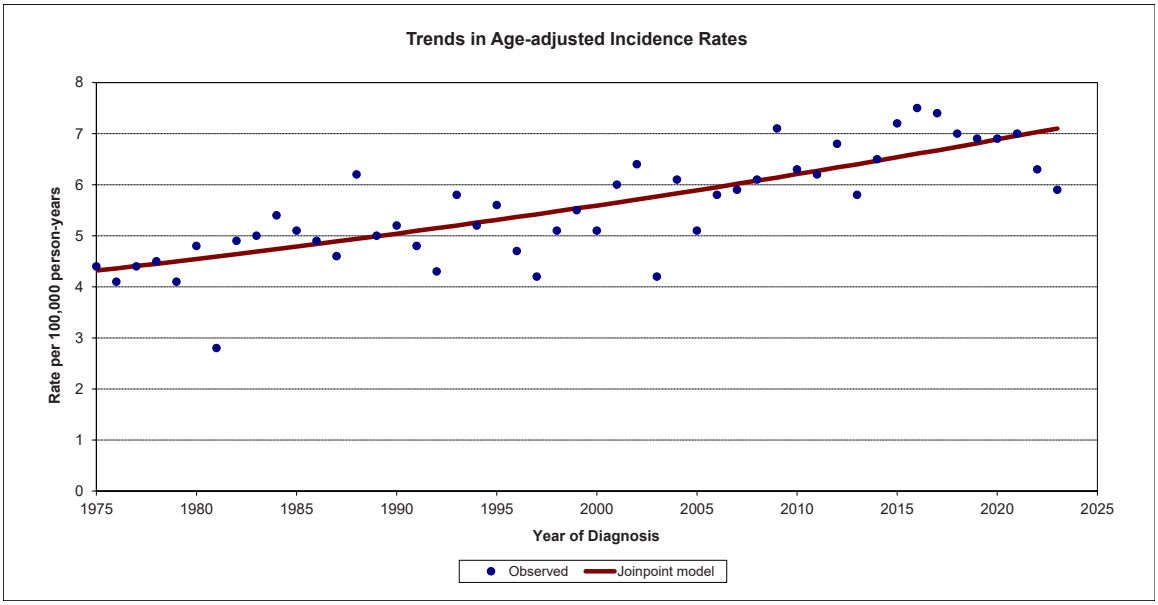
Lung cancer incidence increased at a rate of about 5.8% per year in Idaho from 1975 to 1981, after which the rate of increase lessened to about 0.7% per year until 2005. From 2005 to 2023, the rate decreased about 1.9% per year. Lung cancer incidence trends over time were different for males and females. For males, lung cancer incidence increased at a rate of about 4.5% 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 5.8% per year from 1975 to 1989, after which the rate of increase lessened to about 1.7% per year until 2005. From 2005 to 2017, the rate was stable, after which it decreased 3.1% per year. Historically, lung cancer incidence rates were 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



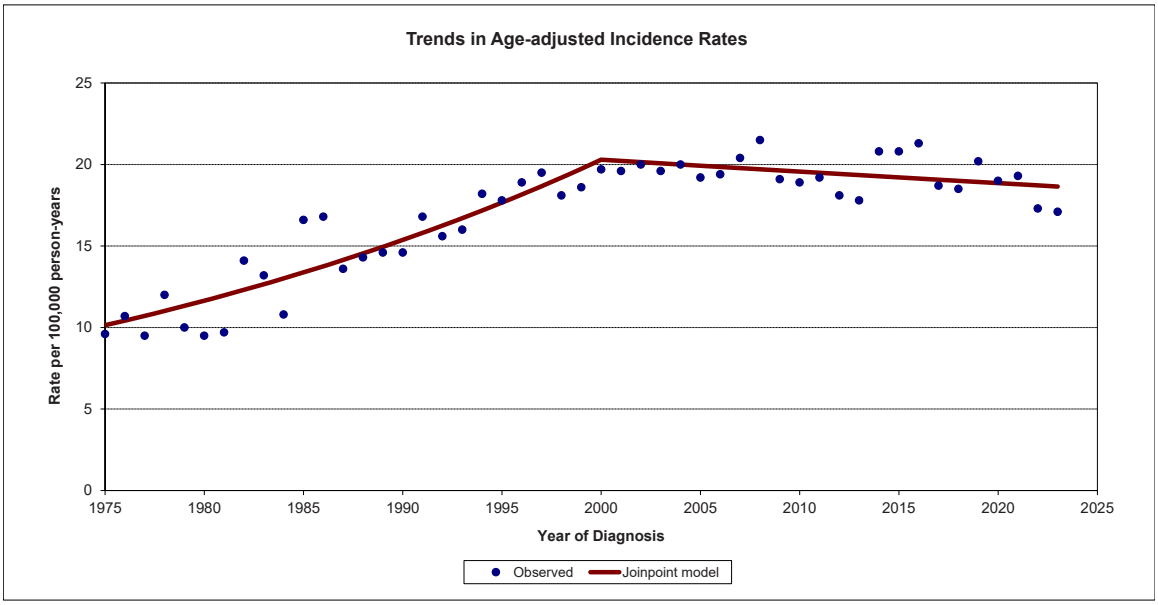
The incidence of melanoma of the skin increased at a rate of about 3.6% per year in Idaho from 1975 to 2004, after which it increased about 1.7% per year. Trends were similar among males. Among females, incidence rates of melanoma of the skin increased about 2.4% per year from 1975 to 2023. The incidence of in situ melanoma of the skin increased at a higher rate (5.5% per year from 1980 to 2023) than for the invasive cases depicted in the graph.

Myeloma



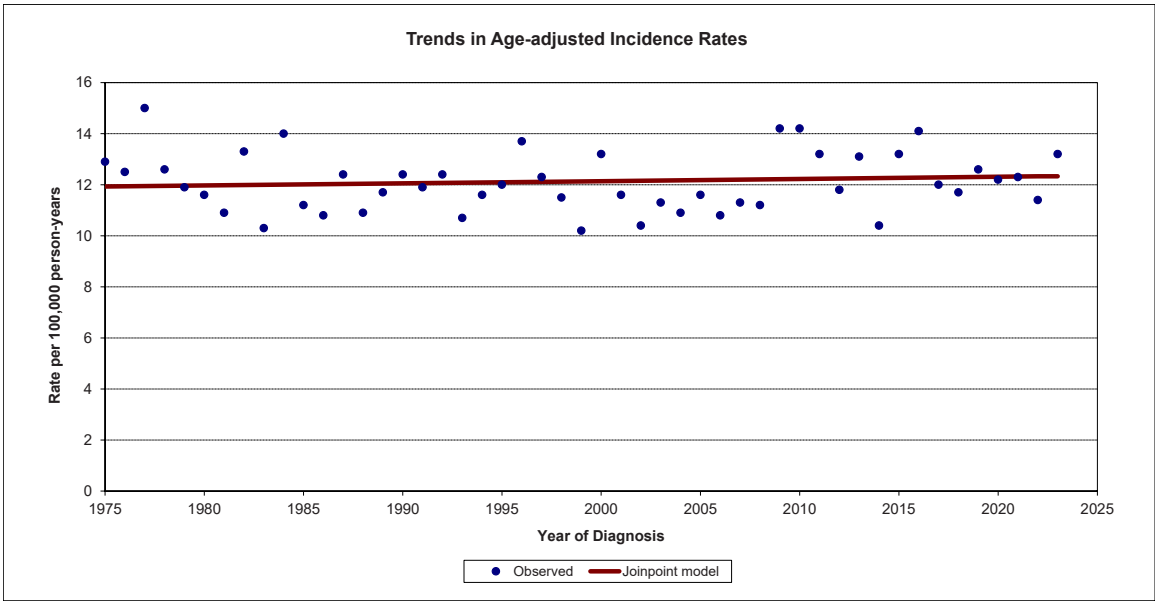
The incidence of myeloma increased at a rate of about 1.0% per year in Idaho from 1975 to 2023. The rate of increase was higher for males (1.3% per year) than for females (0.6% per year), and rates of myeloma incidence among males were higher than among females.

Non-Hodgkin Lymphoma



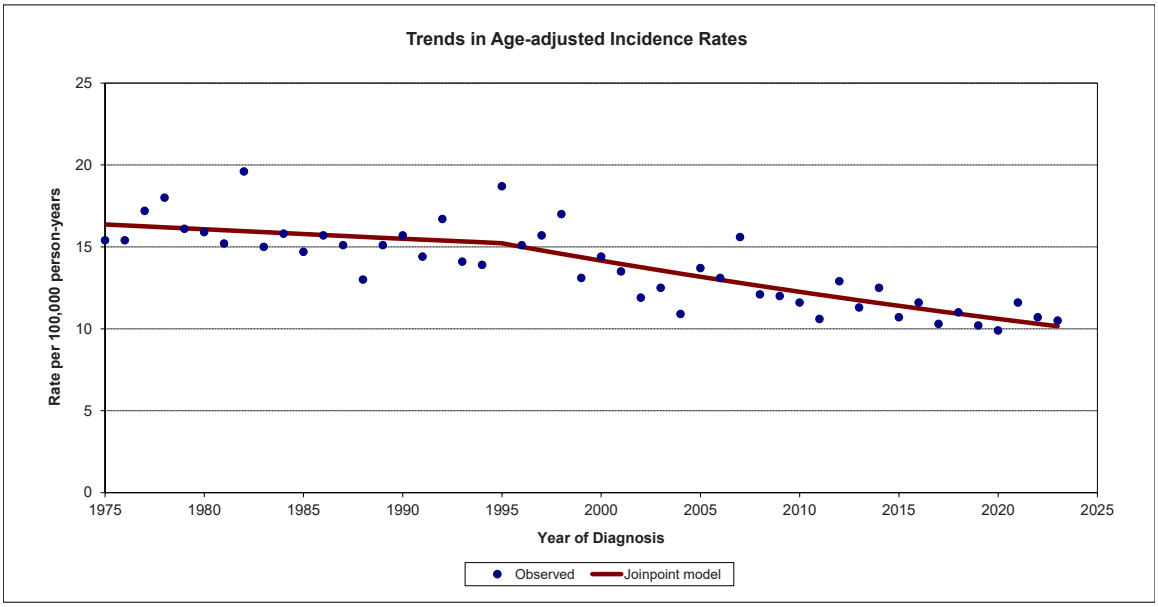
The incidence of non-Hodgkin lymphoma increased at a rate of about 2.8% per year in Idaho from 1975 to 2000, after which rates were stable. Non-Hodgkin lymphoma incidence trends over time were similar for males. Among females, rates increased about 3.1% per year from 1975 to 2000, after which they decreased about 0.7% per year. Rates of non-Hodgkin lymphoma incidence among males were higher than among females.

Oral Cavity and Pharynx



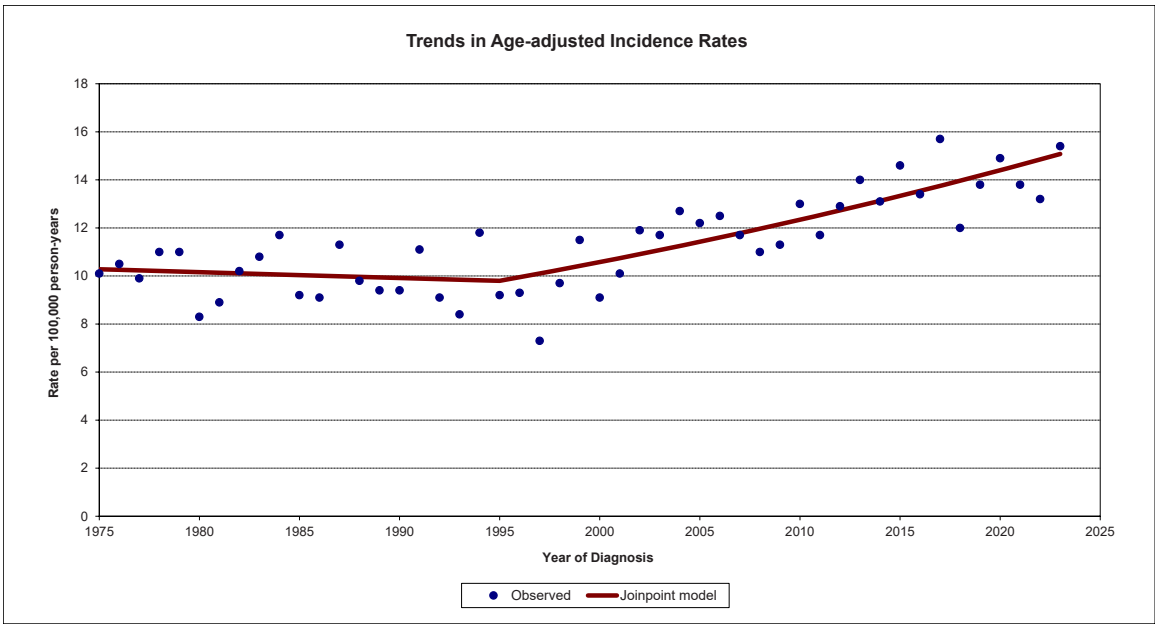
The incidence of cancers of the oral cavity and pharynx was stable in Idaho from 1975 to 2023. Among males, rates decreased about 0.2% per year. Among females, incidence of cancers of the oral cavity and pharynx increased at a rate of about 0.6% per year. Rates of cancers of the oral cavity and pharynx 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



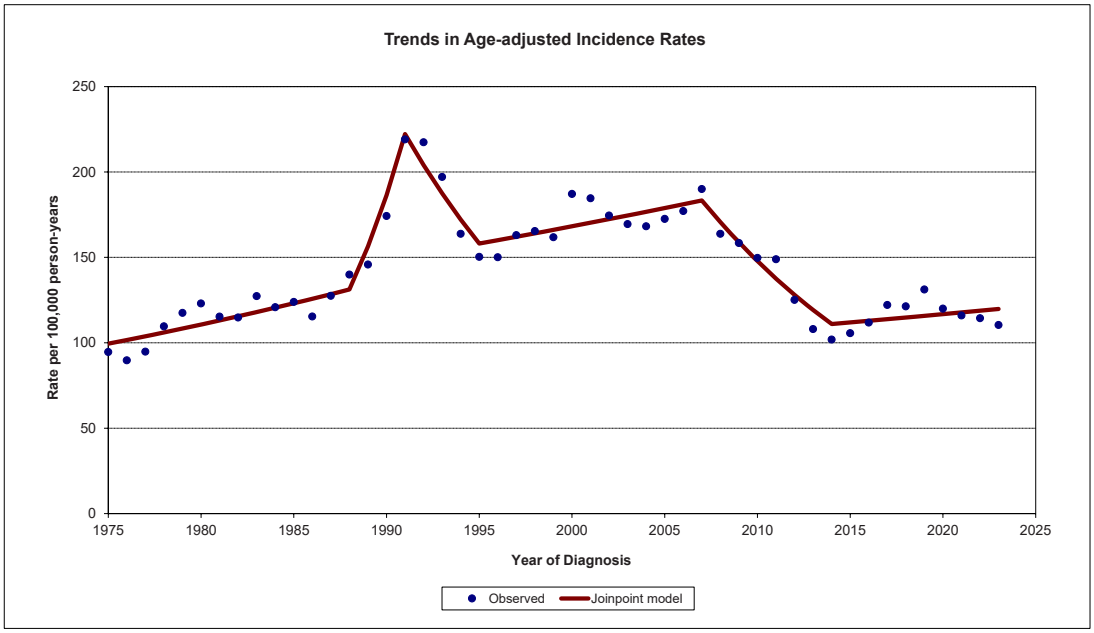
The incidence of ovarian cancer among females in Idaho was stable from 1975 to 1995 and decreased about 1.4% per year since 1995. Part of the decrease in ovarian cancer incidence rates may have been due to a decrease in the use of hormone replacement therapy.

Pancreas



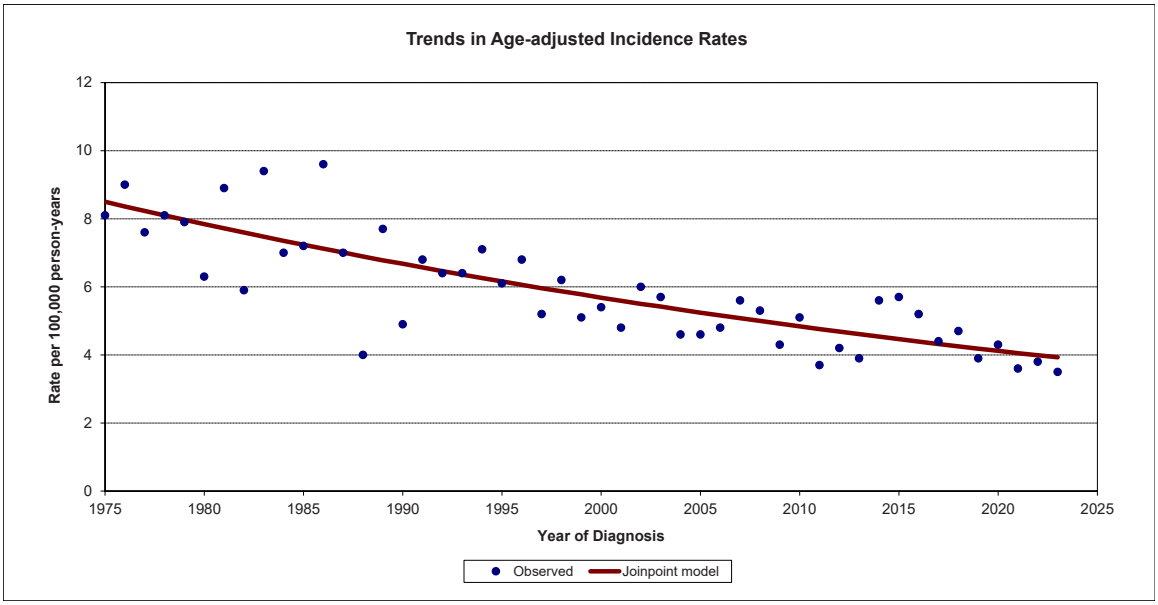
Pancreas cancer incidence was relatively stable from 1975 to 1995, after which rates increased about 1.6% per year. Pancreas cancer incidence trends over time were different for males and females. Among males, pancreas cancer incidence decreased about 1.0% per year from 1975 to 1997, after which rates increased about 1.8% per year. Among females, pancreas cancer increased about 1.2% per year from 1975 to 2023. Rates of pancreas cancer incidence among males were higher than among females.

Prostate



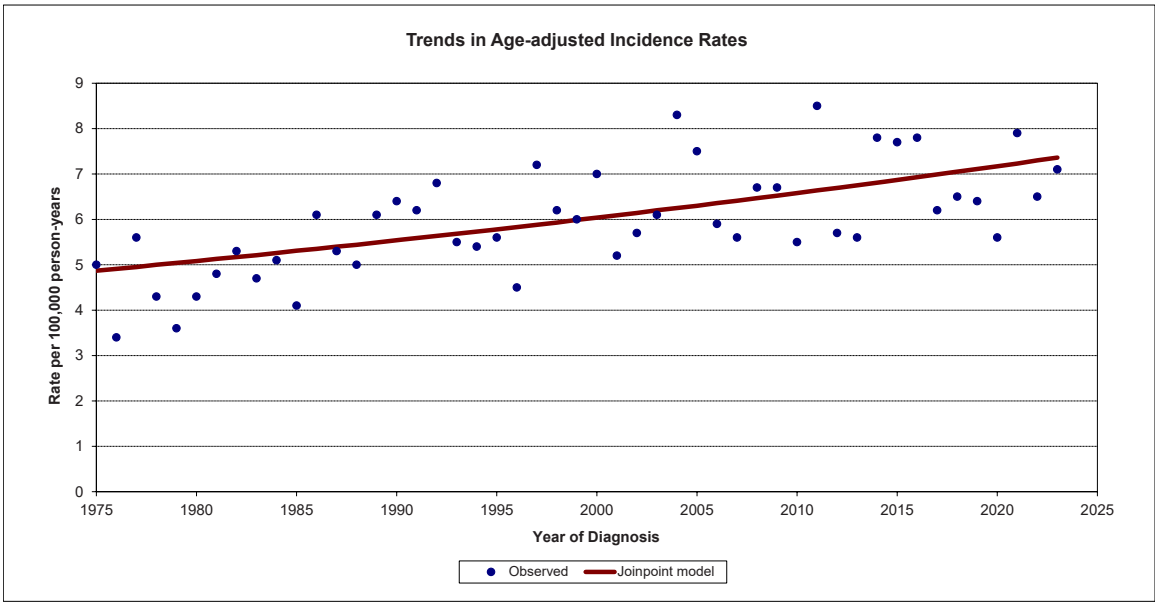
Trends in prostate cancer incidence are complicated, owing to the adoption of the Prostate-Specific Antigen (PSA) screening test in the late 1980s and early 1990s. From 1975 to 1988, prostate cancer incidence increased in Idaho at a rate of about 2.1% per year. From 1988 to 1991, prostate cancer incidence 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 6.9% per year. Since 2014, rates have been statistically stable. 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 2014-2023 were similar to the rates at the beginning of the time series, before the adoption of the PSA test.

Stomach



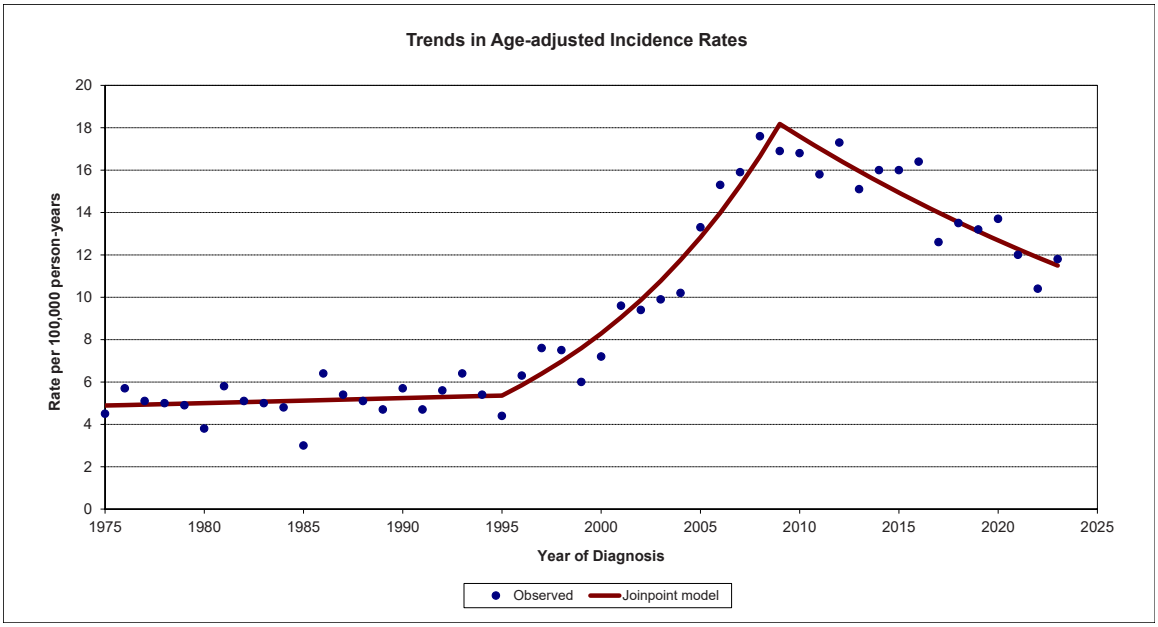
Stomach cancer incidence decreased at a rate of about 1.6% per year in Idaho from 1975 to 2023. Stomach cancer incidence trends over time were similar for males and females, although stomach cancer incidence rates among males were about twice as high as among females.

Testis



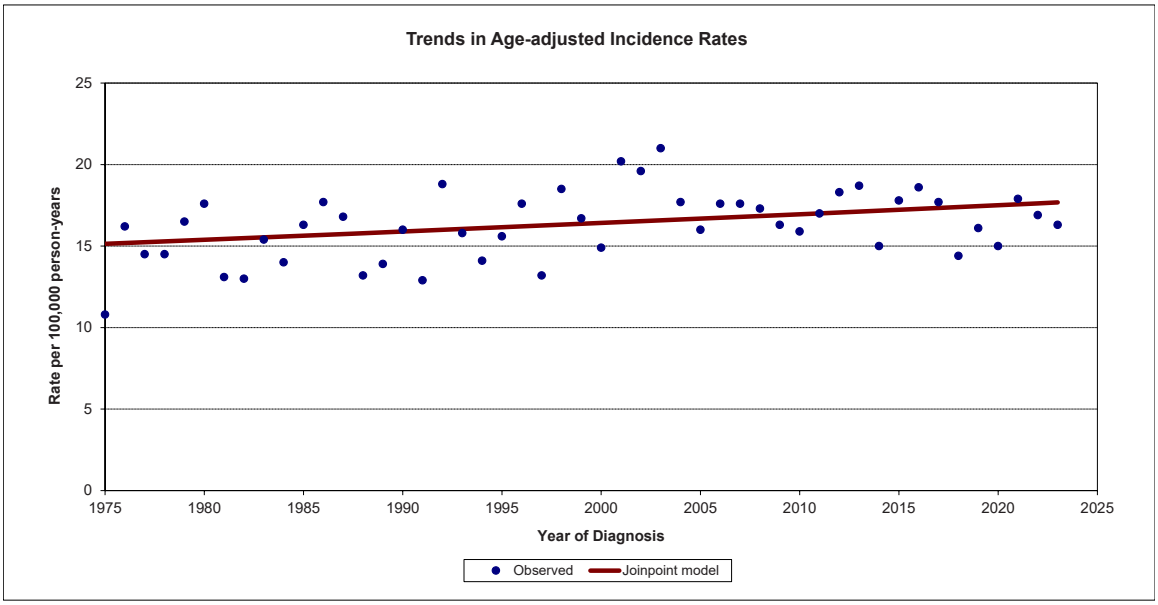
Testicular cancer incidence increased at a rate of about 0.9% per year in Idaho from 1975 to 2023.

Thyroid



Thyroid cancer incidence was stable in Idaho from 1975 to 1995. From 1995–2009, thyroid cancer incidence increased at a rate of about 9.1% per year, and thyroid cancer incidence has decreased about 3.2% per year since 2009. Thyroid cancer incidence trends over time were similar for males and females, with stable rates from 1975 through the mid to late 1990s, large increases until about 2009, then stable rates for males and decreases in rates for females. 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 0.3% per year in Idaho from 1975 to 2023. Among males, pediatric cancer incidence rates were stable during 1975–2023. Among females, pediatric cancer incidence rates increased about 0.6% per year during 1975–2023. For more detailed information on pediatric cancer in Idaho, see “Pediatric Cancer in Idaho, 2012–2022,” available at the CDRI website.

SECTION VIII

CANCER INCIDENCE BY RACE AND ETHNICITY
2014–2023

Idaho Cancer Incidence Rates by Race and Ethnicity, 2014–2023

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	451.9	1.5	455.9	1.6	375.2	6.2	339.0	20.2	365.3	11.8	325.3	11.0
Bladder	21.0	0.3	21.5	0.3	13.5	1.3	13.1	4.1	12.8	2.3	9.3	2.0
Brain - malignant	6.9	0.2	7.1	0.2	5.5	0.7	2.7	1.2	5.0	1.3	4.6	1.2
Brain and other CNS - non-malignant	16.3	0.3	16.4	0.3	15.9	1.2	8.4	2.7	8.4	1.7	13.0	2.2
Breast	132.6	1.2	133.9	1.2	108.0	4.3	82.2	15.6	108.4	8.8	110.8	8.2
Breast - in situ	25.9	0.5	26.4	0.6	18.4	1.7	17.3	5.8	20.4	3.8	22.8	3.7
Cervix	6.6	0.3	6.3	0.3	8.9	1.1	^	^	5.6	1.9	8.2	2.3
Colorectal	35.4	0.4	35.2	0.5	33.7	1.8	27.9	5.8	43.4	4.2	25.9	3.1
Corpus Uteri	25.1	0.5	24.8	0.5	26.1	2.1	14.8	5.9	24.4	4.0	17.3	3.1
Esophagus	4.9	0.2	5.0	0.2	2.9	0.5	^	^	7.5	1.7	3.1	1.1
Hodgkin Lymphoma	2.3	0.1	2.4	0.1	2.1	0.4	3.0	1.2	^	^	^	^
Kidney and Renal Pelvis	18.1	0.3	17.7	0.3	21.3	1.4	13.2	4.3	23.5	2.9	13.2	2.2
Larynx	2.1	0.1	2.1	0.1	1.0	0.3	^	^	1.7	0.7	^	^
Leukemia	17.1	0.3	17.2	0.3	14.2	1.2	11.2	3.3	11.0	2.1	10.1	1.9
Liver and Bile Duct	7.8	0.2	7.3	0.2	14.6	1.2	11.0	3.6	14.8	2.2	9.7	1.9
Lung and Bronchus	46.6	0.5	47.2	0.5	35.4	2.1	42.8	8.1	48.7	4.5	39.7	4.1
Melanoma of the Skin	31.1	0.4	34.0	0.5	8.0	0.9	^	^	5.7	1.4	1.7	0.7
Myeloma	6.8	0.2	6.7	0.2	6.8	0.9	12.8	5.0	5.0	1.4	5.4	1.5
Non-Hodgkin Lymphoma	19.2	0.3	19.3	0.3	19.2	1.4	8.9	3.6	10.6	2.0	13.0	2.2
Oral Cavity and Pharynx	12.3	0.2	12.6	0.3	7.2	0.8	3.2	1.4	9.5	1.7	8.3	1.6
Ovary	10.9	0.3	10.9	0.4	10.3	1.3	^	^	10.0	2.6	7.6	2.0
Pancreas	14.0	0.3	14.1	0.3	12.5	1.2	8.7	3.3	9.6	1.8	13.4	2.3
Prostate	115.9	1.1	115.9	1.1	84.6	4.5	151.1	16.3	62.9	6.8	74.8	8.8
Stomach	5.1	0.2	4.8	0.2	9.0	1.0	3.7	1.6	2.8	1.0	8.6	1.9
Testis	6.9	0.3	7.2	0.3	5.4	0.6	^	^	6.4	2.0	4.4	1.6
Thyroid	13.4	0.3	13.4	0.3	12.8	0.9	8.5	2.3	9.8	1.9	15.0	2.1
Pediatric Age 0 to 19	17.2	0.6	17.5	0.7	13.9	1.2	12.1	3.5	8.4	2.5	18.7	4.2

Notes:

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

SE: standard error. A 95% confidence interval is approxmately 2 standard errors above and below the rate.

