Annual Report of the Cancer Data Registry of Idaho

Cancer in Idaho – 2015

December 2017

CDRI Cancer Data Registry of Idaho

Idaho Hospital Association

IDAHO DEPARTMENT OF HEALTH & WELFARE

CANCER IN IDAHO - 2015

December 2017

A Publication of the
Cancer Data Registry of Idaho

CDRI Cancer Data Registry of Idaho

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PREFACE

"Cancer in Idaho - 2015," the thirty-ninth annual report of the Cancer Data Registry of Idaho (CDRI), contains information on the cancer burden among Idaho residents, with a focus on cancer cases diagnosed during 2015. The data can be used by public health officials, hospital administrators, physicians, the Comprehensive Cancer Alliance for Idaho, and others to effectively plan services, prioritize health resource allocations, develop and measure prevention and intervention strategies, and identify high-risk populations within the state of 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 would also like to thank the Division of Public Health, Idaho Department of Health and Welfare, and the Comprehensive Cancer Alliance for Idaho for their continued partnership and for using CDRI data as a tool in cancer control and prevention.

We acknowledge the Centers for Disease Control and Prevention for its support of CDRI and the distribution of this annual report under cooperative agreement 1NU58DP006270-01 awarded to the Idaho Hospital Association. The contents of this report are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.

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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 reside in the state of Idaho or who are diagnosed and/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 social characteristics;
- monitor trends and patterns of cancer incidence over time;
- identify high risk populations;
- provide a database and serve as a resource for conducting epidemiologic studies; and
- provide data to assist public health officials, hospital administrators, and physicians to effectively plan services, prioritize health resource allocations, 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 a portion (less than one percent) of the cigarette tax to 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.

Collection of Data

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

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

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

Reported cases contain the following data:

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

Primary site, behavior, grade, and histology were coded according to the *International Classification of Diseases for Oncology, 3rd edition.*[1] Stage of disease variables were coded using SEER's *Summary Staging Manual 2000*, the *AJCC Manual for Staging of Cancer, 7th edition*, and the *Collaborative Staging Manual, Version 2.05.*[2,3,4] SEER Summary Stage was derived from Collaborative Staging variables. 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.[5-8] Beginning with cases diagnosed in 2010, new rules for coding hematopoietic and lymphoid neoplasms were applied.[9]

Reportable Cases

All in situ or 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.

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

Basal and squamous cell carcinomas of the skin are excluded except when occurring on a mucous membrane or if the AJCC stage group is II, III, or IV.

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 GenEDITS Plus software which has standard edits using algorithms that check the content of data fields against an encoded set of acceptable possible contents and flags the acceptability of coded data. Edits include field edits, inter-field edits, and inter-record edits. Edits check for unlikely sex/site, site/histology, and site/age combinations. Records are also routinely checked for duplicate entries. Duplicate case checking is performed both manually and electronically using several methodologies.

CDRI has met NPCR program standards and is recognized as a "gold standard registry" for quality, completeness and timeliness as designated by NAACCR. These designations enable Idaho data to be included in *United States Cancer Statistics* and all NAACCR volumes of *"Cancer Incidence in North America."*

Executive Summary

Data Presentation

This report is comprised of nine 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, 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 the National Cancer Institute's SEER program and United States Cancer Statistics (USCS), which are combined from SEER and the Centers for Disease Control and Prevention's National Program of Cancer Registries (NPCR),[10] are provided. Only registries whose data meet specified data quality criteria are included in USCS statistics. For the latest USCS data (2014 incidence), all areas of the U.S. are included. Section II depicts incidence data by site, subsite, and gender for invasive and in situ cases. For completeness, site groups include categories for mesothelioma and Kaposi sarcoma histologies. In the remainder of the report, these cancers are grouped by anatomic site. Section III depicts mortality data by site and gender. Section IV contains a table of age-specific cancer rates, per 100,000, by site and gender. Section V contains a table of observed versus expected numbers of cancer cases by health district. For more detailed statistics by county, see CDRI's *County Cancer Profiles* at https://www.idcancer.org/ContentFiles/special/CountyProfiles/CountyMap.htm. 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 1975-2015. Section VIII shows cancer incidence rates by race and ethnicity for the period 2011-2015. Section IX shows cancer survival statistics for Idahoans diagnosed during the period 2008-2014 with follow-up through 2015.

Descriptive Summary by Gender and Race and Ethnicity

The data presented in this report cover cancer cases diagnosed among Idaho residents between January 1, 2015, and December 31, 2015. In this time frame, there were 8,820 cases of in situ and invasive cancer diagnosed among Idaho residents (4,436 among males and 4,384 among females). By race and ethnicity, there were 8,171 cases among non-Hispanic whites, 361 among Hispanic whites, 26 cases among blacks, 68 cases among Native Americans, and 71 cases among Asians/Pacific Islanders. One hundred and twenty-three cases were coded as other or unknown race. The number of cancer cases treated in outpatient settings and reported only by pathology laboratories has increased over the last several years. These cases are more likely to have missing race and ethnicity information. CDRI has conducted matches with the Indian Health Service and Northwest Portland Area Indian Health Board to improve the accuracy of race information collected on Native Americans, and 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: 2010-2014, Volume Two*.[11]

Trends

There was a 4.2% increase in the age-adjusted cancer incidence rates as published in the 2014 and 2015 annual reports. Changes in health policy and screening recommendations 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. From 2011 to 2014, prostate cancer incidence rates decreased about 13.3% per year in Idaho, similar to national trends, but rebounded in 2015. The drop in lung cancer cases in 2013 was followed by a rebound in 2014 and 2015. Low dose CT (LDCT) screening for lung cancer among persons at higher risk due to smoking history was recommended by the United States Preventive Services Task Force in December 2013. The incidence rates of cancers of the brain, esophagus, oral cavity and pharynx, ovary, pancreas, and leukemia, which fluctuate annually due to relatively small case counts, rebounded from 2014. See Section VII for more detailed long-term trends in cancer incidence.

Population Description

The population of the state of Idaho on July 1, 2015, was estimated to be 1,652,828 (828,277 males and 824,551 females). Population estimates were obtained from the National Center for Health Statistics.[12] Idaho is comprised of 44 counties 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	111,671	113,313
District 2	Clearwater, Latah, Lewis, Idaho, Nez Perce	54,710	52,689
District 3	Adams, Canyon, Gem, Owyhee, Payette, Washington	154,605	155,240
District 4	Ada, Boise, Elmore, Valley	239,620	236,732
District 5	Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, Twin Falls	96,312	95,510
District 6	Bannock, Bear Lake, Bingham, Butte, Caribou, Franklin, Oneida, Power	84,708	84,288
District 7	Bonneville, Clark, Custer, Fremont, Jefferson, Lemhi, Madison, Teton	106,193	105,141

SUMMARY MEASURES OF CANCER BURDEN IN IDAHO - 2015

Primary Site	Incident Cases	Deaths	Median Age at Diagnosis	Median Age at Death	Total Number of YPLL Before Age 75	Average Number of YPLL per Death, Persons Aged Less than 75 Years	% Change Incidence Rate 2014 to 2015
All Sites	8,132	2,843	67.0	73.0	18,277	11.1	4.2%
Bladder	379	71	72.0	80.0	272	9.7	-0.9%
Brain	148	98	60.0	64.0	1,252	16.1	31.3%
Breast	1,175	210	64.0	72.0	1,640	12.5	0.7%
Cervix	47	17	51.0	56.0	288	18.0	-6.5%
Colorectal	645	221	67.0	73.0	1,606	13.4	2.3%
Corpus Uteri	239	28	62.0	69.5	209	11.0	3.5%
Esophagus	81	89	68.0	73.0	625	11.8	-17.4%
Hodgkin Lymphoma	39	4	31.0	-	-	-	8.5%
Kidney	297	76	68.0	73.0	450	10.0	7.6%
Larynx	41	13	67.0	76.0	80	13.3	2.1%
Leukemia	301	118	69.0	75.5	823	13.9	17.2%
Liver and Bile Duct	156	117	64.5	68.0	923	10.6	0.8%
Lung and Bronchus	939	648	72.0	72.0	3,522	8.9	2.1%
Melanoma of Skin	500	69	64.0	68.0	601	13.3	5.4%
Myeloma	124	58	71.5	79.0	220	10.5	9.2%
Non-Hodgkin Lymphoma	364	100	69.0	76.0	409	8.5	0.5%
Oral Cavity and Pharynx	234	49	64.0	70.0	337	11.2	29.8%
Ovary	96	77	64.5	71.0	503	10.1	-11.6%
Pancreas	267	213	71.0	72.0	1,305	9.7	17.9%
Prostate	949	194	68.0	80.0	416	6.1	8.6%
Stomach	114	45	68.5	73.0	333	12.3	-1.3%
Testis	58	-	34.0	-	-	-	6.2%
Thyroid	260	10	50.0	71.0	88	12.5	-1.1%

Notes:

Incident cases include all invasive and bladder in situ cases newly diagnosed among Idaho residents in 2015.

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

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

Technical Notes

Age-adjusted Incidence Rates

Age-adjusted incidence rates published within this report were adjusted using the direct method and standardized to the age distribution of the 2000 U.S. population (see Appendix A). 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.

The computation of rates requires reliable estimates of the population at risk by five-year age groups and gender during the time period being studied. Population figures used in this report were obtained from the National Center for Health Statistics (see Appendix B).[12]

In conformity with NPCR and the National Cancer Institute's Surveillance, Epidemiology, and End Results (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 2015 (8,820), a total of 8,132 cases (7,936 invasive and 196 bladder in situ) were used for calculating age-adjusted incidence rates. Of the 8,132 cases, 4,153 occurred among males and 3,979 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.

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 site 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 the National Cancer Institute's SEER Program, the Center for Disease Control and Prevention's National Program of Cancer Registries (NPCR), and are adopted by NAACCR.[5,6] Most neoplasms are grouped by the organ where they occur. Neoplasms of the lymphatic, hematopoietic, and reticuloendothelial systems are grouped by their histologies (leukemias, lymphomas, etc.), and not by the anatomic site where they occurred. Melanoma of the skin is

a combination of both anatomic site and histologic type. See http://seer.cancer.gov/siterecode/ for groupings of codes.

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 were not included in the observed numbers of cases. Statistically significant differences between observed and expected cases (standardized incidence ratios) were marked (+) for $p< 0.05$ and (*) for $p< 0.01$. Statistical significance does not necessarily imply that concern is warranted, since differences can occur as a result of multiple factors.

Confidence Intervals

A confidence interval gives an estimated range of values which is likely to include the true population value, and is used to indicate the reliability of an estimate.

Mean/Median

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

Mean, also known as the arithmetic average, is the sum of all observations divided by the number of observations.
Median is the middle value when the observations are ranked in order from the smallest to the largest.

Risk and Associated Factors

The "risk and associated factors" subsections in Section I were developed from extracts of *Cancer Epidemiology and Prevention*, the American Cancer Society's *Clinical Oncology*, and the *U.S. Department of Health and Human Services 11th Report on Carcinogens*.[13-15]
Socioeconomic status is abbreviated as SES in Section I text.

Limitations to Data Interpretation and Comparison

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

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

Racial misclassification: Many source documents used to report cancer do not specify race of the patient or misclassify race. For detailed statistics by race and ethnicity, see Section VIII and *Cancer in North America: 2010-2014, Volume Two*.[11]

NPCR

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.

SEER

Part of the National Cancer Institute, the Surveillance, Epidemiology, and End Results (SEER) program consists of several population-based cancer registries throughout the U.S. SEER cancer statistics are designed to be representative of the U.S. population, and are included for reference, combined with NPCR data, in Section I of this report. SEER rates included data from 18 registries and were calculated using SEER*Stat.[16]

Stage at Time of Diagnosis

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

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

Risks of Developing and Dying from Cancer

Cancer incidence and mortality risks were estimated using DEVCAN Version 6.7.3 software.[17] DEVCAN was used to calculate the probability of developing or dying of cancer using Idaho-specific cancer incidence and mortality data for the years 2011-2015. The estimates generated are similar to estimates derived using incidence data from the Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute, 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.

Trend Analyses

Joinpoint Version 4.2.0.2 software was used to model trends in age-adjusted cancer incidence rates.[18] For each joinpoint time segment, the estimated annual percent change (EAPC) was calculated by fitting a least squares regression line to the natural logarithm of the rates using calendar year as a covariate. The software used a grid search to find the maximum likelihood estimates of the joinpoints for multiple models (0 to 5 joinpoints) 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.

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. Actual (crude) measures of survival include cancer and other competing causes of death, while net measures of cancer survival exclude competing causes of death. Both types of survival estimates, crude and net, may be calculated using either information on cause of death or on expected survival. Policy makers, cancer control planners, and others may be interested in net deaths from cancer where the confounding effects of death from other causes are removed, such as when comparing geographic areas or population subgroups that have different background or other-cause mortality rates. Crude estimates of actual patient survival are useful for cancer patients and health care providers who are interested in estimating the patients’ chances of dying from cancer, from other

competing causes of death, or surviving.[20] For younger and healthier patients, crude and net estimates of survival are similar because competing causes of death are rare. Crude and net estimates of survival may differ substantially for older and sicker patients.

Relative survival is a net measure of excess mortality experienced by cancer patients. It is calculated by dividing the observed survival from all causes of death for the patient cohort by the expected survival in a comparable group not diagnosed with cancer. Because information on cancer-free cohorts is not readily available, general population life tables are used to estimate expected survival. Relative survival based on general life tables, which include people previously diagnosed with cancer, may be overestimated for common cancers, in particular for all sites combined, breast, colorectal, and prostate cancers.[21]

The SEER cause-specific death classification variable, which provides guidance for which deaths should be attributable to a specific cancer diagnosis, was used to estimate the probabilities of dying of cancer, dying of other competing causes, and survival.[22] For patients diagnosed with more than one primary cancer, this variable is not defined for the second or subsequent cancers. Thus, the cancer survival tables are split into columns for “single or first primary cancers only,” and “all primaries,” for which relative survival can be calculated.

Survival statistics published in this annual report include all invasive and bladder in situ cases aged 15-99 at diagnosis during 2008-2014 with follow-up/death ascertainment through December 31, 2015. Cases reported solely via death certificates or autopsy were excluded. Using SEER 2007 Multiple Primary and Histology Coding Rules,[8] multiple primary cancers could be included for each patient, but only one record per patient was included in each survival estimate.

SEER*Stat (version 8.3.4) was used to perform the survival calculations. The survival duration in months was calculated based on complete dates, with all patients not known to be deceased as of December 31, 2015 presumed to be alive on this date. Survival calculations were performed using the actuarial method on monthly intervals. Expected survival was estimated using the Ederer II method from life tables matched to the cancer patients by age, sex, year, race/ethnicity, and county-level socioeconomic status.[23, 24] Cases were censored at an achieved age of 100 years.

Because the excess mortality due to cancer is often age dependent, and the 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 were not age-standardized and reflect the actual prognosis of the cohort of Idaho cancer cases.

SECTION I

2015 SUMMARY ON ALL SITES COMBINED
AND
23 MOST COMMON SITES

ALL SITES

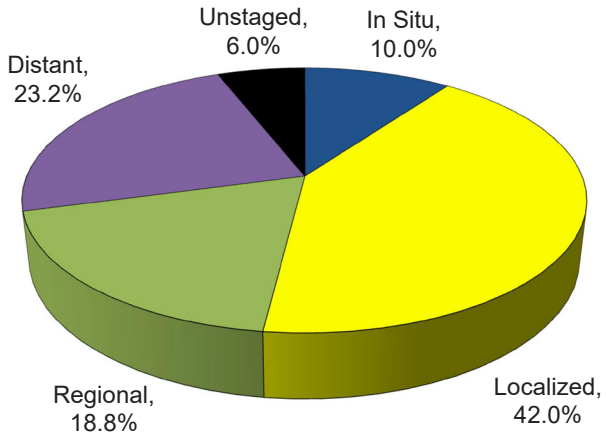
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	437.9	463.0	421.1
# of new invasive cases	7,936	4,008	3,928
# of new in situ cases	884	428	456
# of deaths	2,843	1,577	1,266

Total Cases by County

Ada	2,259	Cassia	109	Lewis	34
Adams	20	Clark	4	Lincoln	23
Bannock	334	Clearwater	72	Madison	96
Bear Lake	21	Custer	31	Minidoka	93
Benewah	67	Elmore	116	Nez Perce	267
Bingham	224	Franklin	47	Oneida	27
Blaine	122	Fremont	59	Owyhee	47
Boise	50	Gem	127	Payette	162
Bonner	329	Gooding	81	Power	39
Bonneville	516	Idaho	125	Shoshone	84
Boundary	71	Jefferson	124	Teton	43
Butte	16	Jerome	103	Twin Falls	401
Camas	5	Kootenai	993	Valley	75
Canyon	1,023	Latah	177	Washington	86
Caribou	31	Lemhi	87		

Stage at Diagnosis - All Sites



Risk and Associated Factors

Age Rates usually increase steadily with age. Most cases occur among adults in mid-life or older.

Gender Males have higher incidence rates than females for most cancer types.

Race & SES Rates are higher for blacks than for whites and other races. Rates are generally higher among lower income groups.

Occupation Risk for cancer is greater with some kinds of workplace exposures, such as some chemicals, asbestos, and radiation.

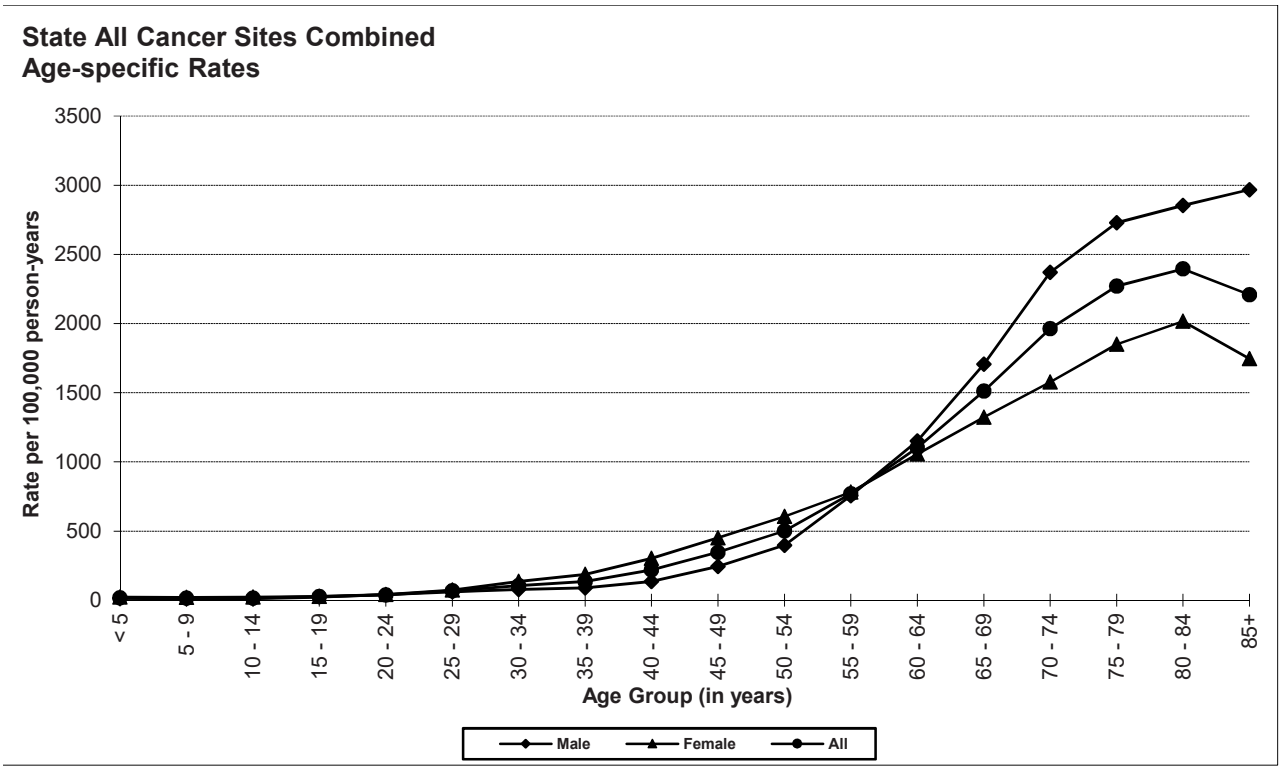
Diet Diets that are low in fresh fruits and vegetables have been associated with increased incidence of several cancers.

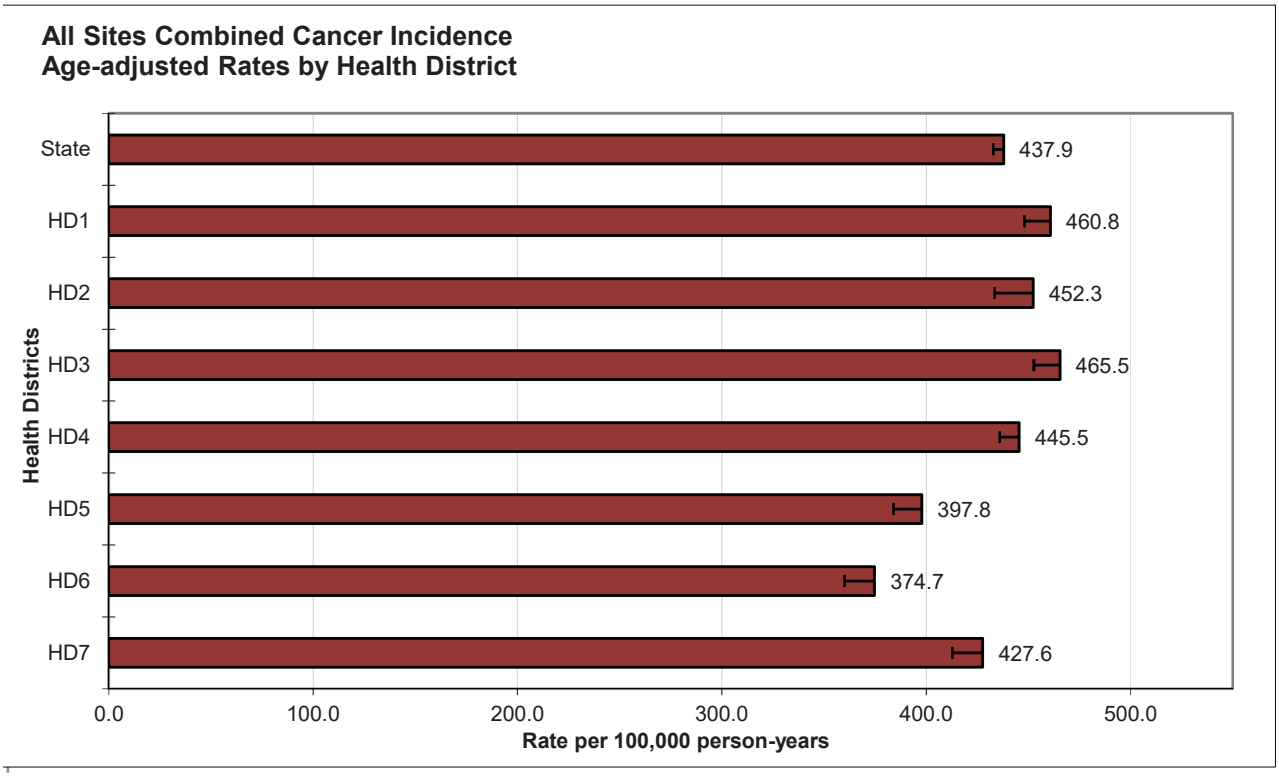
Other Tobacco use is the single most important risk factor for cancer incidence and mortality. Most cancers manifest a tendency to aggregate in families – close relatives of a cancer patient can be considered to have increased risk of that neoplasm, but not all forms of cancer. Excess risk is usually 2-3 times baseline, but in some (rare) families may be hundreds-fold.

Special Notes

Mean age-adjusted incidence rate across health districts:	432.0
95% confidence interval on the mean age-adjusted incidence rate:	406.7- 457.4
Median age-adjusted incidence rate of health districts:	445.5
Range of age-adjusted incidence rate for health districts:	374.7- 465.5
USCS rate (2014, all races):	428.0

The incidence rates for all cancers combined were similar for males and females in Idaho until approximately age 60-64, after which rates for males rose dramatically. The highest rates for both males and females were observed in age groups after age 70, peaking in the age group 85+ for males and 80-84 for females. Health Districts 1 and 3 had statistically significantly more cases of cancer than expected based upon rates for the remainder of Idaho, and Health Districts 5 and 6 had statistically significantly fewer cases than expected.


State All Cancer Sites Combined
Age-specific Rates
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
437.9
460.8
452.3
465.5
445.5
397.8
374.7
427.6
0.0
100.0
200.0
300.0
400.0
500.0
Rate per 100,000 person-years

BLADDER

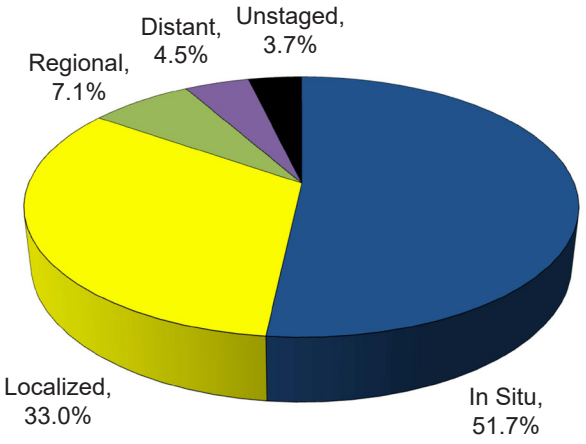
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	20.0	32.0	9.8
# of new invasive cases	183	135	48
# of new in situ cases	196	145	51
# of deaths	71	50	21

Total Cases by County

Ada	91	Cassia	3	Lewis	1
Adams	1	Clark	-	Lincoln	-
Bannock	10	Clearwater	2	Madison	3
Bear Lake	-	Custer	1	Minidoka	3
Benewah	2	Elmore	4	Nez Perce	7
Bingham	14	Franklin	3	Oneida	1
Blaine	7	Fremont	3	Owyhee	-
Boise	3	Gem	5	Payette	10
Bonner	18	Gooding	5	Power	2
Bonneville	15	Idaho	6	Shoshone	1
Boundary	3	Jefferson	4	Teton	-
Butte	-	Jerome	3	Twin Falls	25
Camas	-	Kootenai	67	Valley	4
Canyon	38	Latah	6	Washington	4
Caribou	-	Lemhi	4		

Stage at Diagnosis - Bladder



Risk and Associated Factors

Age Rates usually increase steadily with age.

Gender Males have substantially higher rates than females.

Race Incidence rates are higher in whites.

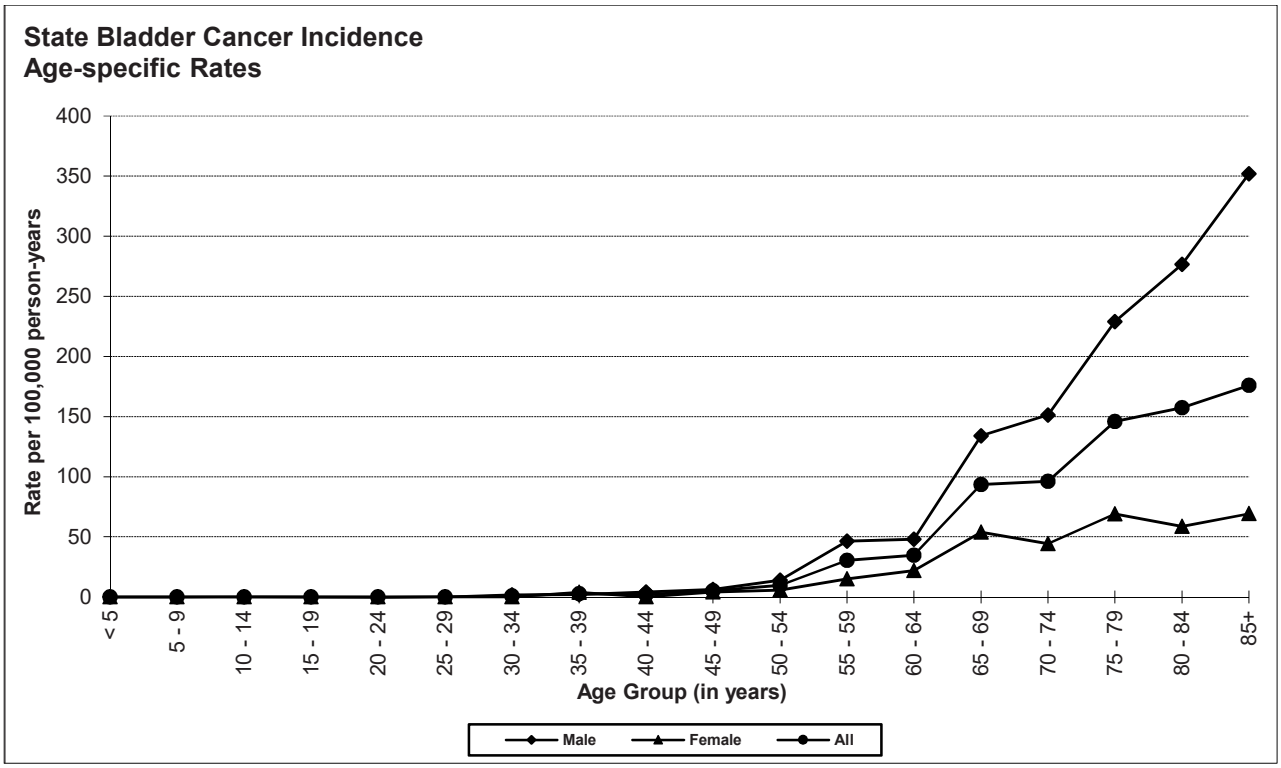
Occupation Truck drivers, likely via exposure to motor exhaust, are at increased risk. Occupational exposures, including manufacturers of certain dyes, painters, and aluminum, rubber, cable, and leather workers, have been shown to increase risk of bladder cancer. Exposure to permanent hair dyes may increase risk.

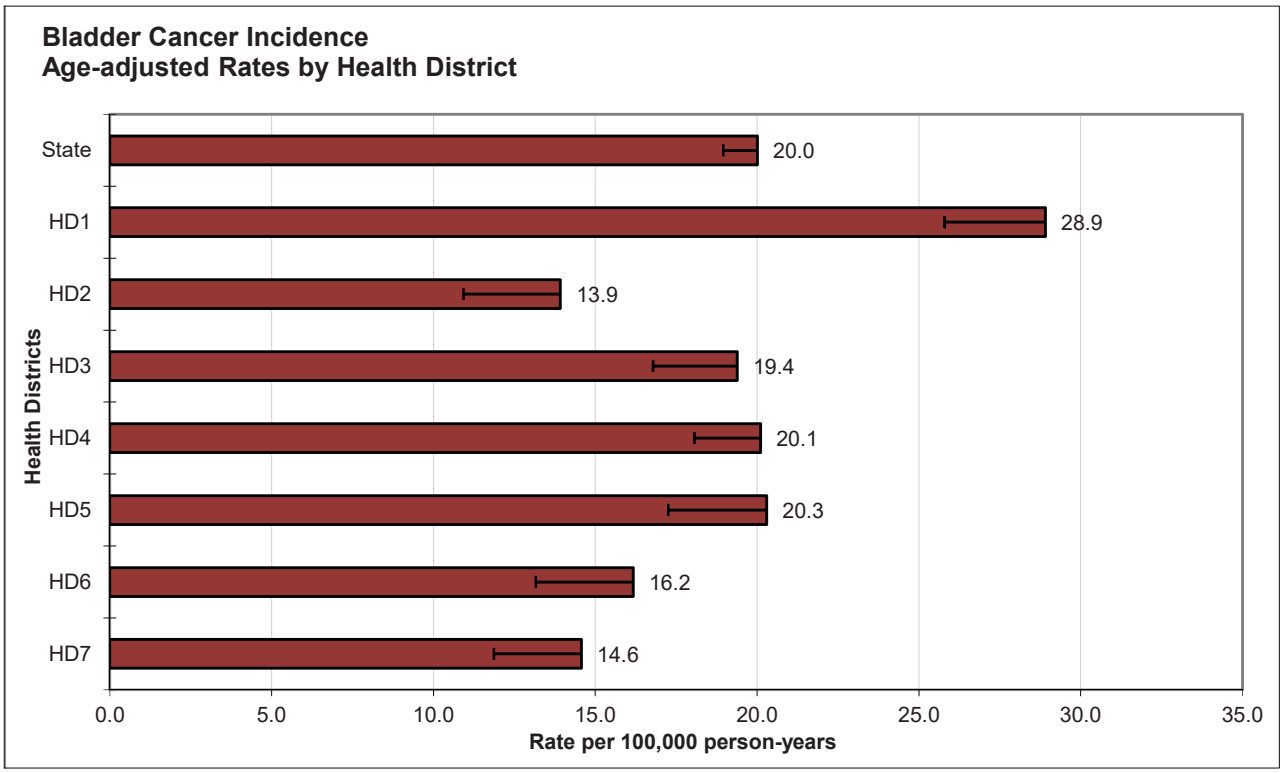
Other Tobacco consumption has been associated with a 2- to 5-fold higher incidence of bladder cancer and is attributable for a greater number of cases than other risk factors. Cyclophosphamide, a chemotherapeutic agent, and 4-amino-diphenyl are known human bladder carcinogens. *Schistosoma hematobium* may cause bladder tumors. Nitrate and arsenic in drinking water, and chlorinated surface water as a source for drinking water, have each been shown to increase the risk of bladder cancer.

Special Notes

Mean age-adjusted incidence rate across health districts:	19.1
95% confidence interval on the mean age-adjusted incidence rate:	15.3- 22.8
Median age-adjusted incidence rate of health districts:	19.4
Range of age-adjusted incidence rate for health districts:	13.9- 28.9
USCS rate (2014, all races):	19.6

There were few cases of bladder cancer among persons aged less than 50 years. Bladder cancer incidence rates increased with age, peaking in the age group 85+ for both males and females. Health District 1 had statistically significantly more cases of bladder cancer than expected based upon rates for the remainder of Idaho.


State Bladder Cancer Incidence
Age-specific Rates
Rate per 100,000 person-years
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
20.0
28.9
13.9
19.4
20.1
20.3
16.2
14.6
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
Rate per 100,000 person-years

BRAIN

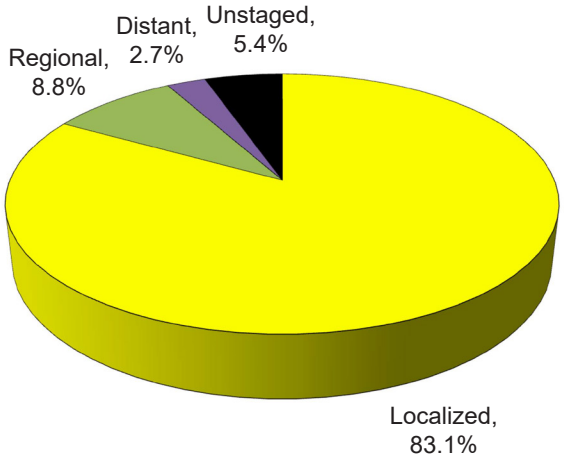
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	8.4	10.7	6.3
# of new invasive cases	148	94	54
# of new in situ cases	0	0	0
# of deaths	98	65	33

Total Cases by County

Ada	42	Cassia	4	Lewis	-
Adams	-	Clark	-	Lincoln	1
Bannock	7	Clearwater	2	Madison	1
Bear Lake	-	Custer	3	Minidoka	1
Benewah	1	Elmore	3	Nez Perce	4
Bingham	1	Franklin	2	Oneida	-
Blaine	-	Fremont	1	Owyhee	-
Boise	2	Gem	4	Payette	3
Bonner	5	Gooding	4	Power	-
Bonneville	5	Idaho	1	Shoshone	2
Boundary	2	Jefferson	3	Teton	-
Butte	-	Jerome	1	Twin Falls	6
Camas	-	Kootenai	11	Valley	2
Canyon	15	Latah	4	Washington	2
Caribou	-	Lemhi	3		

Stage at Diagnosis - Brain



Risk and Associated Factors

Age This is the second most common cancer among children, following leukemia. Adult malignant brain tumors are most common after age 60.

Gender Males typically have higher rates than females.

Race & SES The incidence rate is higher in whites and higher social classes.

Genetics Certain genetic factors may cause an increased risk of some malignant brain tumors, including gliomas, but the proportion of brain tumors attributable to inheritance is likely no more than 4%. Molecular tests are being developed that may be useful in screening for recurrences.