Rates and standard errors 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 standard errors for cancers of the breast, cervix, corpus uteri, and ovary are for females only, and rates and standard errors 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 5 cases.

SECTION IX

CANCER SURVIVAL
2016–2022

Actual (Crude) Measures of Cancer Prognosis at 5 Years After Diagnosis
Idaho Cases Diagnosed 2016–2022 Followed Through December 31, 2023

Primary Site	N	Using Cause of Death			Using Expected Survival		
		Cancer Death	Other Death	Survival	Cancer Death	Other Death	Survival
All Sites	61,798	28.5	10.7	60.8	28.8	10.5	60.7
Brain & Other Nervous System	890	72.3	5.6	22.1	75.6	2.2	22.2
Breast	9,573	9.7	7.5	82.8	7.3	10.0	82.7
Cervix Uteri	414	24.5	2.8	72.7	24.7	2.6	72.7
Colon & Rectum	4,863	33.7	12.2	54.1	35.2	10.7	54.1
Corpus & Uterus, NOS	1,985	16.0	7.0	77.0	15.5	7.4	77.1
Esophagus	718	72.7	10.0	17.3	75.9	6.8	17.3
Hodgkin Lymphoma	285	12.0	6.7	81.3	14.7	4.0	81.3
Kidney & Renal Pelvis	2,585	18.9	13.9	67.2	22.0	10.9	67.1
Larynx	322	31.6	19.8	48.6	41.3	10.1	48.6
Leukemia	2,294	34.5	14.2	51.3	37.8	10.9	51.3
Liver & Intrahepatic Bile Duct	1,169	71.2	11.3	17.5	78.6	4.2	17.2
Lung & Bronchus	6,720	60.8	15.0	24.2	68.3	7.5	24.2
Melanoma of the Skin	4,297	7.4	11.4	81.2	4.8	14.0	81.2
Mesothelioma	136	84.6	6.7	8.7	84.5	6.8	8.7
Myeloma	1,014	34.5	17.1	48.4	39.8	11.8	48.4
Non-Hodgkin Lymphoma	2,723	25.9	12.6	61.5	27.3	11.3	61.4
Oral Cavity & Pharynx	1,834	26.1	14.0	59.9	29.7	10.5	59.8
Ovary	776	53.7	4.8	41.5	53.5	5.1	41.4
Pancreas	2,032	83.1	6.3	10.6	85.9	3.6	10.5
Prostate	9,326	7.8	9.4	82.8	2.5	14.8	82.7
Stomach	695	61.2	11.5	27.3	65.2	7.4	27.4
Testis	397	4.4	2.4	93.2	4.5	2.2	93.3
Thyroid	1,662	3.3	5.0	91.7	3.0	5.4	91.6
Urinary Bladder	3,032	22.8	17.9	59.3	22.2	18.4	59.4

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.

Net Measures of Cancer Survival at 5 Years After Diagnosis
Idaho Cases Diagnosed 2016–2022 Followed Through December 31, 2023

Primary Site	N	Cause Specific Survival (95% CI)		Relative Survival Ratio (95% CI)	
All Sites	61,798	69.9	(69.5, 70.3)	70.0	(69.4, 70.5)
Brain & Other Nervous System	890	30.9	(27.7, 34.1)	28.9	(25.7, 32.2)
Breast	9,573	88.9	(88.1, 89.7)	92.3	(91.3, 93.2)
Cervix Uteri	414	71.2	(65.3, 76.3)	70.3	(63.4, 76.3)
Colon & Rectum	4,863	64.5	(62.9, 66.0)	63.5	(61.5, 65.4)
Corpus & Uterus, NOS	1,985	81.5	(79.3, 83.5)	81.7	(78.7, 84.4)
Esophagus	718	22.0	(18.1, 26.1)	20.6	(16.6, 24.9)
Hodgkin Lymphoma	285	89.5	(85.6, 92.4)	86.7	(81.6, 90.5)
Kidney & Renal Pelvis	2,585	78.9	(77.0, 80.7)	76.2	(73.6, 78.6)
Larynx	322	66.2	(59.7, 71.9)	57.7	(50.1, 64.5)
Leukemia	2,294	65.3	(63.1, 67.5)	62.3	(59.6, 64.8)
Liver & Intrahepatic Bile Duct	1,169	***23.2***	***(20.1, 26.5)***	***19.3***	***(16.4, 22.4)***
Lung & Bronchus	6,720	35.8	(34.0, 37.6)	31.2	(29.4, 33.1)
Melanoma of the Skin	4,297	93.5	(92.5, 94.3)	94.9	(93.6, 96.0)
Mesothelioma	136	***9.9***	***(4.5, 17.8)***	***10.4***	***(4.7, 18.8)***
Myeloma	1,014	64.4	(60.5, 68.1)	59.4	(54.9, 63.6)
Non-Hodgkin Lymphoma	2,723	72.9	(70.9, 74.7)	71.6	(69.0, 74.0)
Oral Cavity & Pharynx	1,834	71.3	(68.7, 73.8)	67.9	(64.4, 71.1)
Ovary	776	41.4	(37.4, 45.3)	41.4	(37.1, 45.7)
Pancreas	2,032	15.4	(13.3, 17.5)	14.7	(12.7, 16.8)
Prostate	9,326	90.2	(89.4, 91.0)	95.6	(94.2, 96.6)
Stomach	695	35.0	(30.5, 39.5)	32.0	(27.3, 36.8)
Testis	397	94.3	(89.3, 97.0)	92.1	(79.9, 97.0)
Thyroid	1,662	95.3	(93.8, 96.4)	95.3	(92.2, 97.2)
Urinary Bladder	3,032	77.9	(75.9, 79.8)	77.4	(74.7, 79.9)

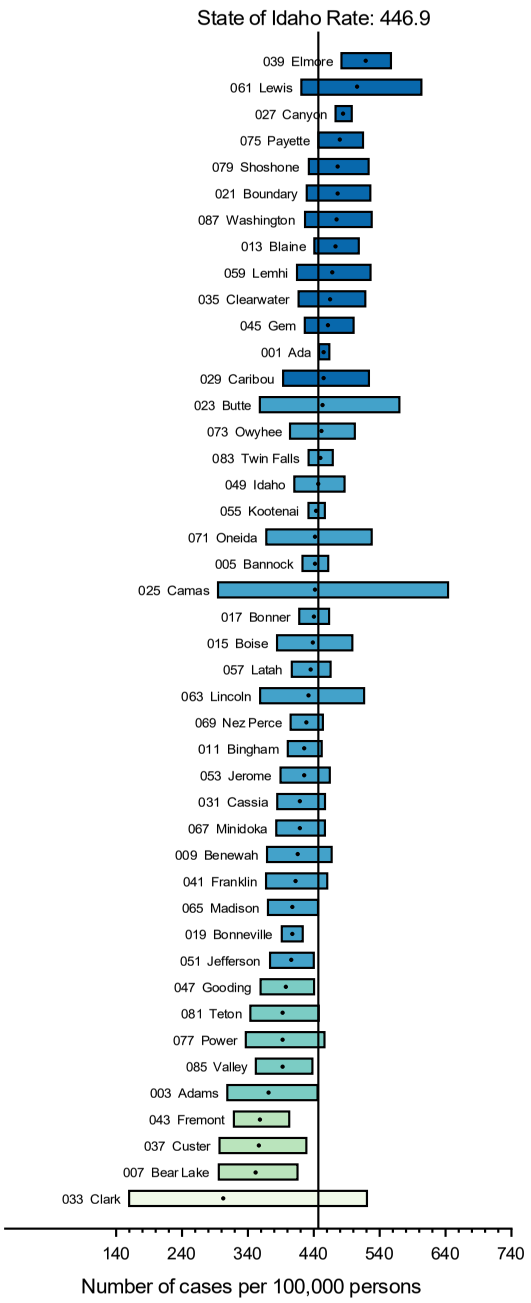
Notes:

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.

SECTION X

MAPS AND CHARTS OF AGE-ADJUSTED INCIDENCE AND MORTALITY RATES BY COUNTY, 2019–2023

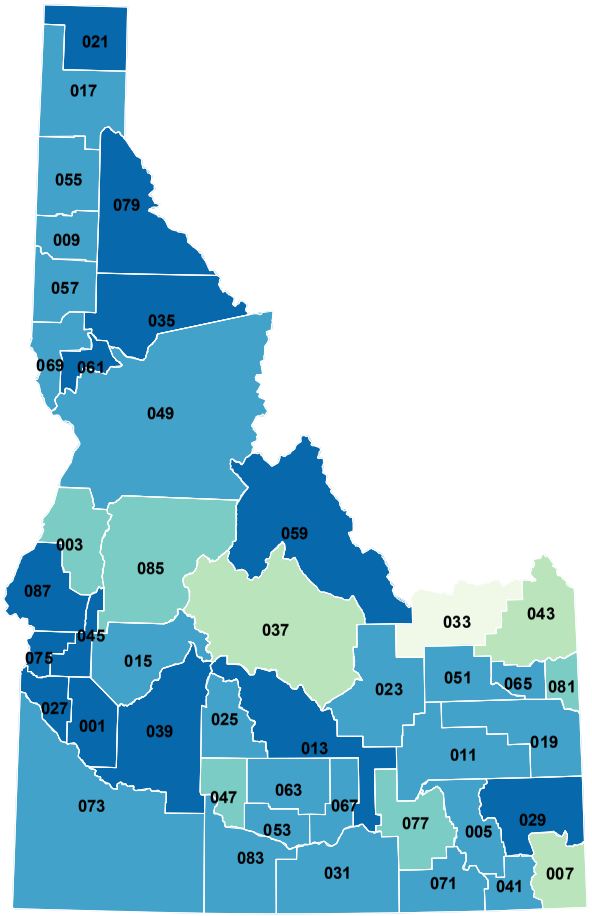


Age-Adjusted Incidence Rates

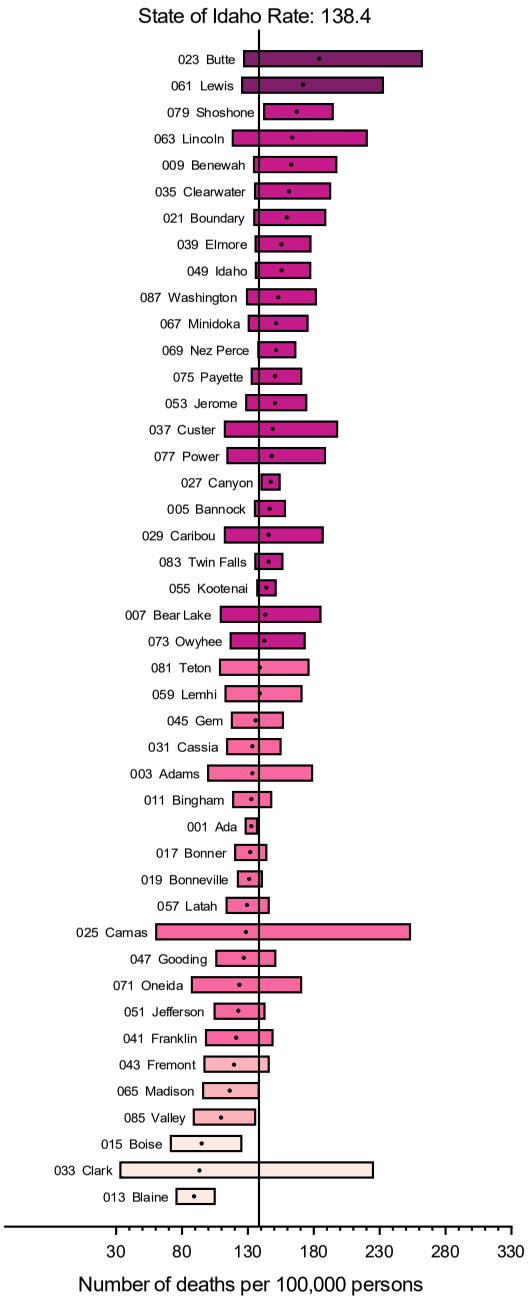
All Sites

Both Males and Females

State of Idaho, by County, 2019–2023



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.

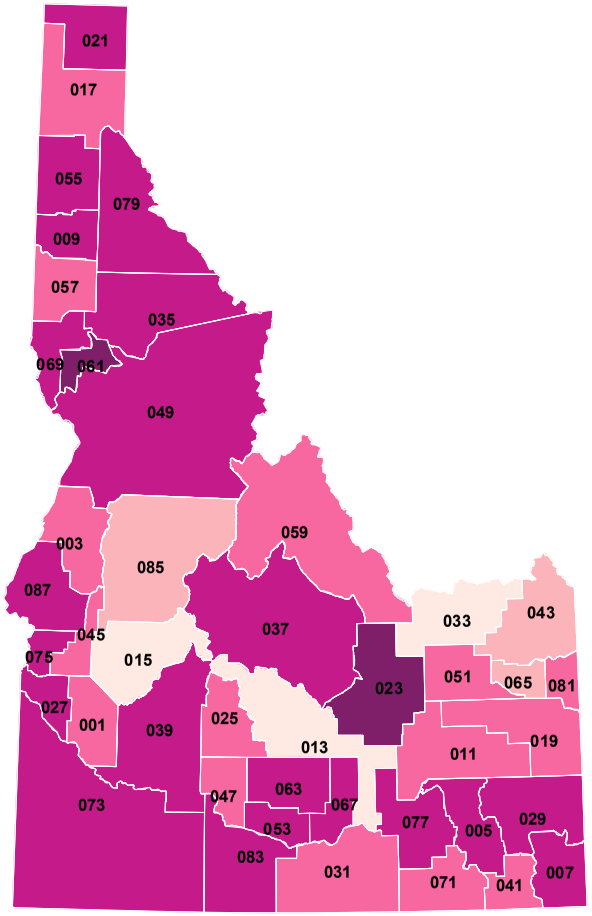


Age-Adjusted Mortality Rates

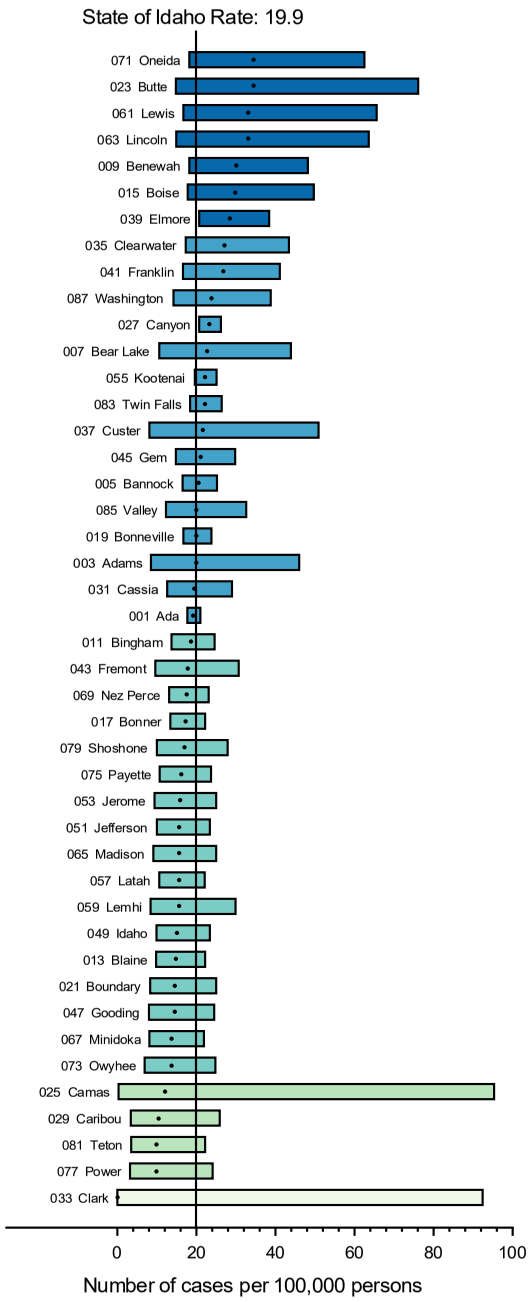
All Malignant Cancers

Both Males and Females

State of Idaho, by County, 2019–2023



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.

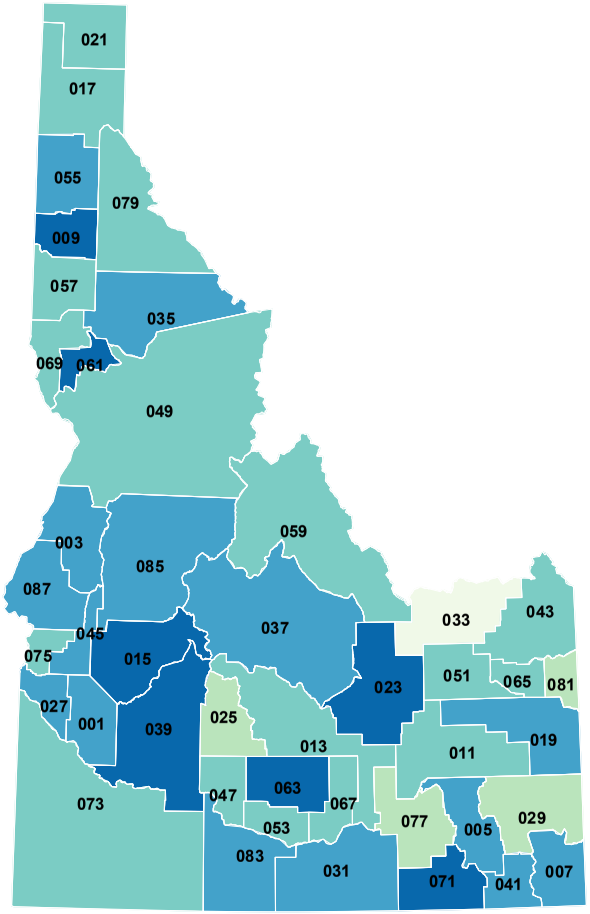


Age-Adjusted Incidence Rates

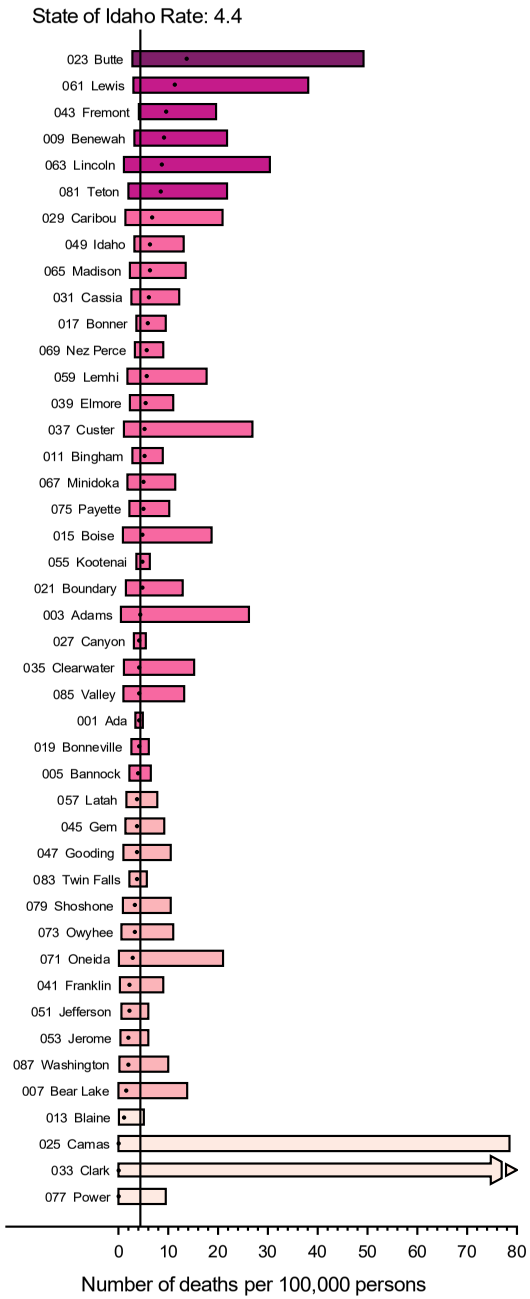
Bladder

Both Males and Females

State of Idaho, by County, 2019–2023



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.

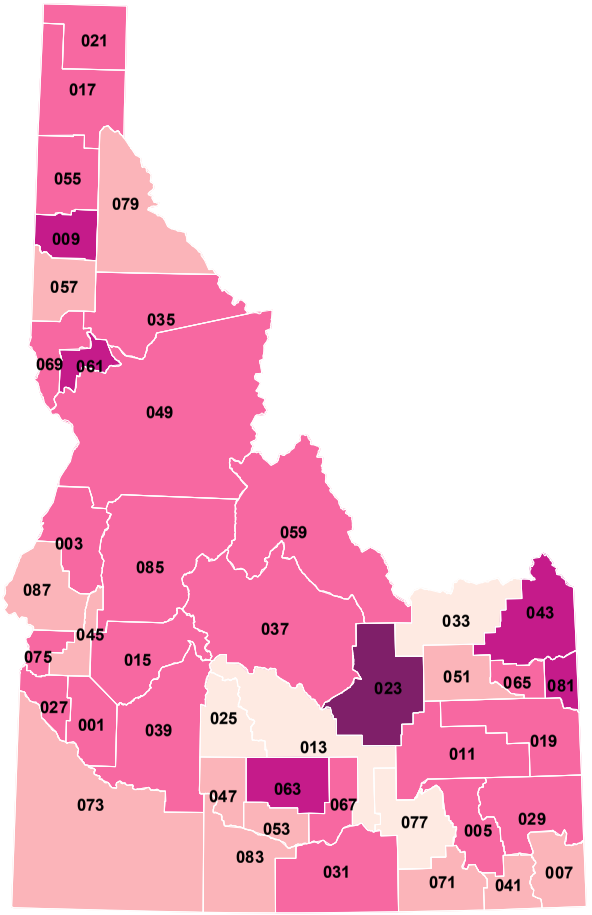


Age-Adjusted Mortality Rates

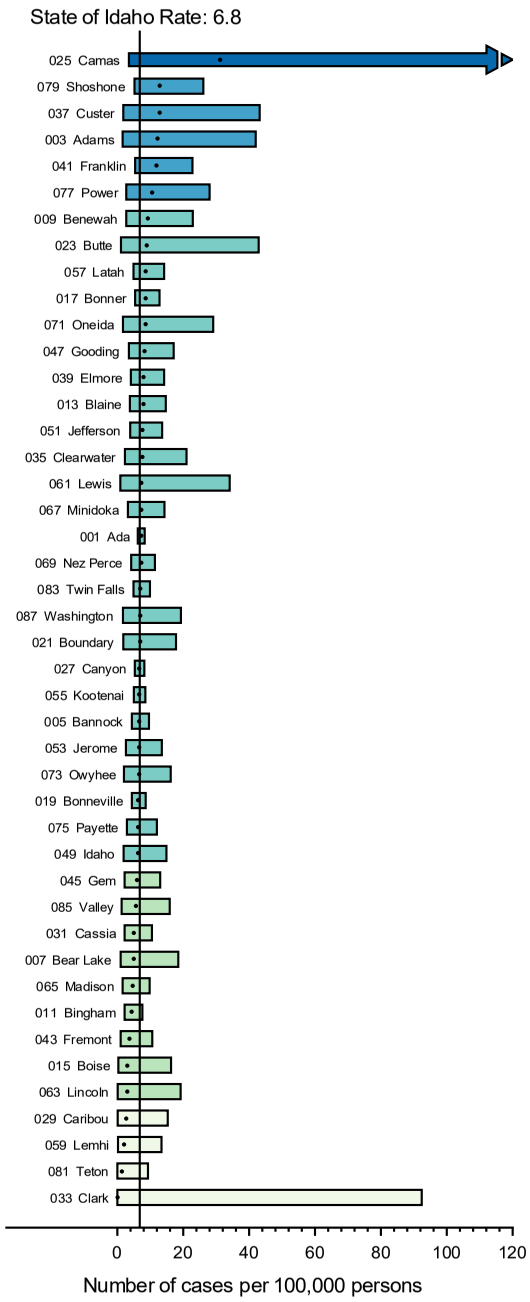
Bladder

Both Males and Females

State of Idaho, by County, 2019–2023



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.

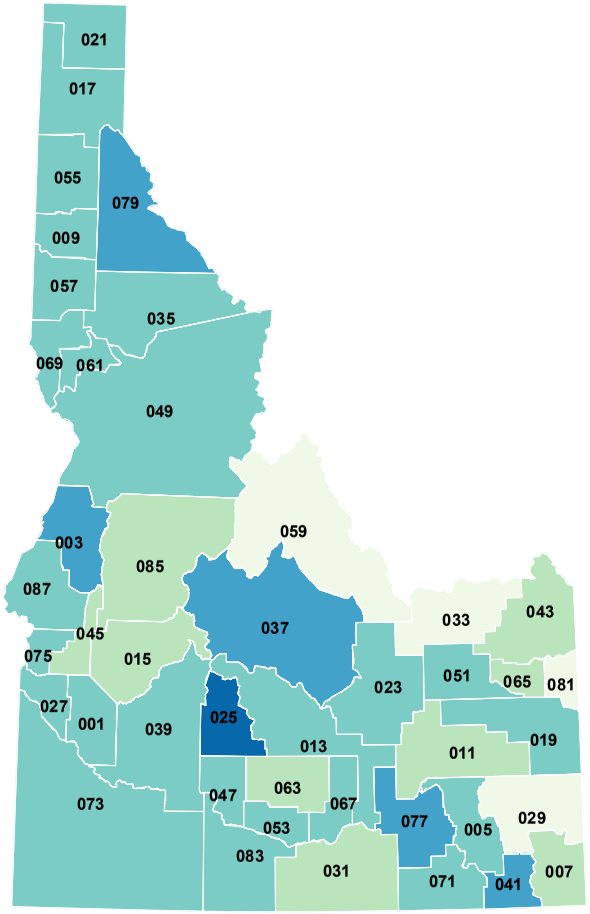


Age-Adjusted Incidence Rates

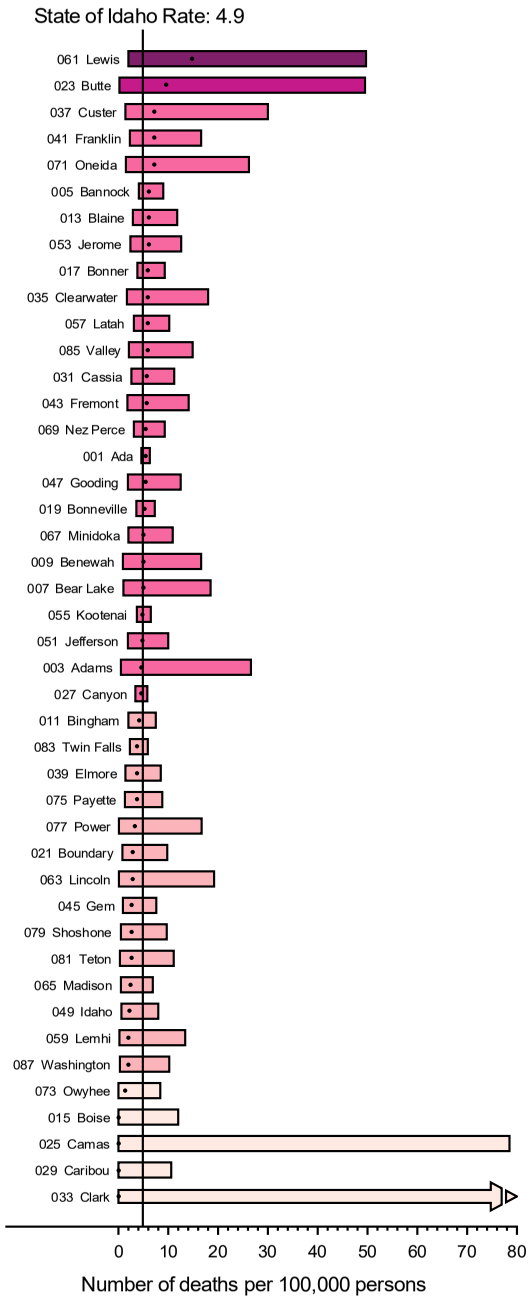
Brain - malignant

Both Males and Females

State of Idaho, by County, 2019–2023



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.