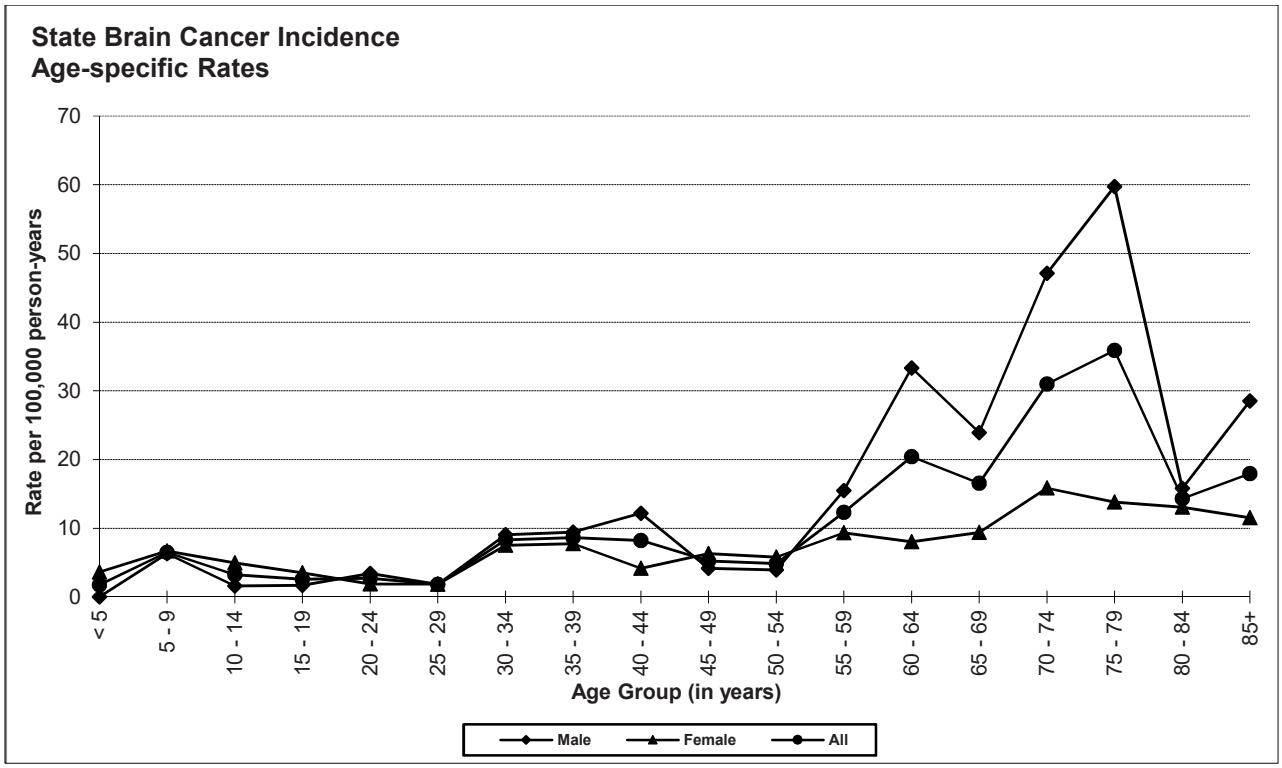
Occupation Vinyl chloride and ionizing radiation exposure are risk factors. Many occupational and environmental exposures have shown suggestive associations with elevated rates of brain cancer. Roofers, sheet metal workers, and rubber and plastic workers may be at elevated risk. Specific exposures underlying these associations have been suggested but not established.

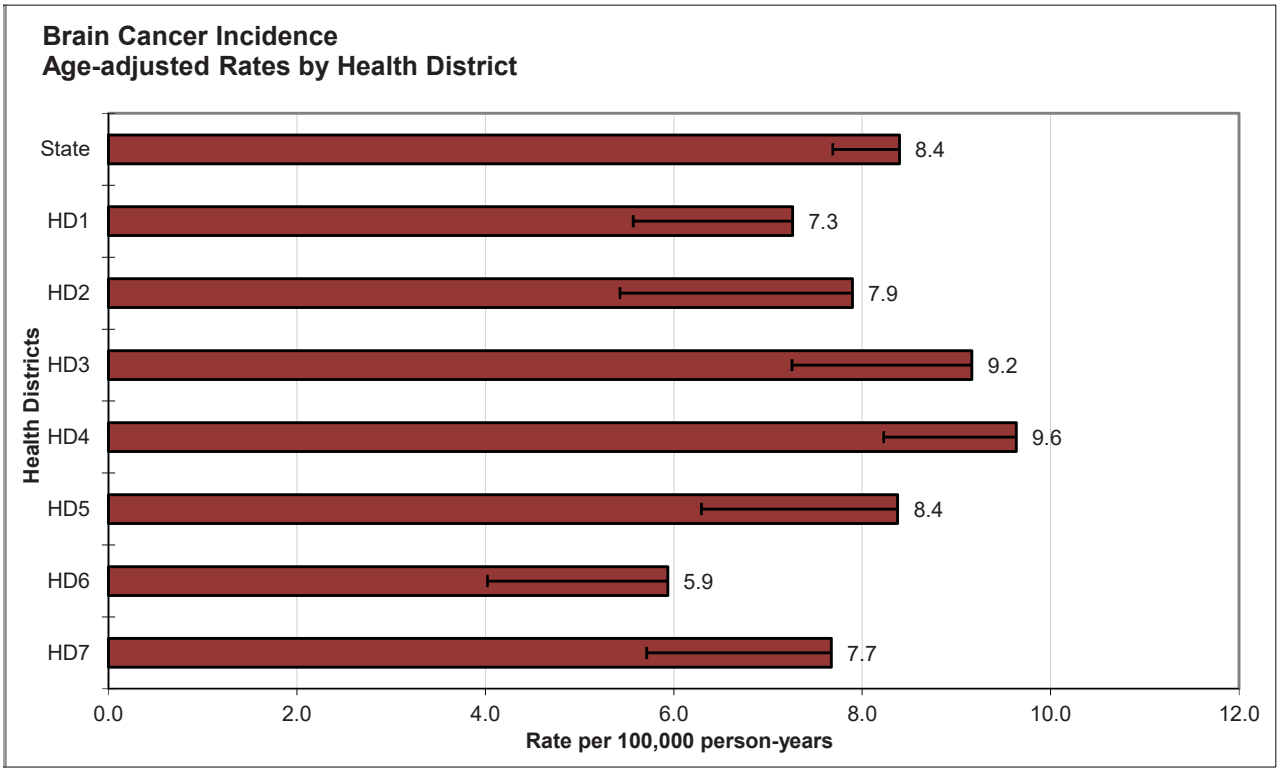
Other Human Immunodeficiency Virus (HIV) infected individuals and organ transplant recipients have an increased risk of developing brain lymphoma.

Special Notes

Mean age-adjusted incidence rate across health districts:	8.0
95% confidence interval on the mean age-adjusted incidence rate:	7.1- 8.9
Median age-adjusted incidence rate of health districts:	7.9
Range of age-adjusted incidence rate for health districts:	5.9- 9.6
USCS rate (2014, all races):	5.8

The age-related incidence of brain cancer is typically bimodal, usually with a peak in infancy and childhood, a gradual rise in young adulthood, and a broader, sustained peak during the fifth to eighth decade of life. This trend is difficult to discern in Idaho's population due to the relatively small number of cases observed annually, which increases the variability in age-specific rates. No health district had statistically significantly more, or fewer, cases than expected based upon rates for the remainder of Idaho.


State Brain Cancer Incidence
Age-specific Rates
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
8.4
7.3
7.9
9.2
9.6
8.4
5.9
7.7
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 and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	12.2	8.4	15.7
# of new cases	221	72	149

Total Cases by County

Ada	62	Cassia	2	Lewis	1
Adams	-	Clark	-	Lincoln	-
Bannock	9	Clearwater	1	Madison	3
Bear Lake	-	Custer	2	Minidoka	1
Benewah	-	Elmore	5	Nez Perce	5
Bingham	7	Franklin	2	Oneida	1
Blaine	2	Fremont	2	Owyhee	1
Boise	3	Gem	1	Payette	3
Bonner	4	Gooding	1	Power	-
Bonneville	16	Idaho	1	Shoshone	1
Boundary	3	Jefferson	8	Teton	-
Butte	-	Jerome	2	Twin Falls	11
Camas	-	Kootenai	20	Valley	-
Canyon	33	Latah	2	Washington	4
Caribou	-	Lemhi	2		

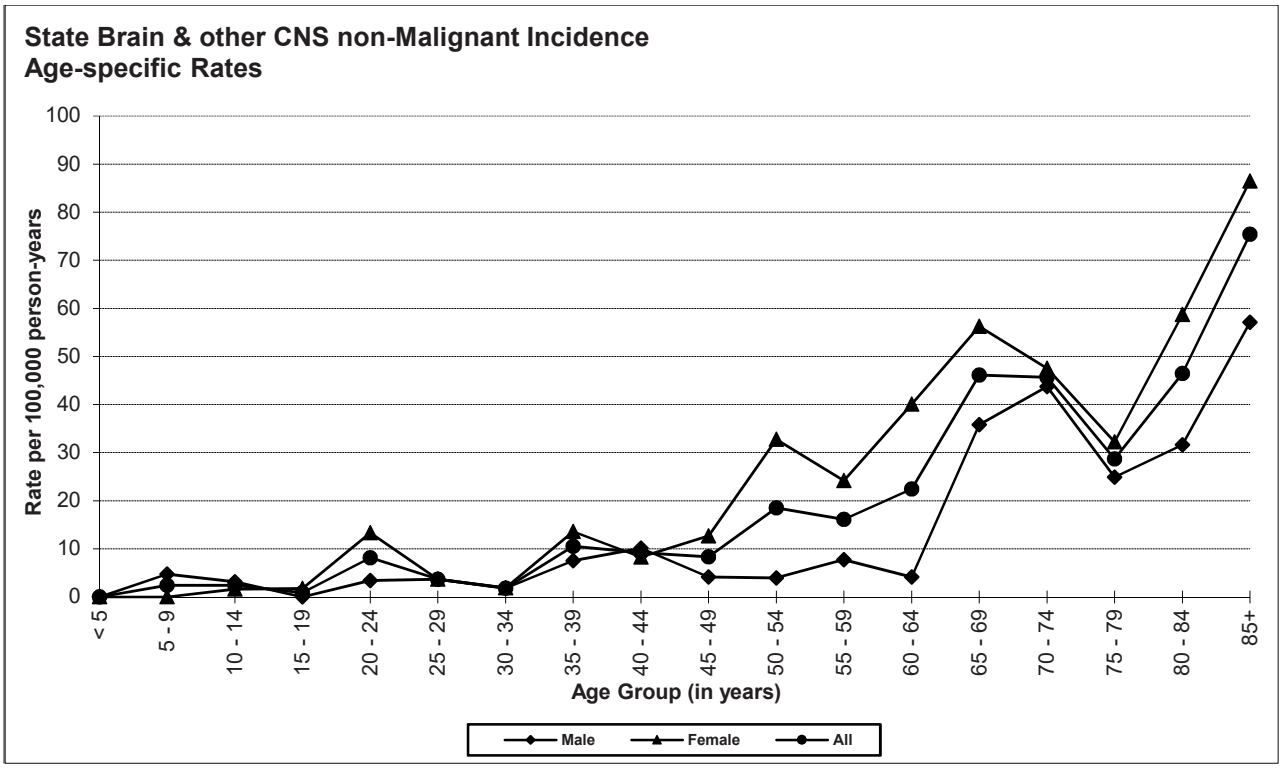
Background

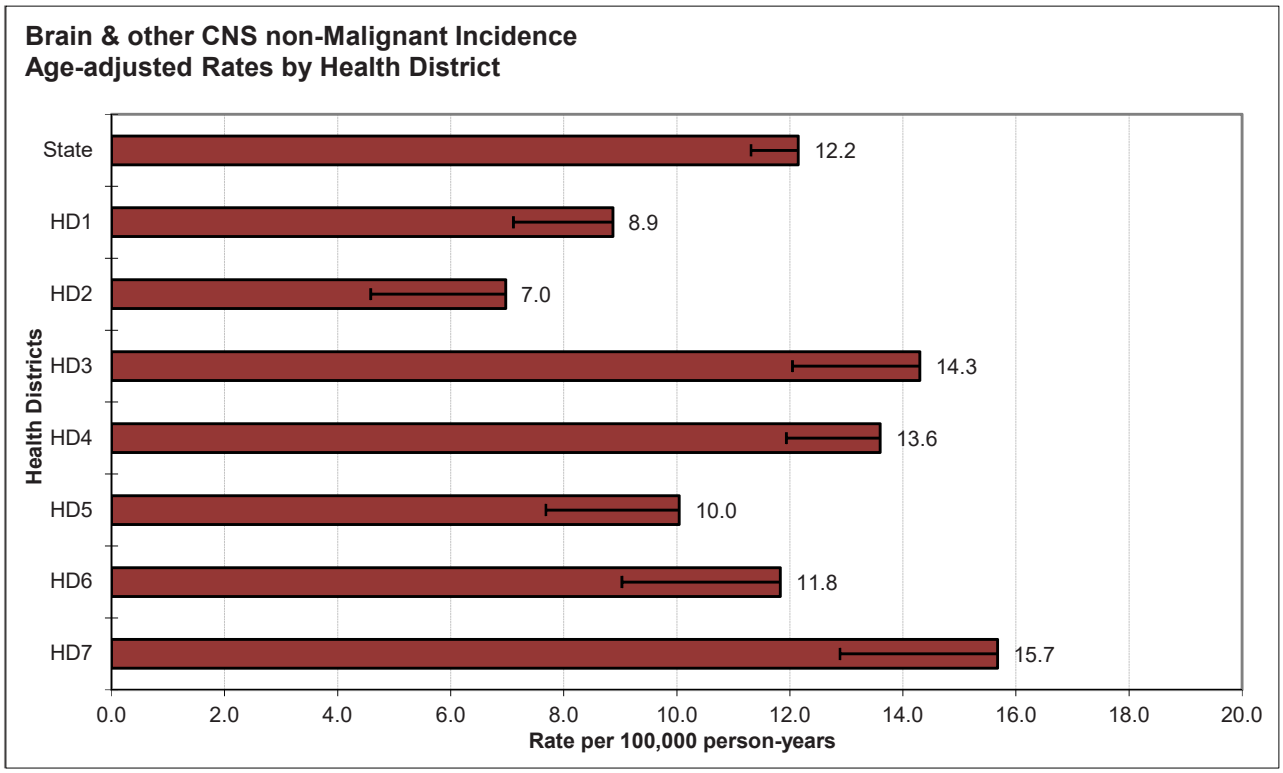
In 2007, as a result of Public Law 107-260, the publication United States Cancer Statistics 2004 Incidence and Mortality began to include tables for non-malignant brain tumors. Until this time, the only reference data were from the Central Brain Tumor Registry of the United States (CBTRUS), which has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

Special Notes

Mean age-adjusted incidence rate across health districts:	11.6
95% confidence interval on the mean age-adjusted incidence rate:	9.3- 13.9
Median age-adjusted incidence rate of health districts:	11.8
Range of age-adjusted incidence rate for health districts:	7.0- 15.7
SEER 18 rate (2014, all races):	11.3

No health district had statistically significantly more, or fewer, cases of non-malignant brain and other central nervous system tumors than expected based upon rates for the remainder of Idaho.


State Brain & other CNS non-Malignant Incidence
Age-specific Rates
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


Brain & other CNS non-Malignant Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
12.2
8.9
7.0
14.3
13.6
10.0
11.8
15.7
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
16.0
18.0
20.0
Rate per 100,000 person-years

BREAST

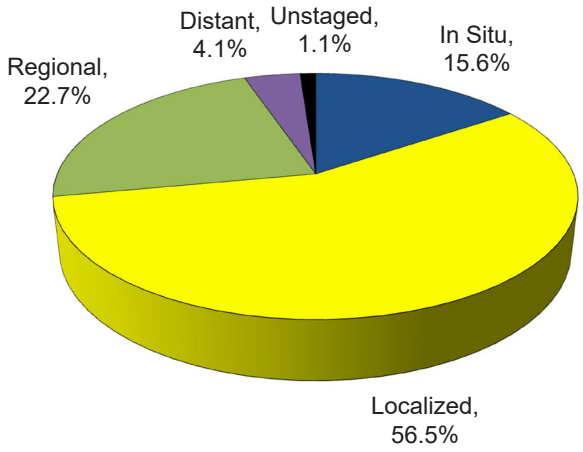
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	64.4	0.6	124.7
# of new invasive cases	1,175	5	1,170
# of new in situ cases	217	2	215
# of deaths	210	0	210

Total Cases by County

Ada	388	Cassia	15	Lewis	8
Adams	2	Clark	1	Lincoln	3
Bannock	52	Clearwater	5	Madison	8
Bear Lake	3	Custer	2	Minidoka	19
Benewah	4	Elmore	13	Nez Perce	57
Bingham	46	Franklin	9	Oneida	2
Blaine	27	Fremont	5	Owyhee	7
Boise	12	Gem	23	Payette	23
Bonner	46	Gooding	8	Power	8
Bonneville	73	Idaho	19	Shoshone	9
Boundary	14	Jefferson	7	Teton	8
Butte	2	Jerome	14	Twin Falls	66
Camas	-	Kootenai	154	Valley	8
Canyon	166	Latah	30	Washington	8
Caribou	3	Lemhi	15		

Stage at Diagnosis - Breast



Risk and Associated Factors

Age Rates increase steadily with age. Age is the single most important risk factor for breast cancer. A 60-year-old white American woman's risk of developing breast cancer is fourteen times that of a 30-year-old American woman.

Race & SES Whites have higher incidence rates, as do women in higher income groups.

Genetics 5% to 10% of all breast cancers have a major hereditary component. For the 2% to 4% of women who have BRCA 1 or 2 mutations, the risk of breast cancer by age 70 is about 45% to 65% in the absence of intervention.

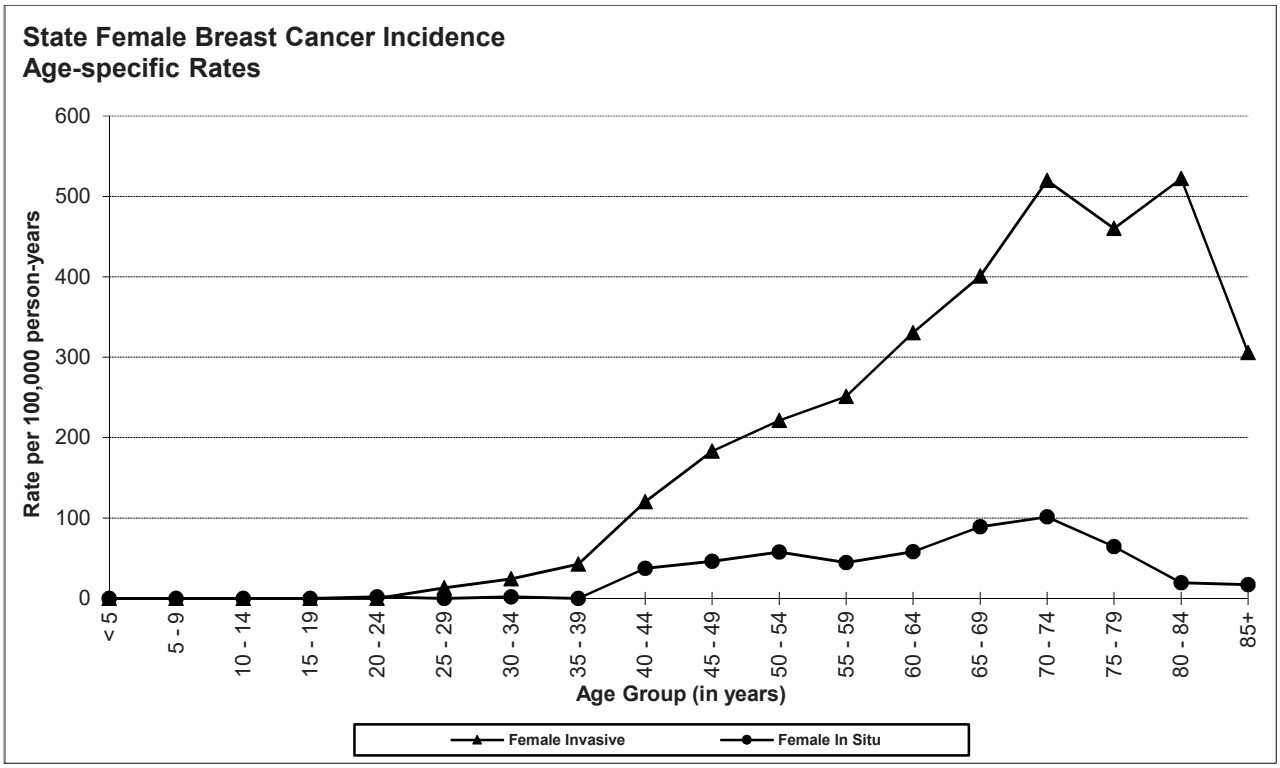
Hormonal There is evidence of hormonal influence in the risk of developing breast cancer. Longer intervals of menarche to the first full-term pregnancy and menarche to menopause, as well as menarche before age 13, have been associated with higher risks of breast cancer. Cumulative estrogen exposure, including use of hormone replacement therapy, increases breast cancer risk.