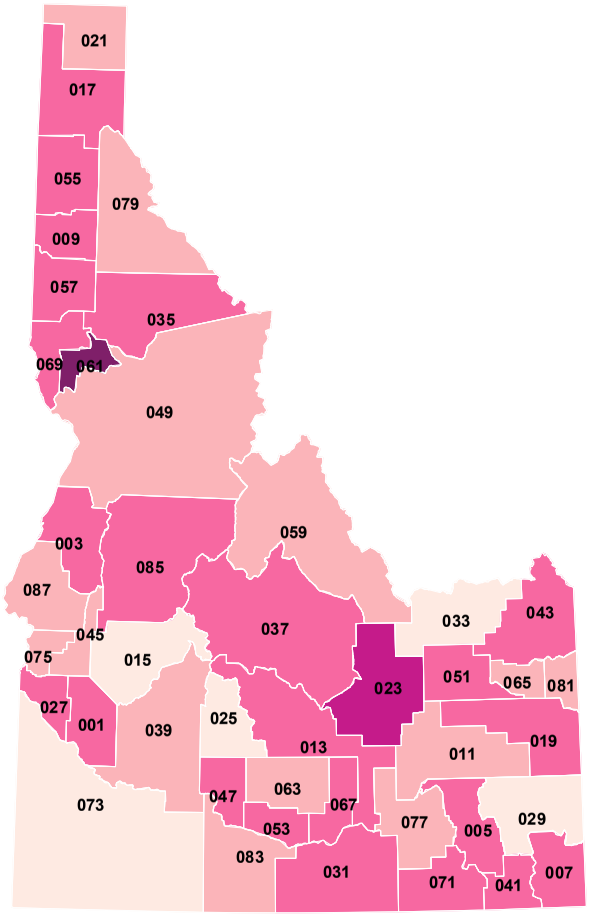


Age-Adjusted Mortality Rates

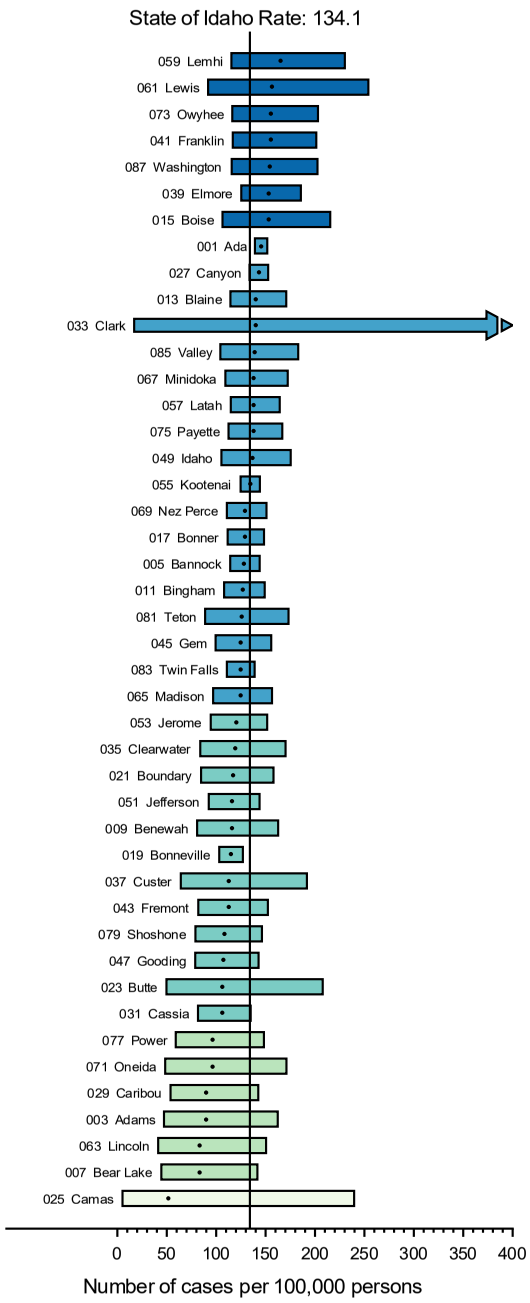
Brain and Other Nervous System

Both Males and Females

State of Idaho, by County, 2019–2023



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.

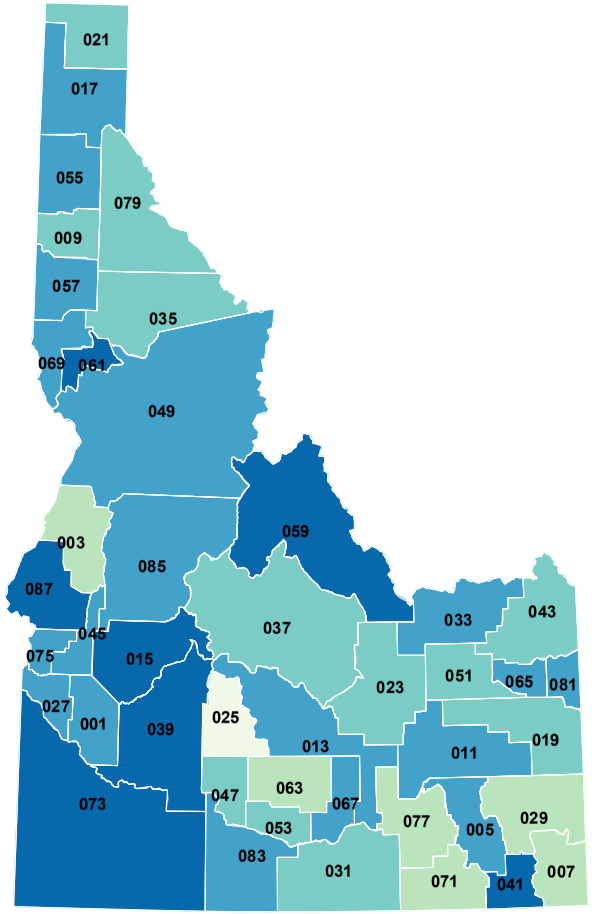


Age-Adjusted Incidence Rates

Breast

Females

State of Idaho, by County, 2019–2023



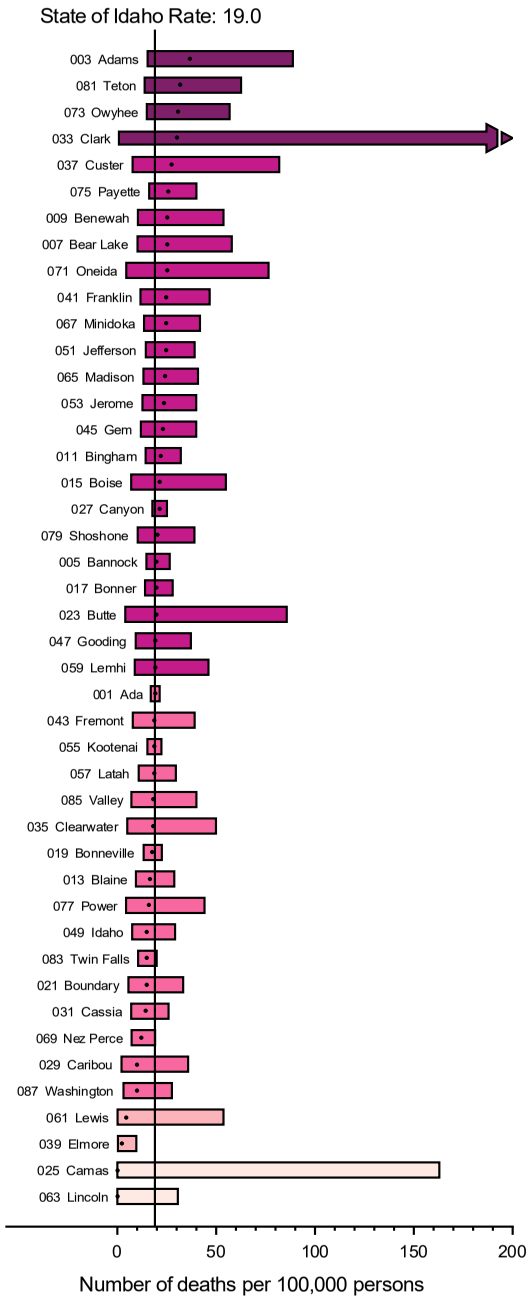
Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
Arrows indicate upper confidence interval extends beyond graphic area.

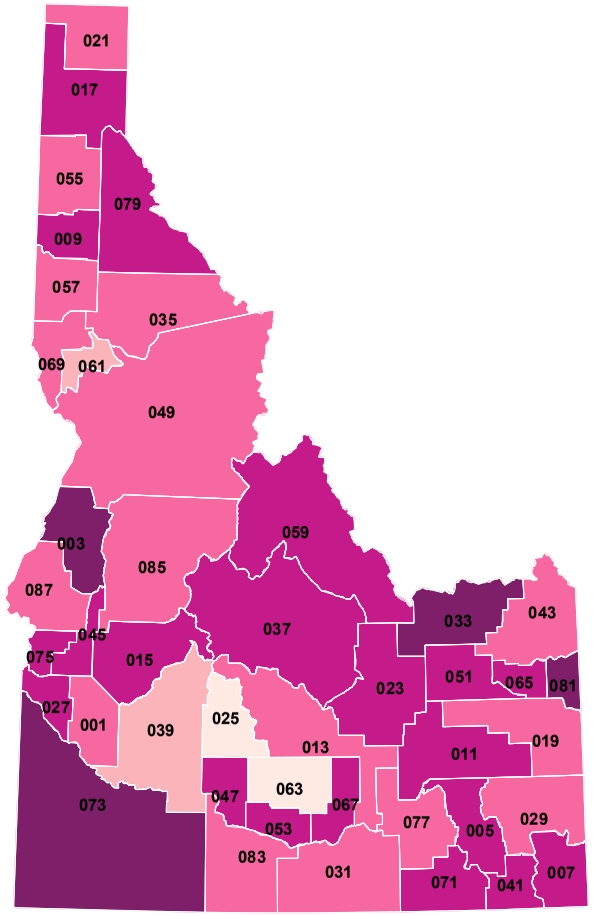
Age-Adjusted Mortality Rates

Breast

Females

State of Idaho, by County, 2019–2023





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.
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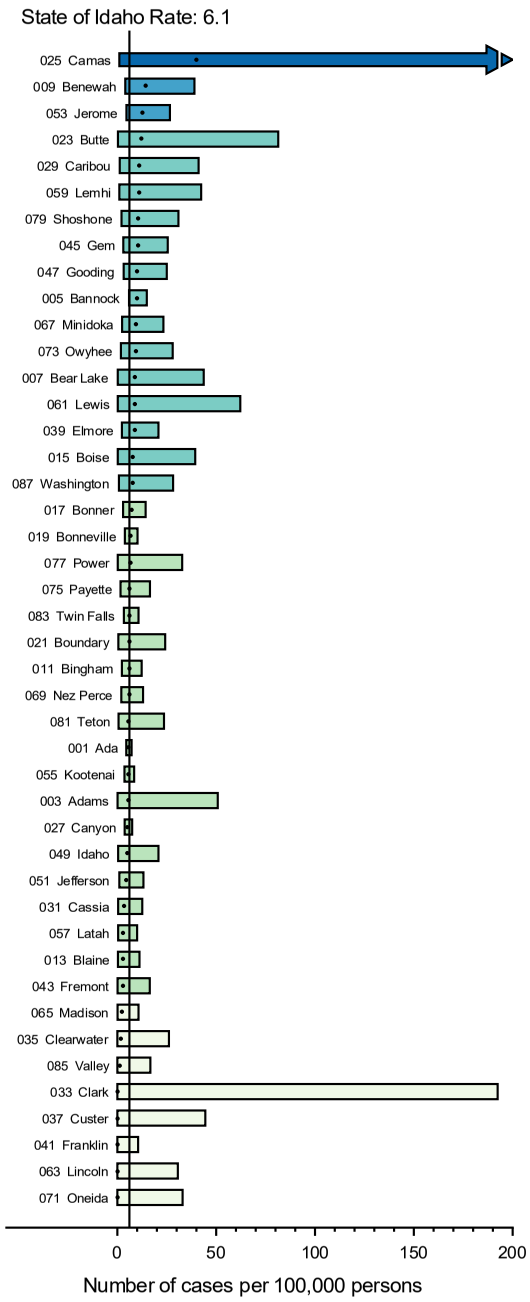
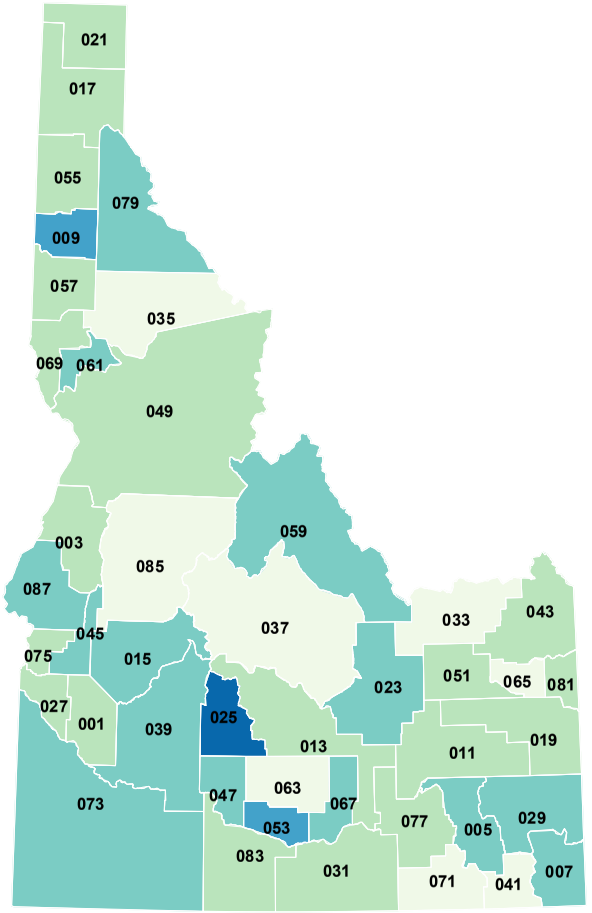


Age-Adjusted Incidence Rates

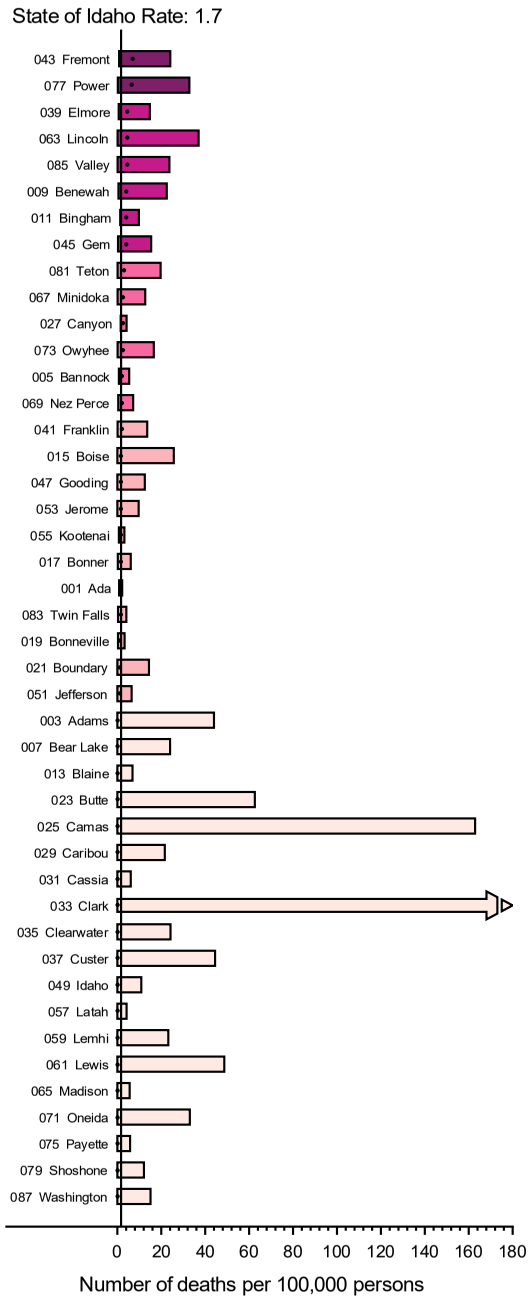
Cervix

Females

State of Idaho, by County, 2019–2023



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.

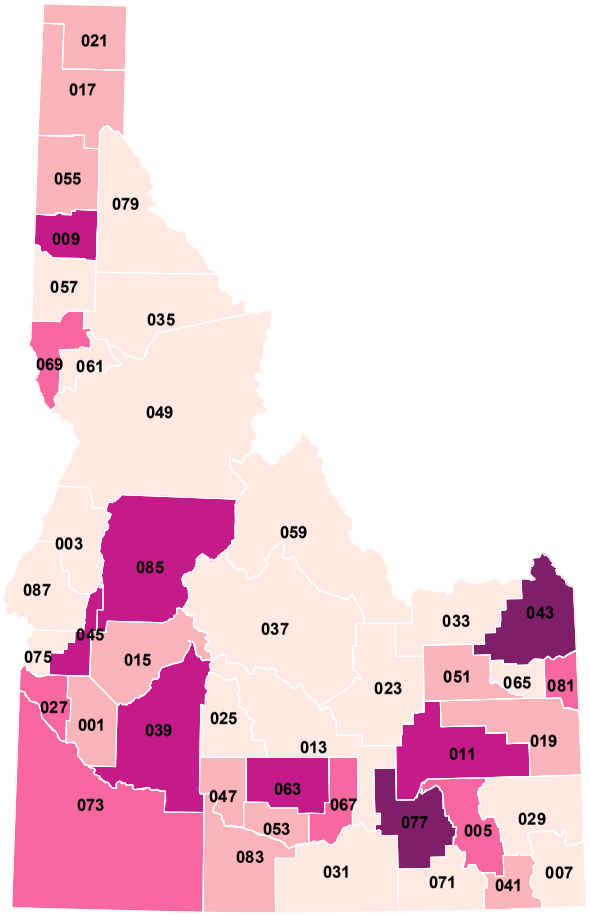


Age-Adjusted Mortality Rates

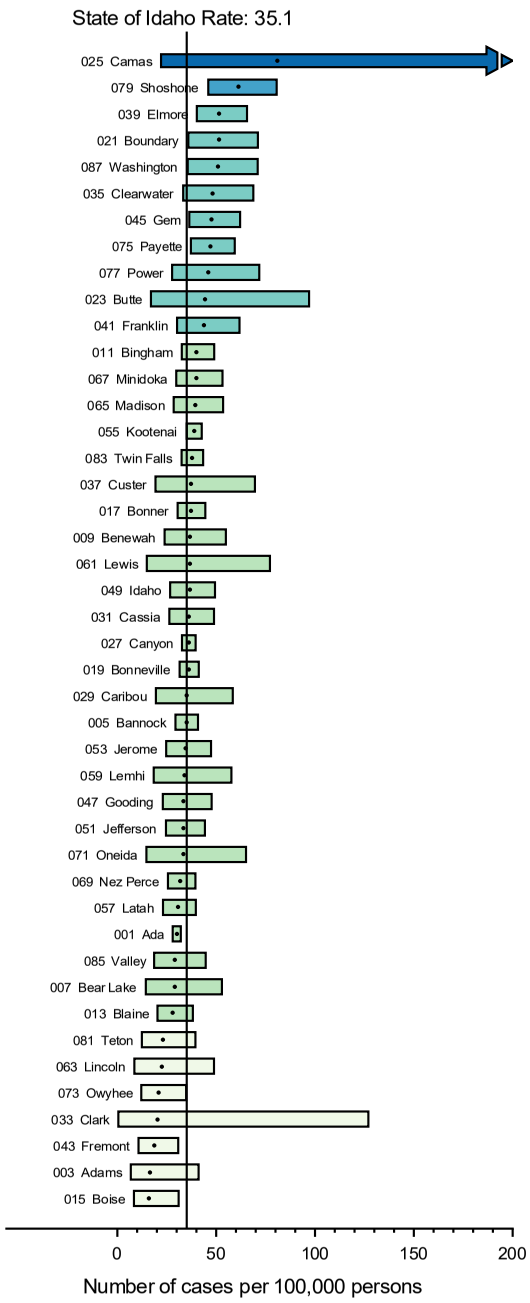
Cervix

Females

State of Idaho, by County, 2019–2023



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.

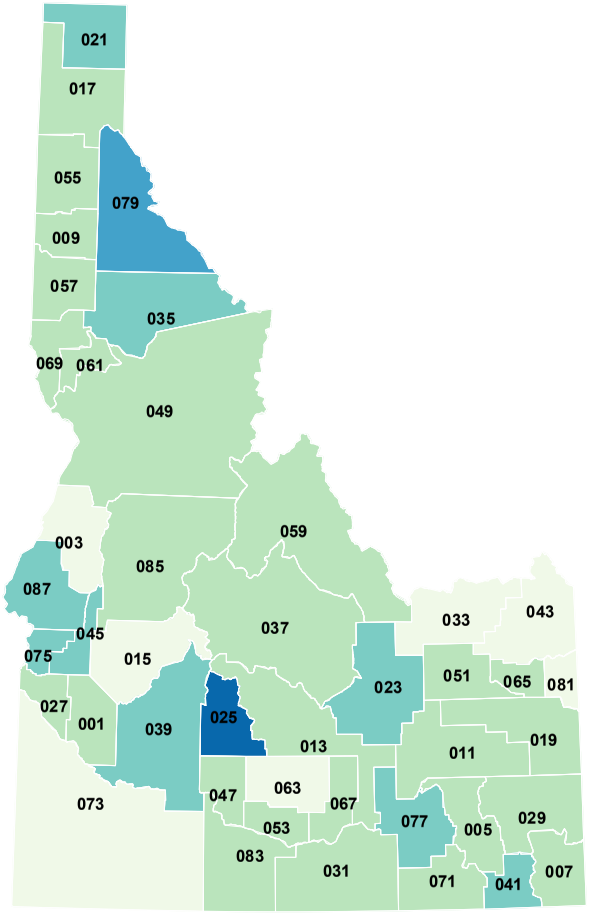


Age-Adjusted Incidence Rates

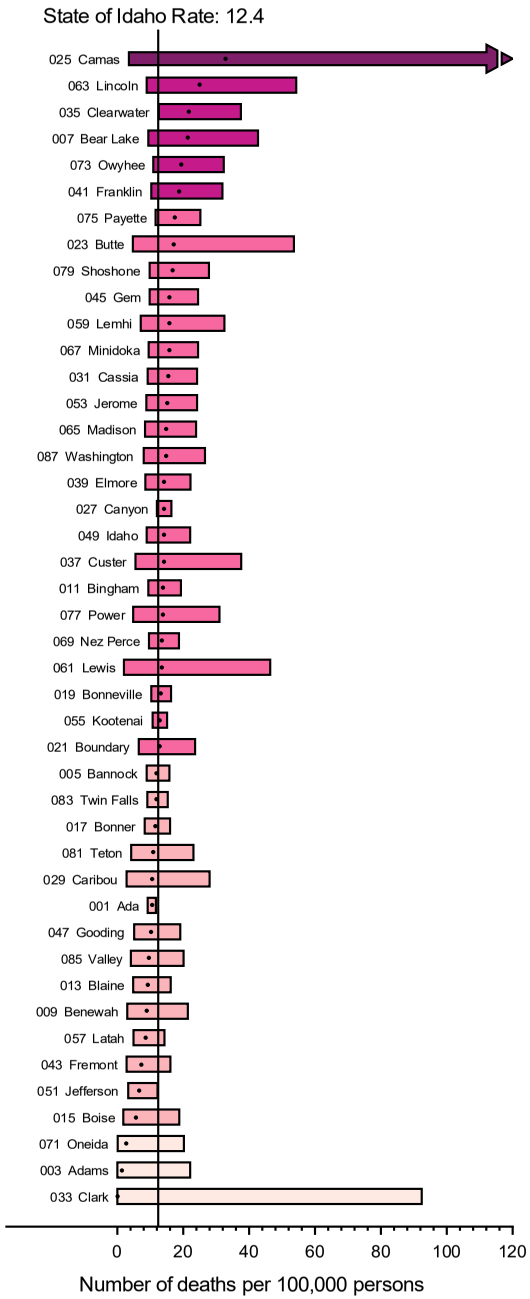
Colorectal

Both Males and Females

State of Idaho, by County, 2019–2023



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.

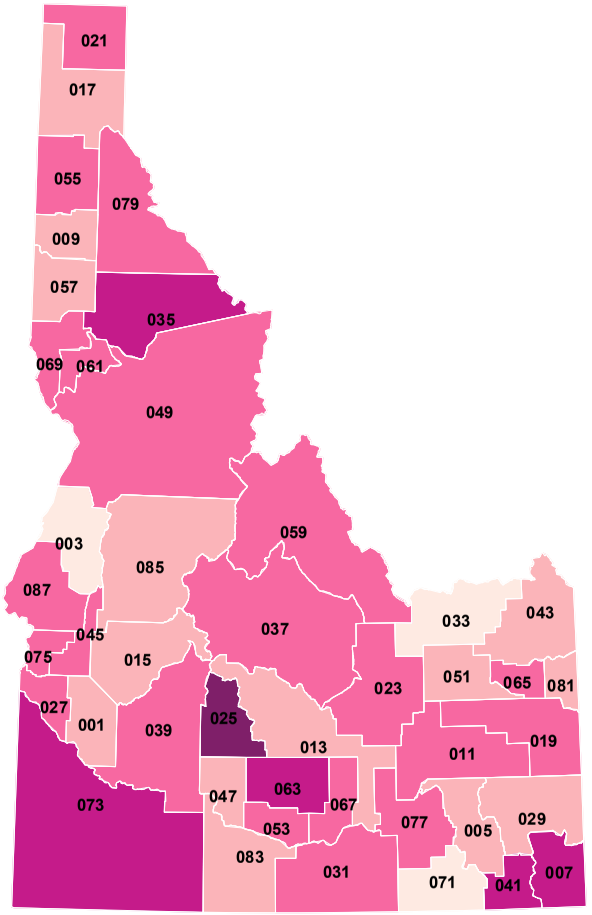


Age-Adjusted Mortality Rates

Colorectal

Both Males and Females

State of Idaho, by County, 2019–2023



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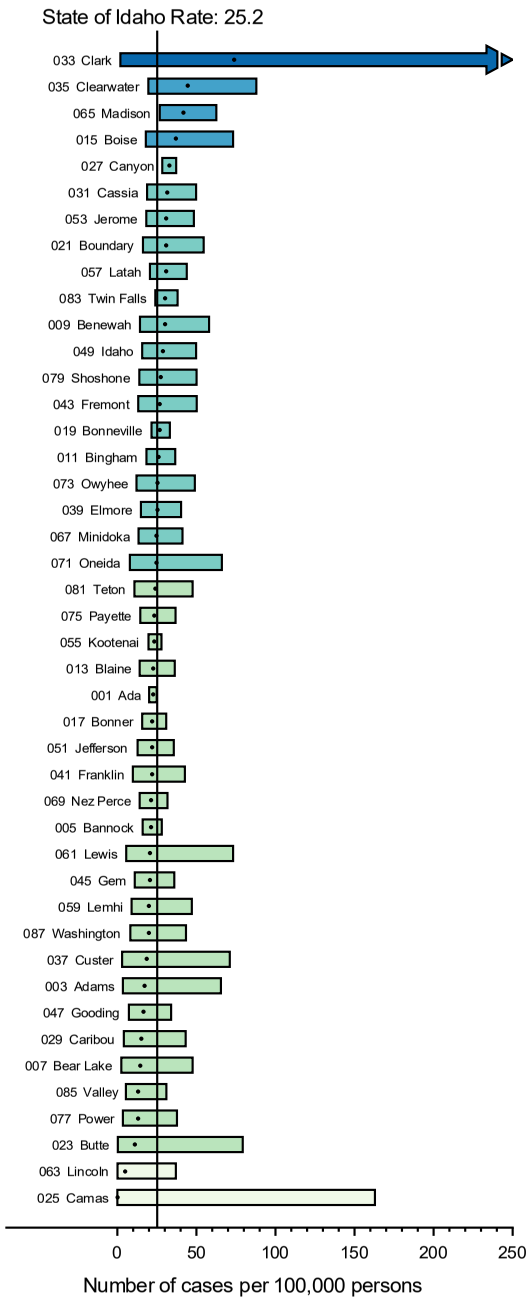
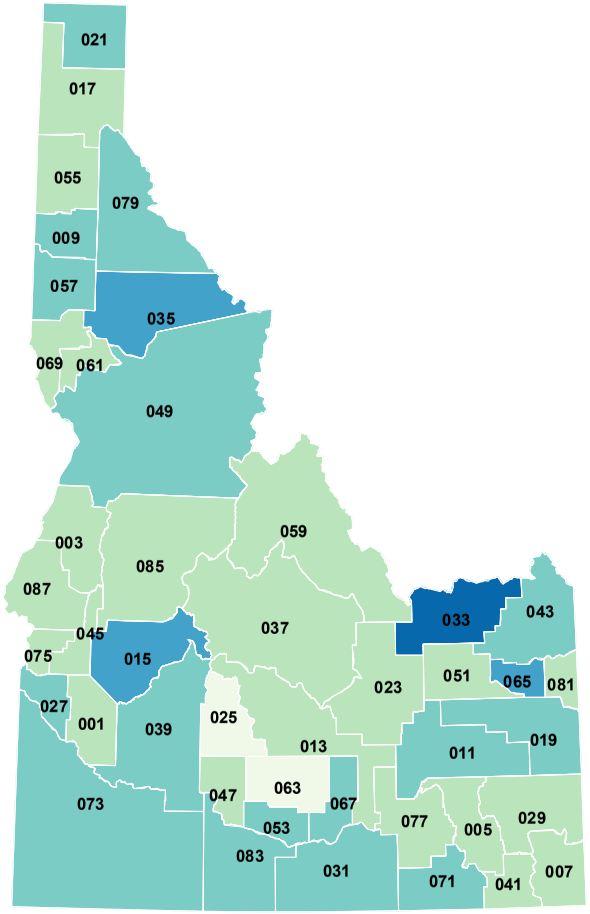