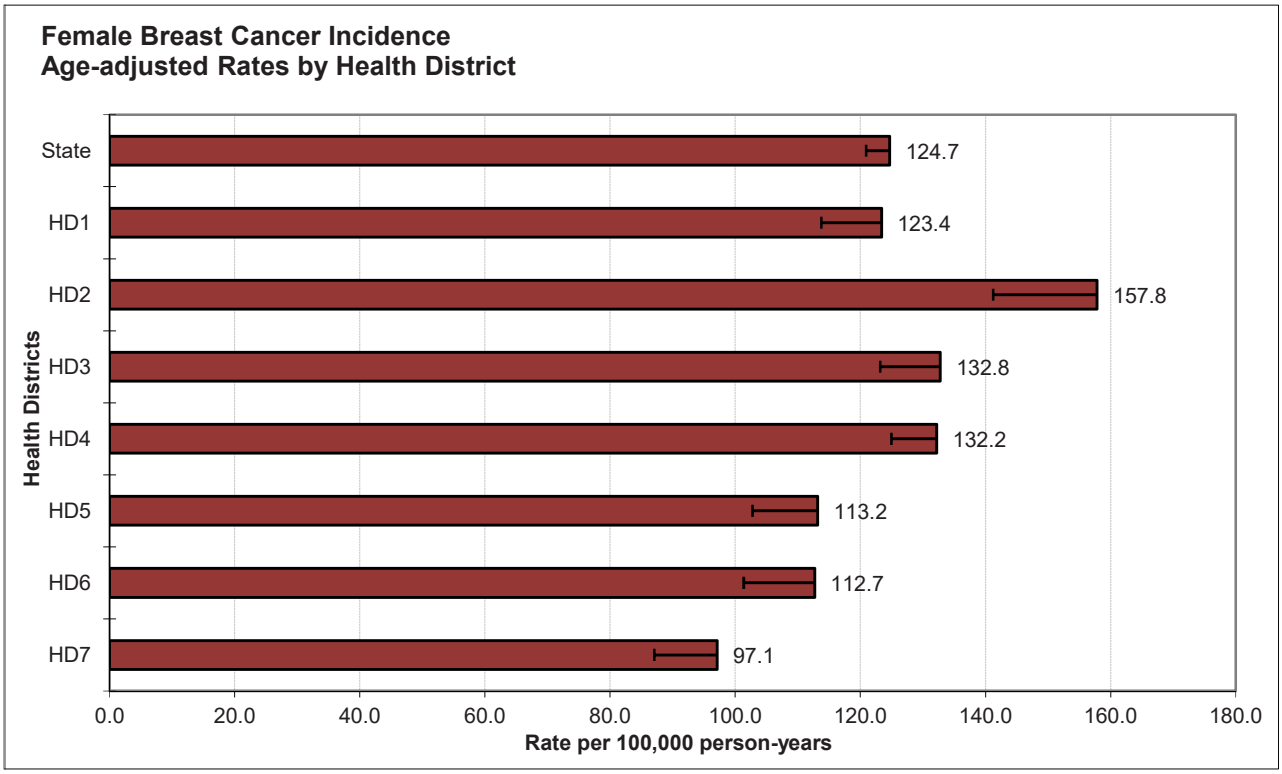
Other Alcohol consumption, high dietary fat intake, obesity (in postmenopausal women), sedentary life-style, in utero exposure to DDT (dichlorodiphenyltrichloroethane) and having a mother or sister with breast cancer have all been implicated as associated risk factors. Weight gain of 55 lbs or more after age 18 is associated with a 45% increased risk.

Special Notes

Mean age-adjusted incidence rate across health districts:	124.2	
95% confidence interval on the mean age-adjusted incidence rate:	109.8-	138.5
Median age-adjusted incidence rate of health districts:	123.4	
Range of age-adjusted incidence rate for health districts:	97.1-	157.8
USCS rate (2014, all races):	123.2	

The vast majority of breast cancer cases occur among females. In Idaho during the year 2015, there were 5 cases of invasive breast cancer among males. The age-specific incidence rates of female breast cancer in Idaho increased with age, peaking in the age group 80-84 for invasive cases. No cases were observed in women less than 20 years of age. Health District 2 had statistically significantly more cases of breast cancer than expected based upon rates for the remainder of Idaho, and Health District 7 had statistically significantly fewer cases than expected.


State Female Breast Cancer Incidence
Age-specific Rates
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
124.7
123.4
157.8
132.8
132.2
113.2
112.7
97.1
0.0
20.0
40.0
60.0
80.0
100.0
120.0
140.0
160.0
180.0
Rate per 100,000 person-years

CERVIX

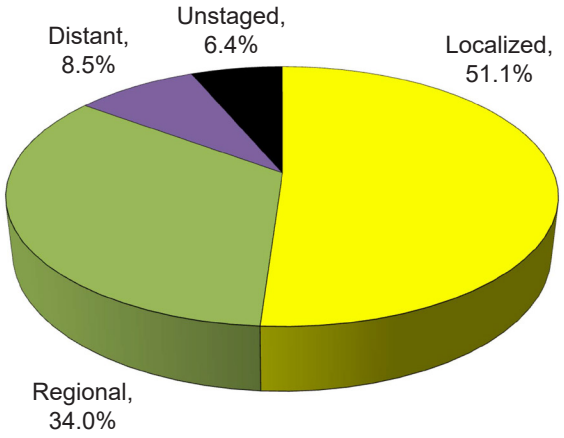
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	-	-	5.7
# of new invasive cases	-	-	47
# of new in-situ cases	-	-	n/a
# of deaths	-	-	17

Total Cases by County

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

Stage at Diagnosis - Cervix



Risk and Associated Factors

Age Cervical cancer occurs in adult women of any age. However, the majority of invasive cases are diagnosed in older women.

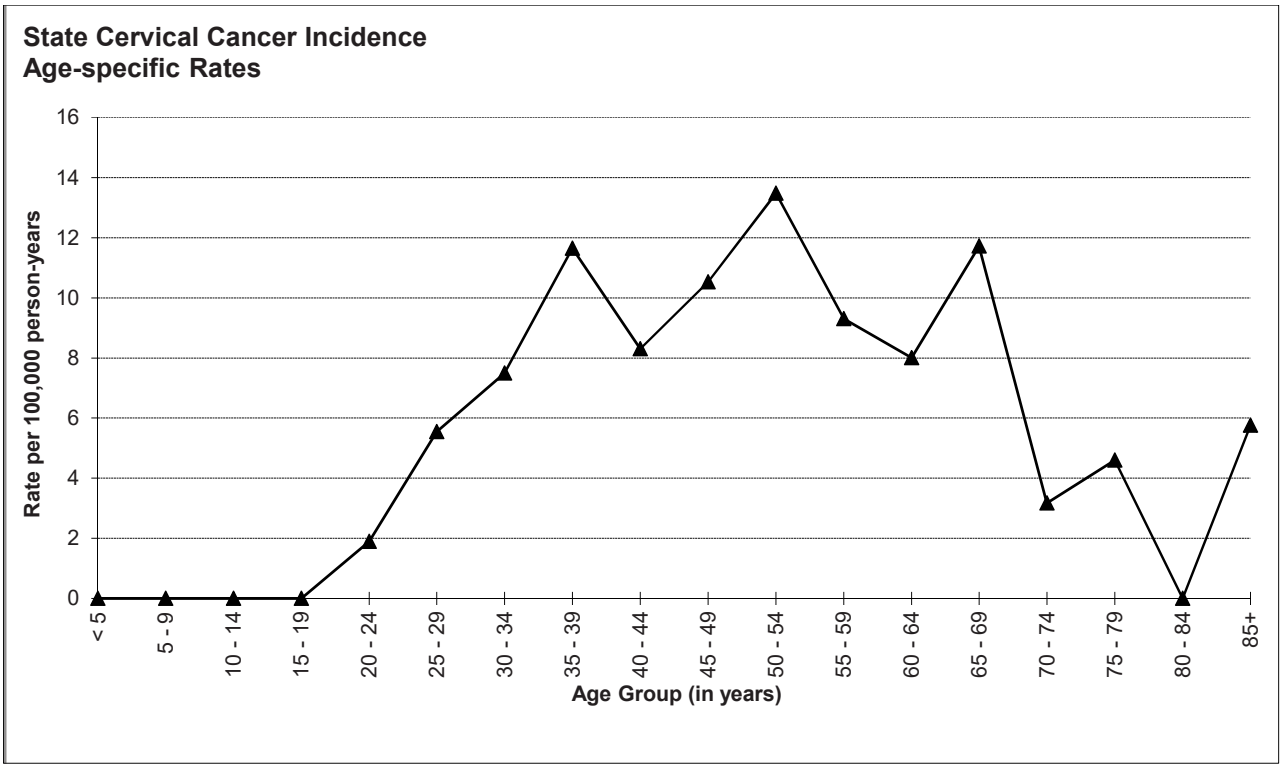
Race & SES Blacks, Hispanics, and women in lower income groups have been shown to experience higher rates.

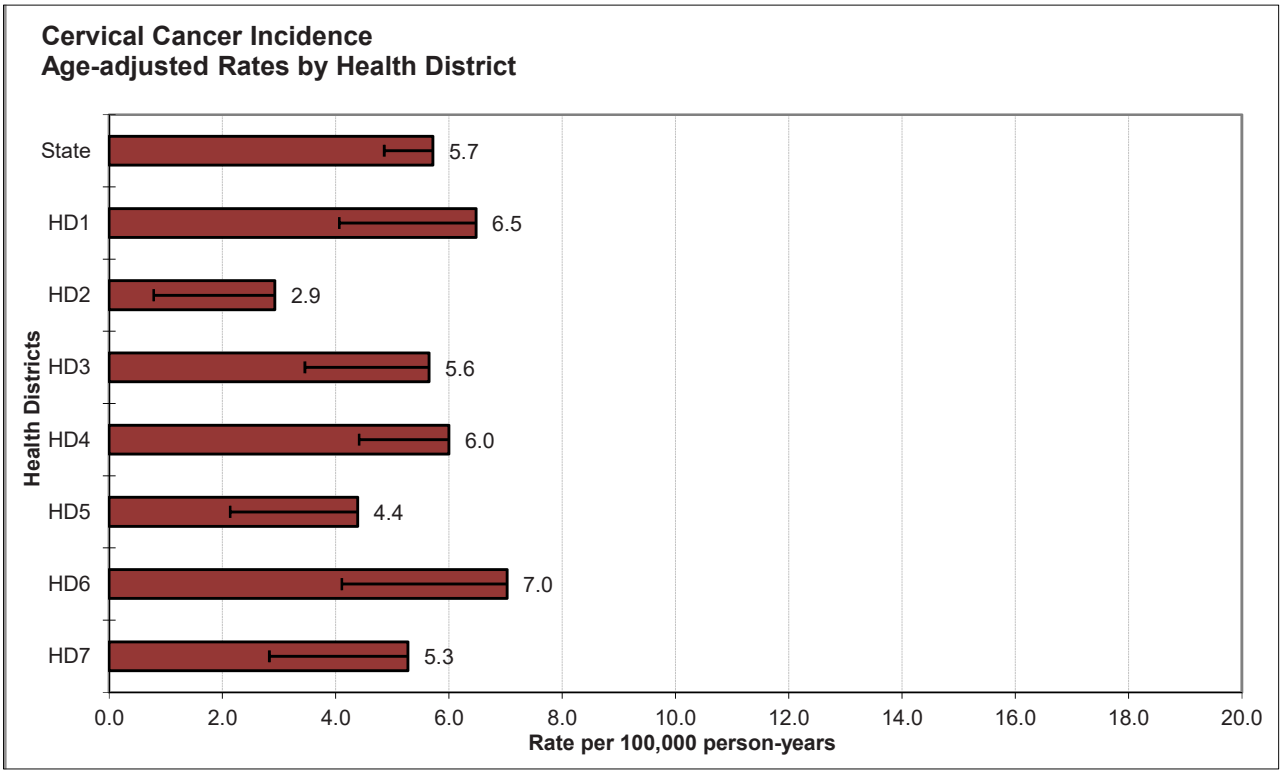
Other The large majority of cervical cancer cases worldwide can be attributed to human papilloma virus (HPV) infection. Of the at least 70 types of HPV known, types 16 and 18 are most closely associated with malignancy. Other risk factors that may be correlates, cofactors, or independent risk factors of HPV infection include: early age at first intercourse (less than 16 years old), a history of multiple sexual partners, a large number of pregnancies, oral contraceptive use, a history of other sexually transmitted diseases, and the presence of other genital tract neoplasia. Exposure to cigarette smoke is also a known risk factor, although by unknown mechanisms. Diethylstilbestrol use during pregnancy increased clear-cell adenocarcinoma in daughters exposed in utero.

Special Notes

Mean age-adjusted incidence rate across health districts:	5.4
95% confidence interval on the mean age-adjusted incidence rate:	4.4- 6.4
Median age-adjusted incidence rate of health districts:	5.6
Range of age-adjusted incidence rate for health districts:	2.9- 7.0
USCS rate (2014, all races):	7.4

Increased screening with routine Pap tests, particularly among older and low-income women, has increased diagnostic rates for pre-invasive disease and helped to reduce the incidence of invasive cervical cancer. Today, the vast majority of cases in younger women is diagnosed before the invasive stage, with cure rates approaching 100%. These pre-invasive cases are not included in this report. No health district had statistically significantly more, or fewer, cases than expected based upon rates for the remainder of Idaho.


State Cervical Cancer Incidence
Age-specific Rates
Rate per 100,000 person-years
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)


Cervical Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
5.7
6.5
2.9
5.6
6.0
4.4
7.0
5.3
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
16.0
18.0
20.0
Rate per 100,000 person-years

COLORECTAL

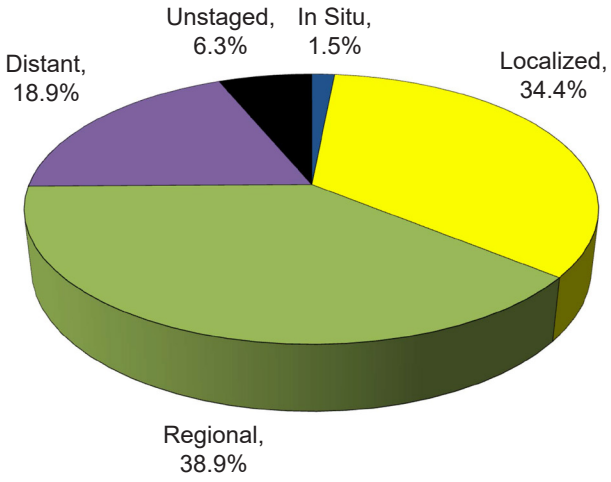
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	35.3	37.9	32.9
# of new invasive cases	645	326	319
# of new in situ cases	10	6	4
# of deaths	221	130	91

Total Cases by County

Ada	137	Cassia	10	Lewis	3
Adams	1	Clark	-	Lincoln	5
Bannock	26	Clearwater	4	Madison	16
Bear Lake	4	Custer	4	Minidoka	8
Benewah	5	Elmore	14	Nez Perce	20
Bingham	15	Franklin	3	Oneida	1
Blaine	4	Fremont	7	Owyhee	6
Boise	3	Gem	6	Payette	15
Bonner	30	Gooding	5	Power	2
Bonneville	47	Idaho	12	Shoshone	5
Boundary	6	Jefferson	11	Teton	4
Butte	2	Jerome	6	Twin Falls	25
Camas	1	Kootenai	77	Valley	5
Canyon	72	Latah	7	Washington	10
Caribou	4	Lemhi	7		

Stage at Diagnosis - Colorectal



Risk and Associated Factors

Age Rates increase with age; the vast majority of cases occur after age 50.

Gender Incidence rates are slightly higher in males.

Genetics It is estimated that 65-85% of colorectal cancer cases are sporadic, 10-30% are familial, and the remainder are the result of specific rare genetic disorders such as Lynch Syndrome.

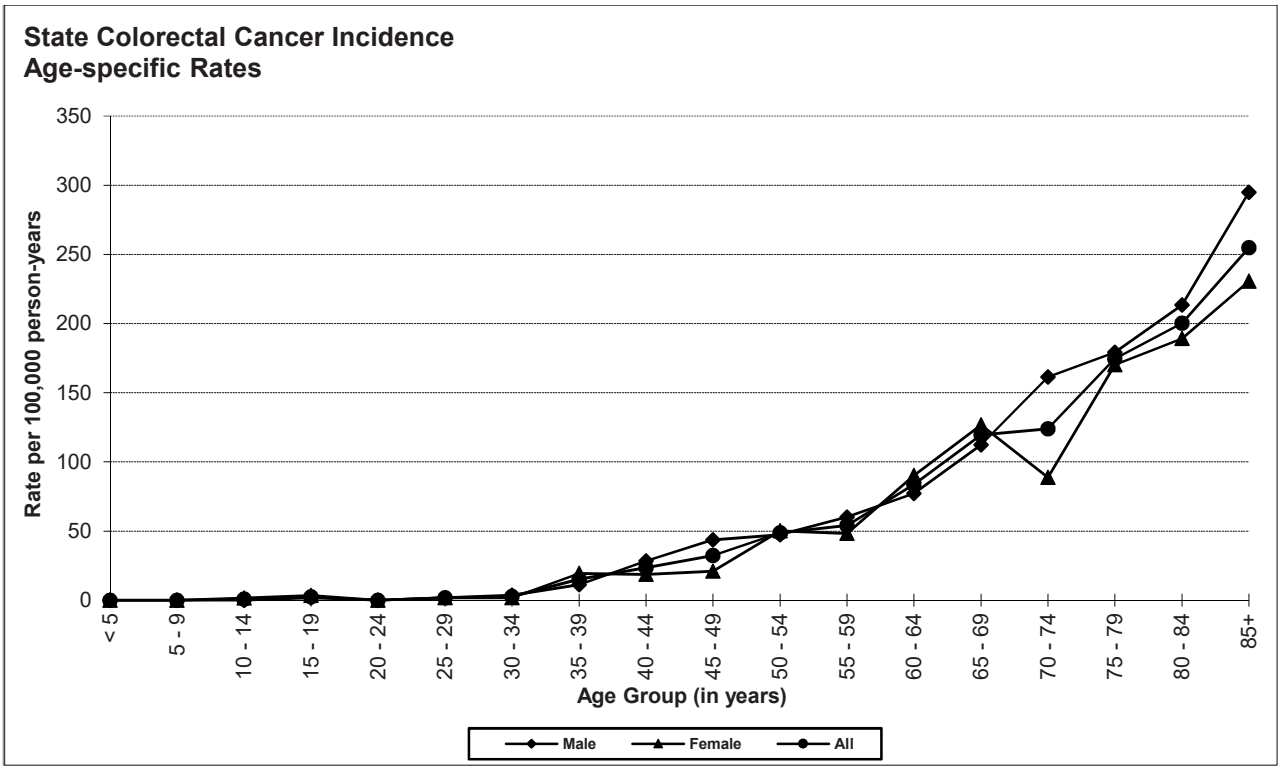
Diet There is strong evidence that high calorie diets and diets high in fat and low in fiber contribute to higher risks of colon cancer.