Age-Adjusted Incidence Rates

Corpus Uteri

Females

State of Idaho, by County, 2019–2023



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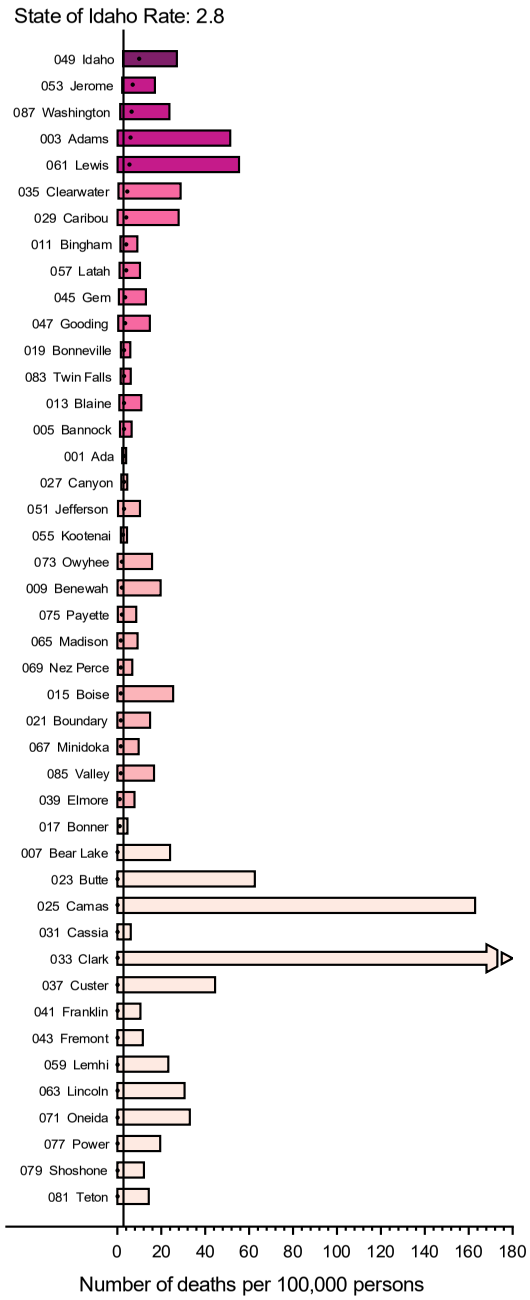
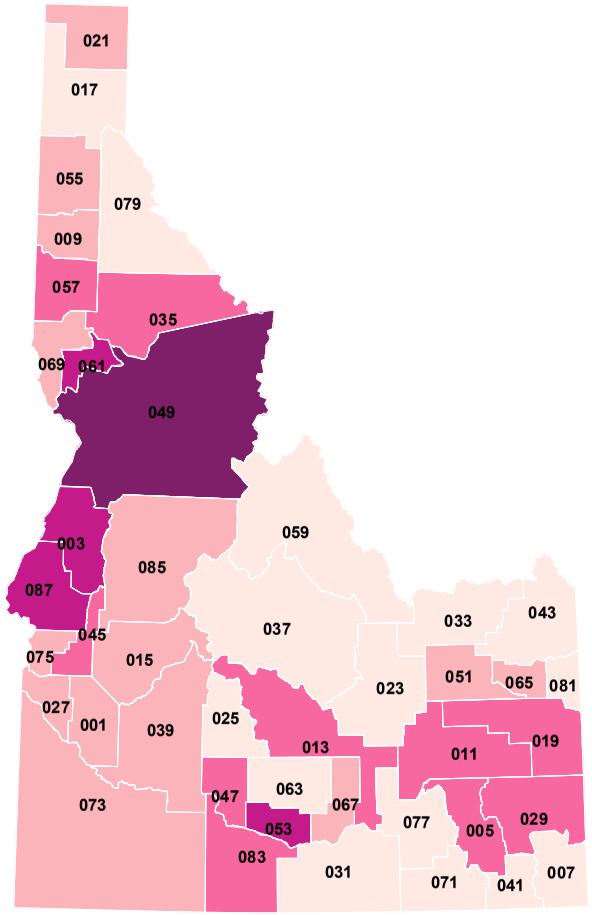


Age-Adjusted Mortality Rates

Corpus Uteri

Females

State of Idaho, by County, 2019–2023



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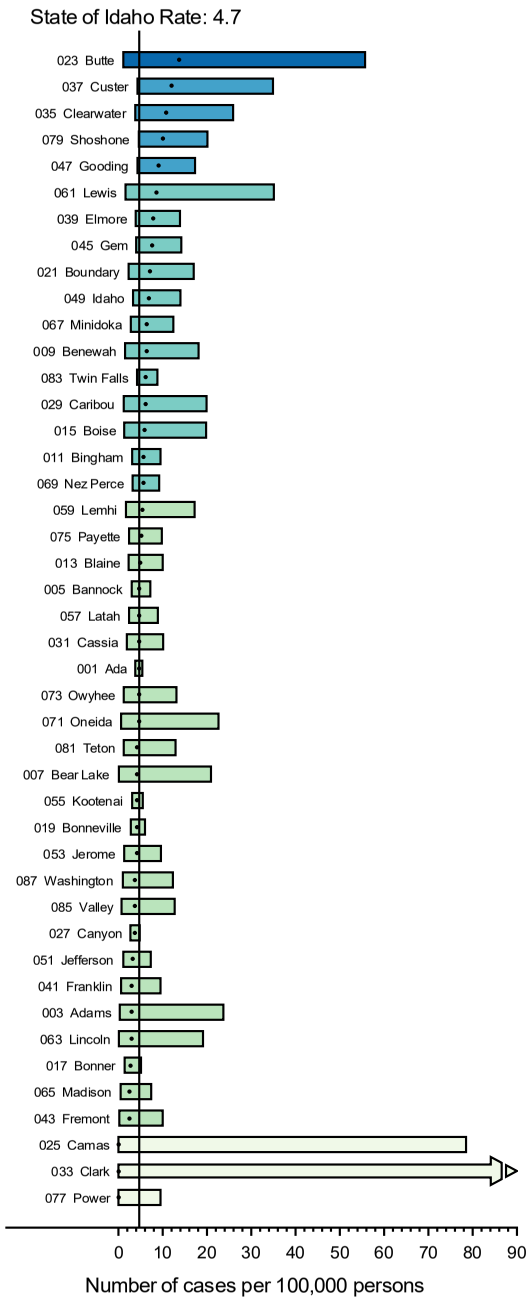
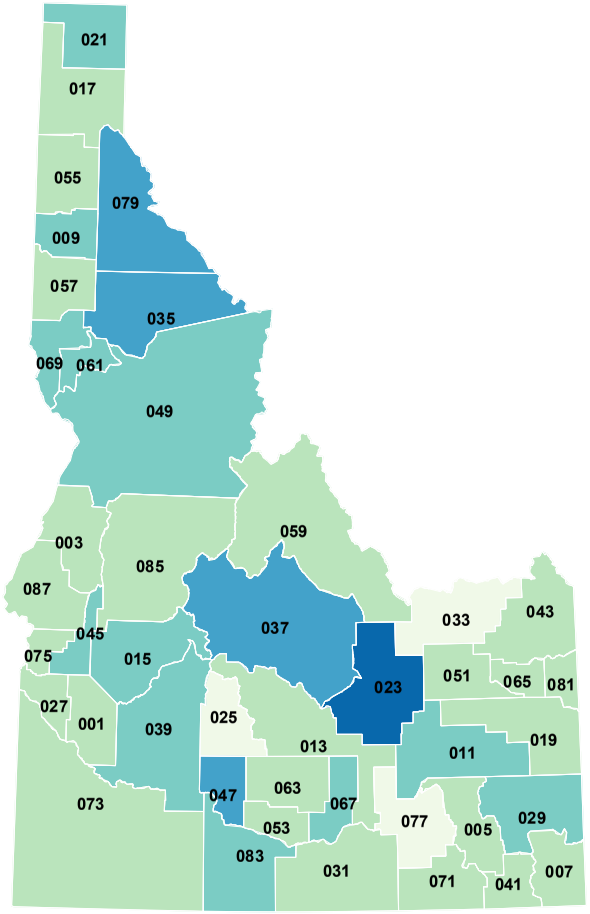
Age-Adjusted Incidence Rates

Esophagus

Both Males and Females

State of Idaho, by County, 2019–2023





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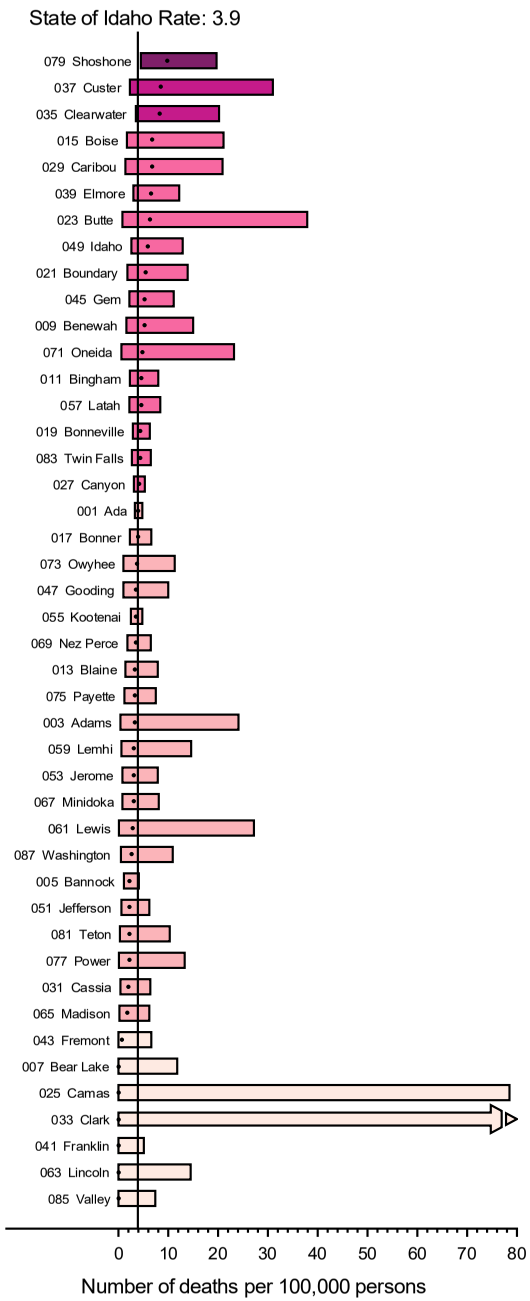
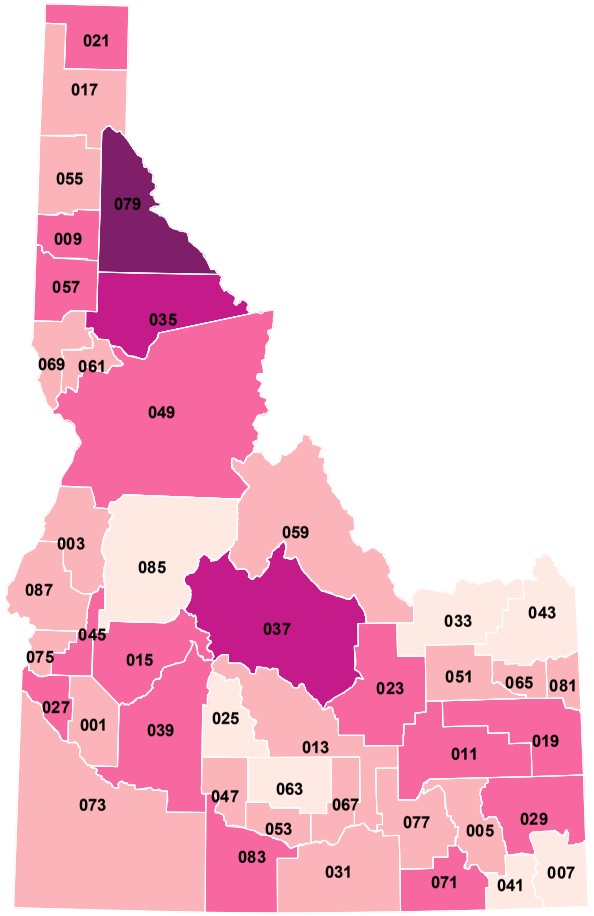
Age-Adjusted Mortality Rates

Esophagus

Both Males and Females

State of Idaho, by County, 2019–2023





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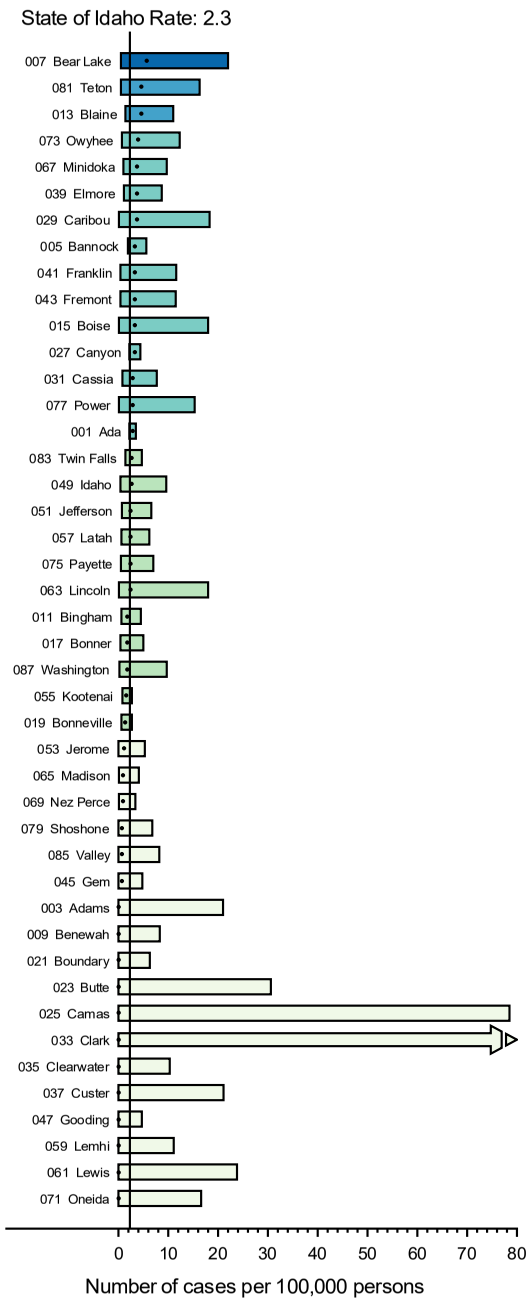
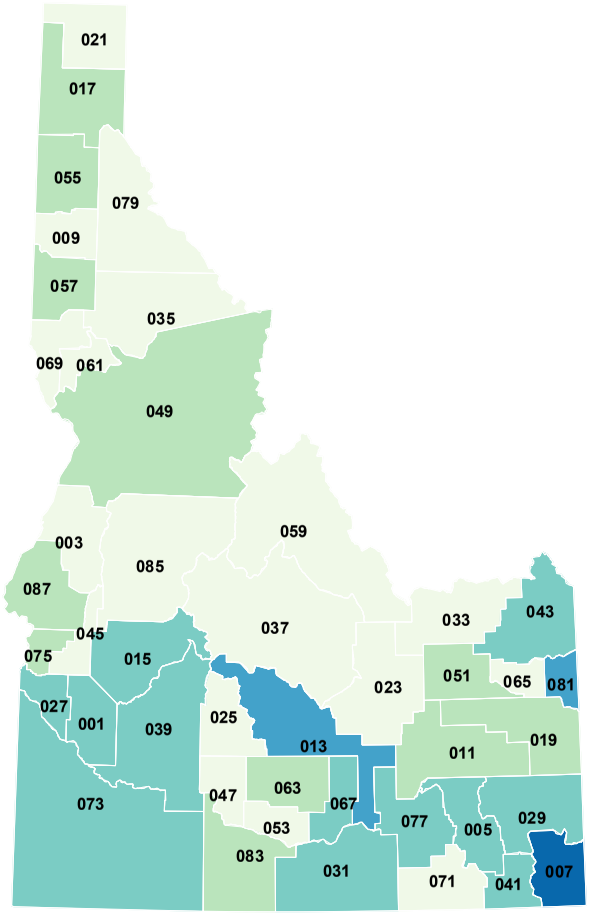


Age-Adjusted Incidence Rates

Hodgkin Lymphoma

Both Males and Females

State of Idaho, by County, 2019–2023



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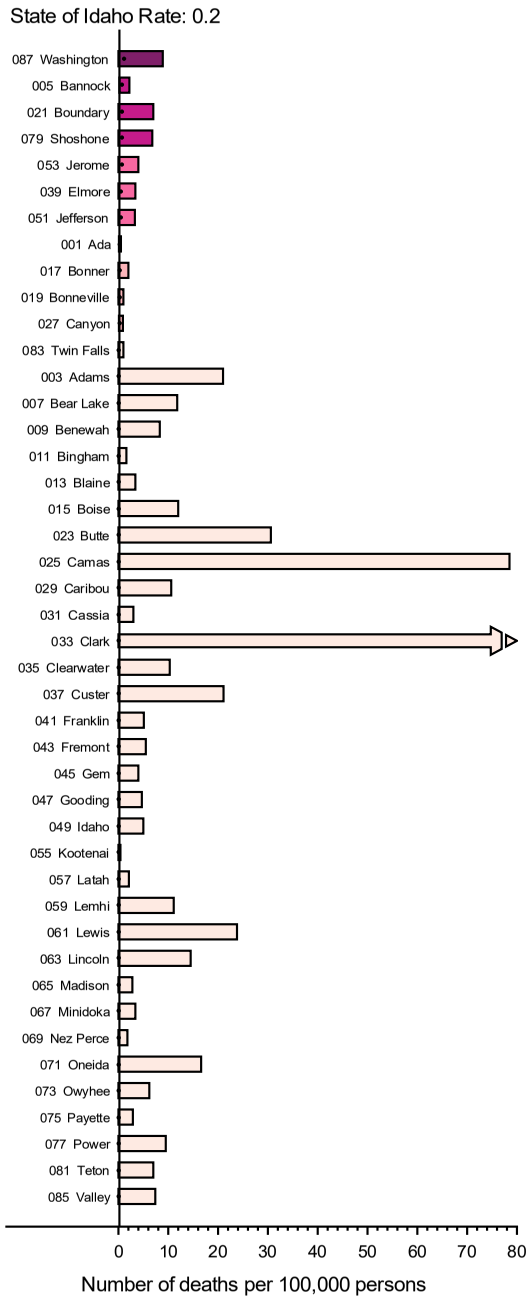
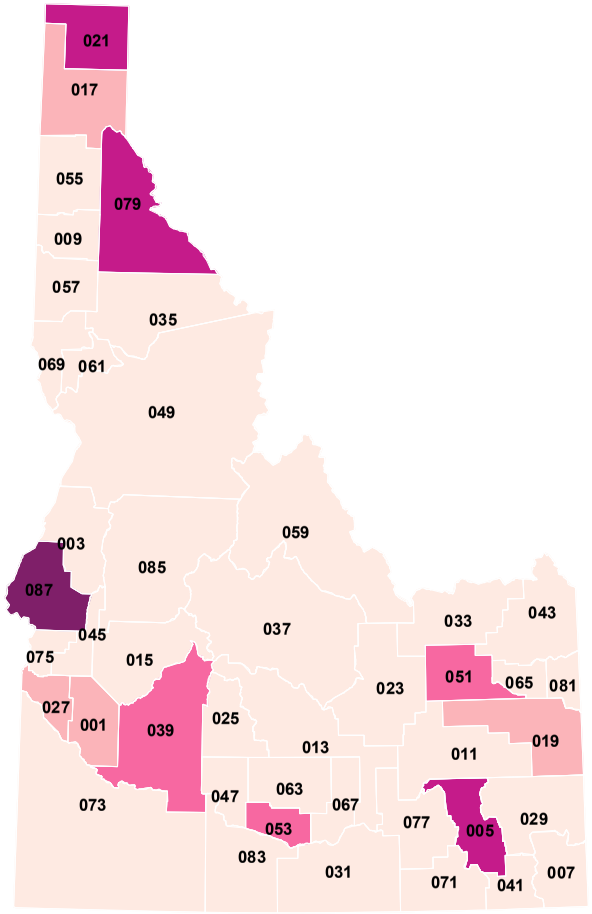


Age-Adjusted Mortality Rates

Hodgkin Lymphoma

Both Males and Females

State of Idaho, by County, 2019–2023



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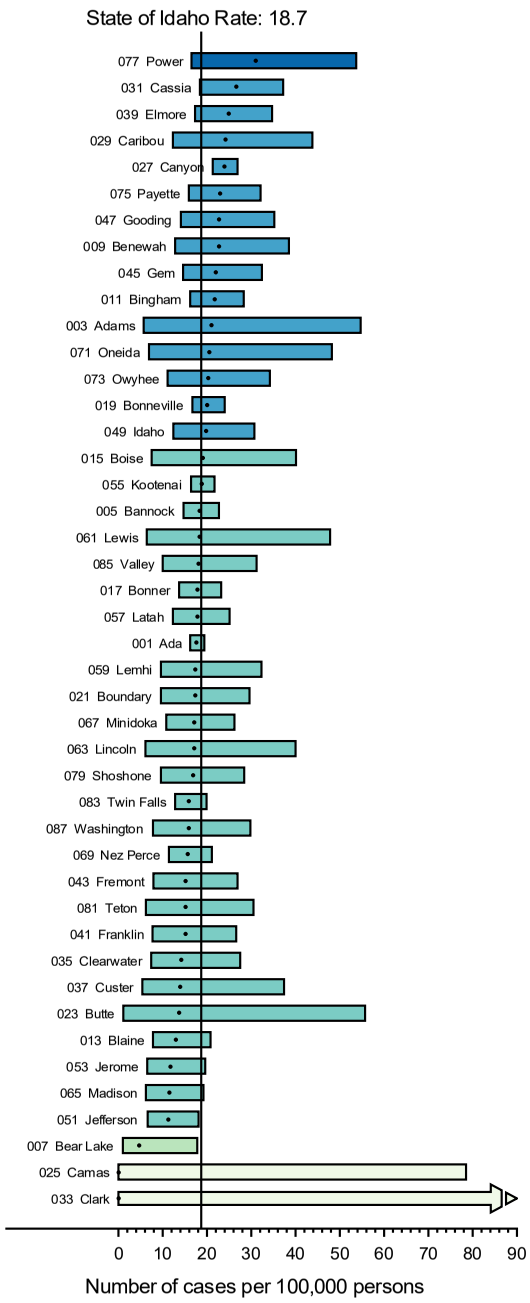
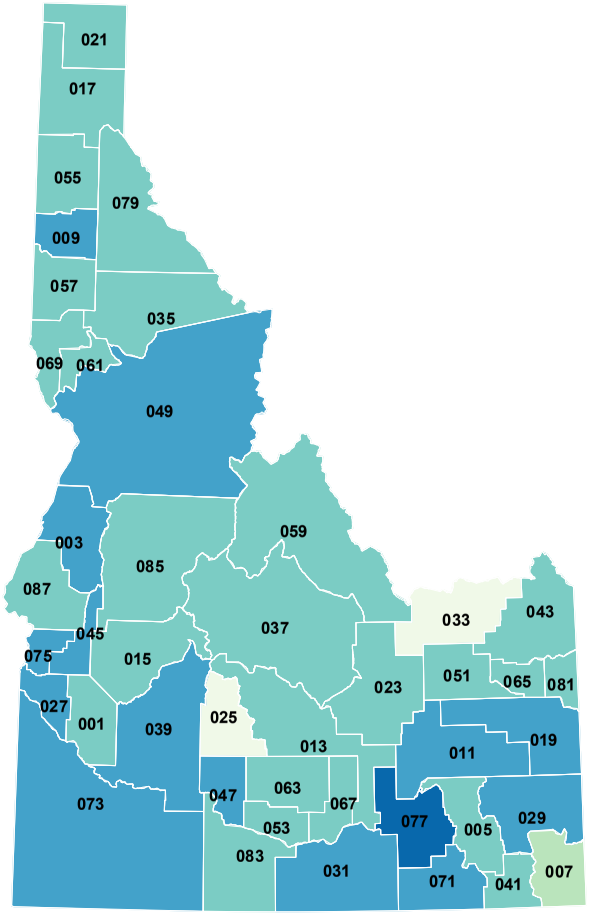


Age-Adjusted Incidence Rates

Kidney and Renal Pelvis

Both Males and Females

State of Idaho, by County, 2019–2023



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
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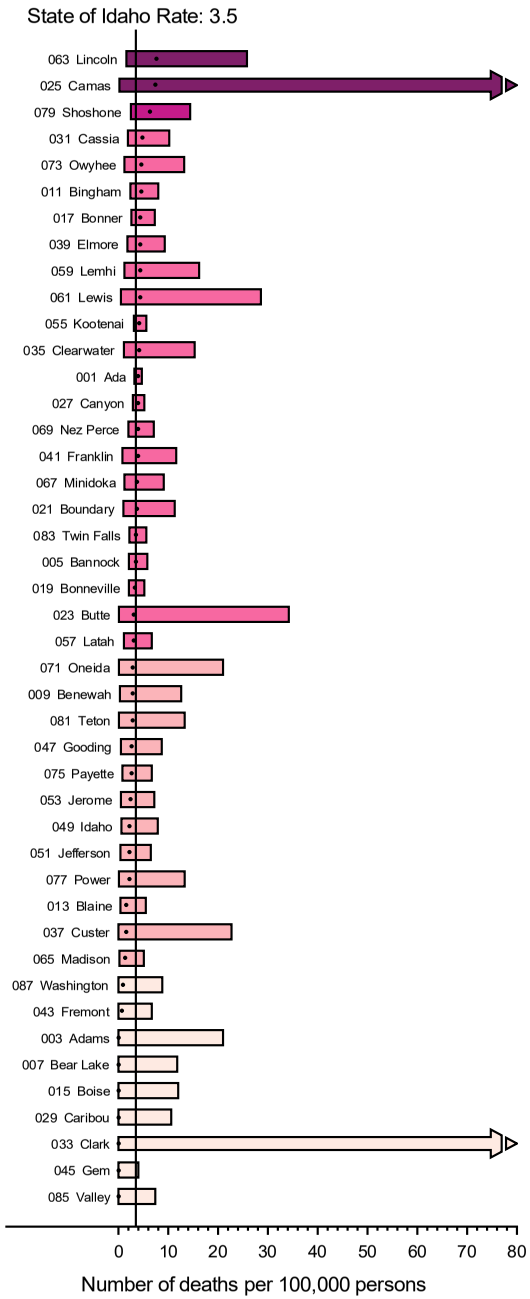
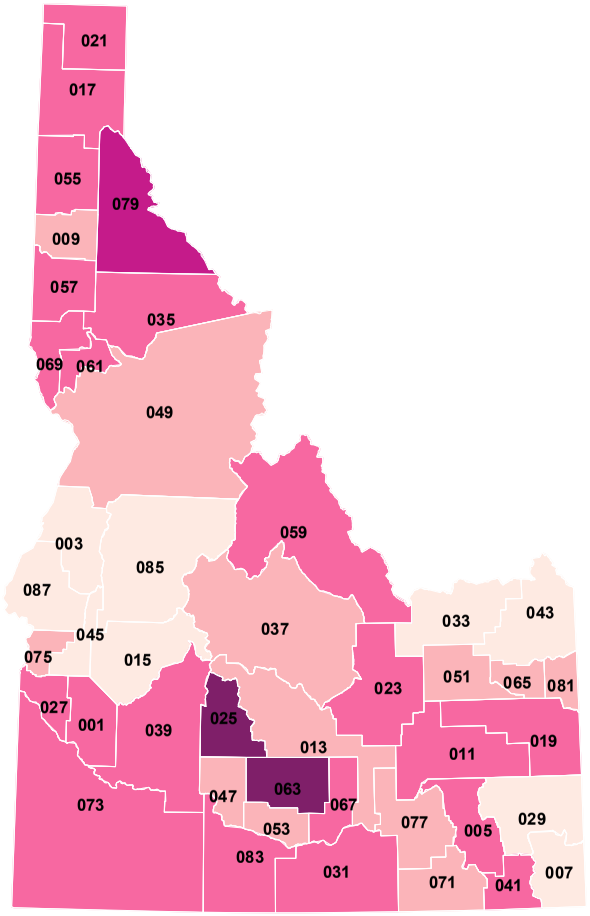


Age-Adjusted Mortality Rates

Kidney

Both Males and Females

State of Idaho, by County, 2019–2023



Cancer Data Registry of Idaho.
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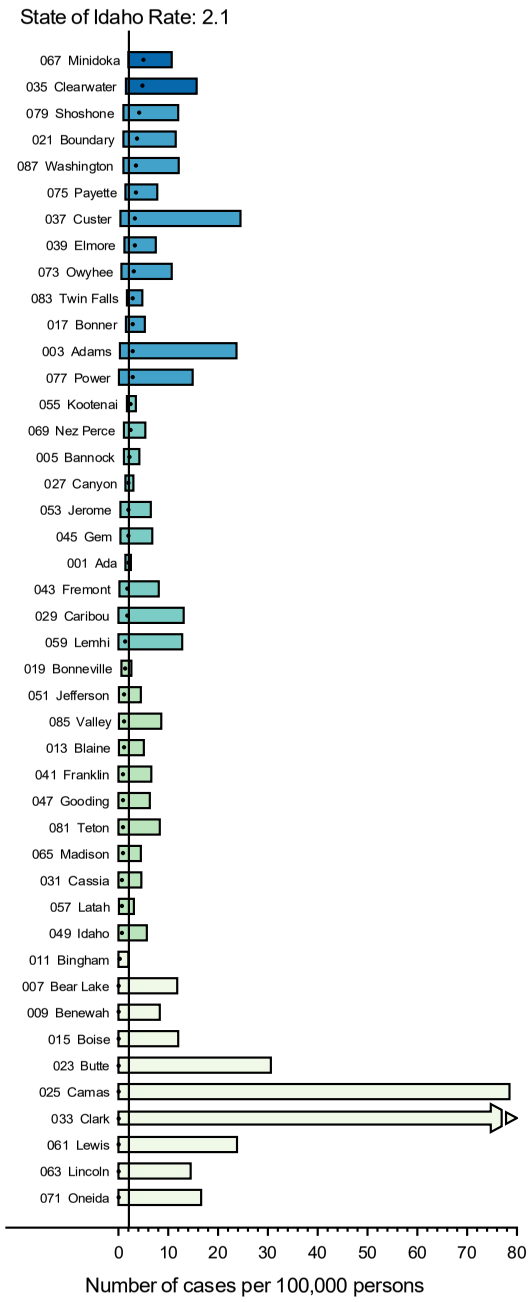
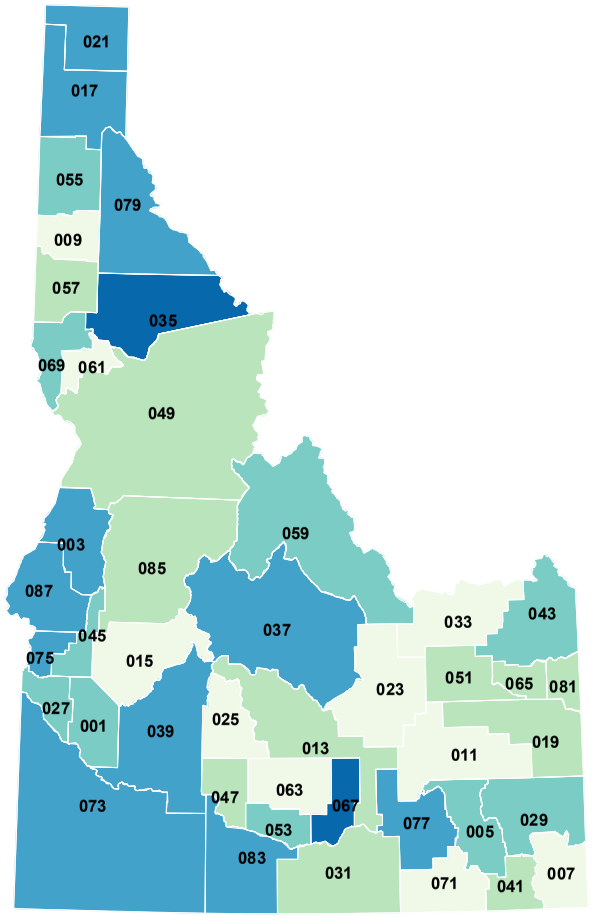
Age-Adjusted Incidence Rates

Larynx

Both Males and Females

State of Idaho, by County, 2019–2023





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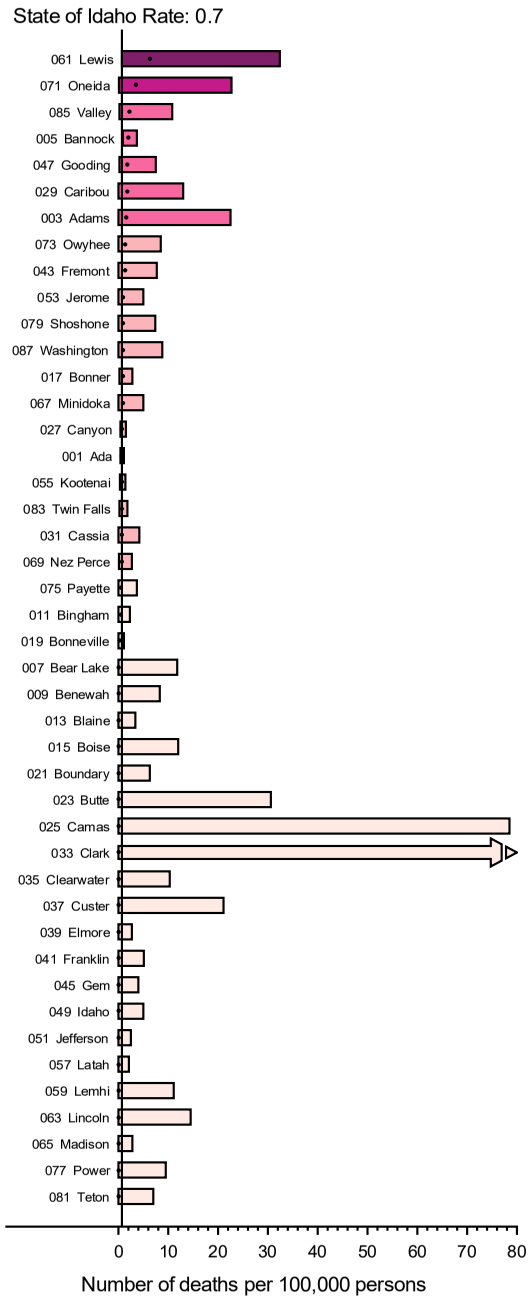
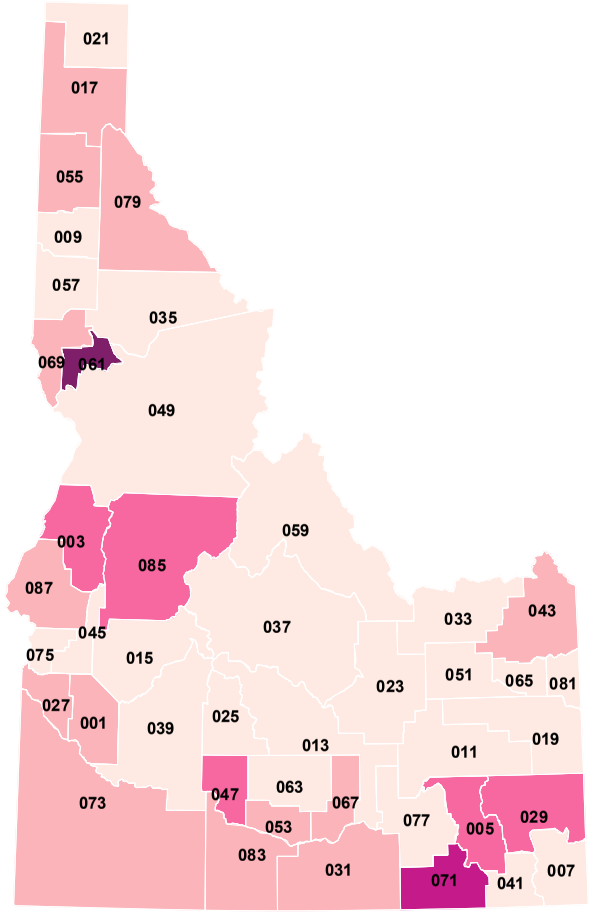
Age-Adjusted Mortality Rates

Larynx

Both Males and Females

State of Idaho, by County, 2019–2023





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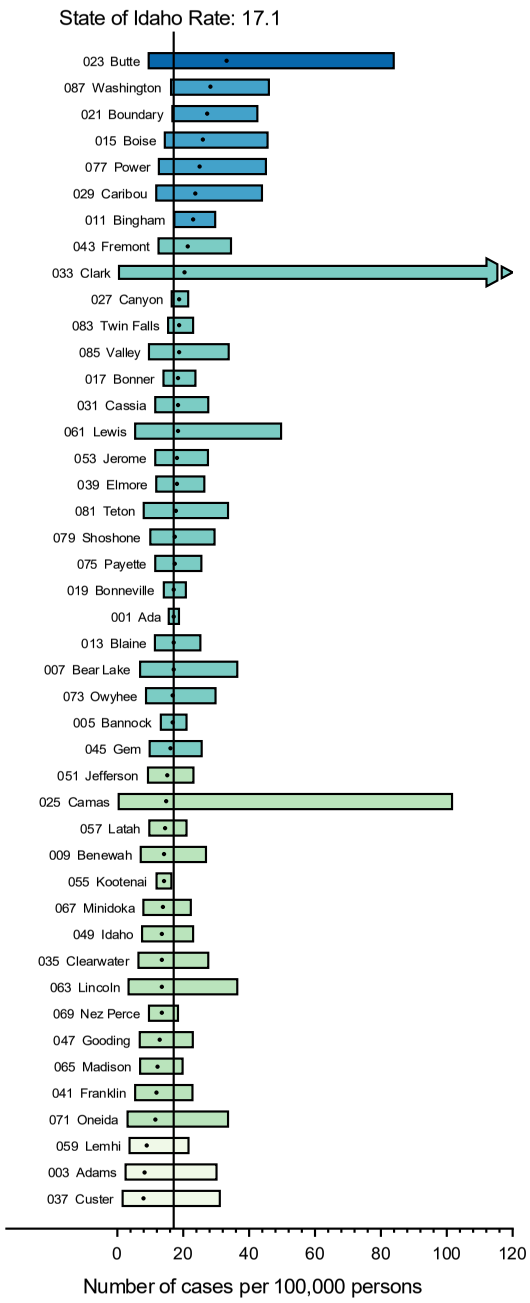
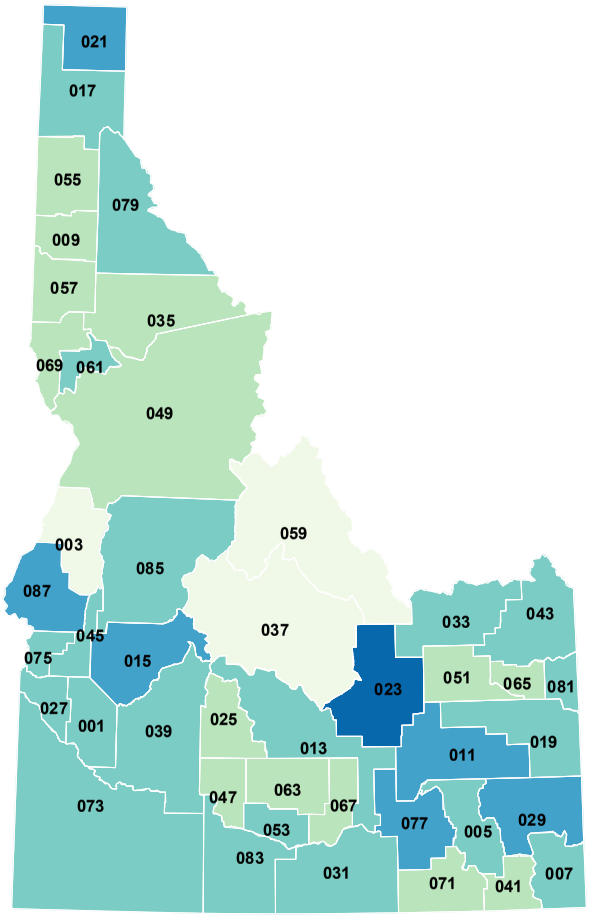


Age-Adjusted Incidence Rates

Leukemia

Both Males and Females

State of Idaho, by County, 2019–2023



Cancer Data Registry of Idaho.
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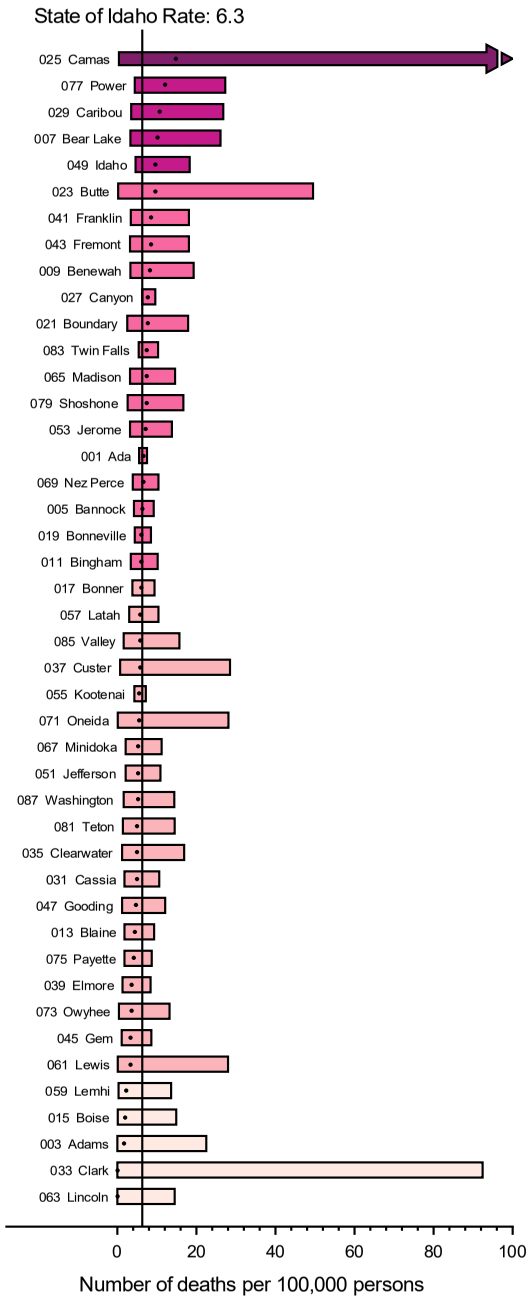
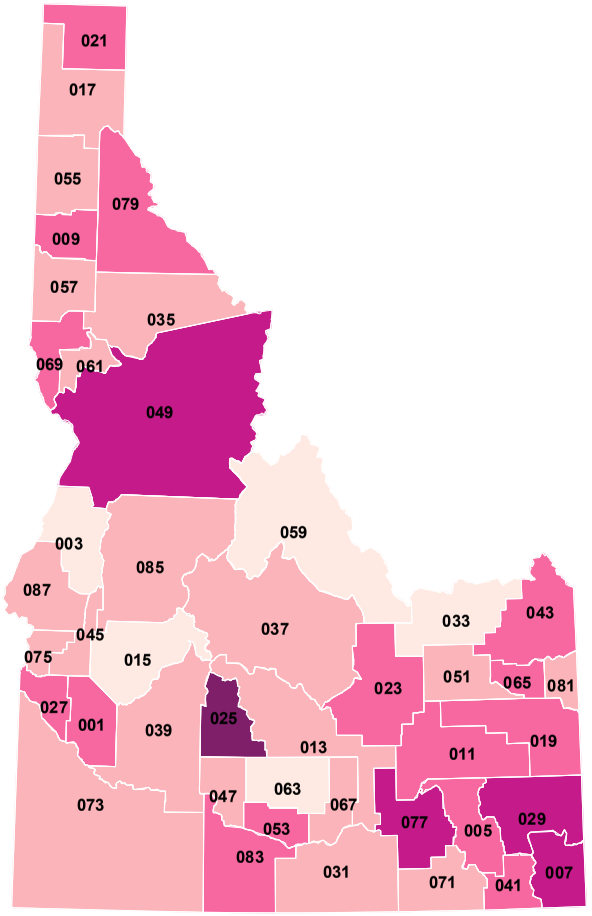


Age-Adjusted Mortality Rates

Leukemia

Both Males and Females

State of Idaho, by County, 2019–2023



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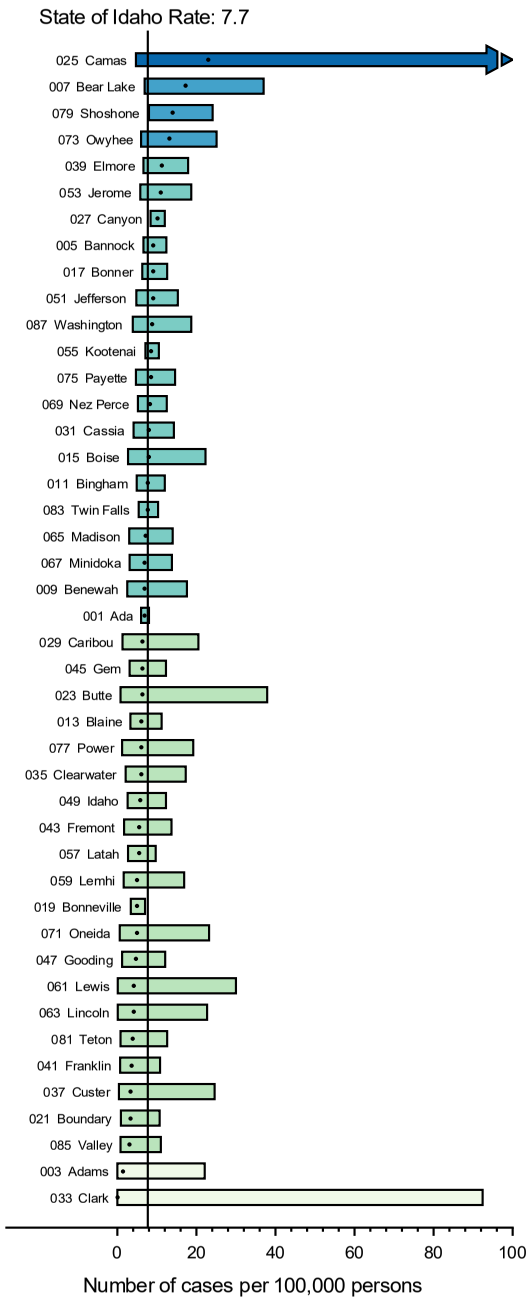
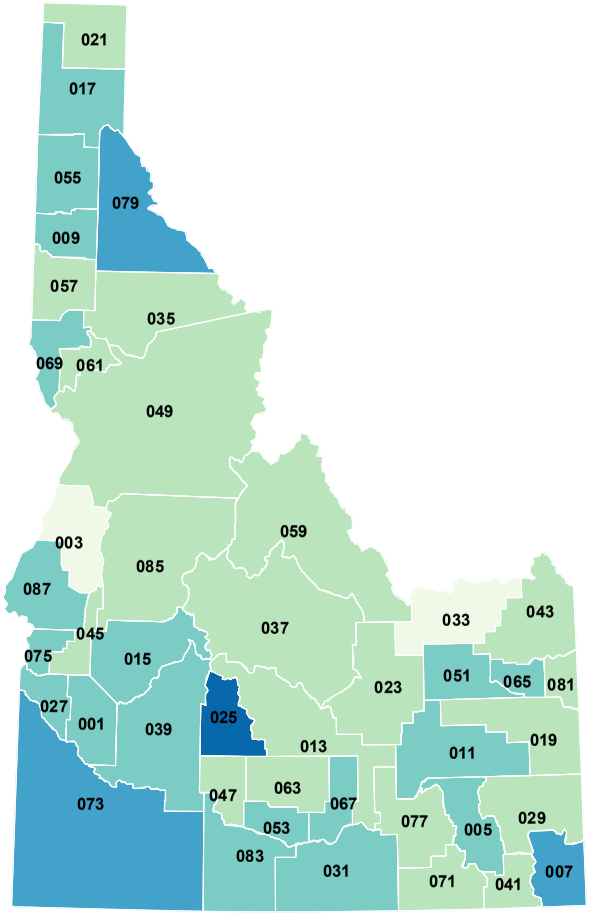


Age-Adjusted Incidence Rates

Liver and Bile Duct

Both Males and Females

State of Idaho, by County, 2019–2023



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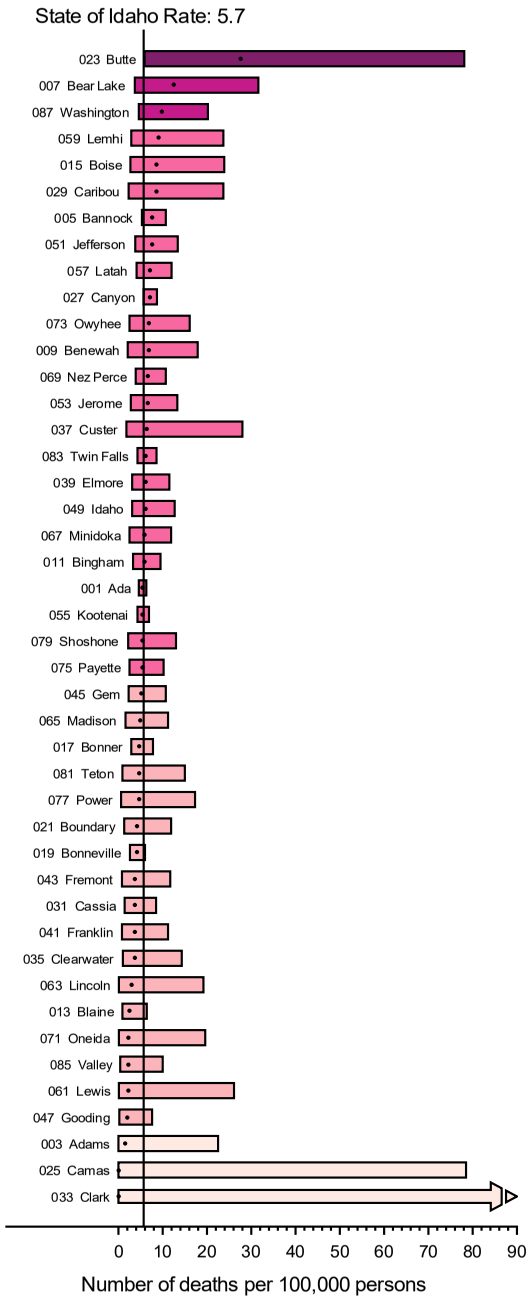
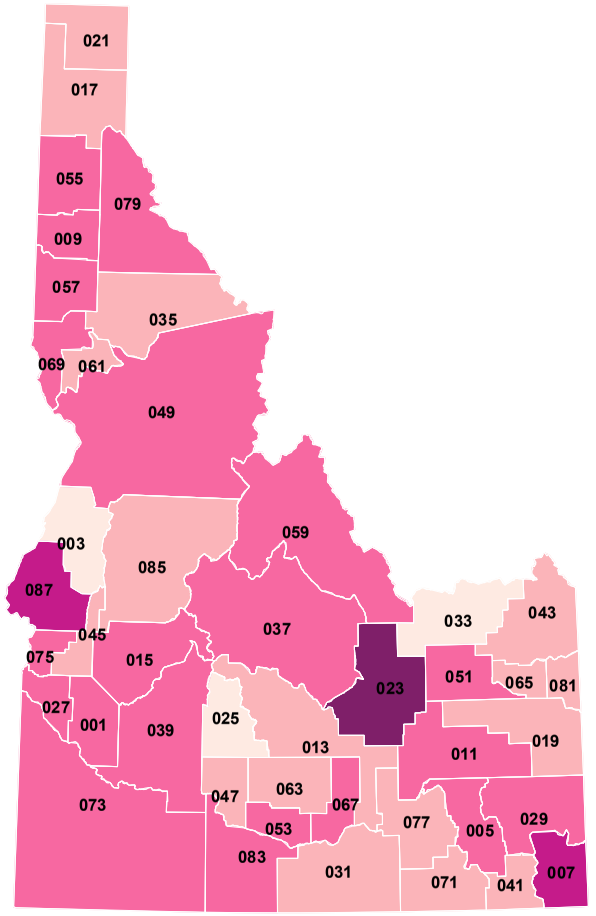
Age-Adjusted Mortality Rates

Liver and Bile Duct

Both Males and Females

State of Idaho, by County, 2019–2023





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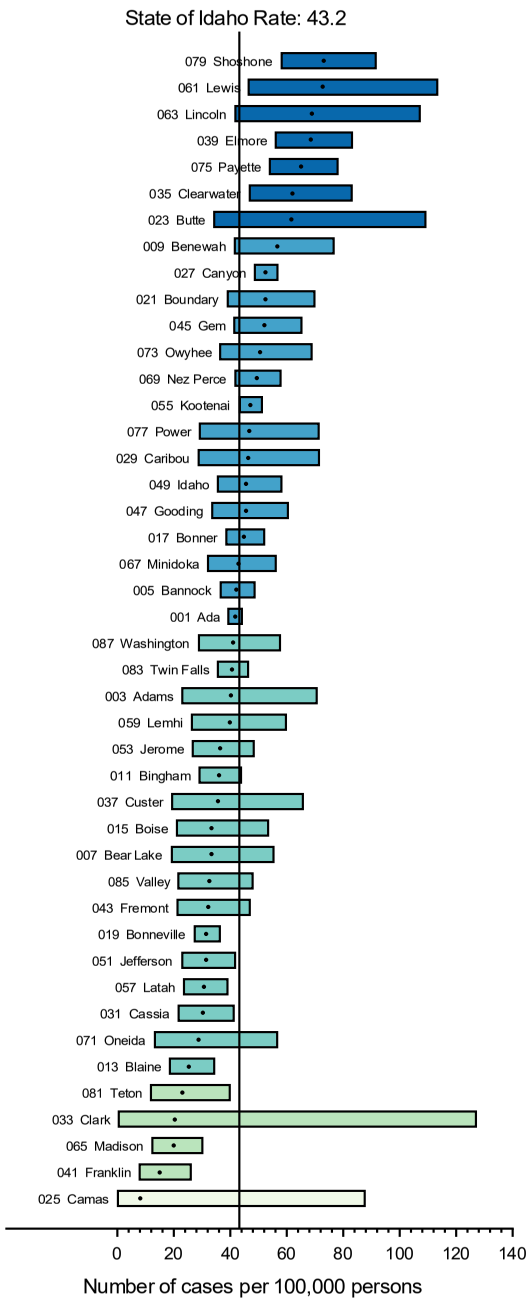
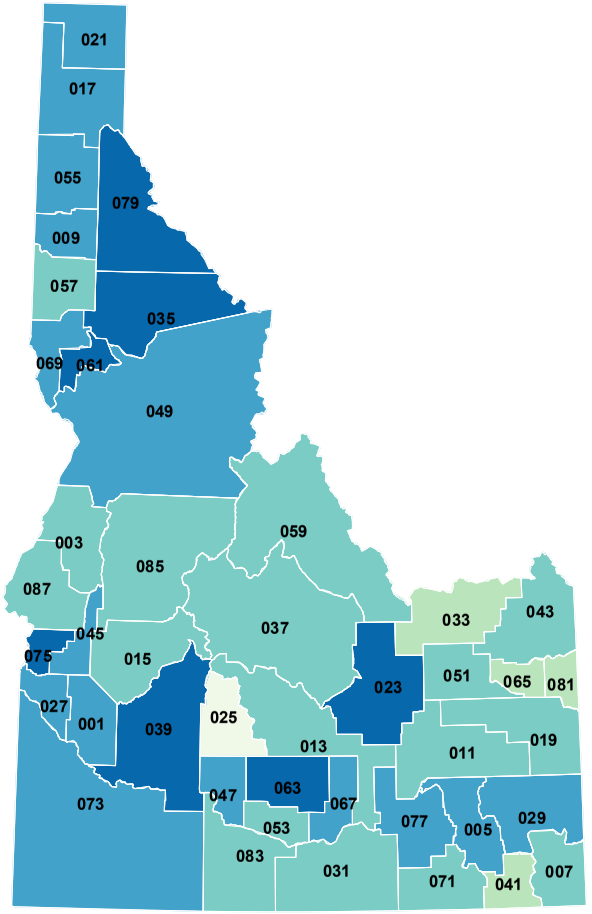


Age-Adjusted Incidence Rates

Lung and Bronchus

Both Males and Females

State of Idaho, by County, 2019–2023



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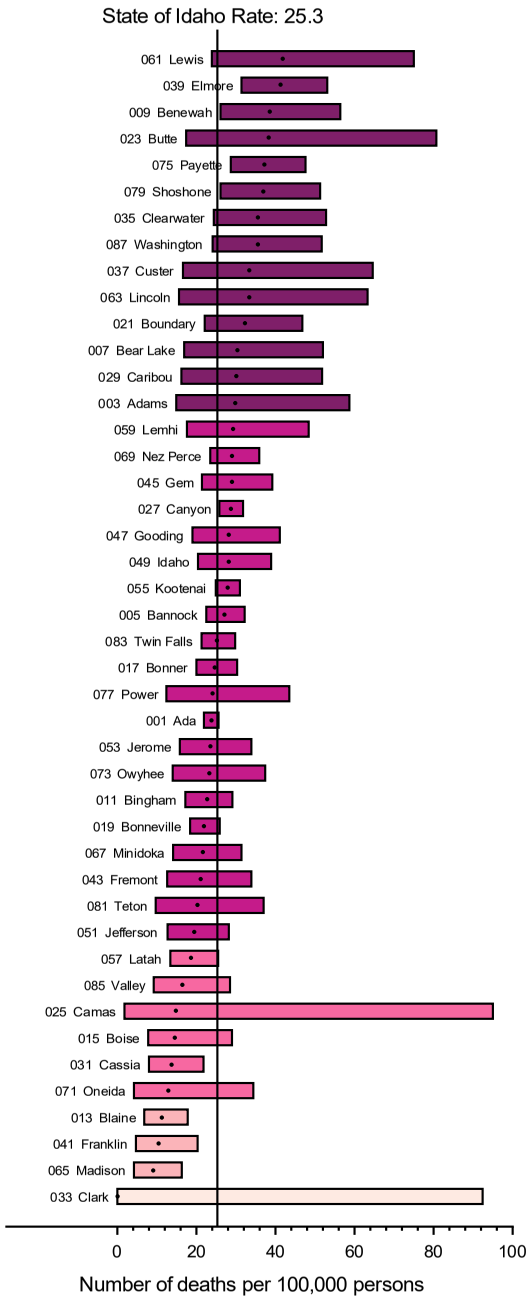
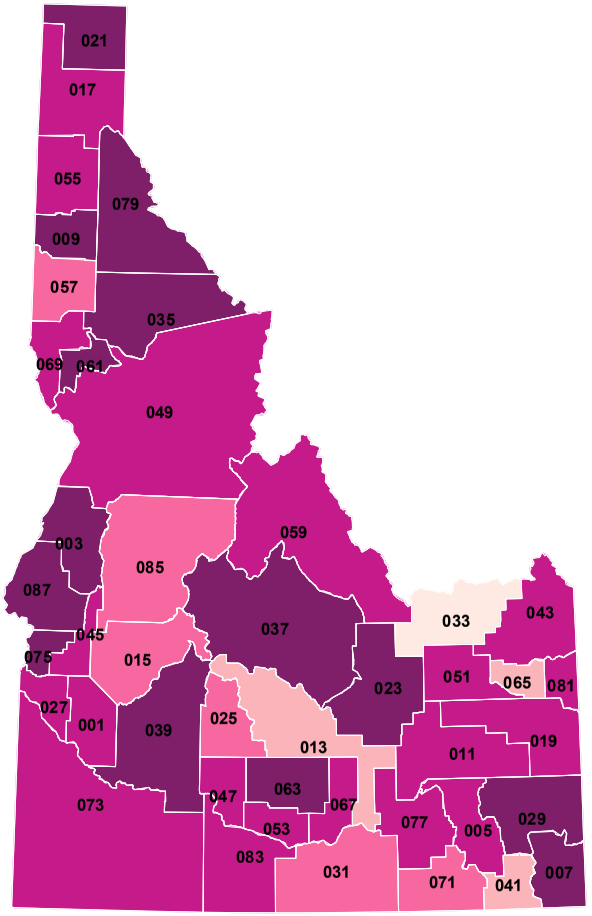