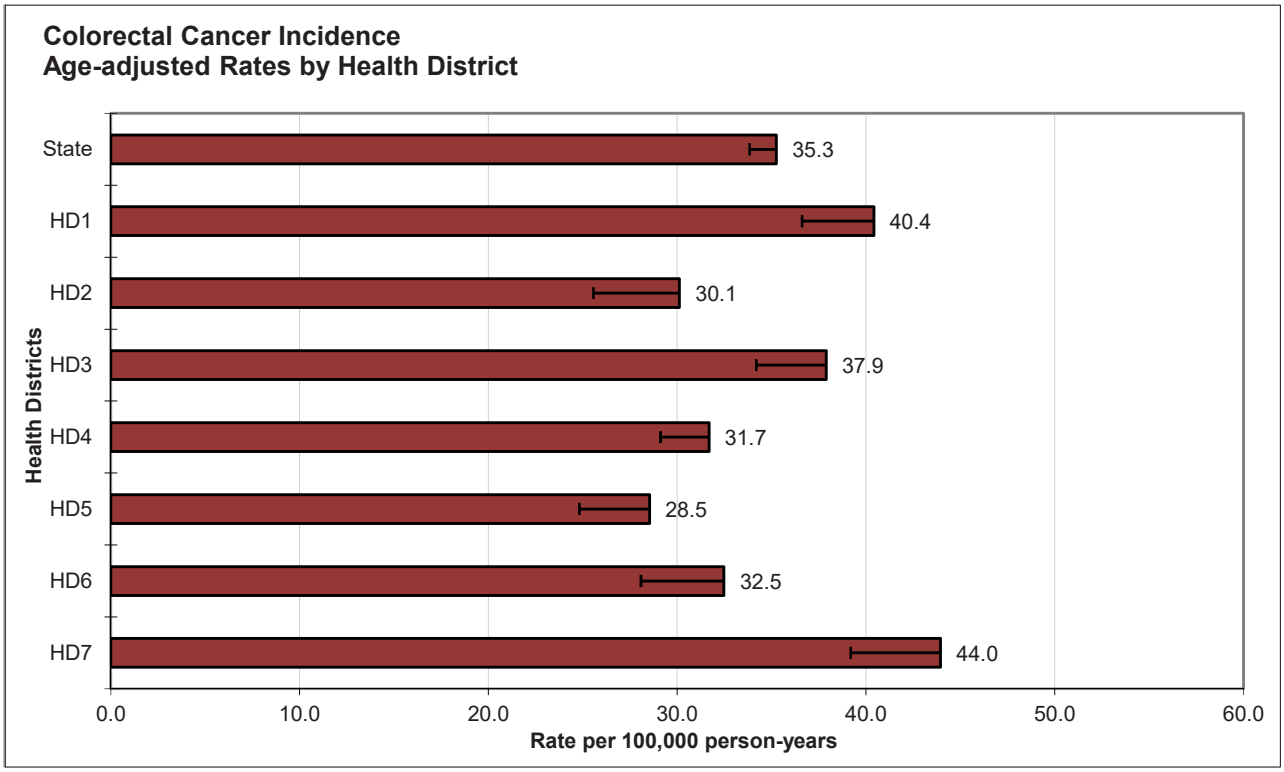
Other Individuals with a close family history of this cancer and those with a personal history of certain other cancers are at increased risk. Physical inactivity, obesity, and tobacco use are known risk factors for colorectal cancer. Cigarette smoking is significantly associated with colorectal cancer incidence and mortality. The use of NSAIDs, including aspirin, may help prevent colon cancer. Inflammatory bowel disease confers a 4- to 20-fold increase in colorectal cancer risk, with younger age at diagnosis. If everyone aged 50 years and older were screened regularly, as many as 60% of deaths from colorectal cancer could be avoided.

Special Notes

Mean age-adjusted incidence rate across health districts:	35.0
95% confidence interval on the mean age-adjusted incidence rate:	30.7- 39.3
Median age-adjusted incidence rate of health districts:	32.5
Range of age-adjusted incidence rate for health districts:	28.5- 44.0
USCS rate (2014, all races):	37.8

Few cases of colorectal cancer were diagnosed in persons less than 40 years of age. There was a steep increase in age-specific incidence rates starting at age 60. Health District 7 had statistically significantly more cases of colorectal cancer than expected based upon rates for the remainder of Idaho.


State Colorectal Cancer Incidence
Age-specific Rates
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


Colorectal Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
35.3
40.4
30.1
37.9
31.7
28.5
32.5
44.0
0.0
10.0
20.0
30.0
40.0
50.0
60.0
Rate per 100,000 person-years

CORPUS UTERI

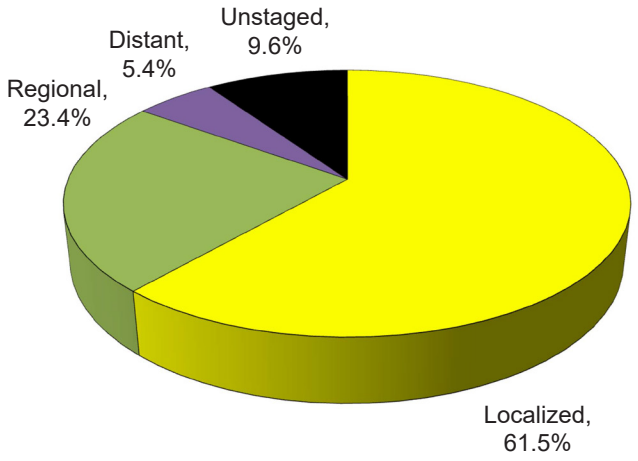
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	-	-	24.3
# of new invasive cases	-	-	239
# of new in situ cases	-	-	0
# of deaths	-	-	28

Total Cases by County

Ada	49	Cassia	6	Lewis	1
Adams	1	Clark	-	Lincoln	-
Bannock	10	Clearwater	3	Madison	3
Bear Lake	-	Custer	1	Minidoka	1
Benewah	4	Elmore	1	Nez Perce	4
Bingham	9	Franklin	1	Oneida	-
Blaine	3	Fremont	-	Owyhee	-
Boise	-	Gem	3	Payette	7
Bonner	11	Gooding	2	Power	1
Bonneville	15	Idaho	1	Shoshone	2
Boundary	3	Jefferson	5	Teton	1
Butte	-	Jerome	-	Twin Falls	19
Camas	-	Kootenai	27	Valley	2
Canyon	32	Latah	8	Washington	2
Caribou	1	Lemhi	-		

Stage at Diagnosis - Corpus Uteri



Risk and Associated Factors

Age Occurs predominantly after menopause, with incidence rates peaking before age 80.

Race & SES White women have higher rates than black or Asian/Pacific Islander women in the U.S.

Genetics Familial tendency has been observed, but likely accounts for a small fraction of cases.

Diet Dietary fat may play a role in increased risk. Obesity and hypertension are common associated conditions of endometrial cancer.

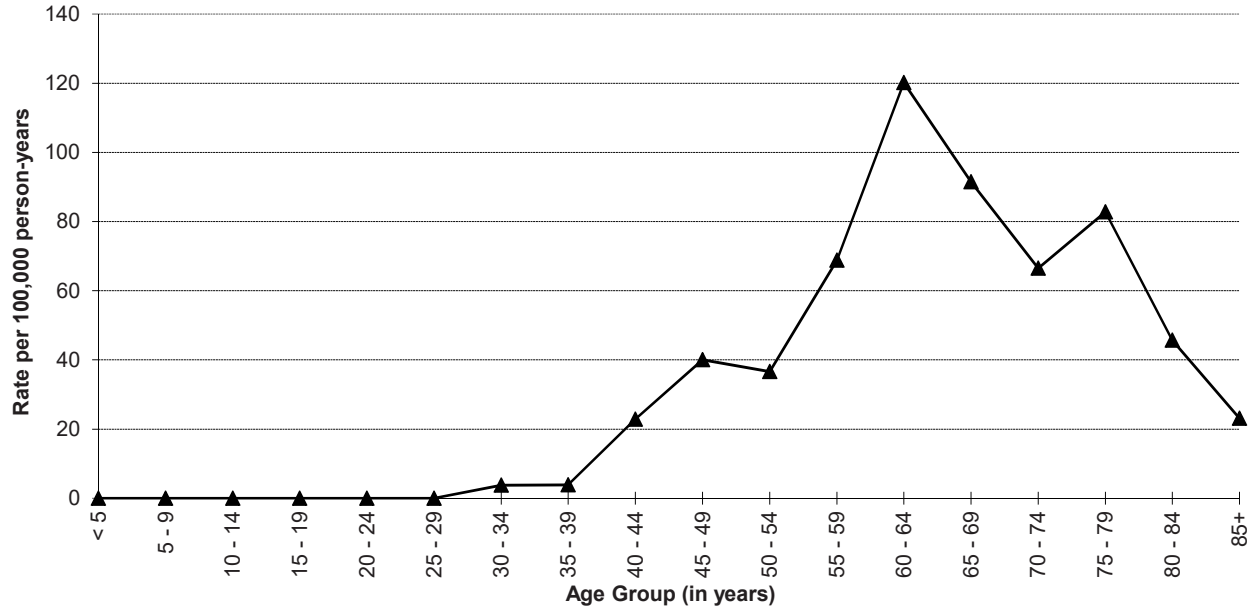
Hormonal Factors that elevate levels of estrogen or decrease progesterone levels enhance the risk. Women who have never carried a pregnancy to term are at a relatively high risk. Risk decreases as the number of pregnancies increases. An increased incidence of endometrial cancer has been found in association with prolonged, unopposed estrogen exposure and with tamoxifen treatment of breast cancer. Use of combination oral contraceptives (estrogen and progestin) decreases risk of endometrial cancer by about 50%.

Special Notes

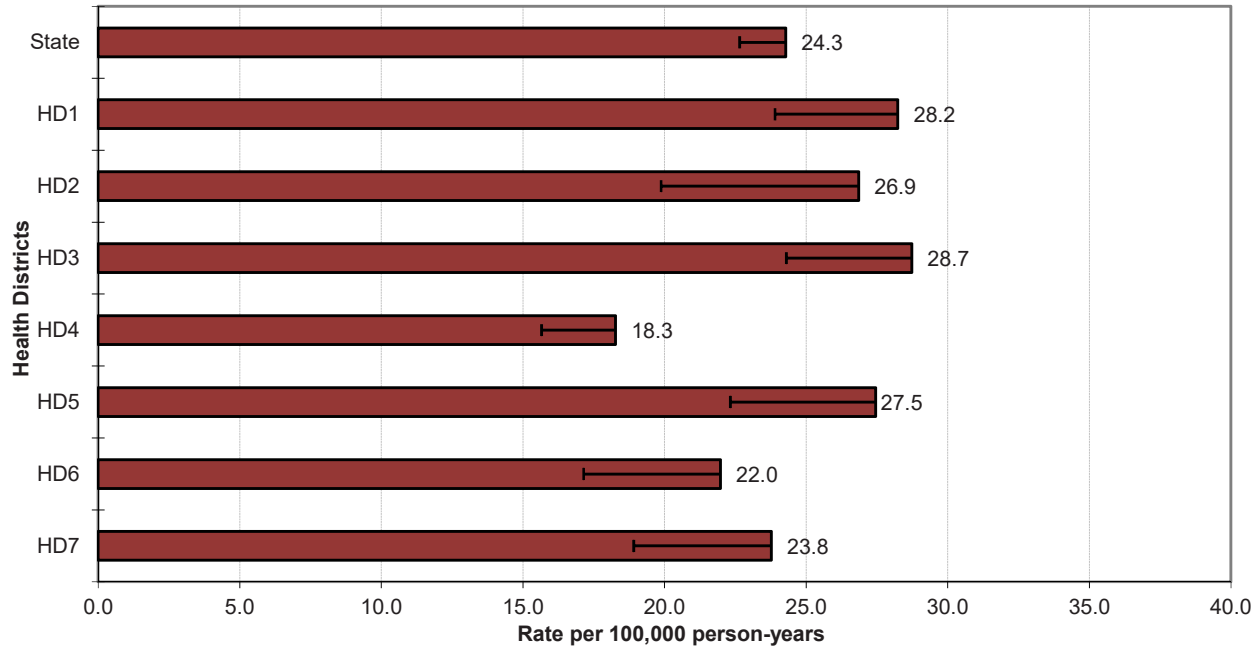
Mean age-adjusted incidence rate across health districts:	25.0
95% confidence interval on the mean age-adjusted incidence rate:	22.2- 27.9
Median age-adjusted incidence rate of health districts:	26.9
Range of age-adjusted incidence rate for health districts:	18.3- 28.7
USCS rate (2014, all races):	26.3

Few cases of endometrial cancer were diagnosed in persons less than 35 years of age. After age 39, there was a sharp increase in age-specific rates, peaking in the age group 60-64. Health District 4 had statistically significantly fewer cases than expected based upon rates for the remainder of Idaho.

State Corpus Uteri Cancer Incidence
Age-specific Rates



Corpus Uteri Cancer Incidence
Age-adjusted Rates by Health District



ESOPHAGUS

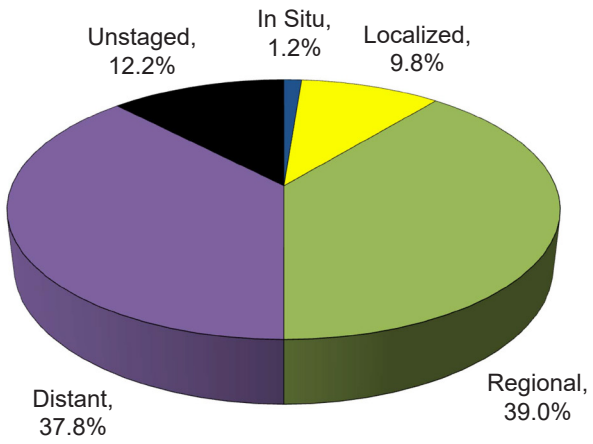
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	4.2	7.1	1.5
# of new invasive cases	81	66	15
# of new in situ cases	1	1	0
# of deaths	89	66	23

Total Cases by County

Ada	22	Cassia	-	Lewis	-
Adams	-	Clark	1	Lincoln	-
Bannock	1	Clearwater	2	Madison	1
Bear Lake	-	Custer	2	Minidoka	2
Benewah	-	Elmore	3	Nez Perce	2
Bingham	-	Franklin	1	Oneida	-
Blaine	-	Fremont	-	Owyhee	1
Boise	1	Gem	1	Payette	-
Bonner	2	Gooding	-	Power	-
Bonneville	2	Idaho	3	Shoshone	1
Boundary	1	Jefferson	1	Teton	1
Butte	-	Jerome	1	Twin Falls	3
Camas	-	Kootenai	11	Valley	1
Canyon	9	Latah	3	Washington	3
Caribou	-	Lemhi	-		

Stage at Diagnosis - Esophagus



Risk and Associated Factors

Age Incidence of esophageal cancer is highest after age 55.

Gender Males have higher incidence rates, with male-to-female ratios of cases about 3:1 or more.

Race & SES United States data show that blacks are affected more than whites. Risk is higher among lower SES strata.

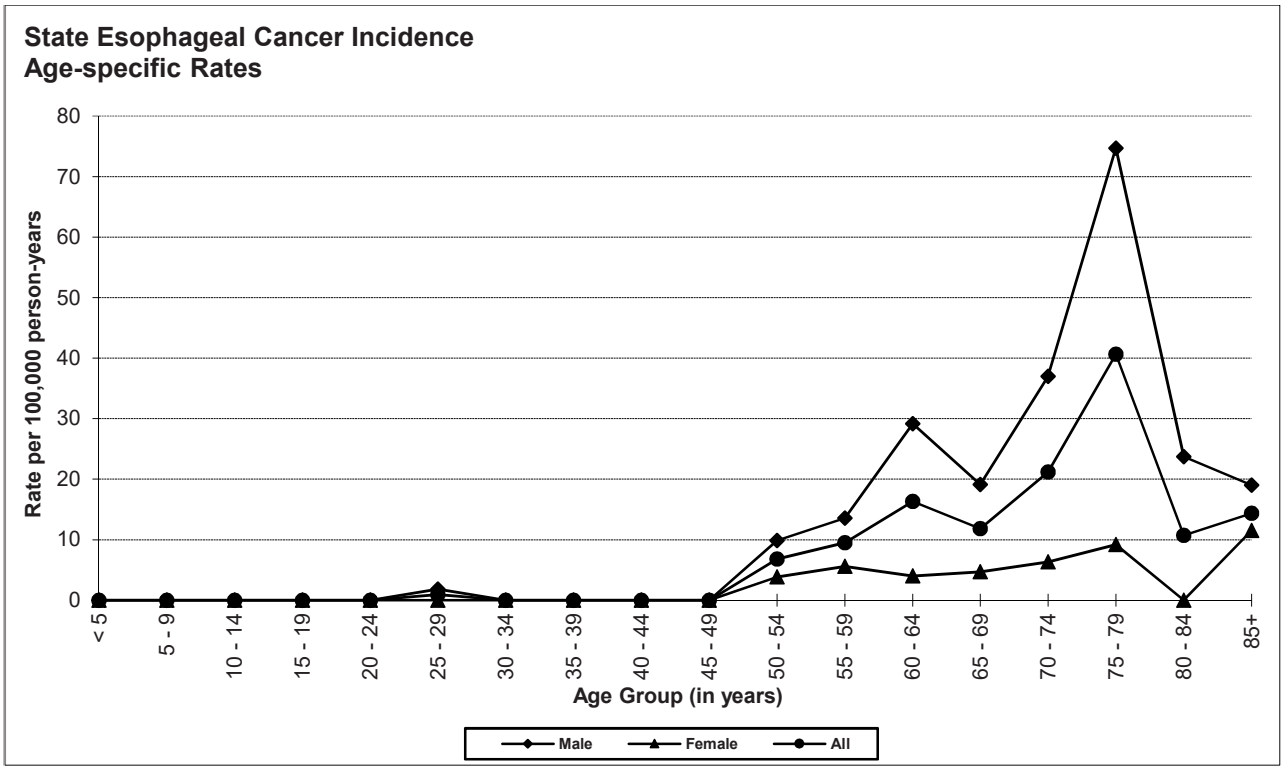
Occupation Chimney sweeps exposed to soot are at higher risk.