Age-Adjusted Mortality Rates

Lung and Bronchus

Both Males and Females

State of Idaho, by County, 2019–2023



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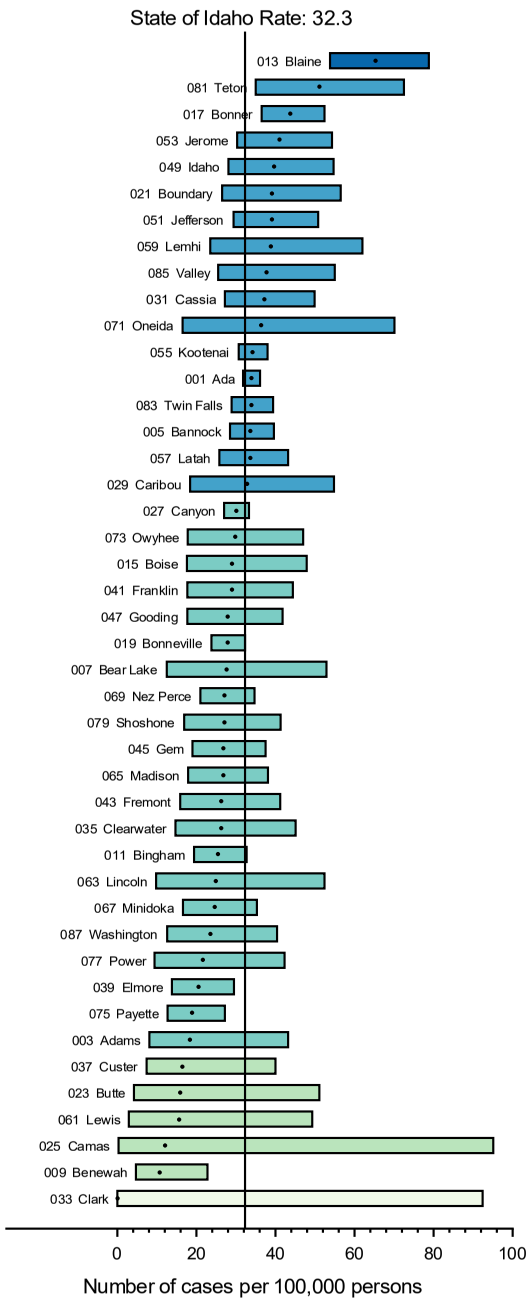
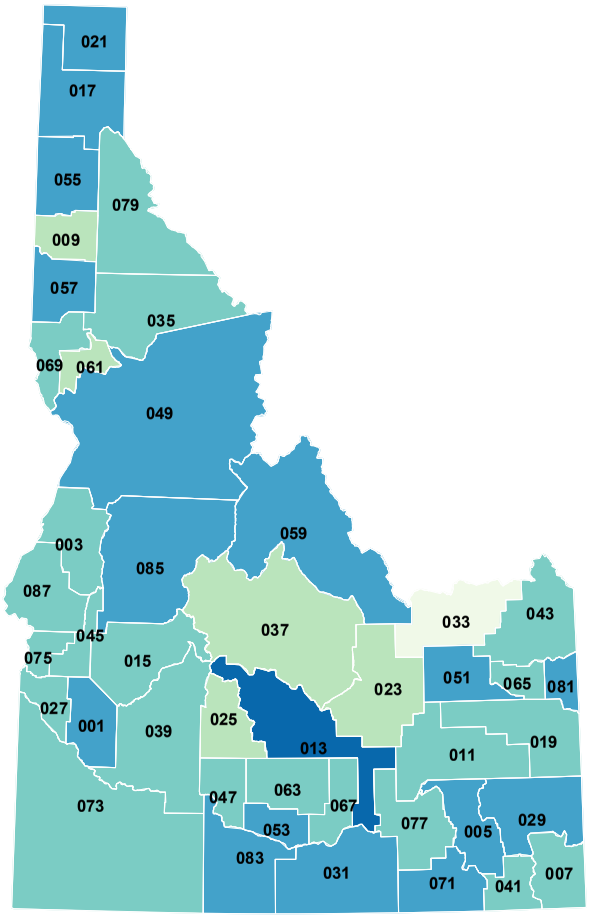


Age-Adjusted Incidence Rates

Melanoma of the Skin

Both Males and Females

State of Idaho, by County, 2019–2023



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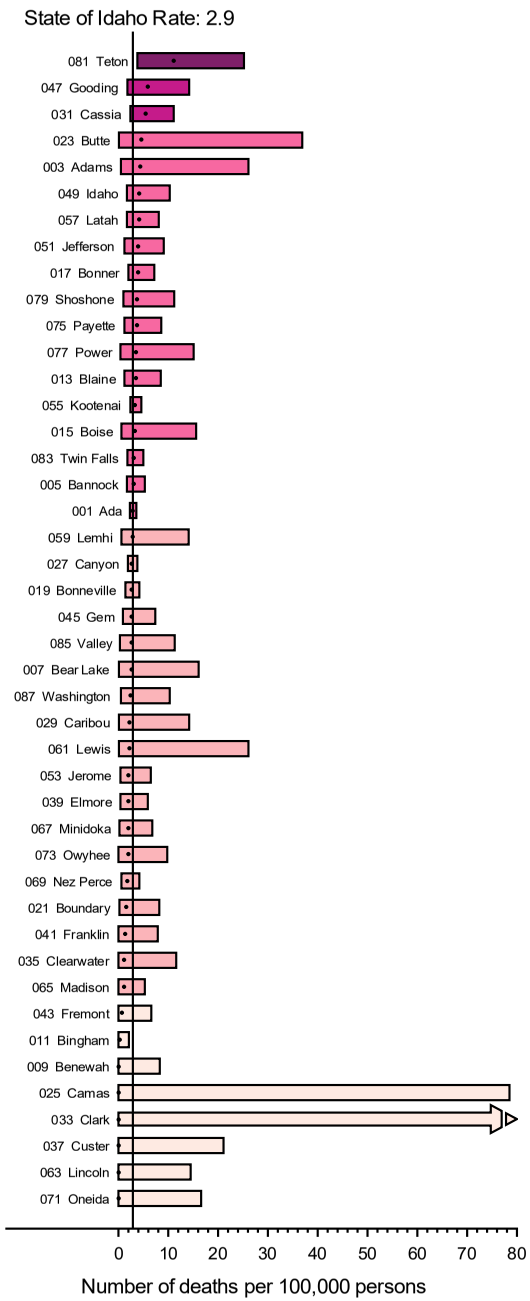
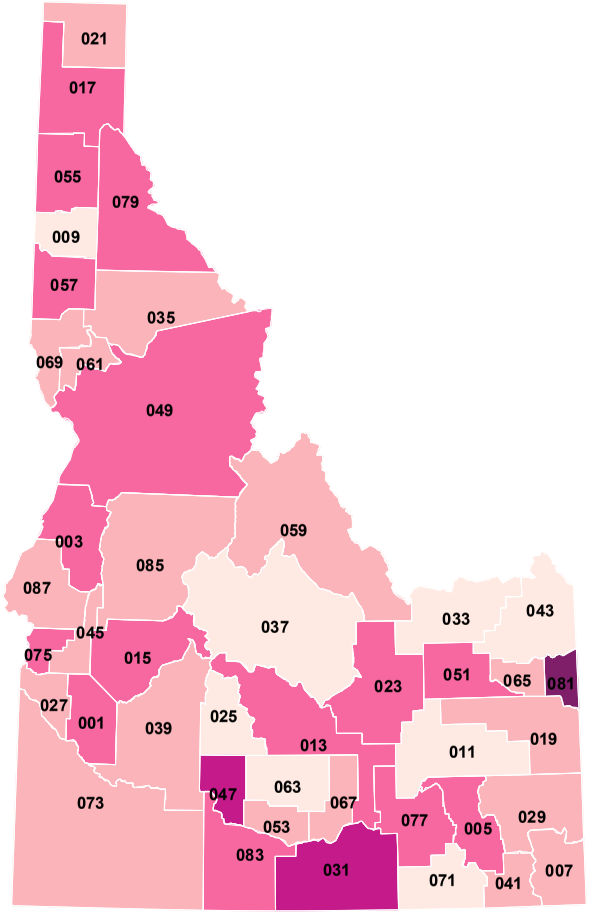


Age-Adjusted Mortality Rates

Melanoma of the Skin

Both Males and Females

State of Idaho, by County, 2019–2023



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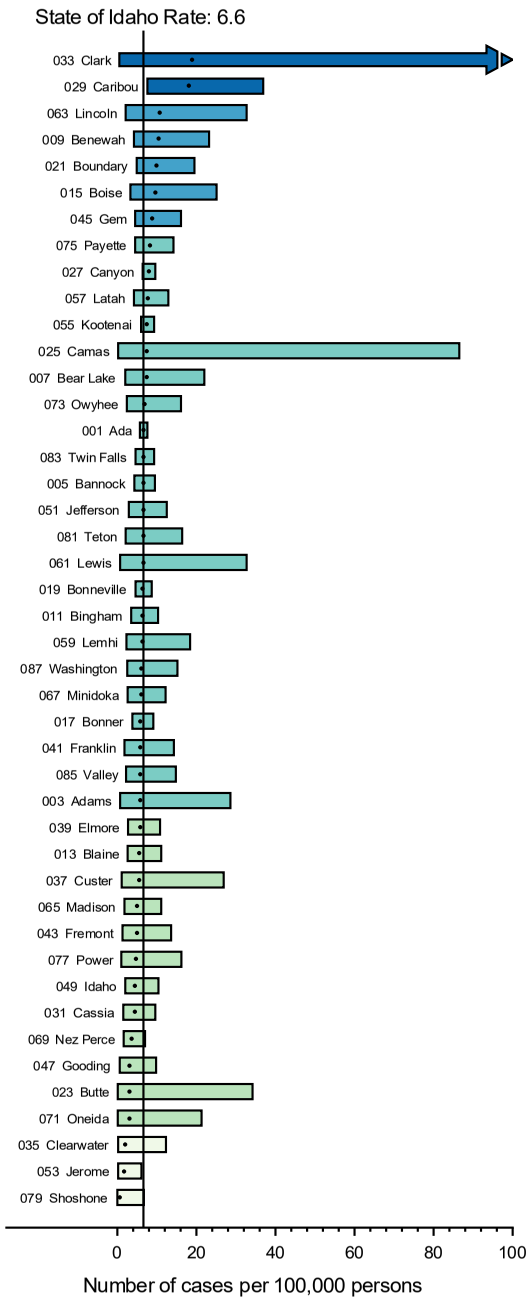
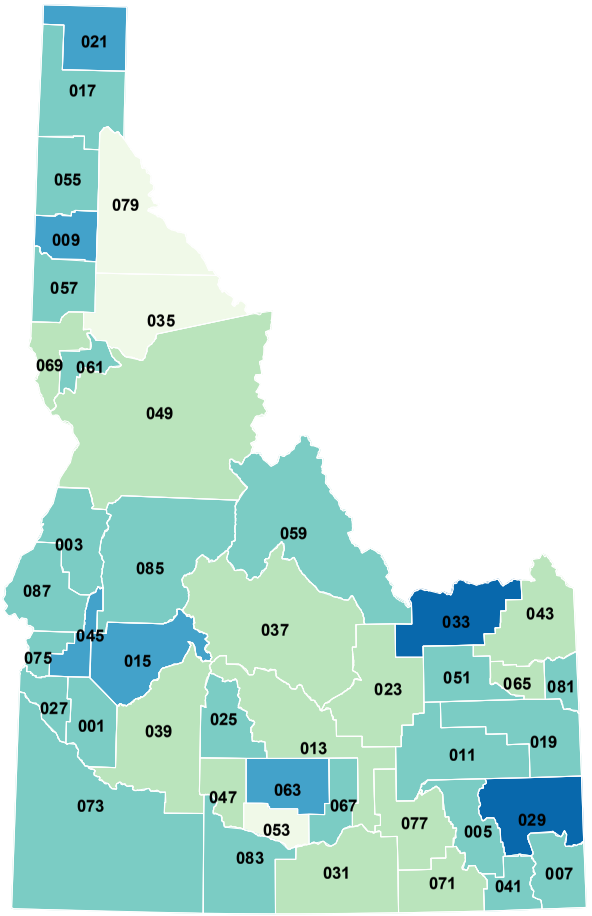


Age-Adjusted Incidence Rates

Myeloma

Both Males and Females

State of Idaho, by County, 2019–2023



Cancer Data Registry of Idaho.
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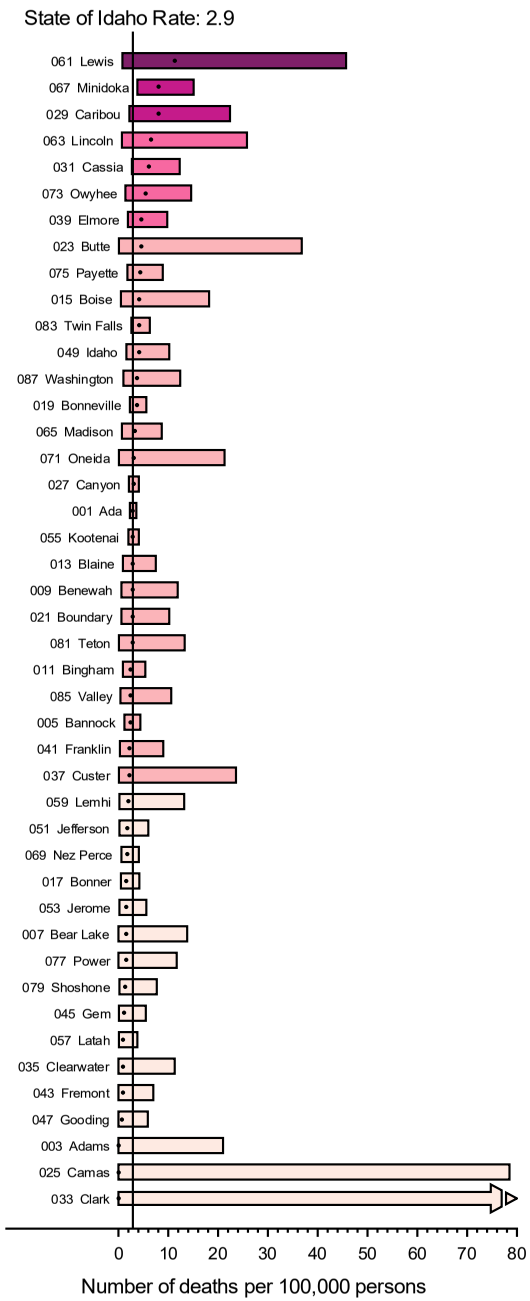
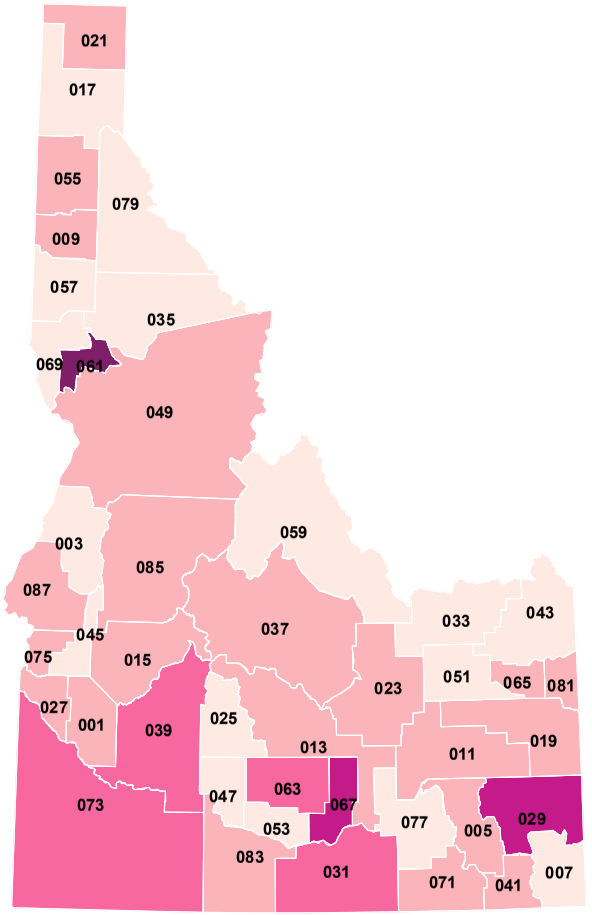


Age-Adjusted Mortality Rates

Myeloma

Both Males and Females

State of Idaho, by County, 2019–2023



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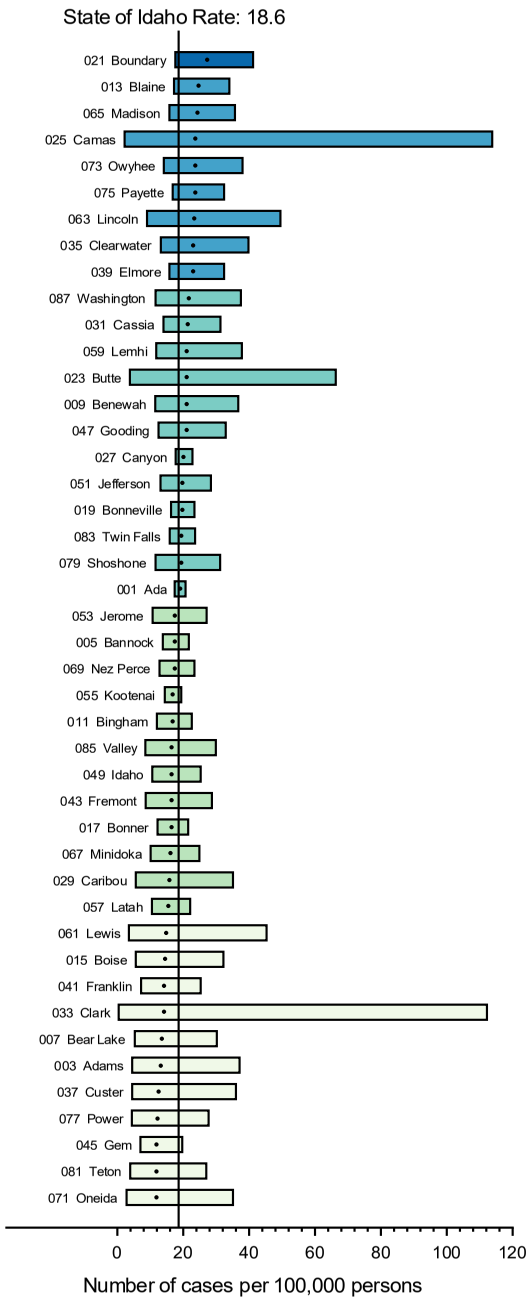
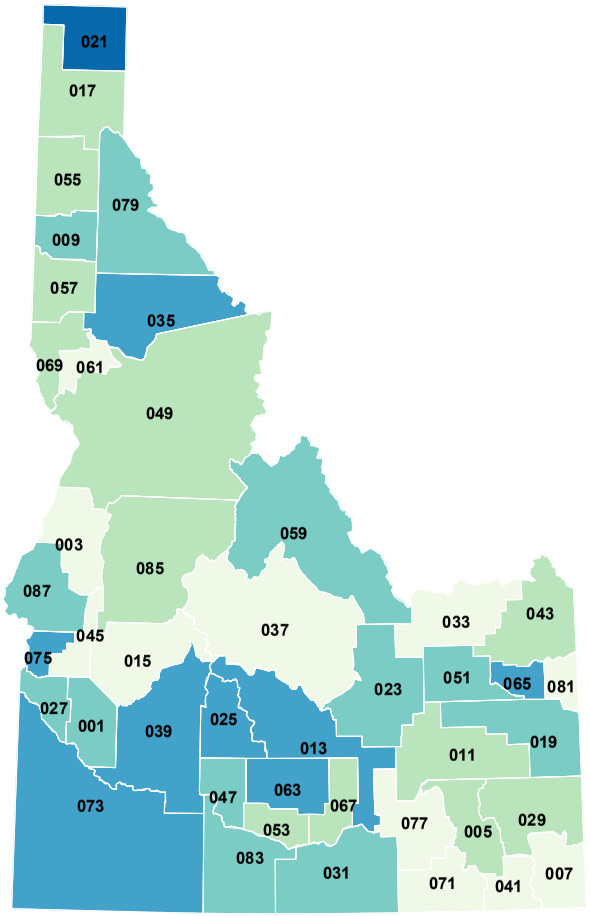


Age-Adjusted Incidence Rates

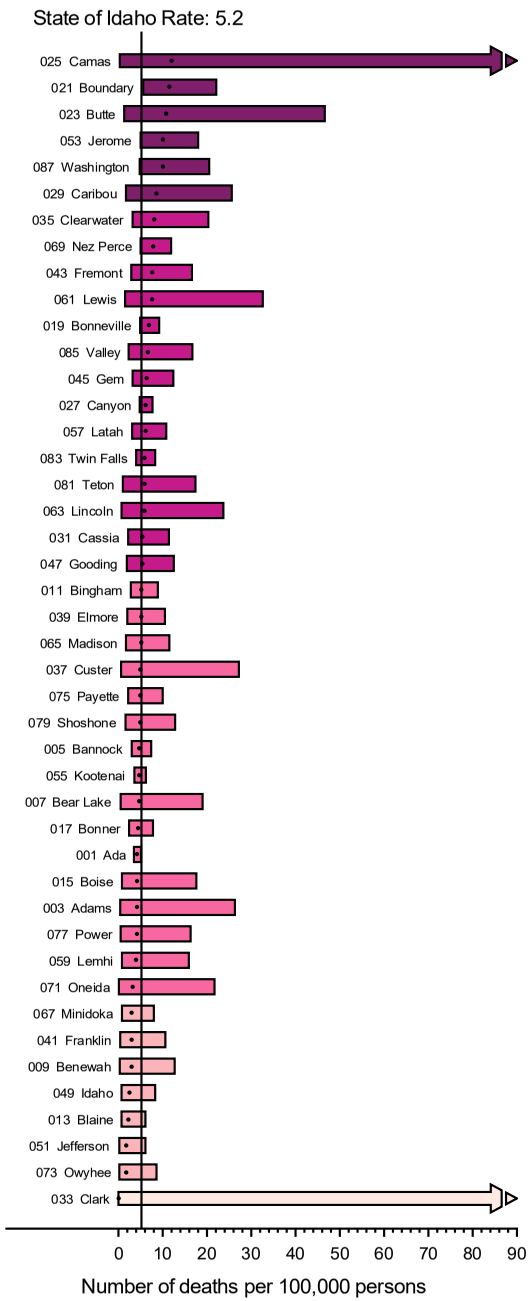
Non-Hodgkin Lymphoma

Both Males and Females

State of Idaho, by County, 2019–2023



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.

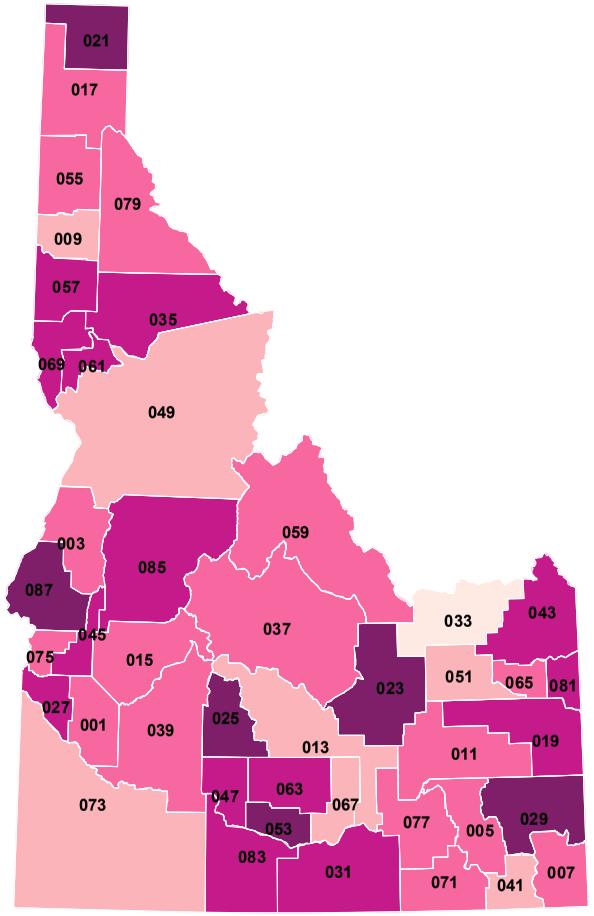


Age-Adjusted Mortality Rates

Non-Hodgkin Lymphoma

Both Males and Females

State of Idaho, by County, 2019–2023



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.
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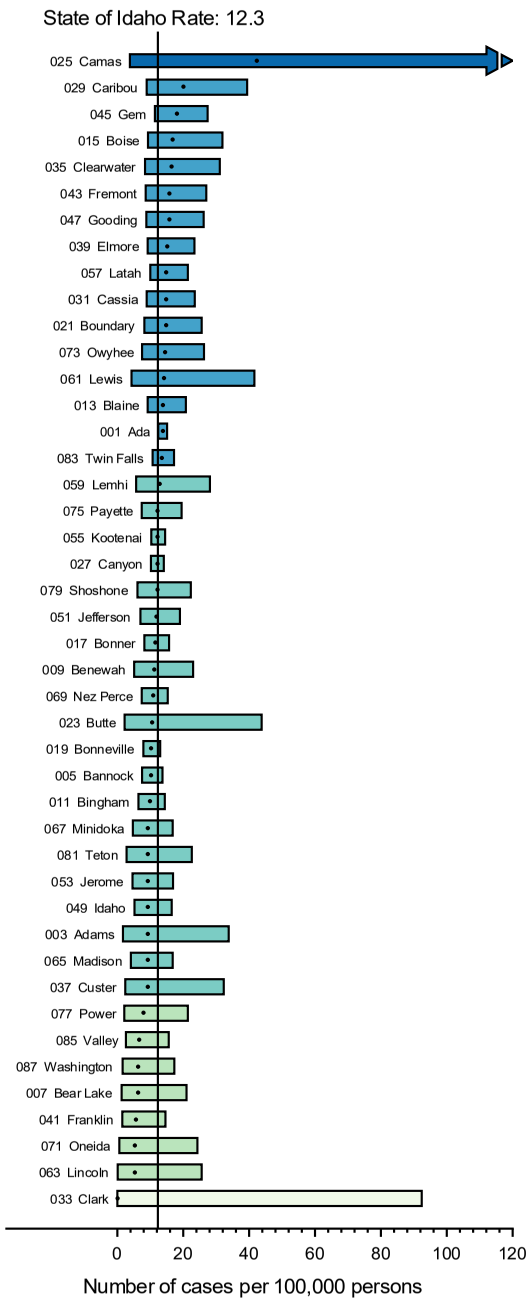
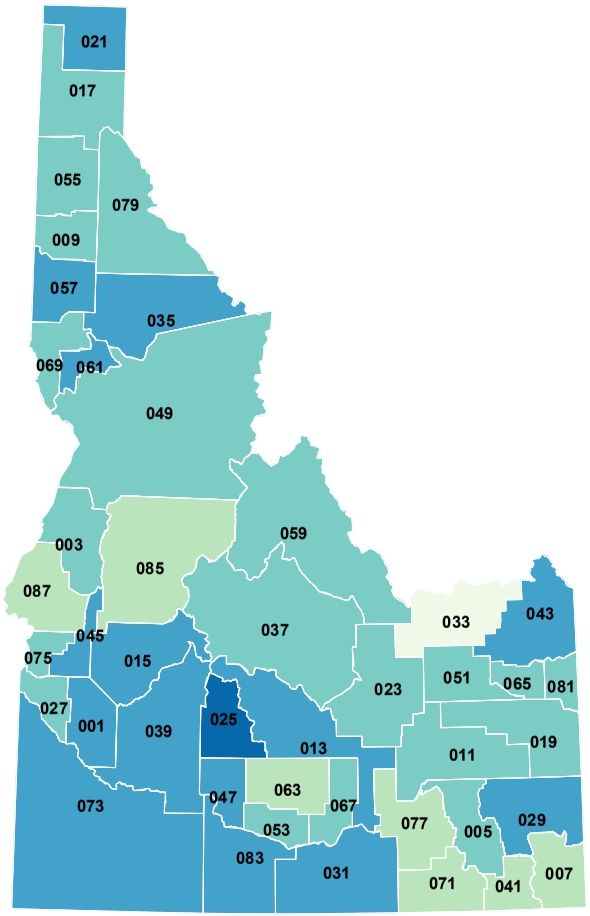


Age-Adjusted Incidence Rates

Oral Cavity and Pharynx

Both Males and Females

State of Idaho, by County, 2019–2023



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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.
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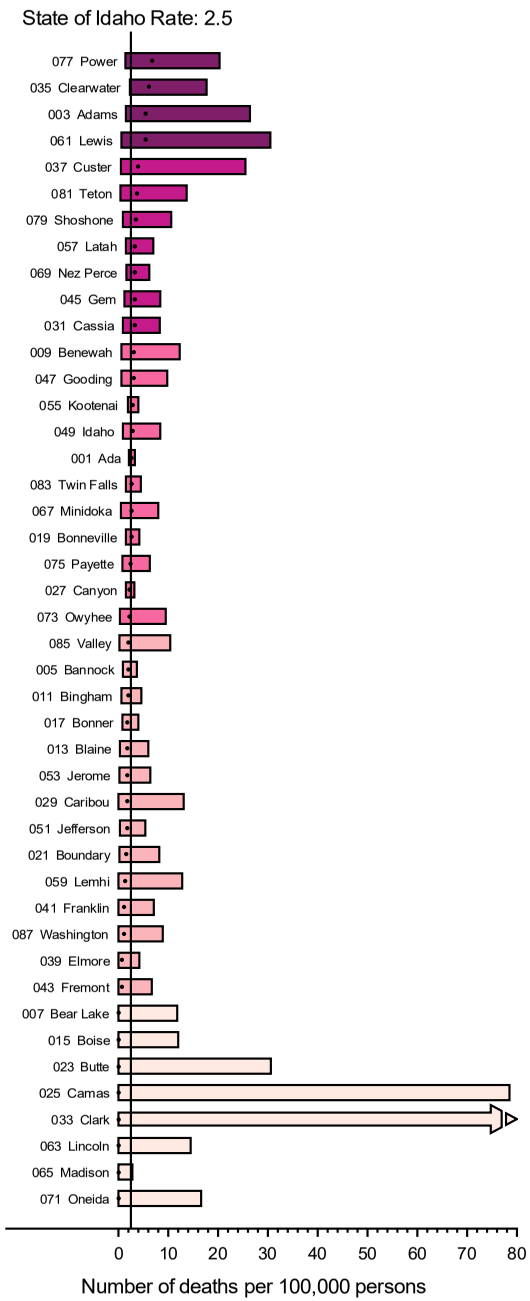
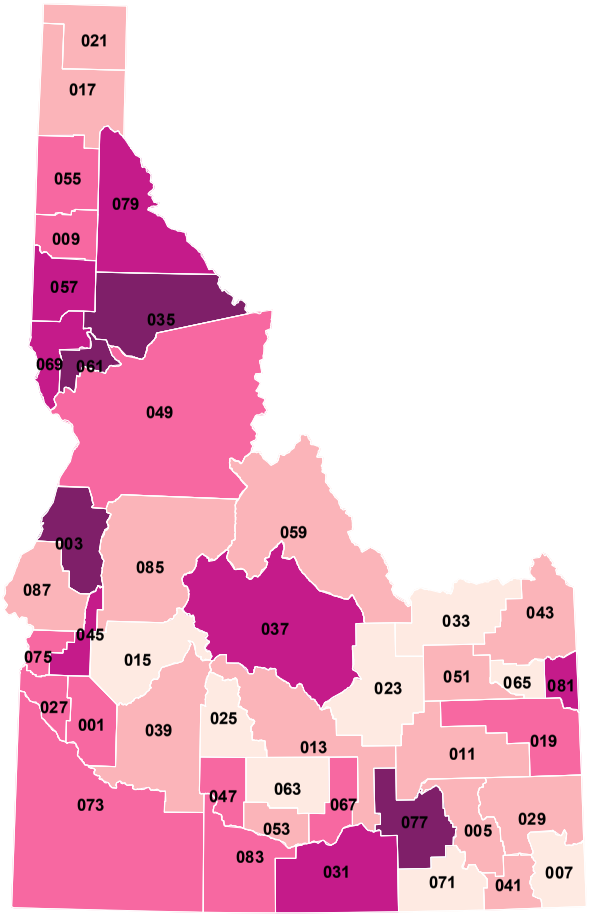


Age-Adjusted Mortality Rates

Oral Cavity and Pharynx

Both Males and Females

State of Idaho, by County, 2019–2023



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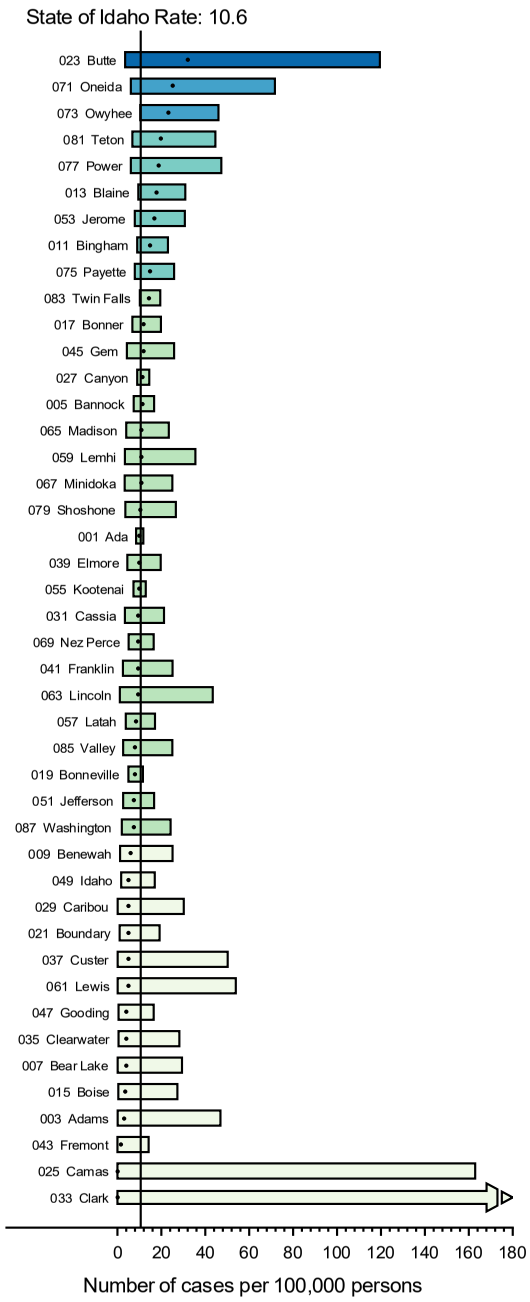
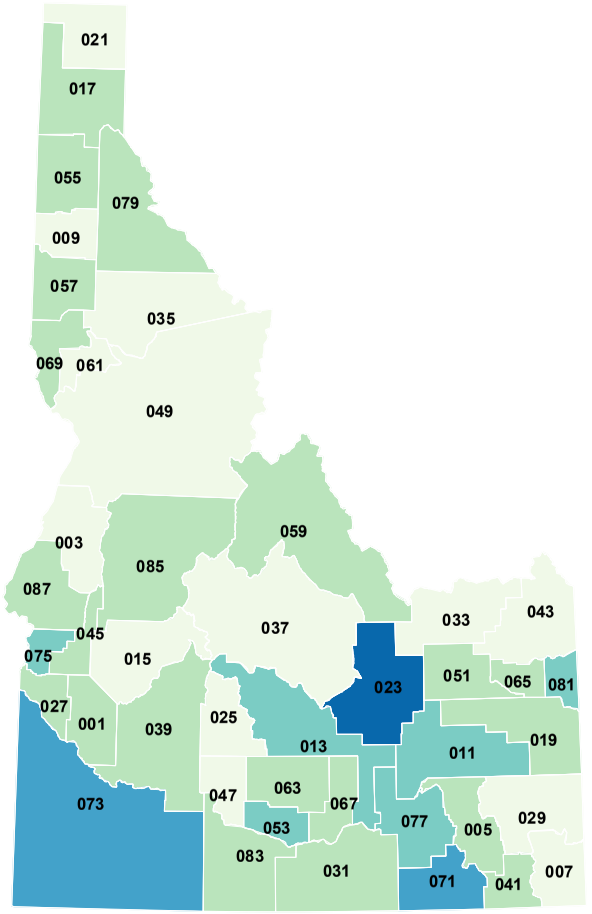


Age-Adjusted Incidence Rates

Ovary

Females

State of Idaho, by County, 2019–2023



Cancer Data Registry of Idaho.
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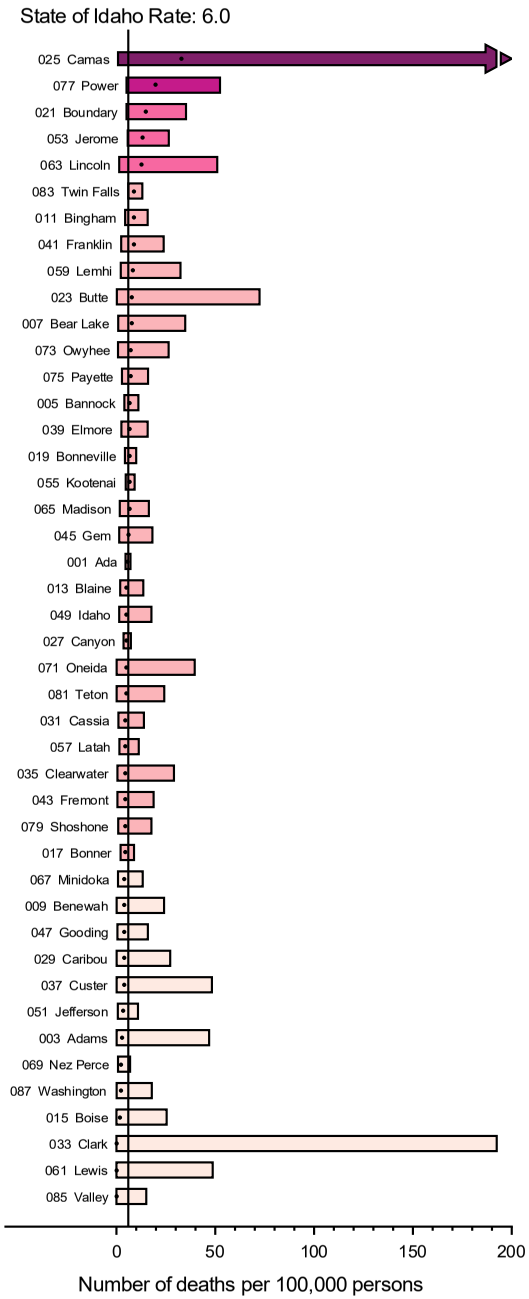
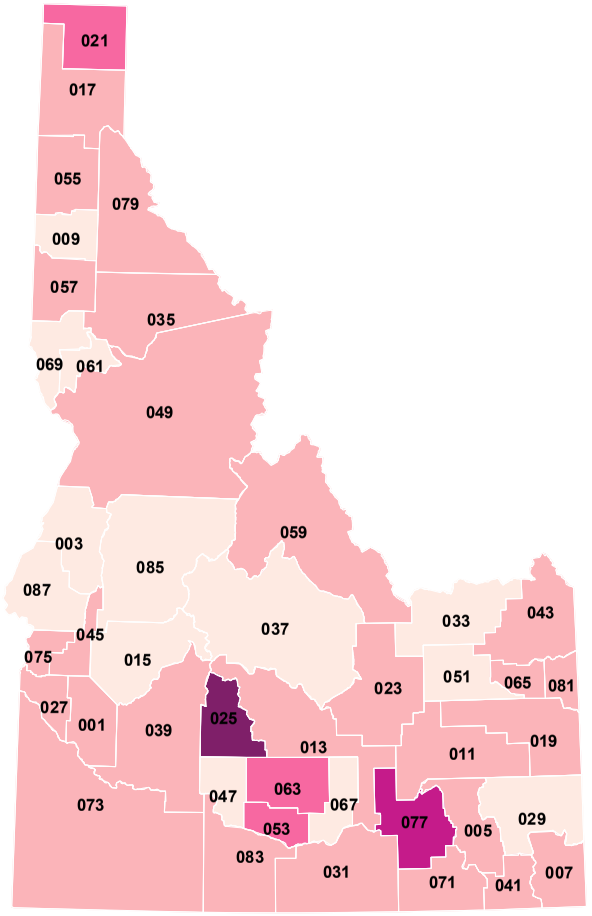


Age-Adjusted Mortality Rates

Ovary

Females

State of Idaho, by County, 2019–2023



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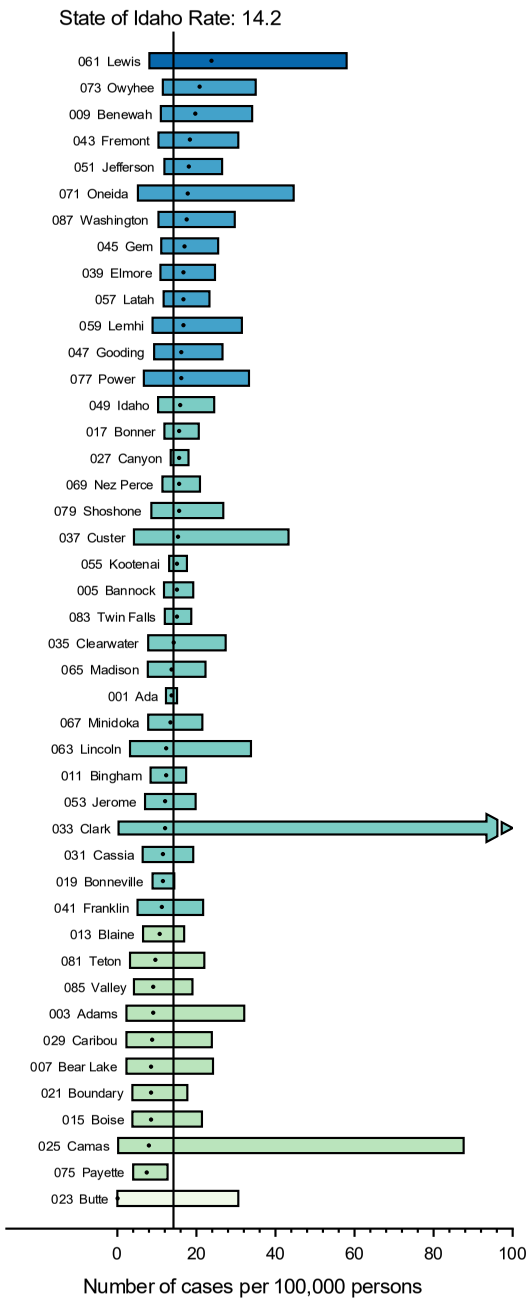
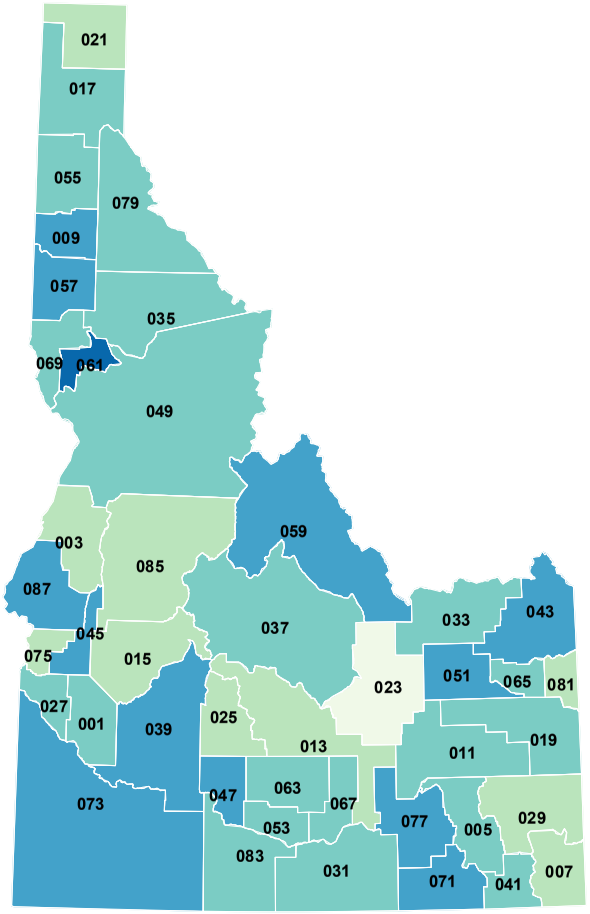


Age-Adjusted Incidence Rates

Pancreas

Both Males and Females

State of Idaho, by County, 2019–2023



Cancer Data Registry of Idaho.
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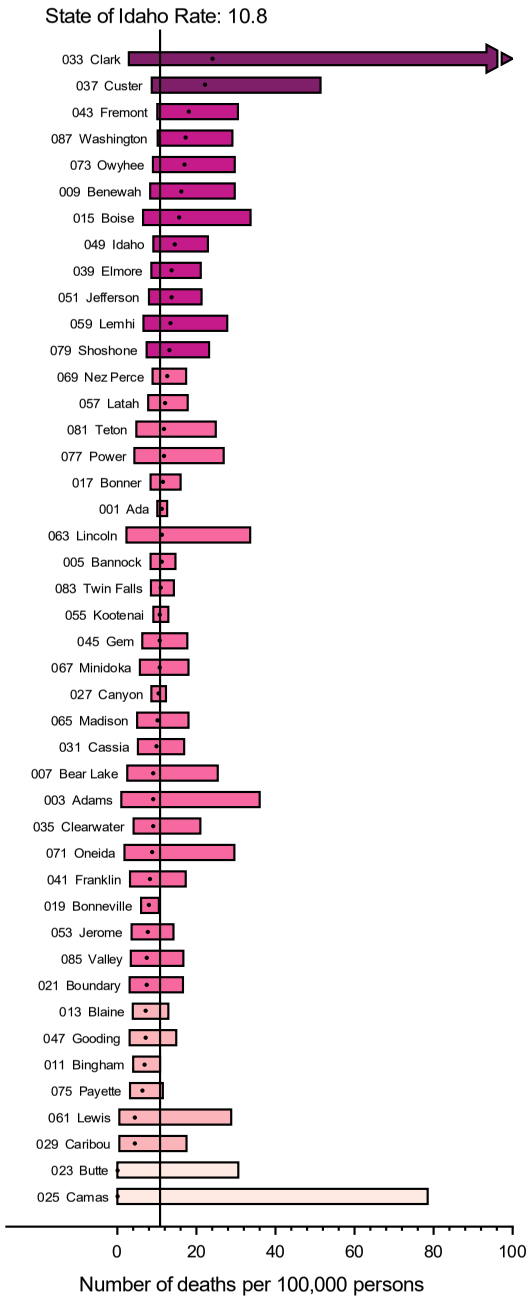
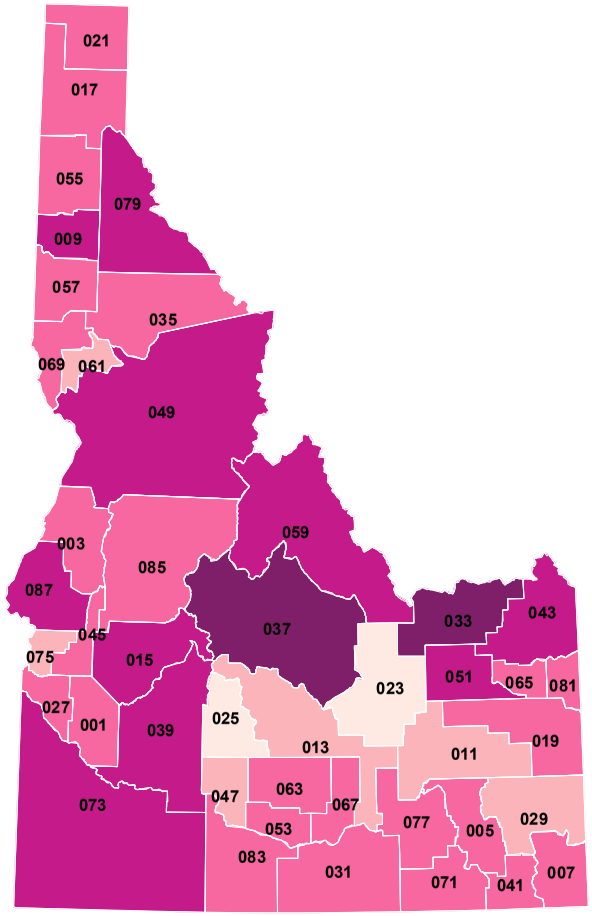


Age-Adjusted Mortality Rates

Pancreas

Both Males and Females

State of Idaho, by County, 2019–2023



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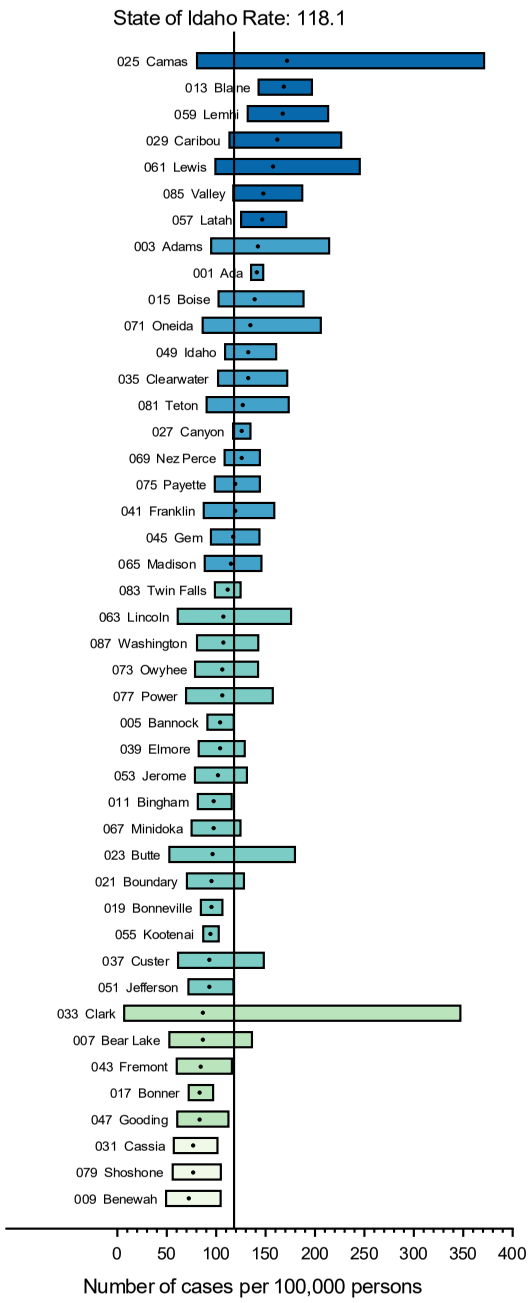
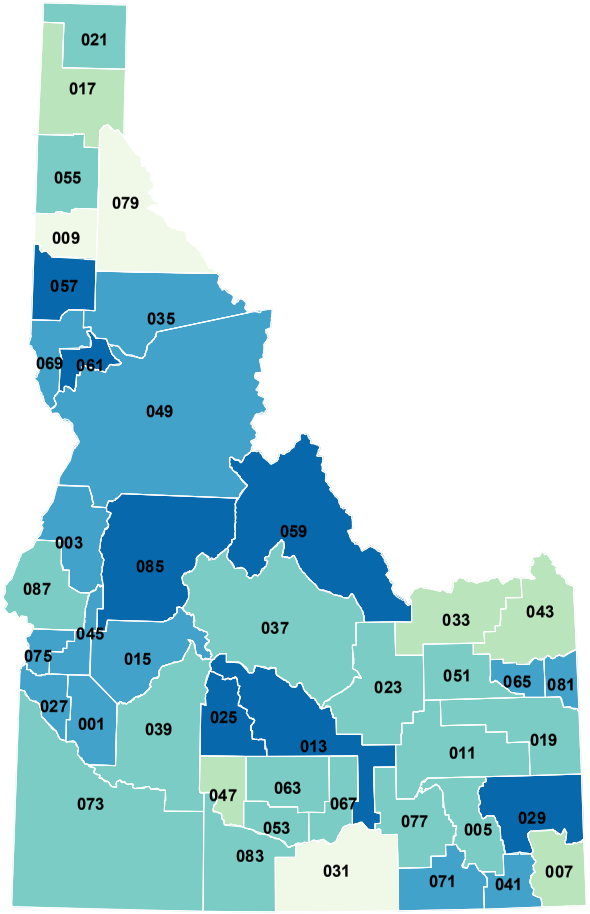


Age-Adjusted Incidence Rates

Prostate

Males

State of Idaho, by County, 2019–2023



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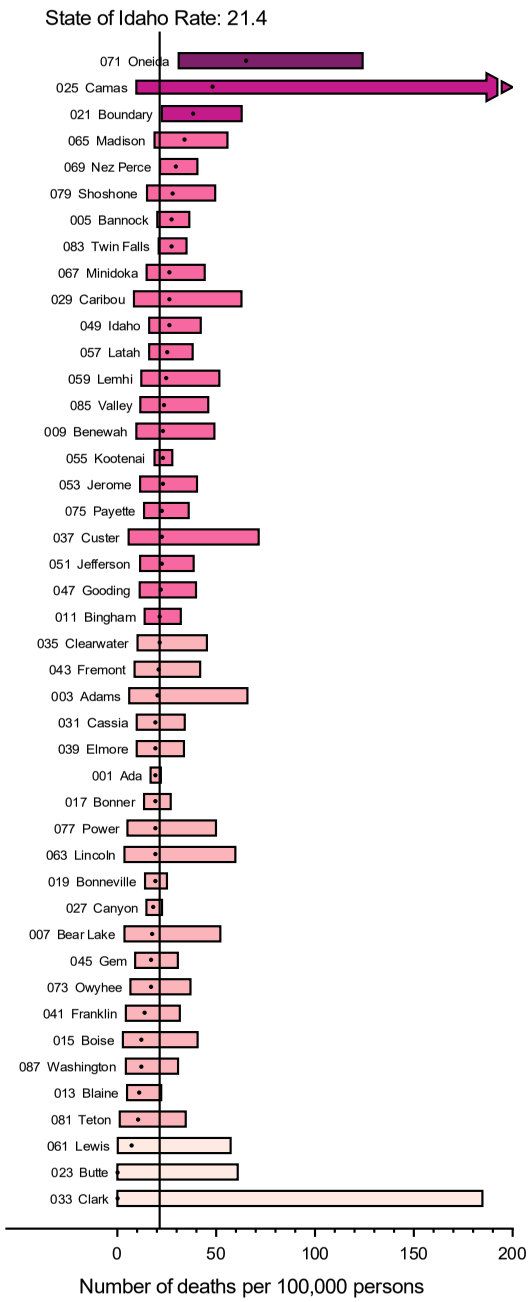
Colors denote rate clustering. Width of bars indicate 95% confidence intervals.