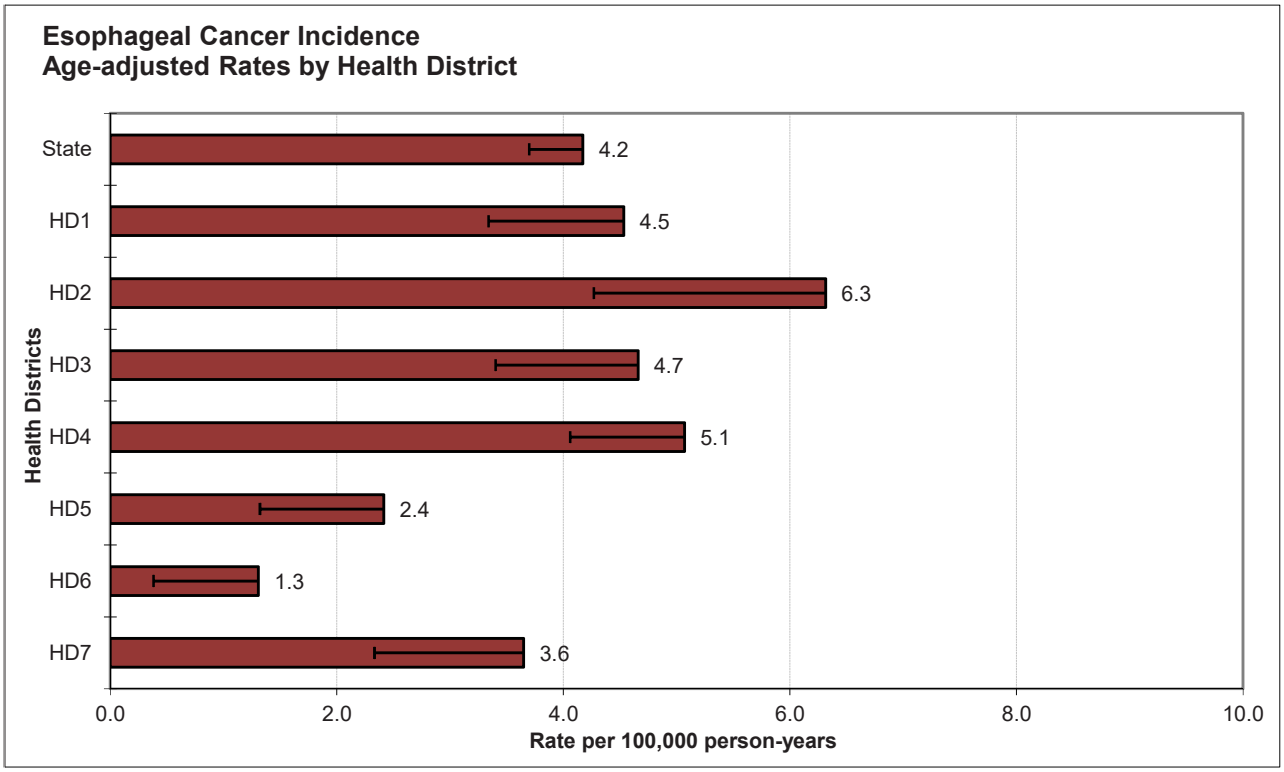
Other Tobacco use (cigarettes or spit tobacco) and heavy alcohol consumption are major risk factors for cancer of the esophagus. The risk is particularly increased when these two factors are both present. In Western Europe and North America, 90% or more of the risk of esophageal cancer can be attributed to alcohol and tobacco. Drinking “burning hot” beverages may increase the risk of esophageal cancer.

Special Notes

Mean age-adjusted incidence rate across health districts:	4.0
95% confidence interval on the mean age-adjusted incidence rate:	2.7- 5.2
Median age-adjusted incidence rate of health districts:	4.5
Range of age-adjusted incidence rate for health districts:	1.3- 6.3
USCS rate (2014, all races):	4.4

Few cases of esophageal cancer were diagnosed in person less than 50 years of age. The age-specific incidence rates peaked in the age group 75-79 for males and 85+ for females. Health District 6 had statistically significantly fewer cases than expected based upon rates for the remainder of Idaho.


State Esophageal Cancer Incidence
Age-specific Rates
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


Esophageal Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
4.2
4.5
6.3
4.7
5.1
2.4
1.3
3.6
0.0
2.0
4.0
6.0
8.0
10.0
Rate per 100,000 person-years

HODGKIN LYMPHOMA

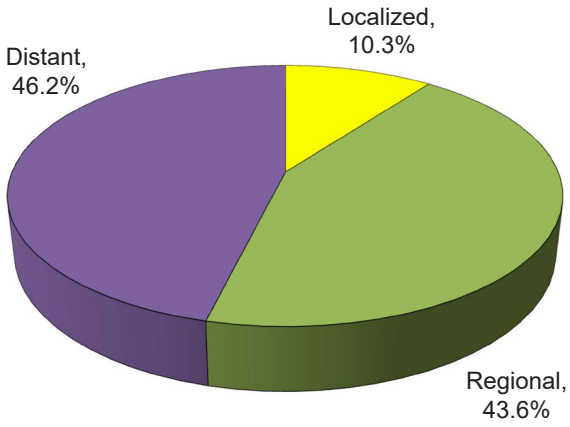
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	2.3	3.2	1.4
# of new invasive cases	39	26	13
# of new in situ cases	0	0	0
# of deaths	4	1	3

Total Cases by County

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

Stage at Diagnosis - Hodgkin Lymphoma



Risk and Associated Factors

Age High rates are seen in young adults and in later age groups especially among males.

Gender Males typically have slightly higher rates than females.

Race & SES Hodgkin lymphoma is more common among whites than among blacks. Hodgkin lymphoma is more common in higher income groups.

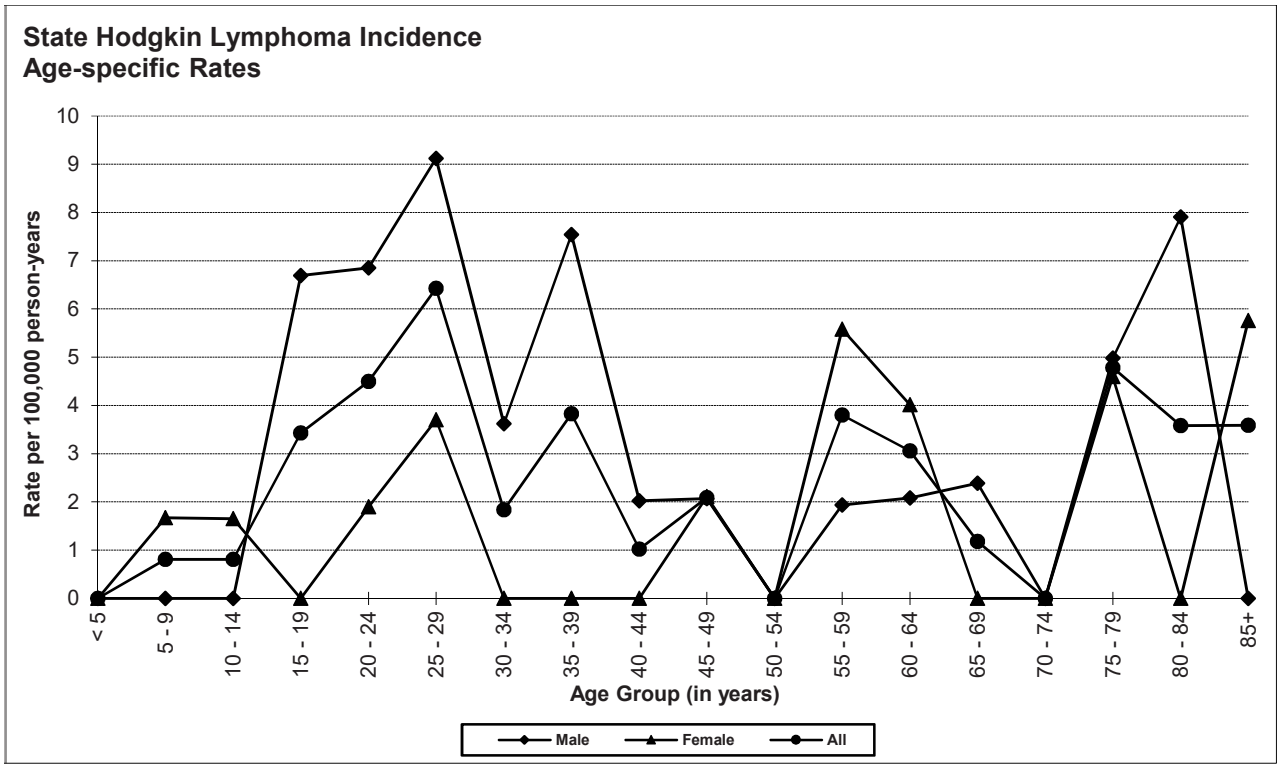
Genetics Genetic factors are thought to play an important role in the etiology of Hodgkin lymphoma, but these are yet to be adequately defined.

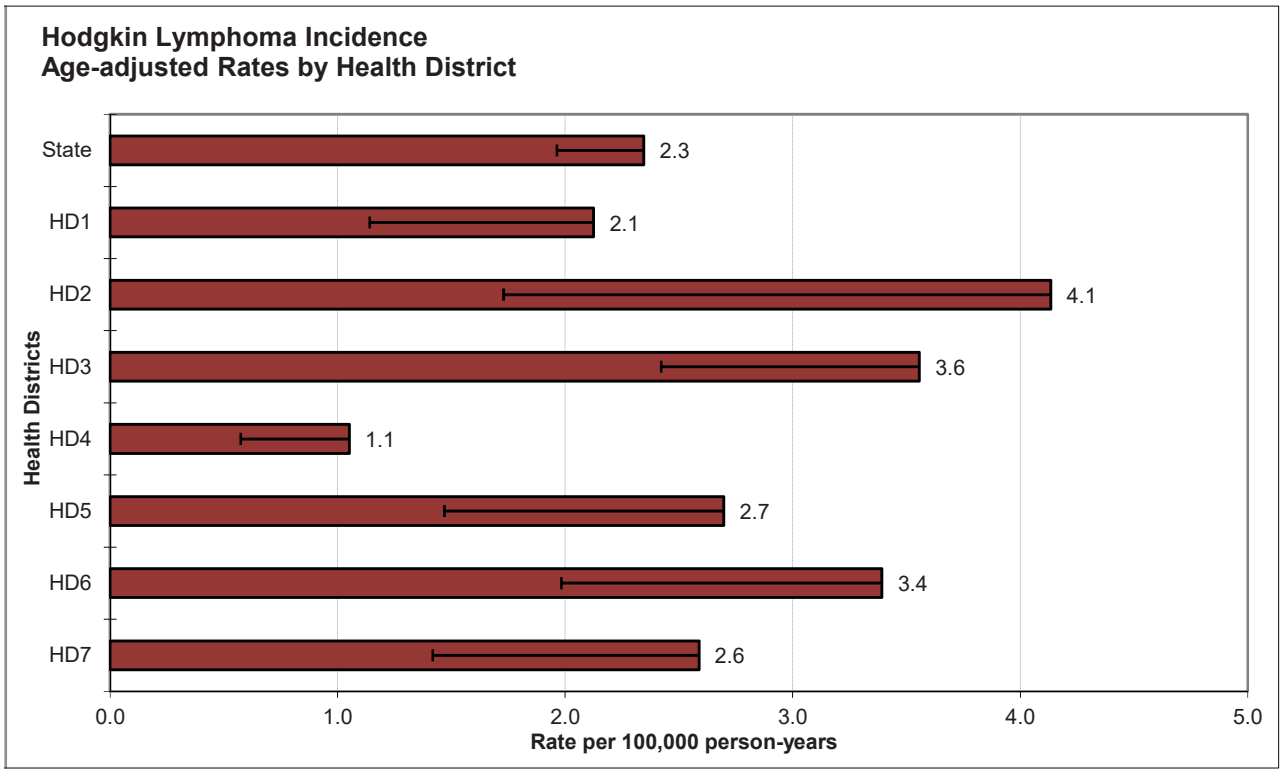
Other Small family size and ensuing delayed exposure to childhood infections is thought to be responsible for a portion of Hodgkin lymphoma cases. Certain viral infections, especially Epstein-Barr virus, and AIDS increase the risk of Hodgkin lymphoma. With current treatment, Hodgkin disease, which was once highly fatal, is among the most curable of all cancers.

Special Notes

Mean age-adjusted incidence rate across health districts:	2.8
95% confidence interval on the mean age-adjusted incidence rate:	2.0- 3.5
Median age-adjusted incidence rate of health districts:	2.7
Range of age-adjusted incidence rate for health districts:	1.1- 4.1
USCS rate (2014, all races):	2.6

The age-related incidence of Hodgkin lymphoma is typically bimodal, usually with a peak in the late 20s to early 30s, and another peak in the ninth decade of life. This trend is difficult to discern in Idaho's population due to the relatively small number of cases observed annually, which increases the variability in age-specific rates. Health District 4 had statistically significantly fewer cases than expected based upon rates for the remainder of Idaho.


State Hodgkin Lymphoma Incidence
Age-specific Rates
Rate per 100,000 person-years
10
9
8
7
6
5
4
3
2
1
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


Hodgkin Lymphoma Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
2.3
2.1
4.1
3.6
1.1
2.7
3.4
2.6
0.0
1.0
2.0
3.0
4.0
5.0
Rate per 100,000 person-years

KIDNEY AND RENAL PELVIS

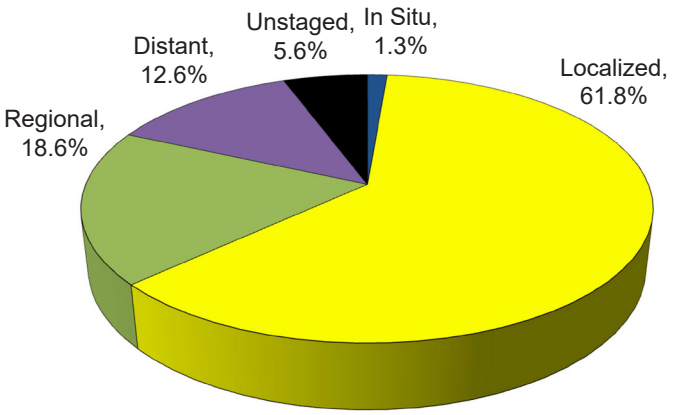
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	16.1	21.3	11.2
# of new invasive cases	297	189	108
# of new in situ cases	4	1	3
# of deaths	76	52	24

Total Cases by County

Ada	68	Cassia	4	Lewis	-
Adams	-	Clark	-	Lincoln	-
Bannock	8	Clearwater	3	Madison	4
Bear Lake	-	Custer	-	Minidoka	3
Benewah	4	Elmore	5	Nez Perce	12
Bingham	9	Franklin	-	Oneida	1
Blaine	4	Fremont	3	Owyhee	3
Boise	1	Gem	-	Payette	1
Bonner	7	Gooding	2	Power	-
Bonneville	15	Idaho	6	Shoshone	4
Boundary	5	Jefferson	7	Teton	-
Butte	-	Jerome	6	Twin Falls	12
Camas	-	Kootenai	40	Valley	4
Canyon	48	Latah	8	Washington	1
Caribou	-	Lemhi	3		

Stage at Diagnosis - Kidney and Renal Pelvis



Risk and Associated Factors

Age Both adults and children are at risk for kidney cancer. Renal cell carcinoma accounts for about 80% of all adult kidney cancers. Wilm's tumor (nephroblastoma) affects predominantly children under age 5 and accounts for the majority of childhood kidney cancers.

Gender Renal cell carcinoma affects males twice as often as females.

Genetics Wilm's tumor often occurs with congenital defects.

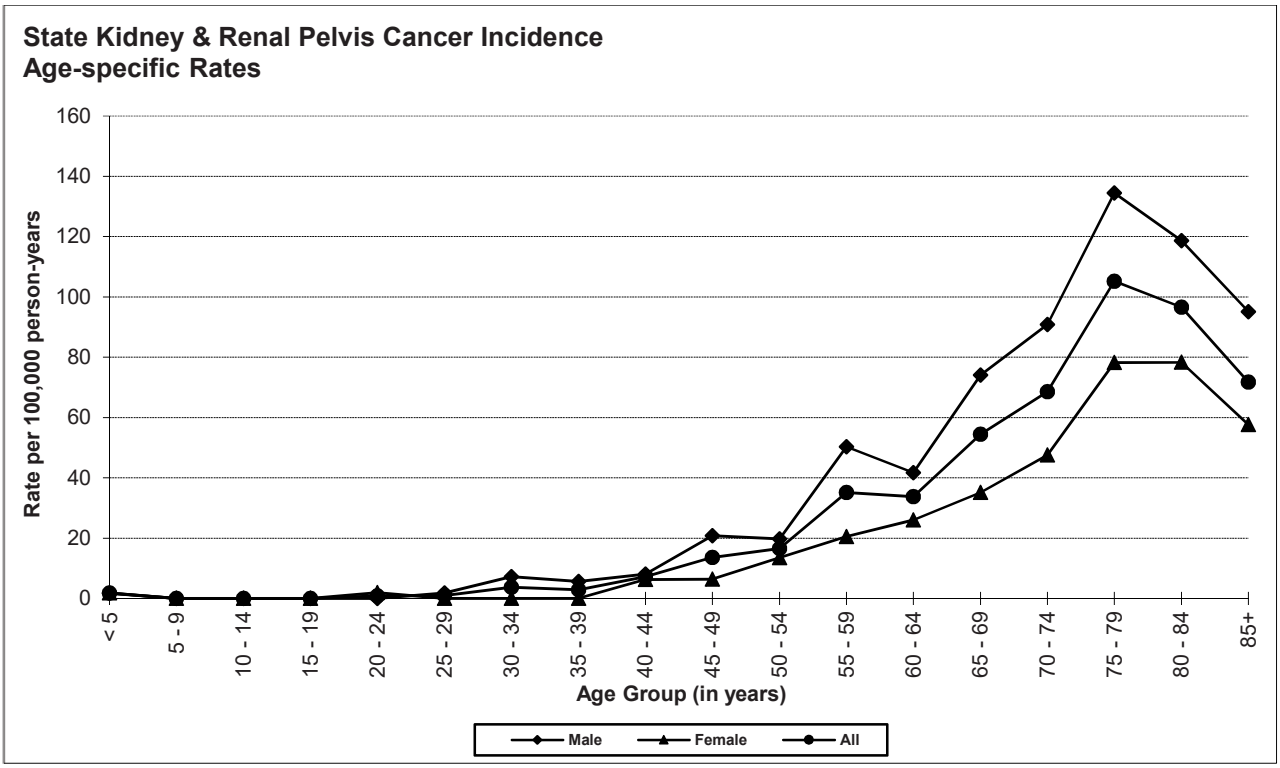
Occupation Certain occupations, such as laundry and leather workers, have been associated with increased risk due to chemical exposure.