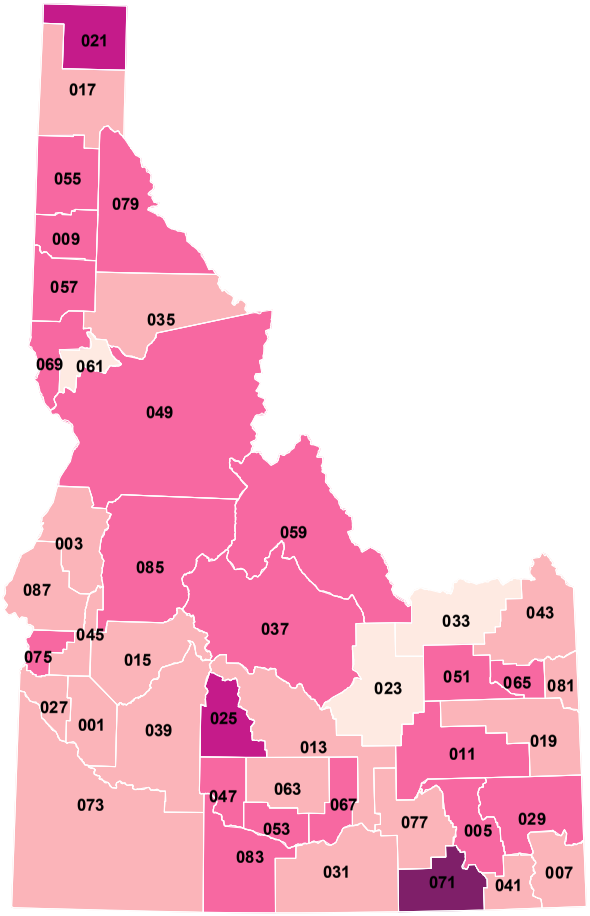


Age-Adjusted Mortality Rates

Prostate

Males

State of Idaho, by County, 2019–2023



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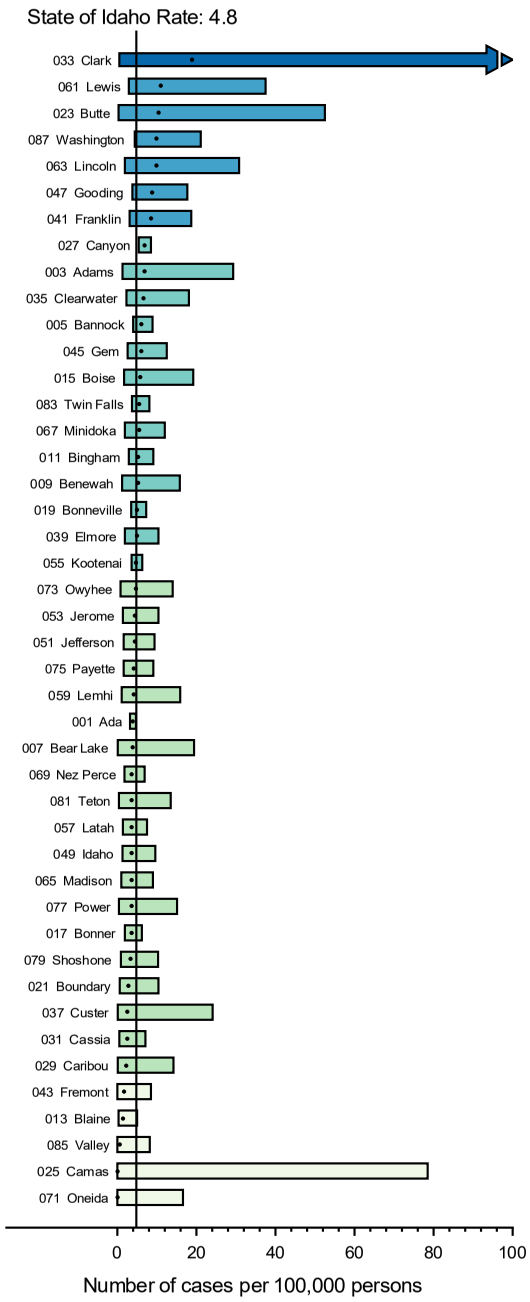
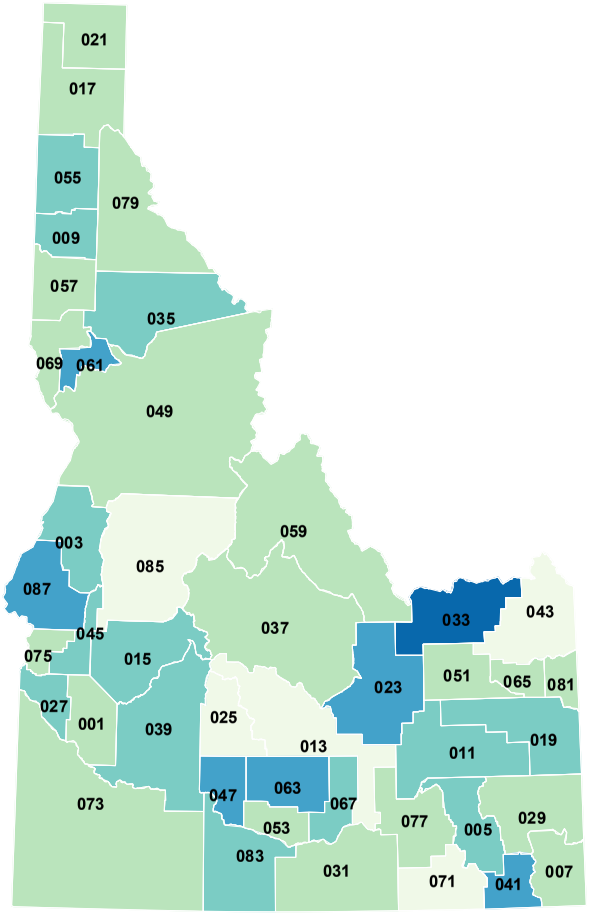


Age-Adjusted Incidence Rates

Stomach

Both Males and Females

State of Idaho, by County, 2019–2023



Cancer Data Registry of Idaho.
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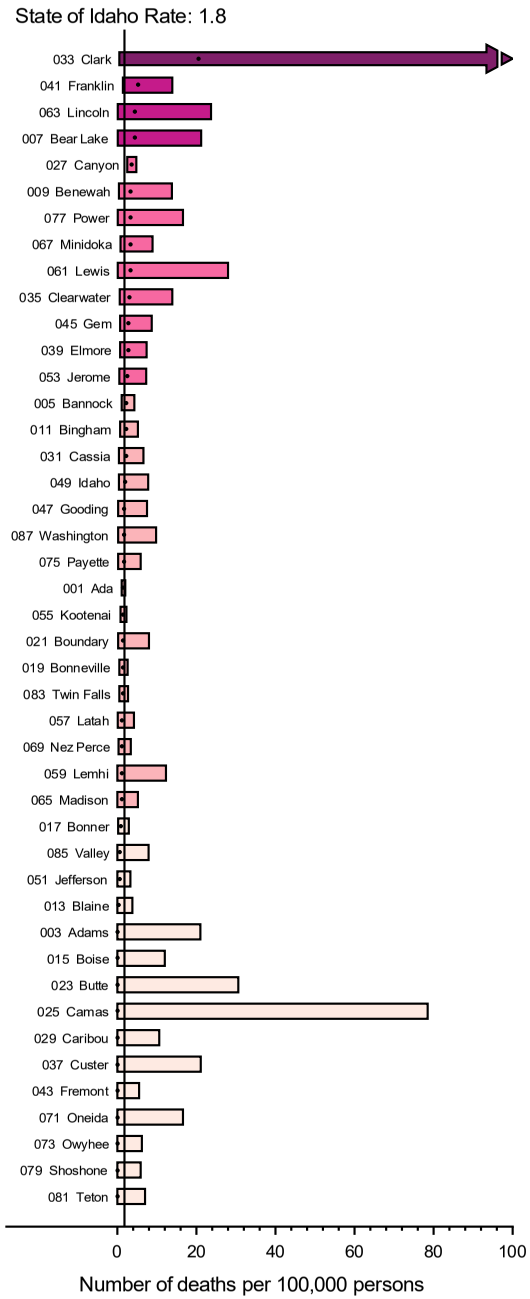
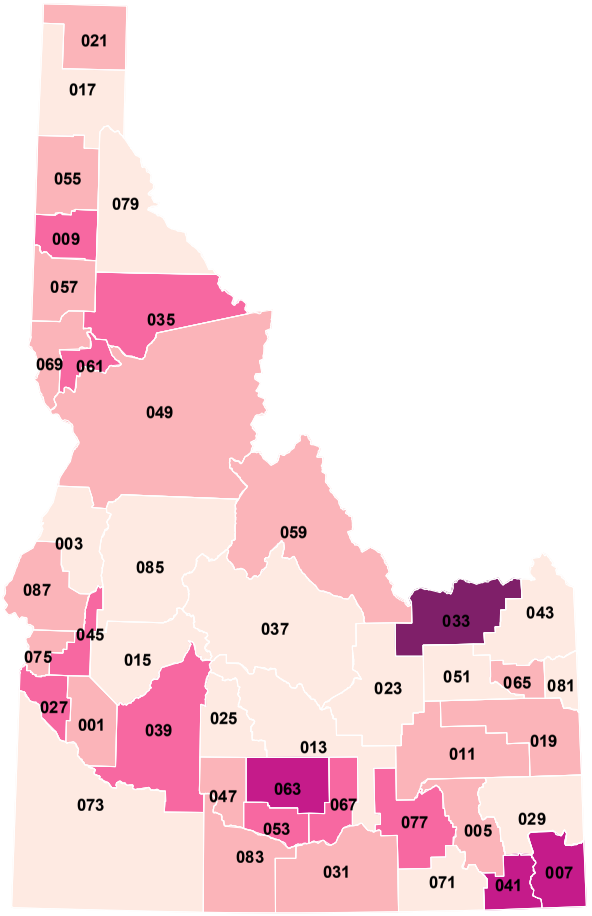


Age-Adjusted Mortality Rates

Stomach

Both Males and Females

State of Idaho, by County, 2019–2023



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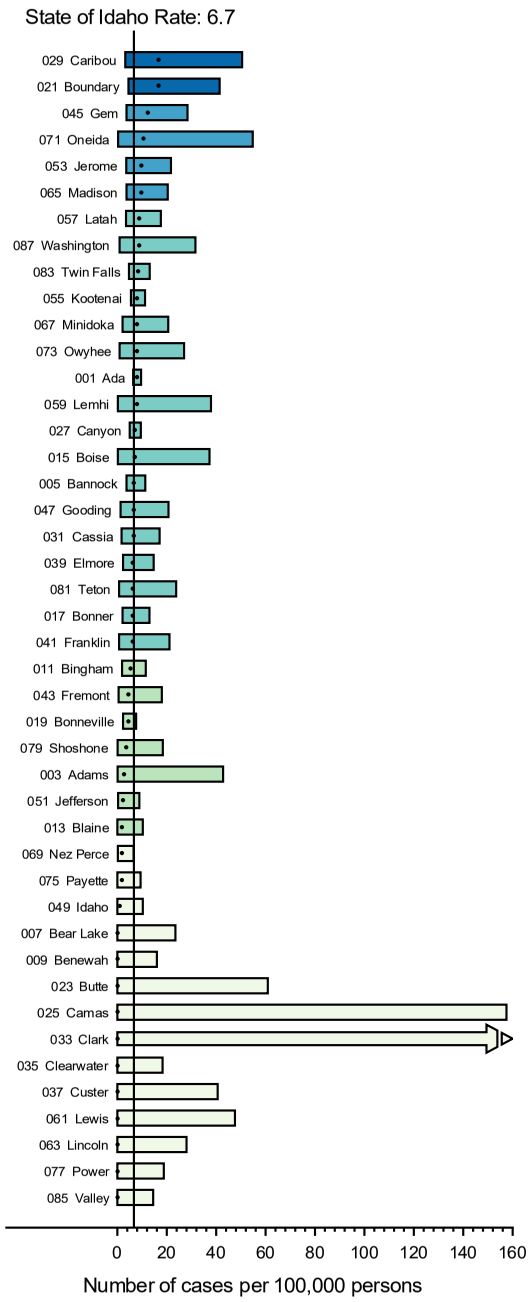
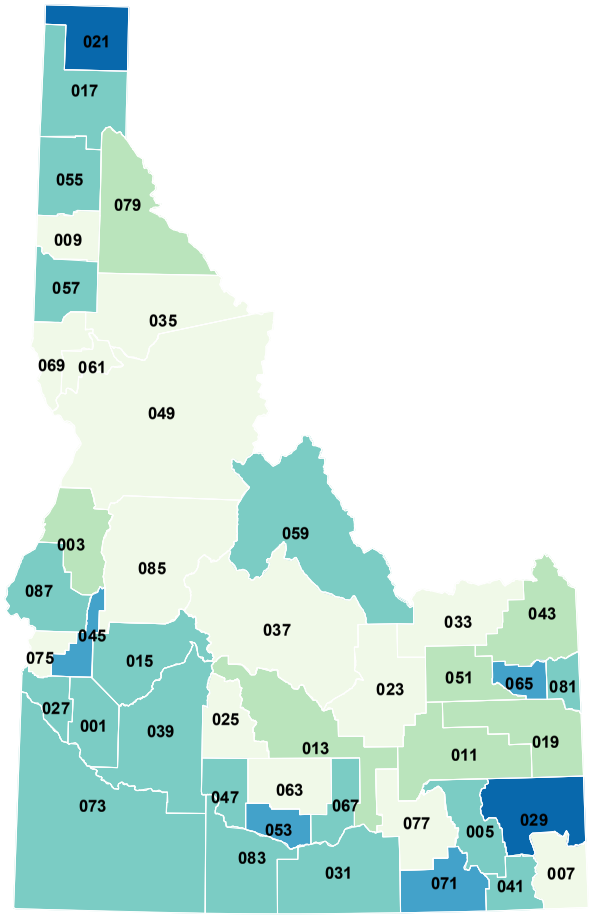


Age-Adjusted Incidence Rates

Testis

Males

State of Idaho, by County, 2019–2023



Cancer Data Registry of Idaho.
Rates age-adjusted to the 2000 U.S. population. U.S. FIPS codes label counties.
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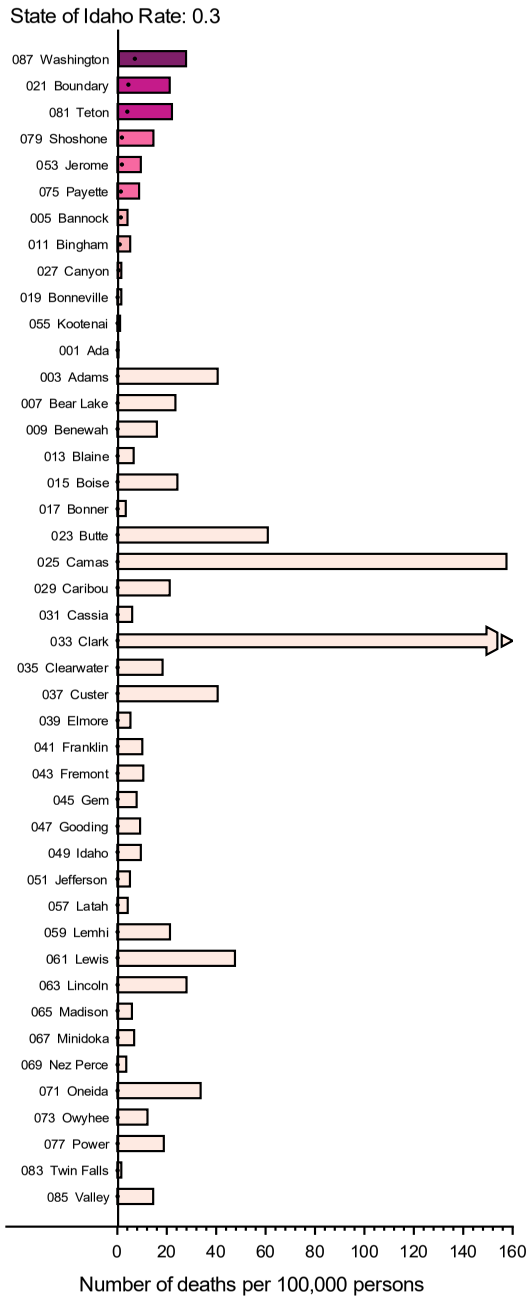
Arrows indicate upper confidence interval extends beyond graphic area.

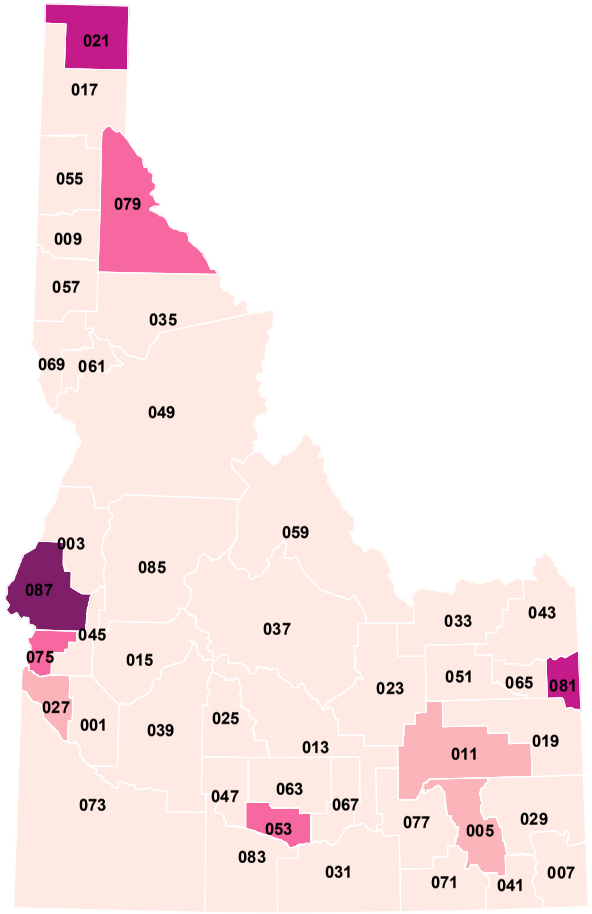
Age-Adjusted Mortality Rates

Testis

Males

State of Idaho, by County, 2019–2023





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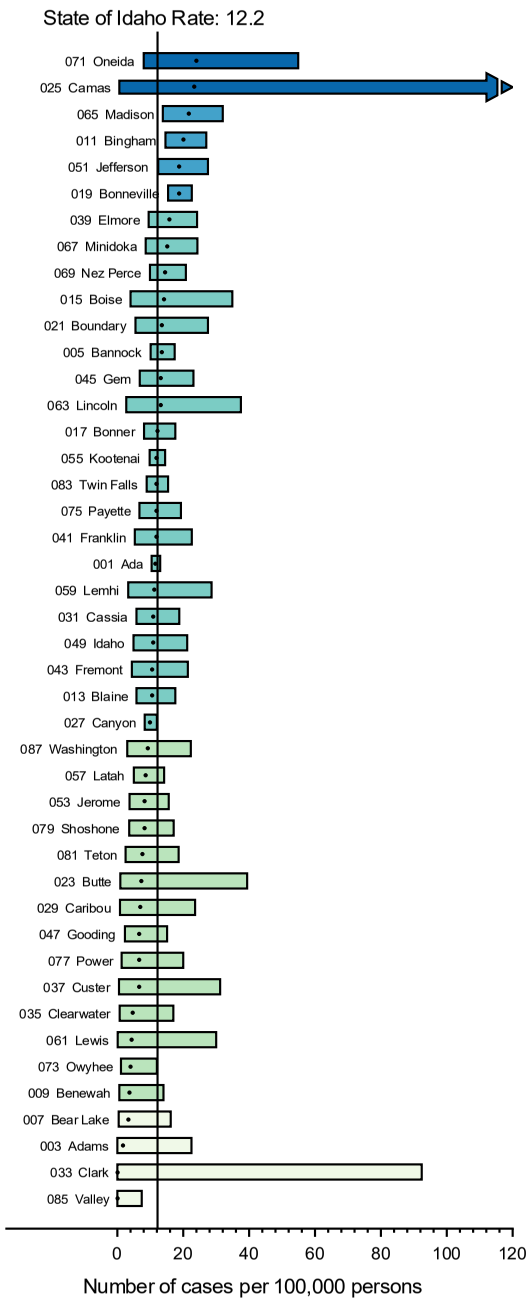
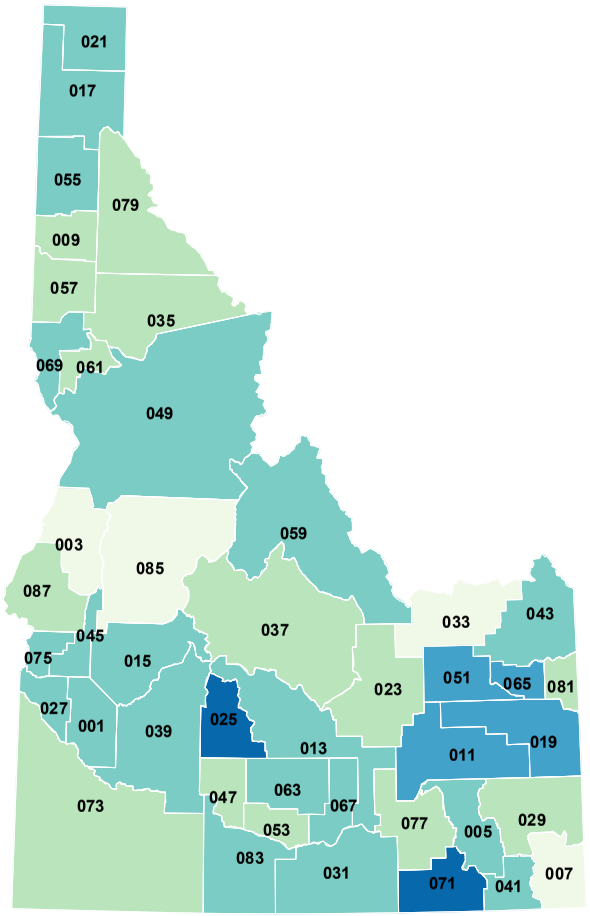


Age-Adjusted Incidence Rates

Thyroid

Both Males and Females

State of Idaho, by County, 2019–2023



Cancer Data Registry of Idaho.
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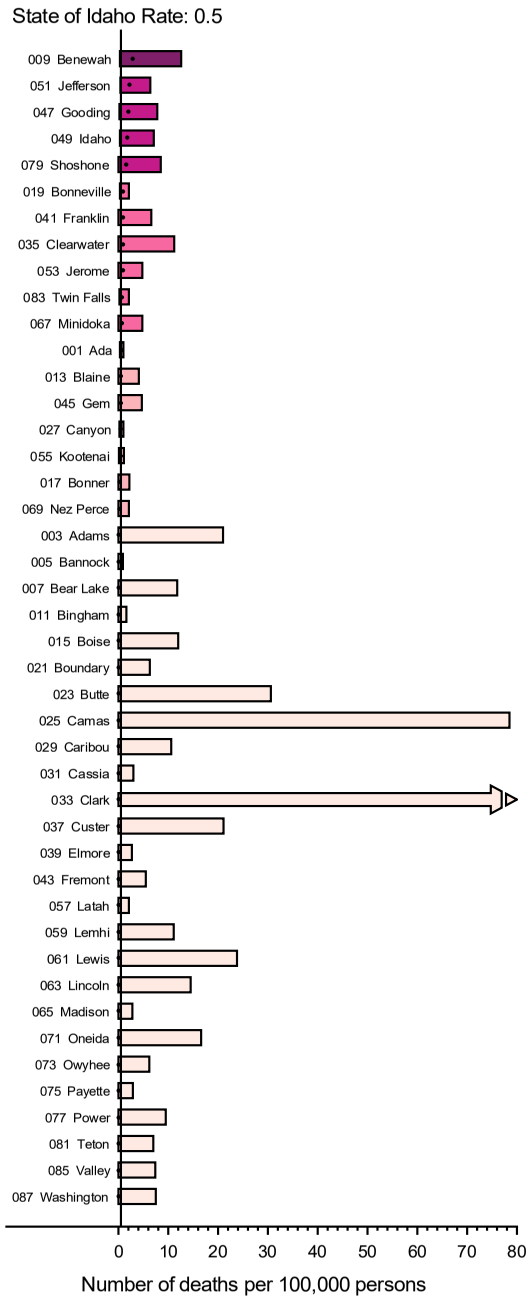
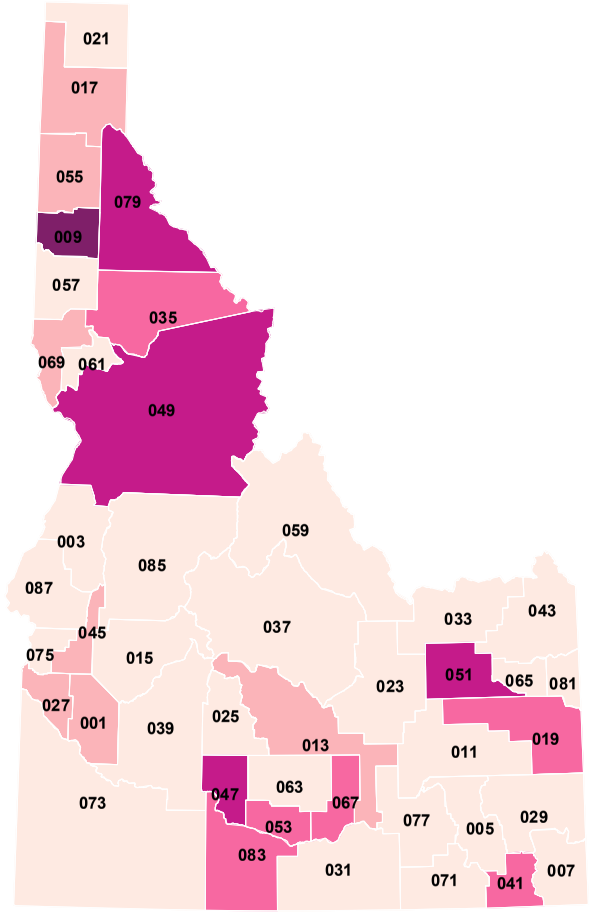


Age-Adjusted Mortality Rates

Thyroid

Both Males and Females

State of Idaho, by County, 2019–2023



Cancer Data Registry of Idaho.
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Colors denote rate clustering. Width of bars indicate 95% confidence intervals.
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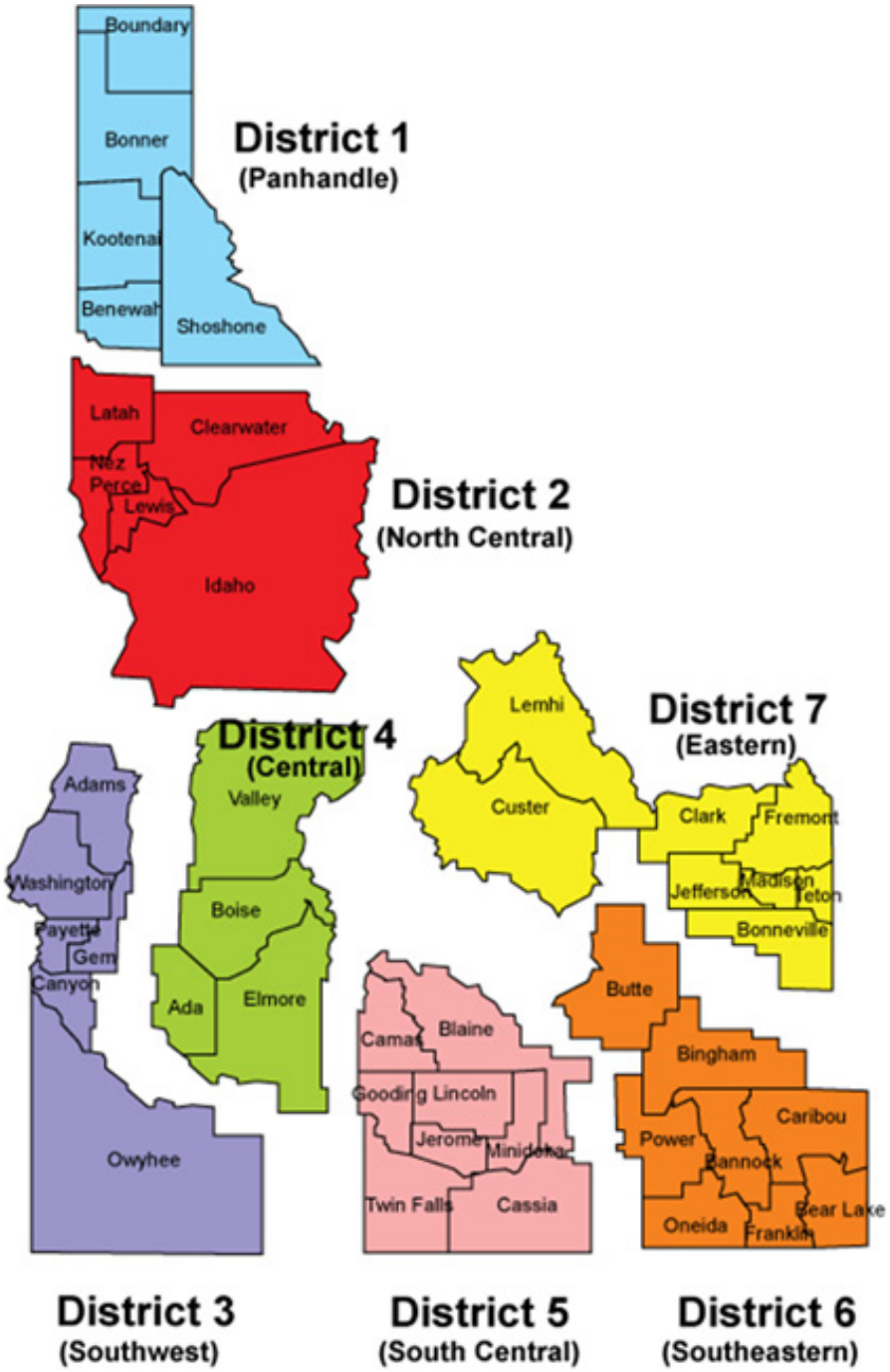
APPENDICES

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, 2025.[12]

APPENDIX C

2023 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	7,331	2,936	10,997	14,799	7,050	6,081	9,177	58,371
5 to 9	8,777	3,245	12,234	17,273	7,813	6,850	9,656	65,848
10 to 14	8,962	3,347	12,535	18,790	8,523	7,549	10,116	69,822
15 to 19	8,531	4,296	12,825	20,133	8,546	7,668	12,626	74,625
20 to 24	7,034	5,593	10,702	19,350	6,518	6,540	12,522	68,259
25 to 29	7,646	3,832	11,048	20,845	6,621	6,115	9,394	65,501
30 to 34	8,724	3,679	11,577	20,494	7,174	6,003	7,952	65,603
35 to 39	8,665	3,339	11,151	20,690	7,027	6,084	7,908	64,864
40 to 44	8,881	3,379	10,766	21,236	7,206	6,280	8,215	65,963
45 to 49	8,016	2,978	9,759	18,826	6,547	5,505	7,062	58,693
50 to 54	8,261	3,107	9,459	18,541	5,996	4,850	6,038	56,252
55 to 59	8,514	3,217	9,244	16,839	5,905	4,446	5,810	53,975
60 to 64	9,761	3,799	9,533	17,084	6,453	5,239	6,314	58,183
65 to 69	9,624	3,818	8,751	15,603	6,012	5,090	5,855	54,753
70 to 74	8,253	3,393	7,214	12,658	4,801	4,109	4,754	45,182
75 to 79	5,842	2,398	5,222	9,396	3,398	2,776	3,079	32,111
80 to 84	3,247	1,356	2,999	4,937	2,131	1,542	1,831	18,043
85+	2,003	1,170	1,952	3,565	1,417	1,058	1,246	12,411
Total	138,072	58,882	167,968	291,059	109,138	93,785	129,555	988,459
	HD 1	**HD 2**	**HD 3**	**HD 4**	**HD 5**	**HD 6**	**HD 7**	**STATE**
Females								
< 5	6,962	2,765	10,328	14,118	6,588	5,735	8,516	55,012
5 to 9	8,264	3,115	11,707	16,650	7,570	6,823	8,930	63,059
10 to 14	8,514	3,291	11,929	17,843	8,383	7,186	9,690	66,836
15 to 19	7,593	3,879	11,920	18,746	7,957	7,194	19,064	76,353
20 to 24	6,367	4,791	10,223	17,344	6,468	6,055	11,582	62,830
25 to 29	7,112	3,210	10,660	18,402	6,432	5,808	8,348	59,972
30 to 34	8,563	3,363	11,525	19,332	6,955	5,986	7,731	63,455
35 to 39	8,748	3,147	10,915	19,819	6,776	6,012	7,576	62,993
40 to 44	8,624	3,239	10,590	20,226	6,982	6,154	7,733	63,548
45 to 49	7,917	2,808	9,573	17,751	6,037	5,322	6,483	55,891
50 to 54	8,069	3,000	9,396	17,466	5,524	4,658	5,829	53,942
55 to 59	8,760	3,228	9,190	16,658	5,713	4,609	5,532	53,690
60 to 64	10,154	3,982	10,133	17,697	6,671	5,274	6,145	60,056
65 to 69	10,260	3,782	9,376	16,898	6,163	5,211	5,785	57,475
70 to 74	8,724	3,247	7,740	14,023	4,942	4,106	4,821	47,603
75 to 79	6,092	2,365	5,783	10,095	3,736	2,971	3,351	34,393
80 to 84	3,702	1,570	3,435	6,137	2,351	1,756	2,209	21,160
85+	3,012	1,467	2,683	5,294	2,209	1,593	1,741	17,999
Total	137,437	56,249	167,106	284,499	107,457	92,453	131,066	976,267
Total	275,509	115,131	335,074	575,558	216,595	186,238	260,621	1,964,726

Source: National Cancer Institute, Division of Cancer Control and Population Sciences, Surveillance Research Program, released January 2025.