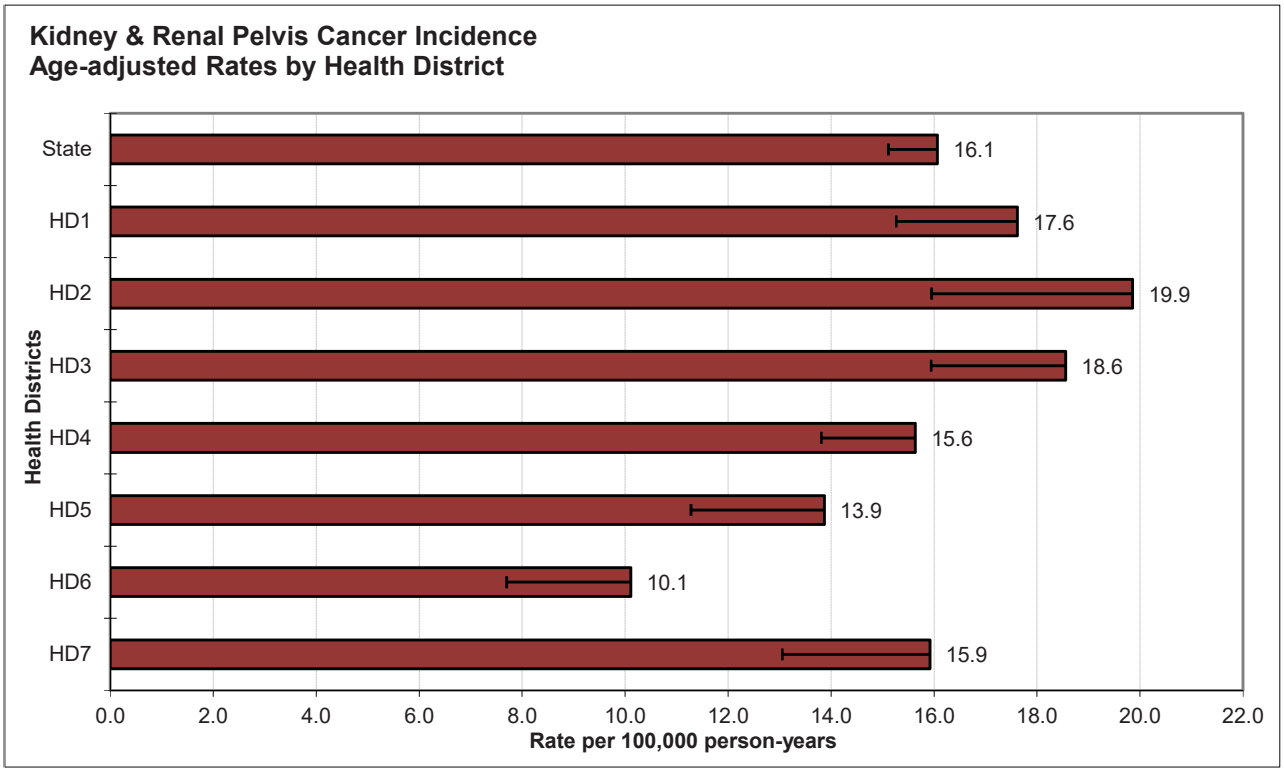
Other Cigarette smoking is strongly associated with renal pelvis and ureter cancers. Smokers are at twice the risk of developing kidney cancer as non-smokers. Analgesic mixtures containing phenacetin increase the risk of kidney cancer. Obesity is a risk factor for kidney cancer. High dietary protein consumption, independent of fat and calorie intake, may elevate kidney cancer risk.

Special Notes

Mean age-adjusted incidence rate across health districts:	15.9
95% confidence interval on the mean age-adjusted incidence rate:	13.5- 18.3
Median age-adjusted incidence rate of health districts:	15.9
Range of age-adjusted incidence rate for health districts:	10.1- 19.9
USCS rate (2014, all races):	16.0

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 75-79 for males and 80-84 for females. Health District 6 had statistically significantly fewer cases than expected based upon rates for the remainder of Idaho.


State Kidney & Renal Pelvis Cancer Incidence
Age-specific Rates
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
16.1
17.6
19.9
18.6
15.6
13.9
10.1
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
Rate per 100,000 person-years

LARYNX

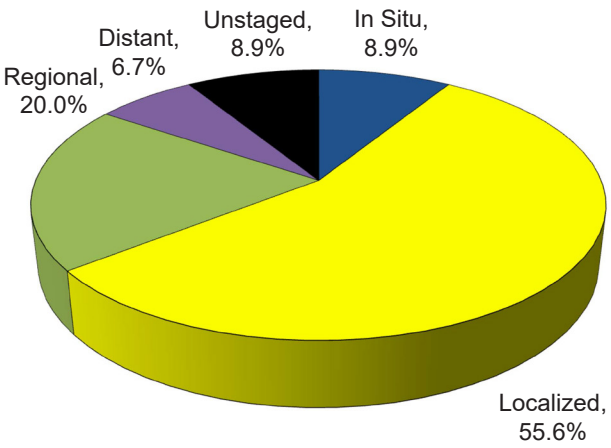
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	2.1	3.7	0.6
# of new invasive cases	41	36	5
# of new in situ cases	4	4	0
# of deaths	13	10	3

Total Cases by County

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

Stage at Diagnosis - Larynx



Risk and Associated Factors

Age Rates increase with age, with the vast majority of cases occurring after age 55.

Gender Laryngeal cancers are much more common in males than females.

Race & SES Generally in the United States, blacks have higher incidence rates than whites. Lower income groups experience higher rates.

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

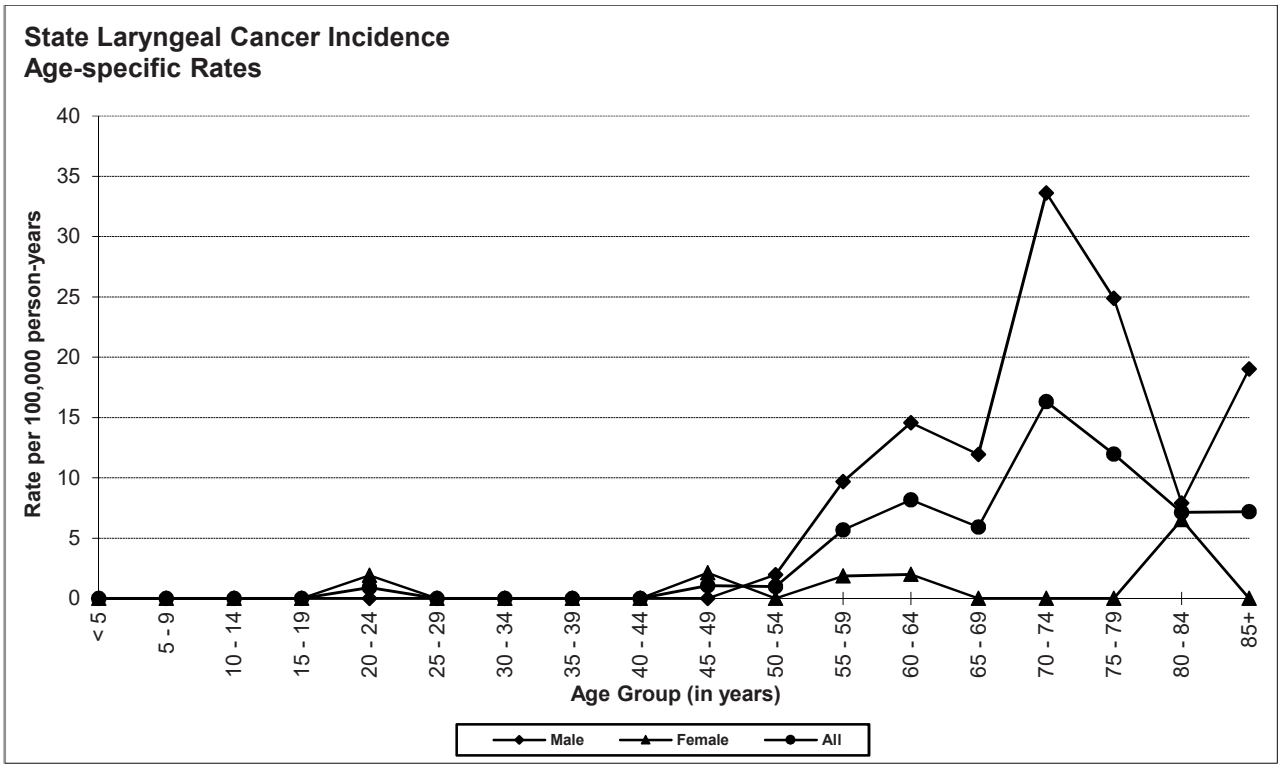
Diet Diets low in fresh fruits and vegetables may increase the risk.

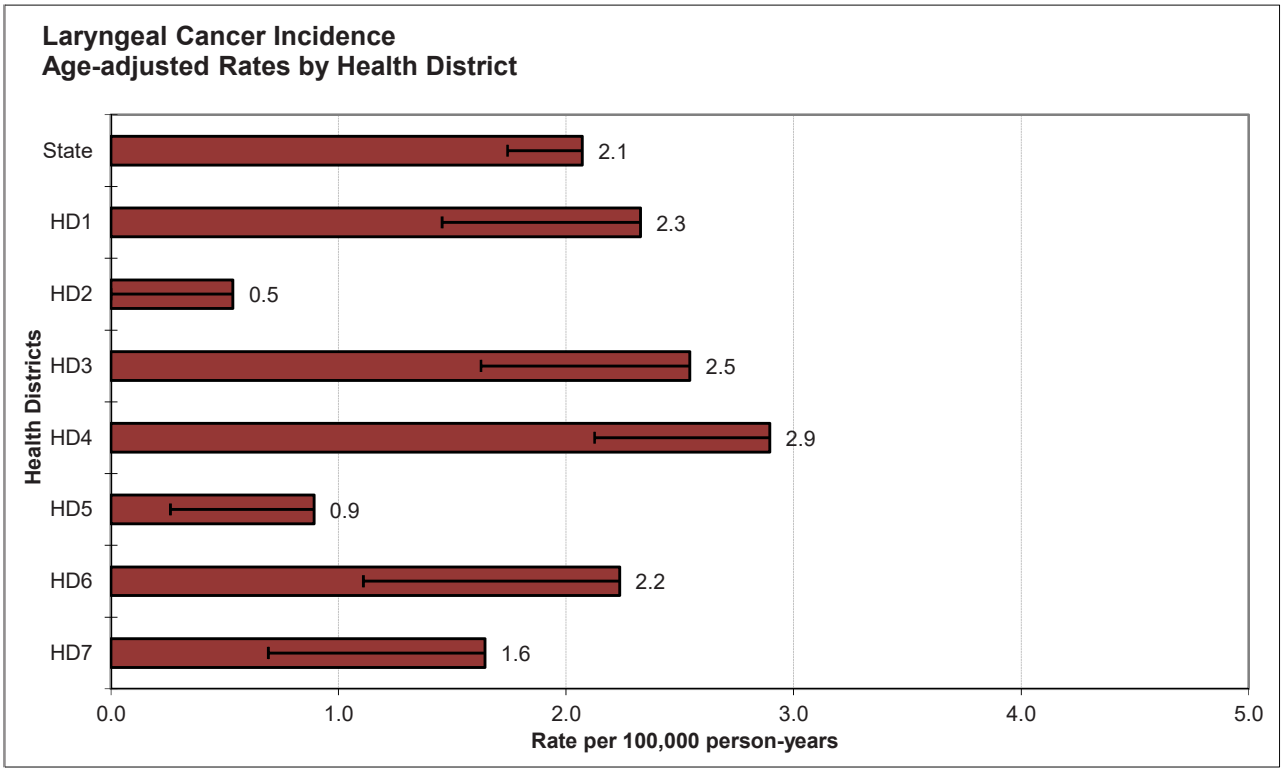
Other Cigarette smoking and alcohol use are both major risk factors. The combination of alcohol consumption and tobacco use (smoking or spit tobacco) acts greatly to increase the risk. A patient with a single laryngeal cancer who continues to smoke and drink alcohol has an enhanced risk of developing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

Special Notes

Mean age-adjusted incidence rate across health districts:	1.9
95% confidence interval on the mean age-adjusted incidence rate:	1.2- 2.5
Median age-adjusted incidence rate of health districts:	2.2
Range of age-adjusted incidence rate for health districts:	0.5- 2.9
USCS rate (2014, all races):	3.2

There were no 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 in most age groups. The age-specific incidence rates peaked in the age group 70-74 for males and 80-84 for females. No health district had statistically significantly fewer or more cases than expected based upon rates for the remainder of Idaho.


State Laryngeal Cancer Incidence
Age-specific Rates
Rate per 100,000 person-years
40
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


Laryngeal Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
2.1
2.3
0.5
2.5
2.9
0.9
2.2
1.6
0.0
1.0
2.0
3.0
4.0
5.0
Rate per 100,000 person-years

LEUKEMIA

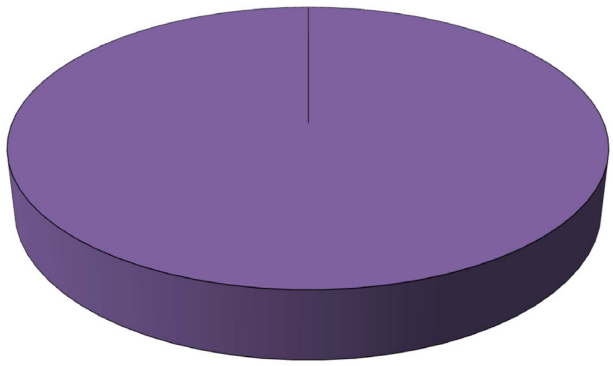
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	16.6	20.0	13.7
# of new invasive cases	301	174	127
# of new in situ cases	0	0	0
# of deaths	118	71	47

Total Cases by County

Ada	57	Cassia	3	Lewis	1
Adams	-	Clark	-	Lincoln	-
Bannock	15	Clearwater	2	Madison	4
Bear Lake	1	Custer	1	Minidoka	3
Benewah	3	Elmore	8	Nez Perce	9
Bingham	9	Franklin	3	Oneida	3
Blaine	5	Fremont	2	Owyhee	3
Boise	1	Gem	6	Payette	7
Bonner	10	Gooding	1	Power	1
Bonneville	13	Idaho	5	Shoshone	3
Boundary	3	Jefferson	3	Teton	1
Butte	3	Jerome	3	Twin Falls	20
Camas	-	Kootenai	37	Valley	1
Canyon	41	Latah	8	Washington	1
Caribou	1	Lemhi	-		

Stage at Diagnosis - Leukemia



Distant, 100.0%

Risk and Associated Factors

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.

Gender Males have higher incidence rates than females for chronic myelogenous leukemia (CML), acute lymphoblastic leukemia (ALL), and chronic lymphocytic leukemia (CLL).

Race ALL is less common among blacks. CLL is rare in Asian/Pacific Islanders.

Genetics Certain congenital defects, such as trisomy 21, Fanconi's anemia, Bloom syndrome, and ataxia-telangectasia, increase risk in children for various types of leukemia.

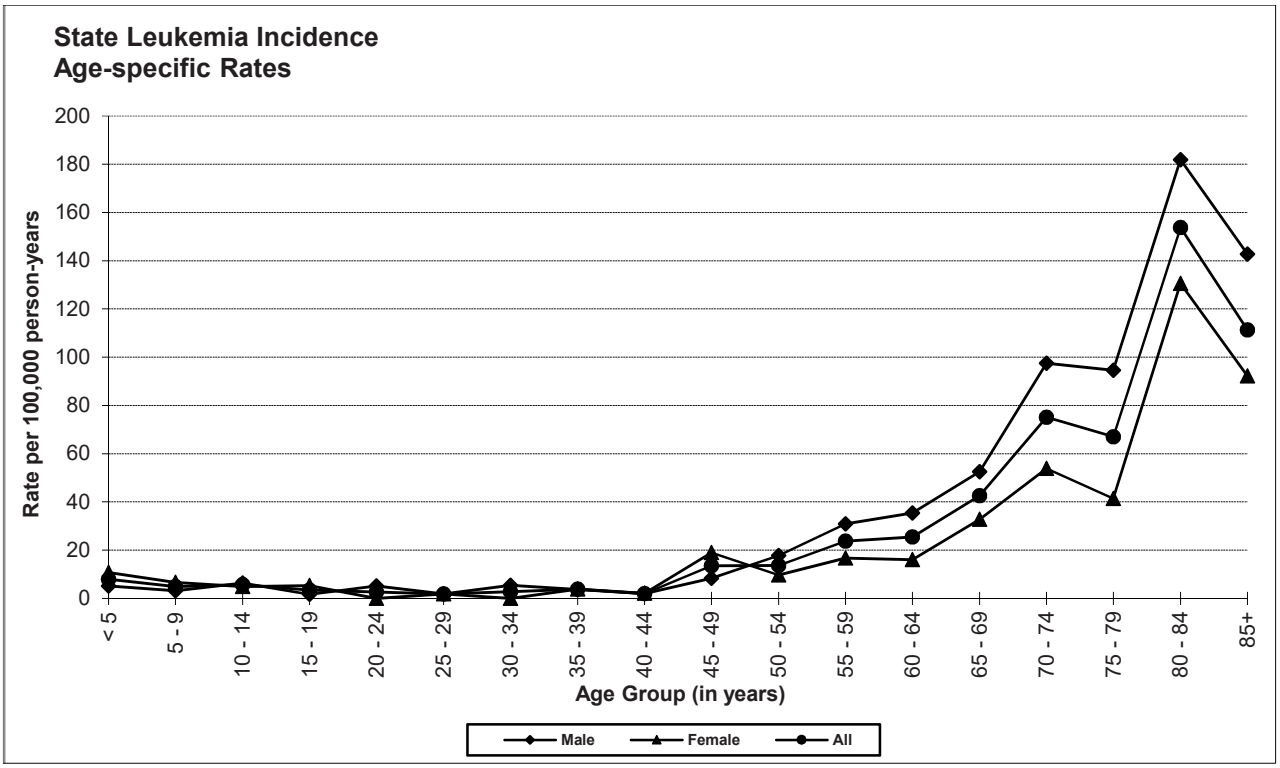
Occupation Benzene is a known cause of leukemia (predominantly acute myelogenous leukemia [AML]). Chimney sweeps exposed to soot are at higher risk.

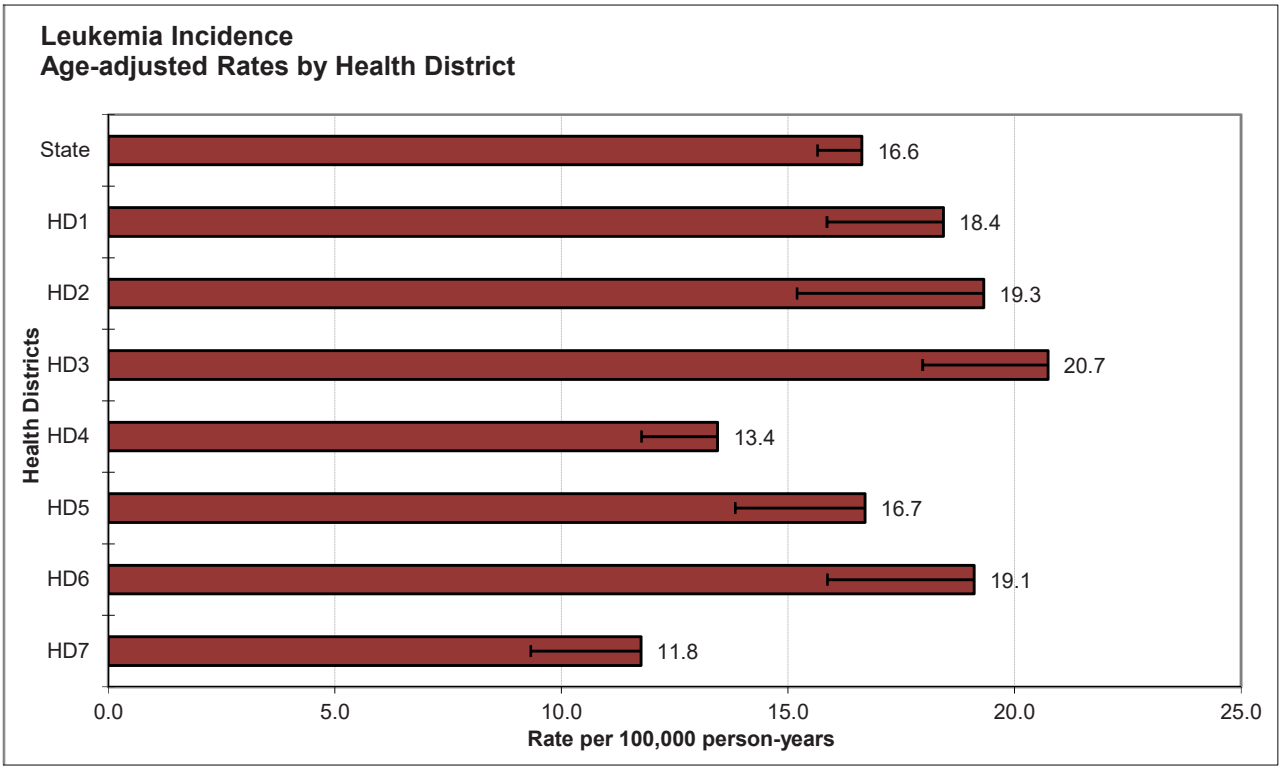
Other Ionizing radiation exposure increases the risk (except for CLL). Environmental exposure to low frequency, non-ionizing radiation and its association with leukemia incidence is being investigated. Treatment with some chemotherapeutic agents for other cancers increases the risk of leukemia. Exposure to herbicides used during the Vietnam War, including Agent Orange, has been associated with increased incidence of CLL. The antibiotic chloramphenicol likely causes leukemia. Autoimmune diseases and several viruses, including HTLV-I and EBV, have been linked to certain types of leukemia.

Special Notes

Mean age-adjusted incidence rate across health districts:	17.1
95% confidence interval on the mean age-adjusted incidence rate:	14.6- 19.5
Median age-adjusted incidence rate of health districts:	18.4
Range of age-adjusted incidence rate for health districts:	11.8- 20.7
USCS rate (2014, all races):	12.9

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 with the exception of acute myelogenous leukemia (AML), which has no predilection for age or sex. Health District 4 had statistically significantly fewer cases than expected based upon rates for the remainder of Idaho.


State Leukemia Incidence
Age-specific Rates
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
16.6
18.4
19.3
20.7
13.4
16.7
19.1
11.8
0.0
5.0
10.0
15.0
20.0
25.0
Rate per 100,000 person-years

LIVER AND BILE DUCT

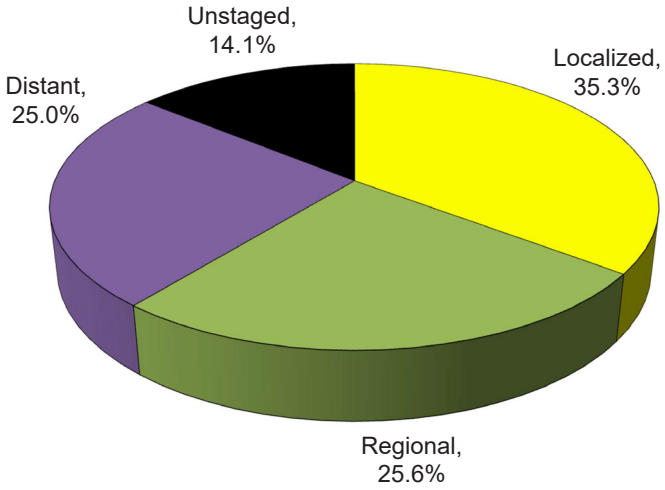
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	7.7	11.4	4.3
# of new invasive cases	156	113	43
# of new in situ cases	0	0	0
# of deaths	117	77	40

Total Cases by County

Ada	47	Cassia	2	Lewis	2
Adams	-	Clark	-	Lincoln	-
Bannock	9	Clearwater	-	Madison	2
Bear Lake	-	Custer	1	Minidoka	4
Benewah	-	Elmore	4	Nez Perce	4
Bingham	4	Franklin	-	Oneida	1
Blaine	1	Fremont	-	Owyhee	-
Boise	4	Gem	4	Payette	2
Bonner	6	Gooding	1	Power	1
Bonneville	6	Idaho	3	Shoshone	5
Boundary	3	Jefferson	1	Teton	1
Butte	-	Jerome	2	Twin Falls	8
Camas	-	Kootenai	11	Valley	-
Canyon	15	Latah	-	Washington	-
Caribou	1	Lemhi	1		

Stage at Diagnosis - Liver and Bile Duct



Risk and Associated Factors

Age The incidence rate of liver cancer increases with age.

Gender Rates are usually higher among males than females.

Race Incidence is higher among Asian/Pacific Islanders and blacks than the remainder of the population.

Diet Aflatoxins, which are present in certain foods such as peanut butter, are classified as a known human carcinogen, causing liver cancer.

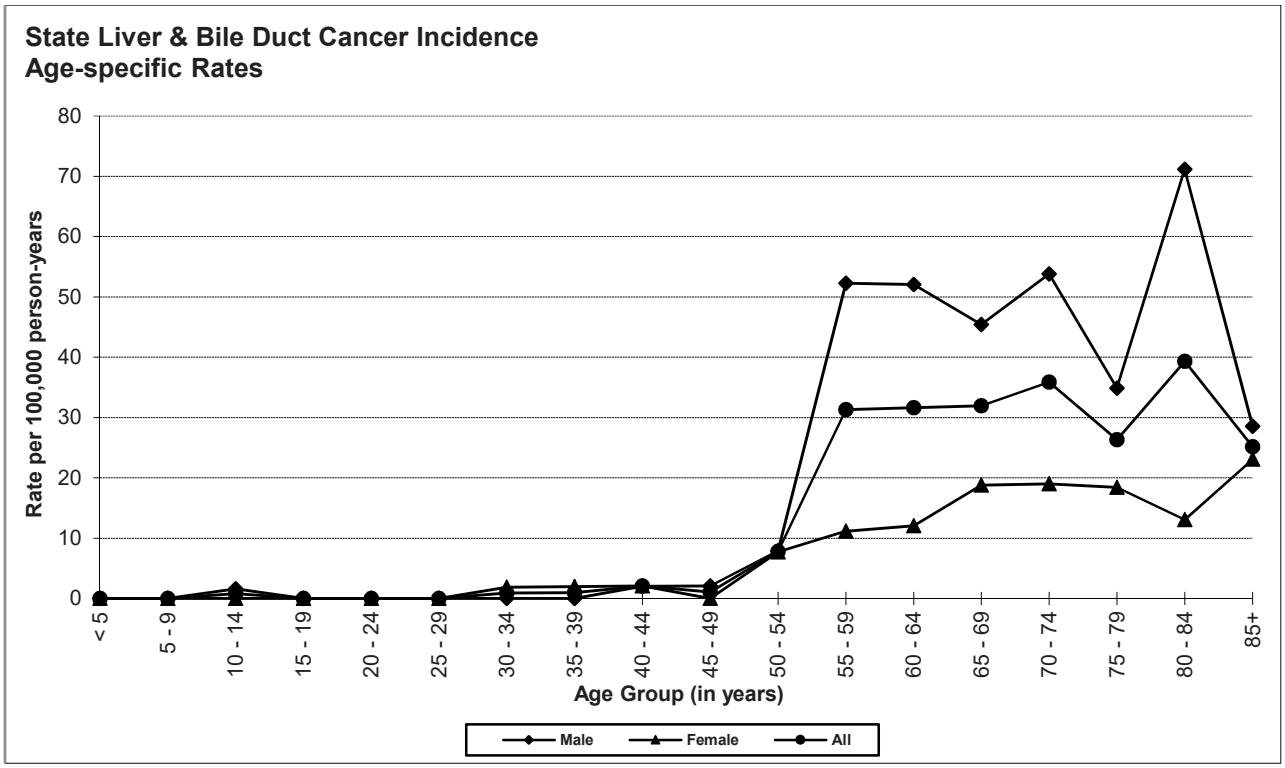
Occupation Thorium dioxide (an x-ray contrast medium) exposure increases liver cancer risk. Exposure to vinyl chloride used in plastic production is associated with an increased risk of angiosarcoma of the liver. Chimney sweeps exposed to soot are at higher risk.

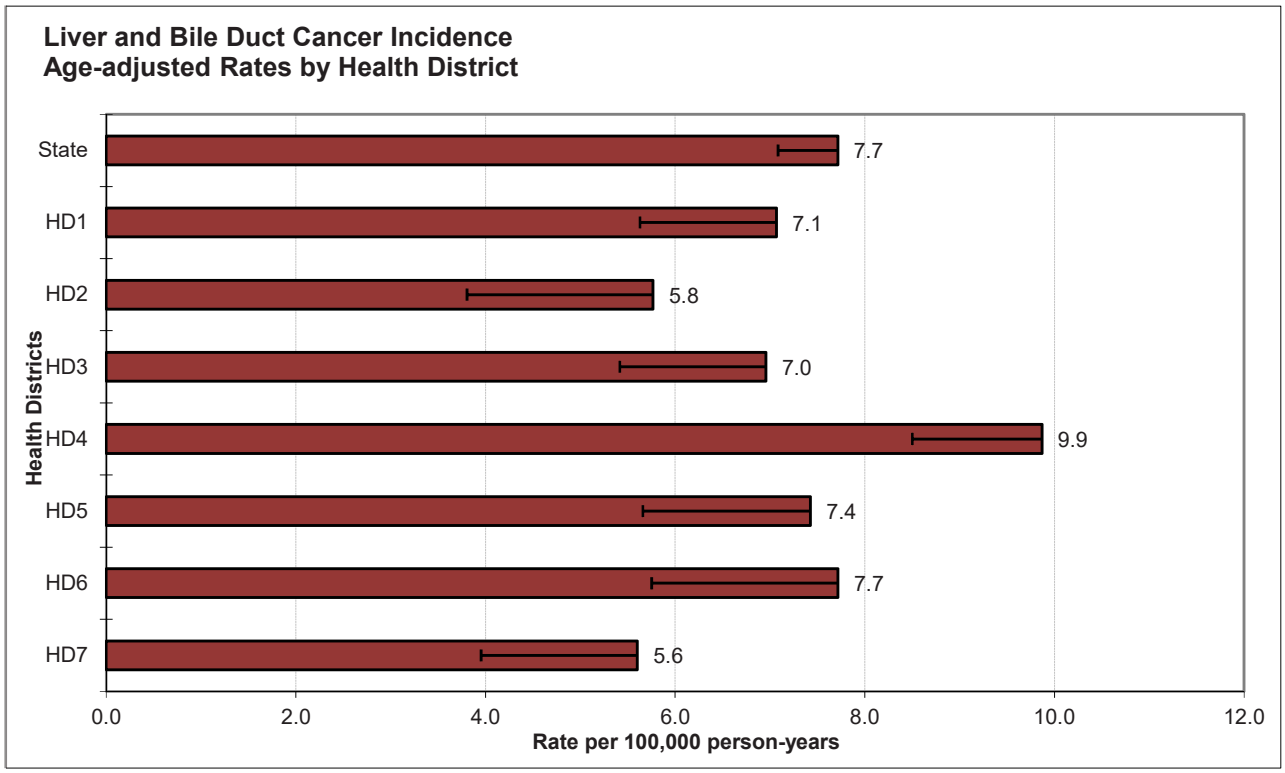
Other Hepatitis B and Hepatitis C infections are significant causes of hepatocellular carcinoma. Cirrhosis of the liver due to viral hepatitis, alcoholism, or toxic chemical exposure accounts for 50-80% of patients diagnosed with liver cancer. Long-term use of oral contraceptives increases risk of hepatocellular carcinoma.

Special Notes

Mean age-adjusted incidence rate across health districts:	7.2
95% confidence interval on the mean age-adjusted incidence rate:	6.1- 8.3
Median age-adjusted incidence rate of health districts:	7.1
Range of age-adjusted incidence rate for health districts:	5.6- 9.9
USCS rate (2014, all races):	7.6

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 85+ for females. Health District 4 had statistically significantly more cases of liver and bile duct cancer than expected based upon rates for the remainder of Idaho.


State Liver & Bile Duct Cancer Incidence
Age-specific Rates
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


Liver and Bile Duct Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
7.7
7.1
5.8
7.0
9.9
7.4
7.7
5.6
0.0
2.0
4.0
6.0
8.0
10.0
12.0
Rate per 100,000 person-years

LUNG AND BRONCHUS

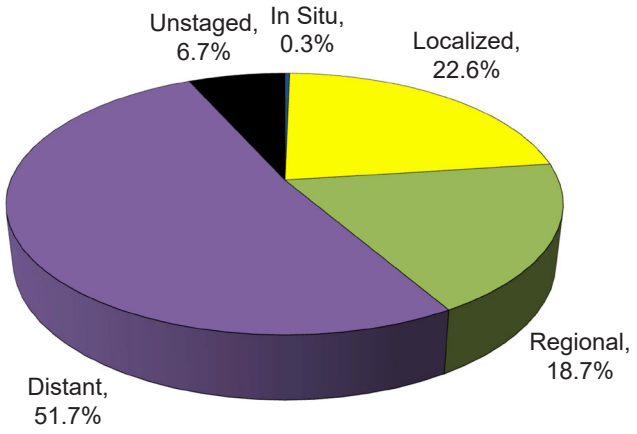
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	49.9	56.3	44.7
# of new invasive cases	939	498	441
# of new in situ cases	3	2	1
# of deaths	648	347	301

Total Cases by County

Ada	233	Cassia	8	Lewis	2
Adams	2	Clark	-	Lincoln	3
Bannock	29	Clearwater	10	Madison	1
Bear Lake	-	Custer	4	Minidoka	7
Benewah	14	Elmore	13	Nez Perce	38
Bingham	14	Franklin	6	Oneida	2
Blaine	11	Fremont	4	Owyhee	4
Boise	9	Gem	18	Payette	12
Bonner	40	Gooding	11	Power	4
Bonneville	39	Idaho	14	Shoshone	15
Boundary	6	Jefferson	11	Teton	1
Butte	3	Jerome	16	Twin Falls	42
Camas	-	Kootenai	117	Valley	10
Canyon	127	Latah	19	Washington	10
Caribou	3	Lemhi	10		

Stage at Diagnosis - Lung and Bronchus



Risk and Associated Factors

Age Lung cancer incidence rates increase with age.

Gender The incidence is currently higher in males than in females, but the gap is narrowing due to increased smoking rates among women in recent decades.

Race & SES Incidence is generally higher among blacks than other racial groups, and is also higher in lower income groups.

Diet Diets low in consumption of fresh fruits and vegetables contribute to increased risk.

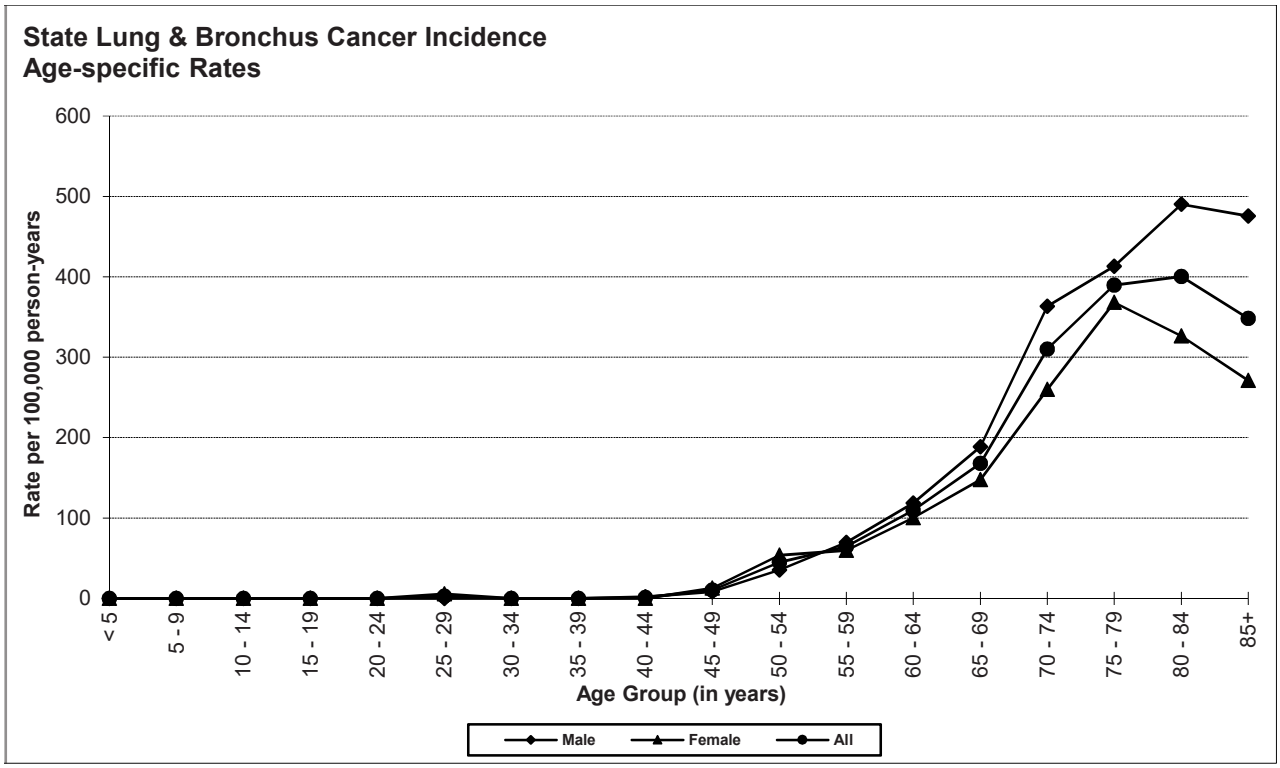
Occupation Occupational or environmental exposures to asbestos, cadmium, chromium, coal tars, crystalline silica dust, polycyclic aromatic hydrocarbons, radon, soot, chlorpyrifos insecticides, ionizing radiation, and other substances increase the risk.

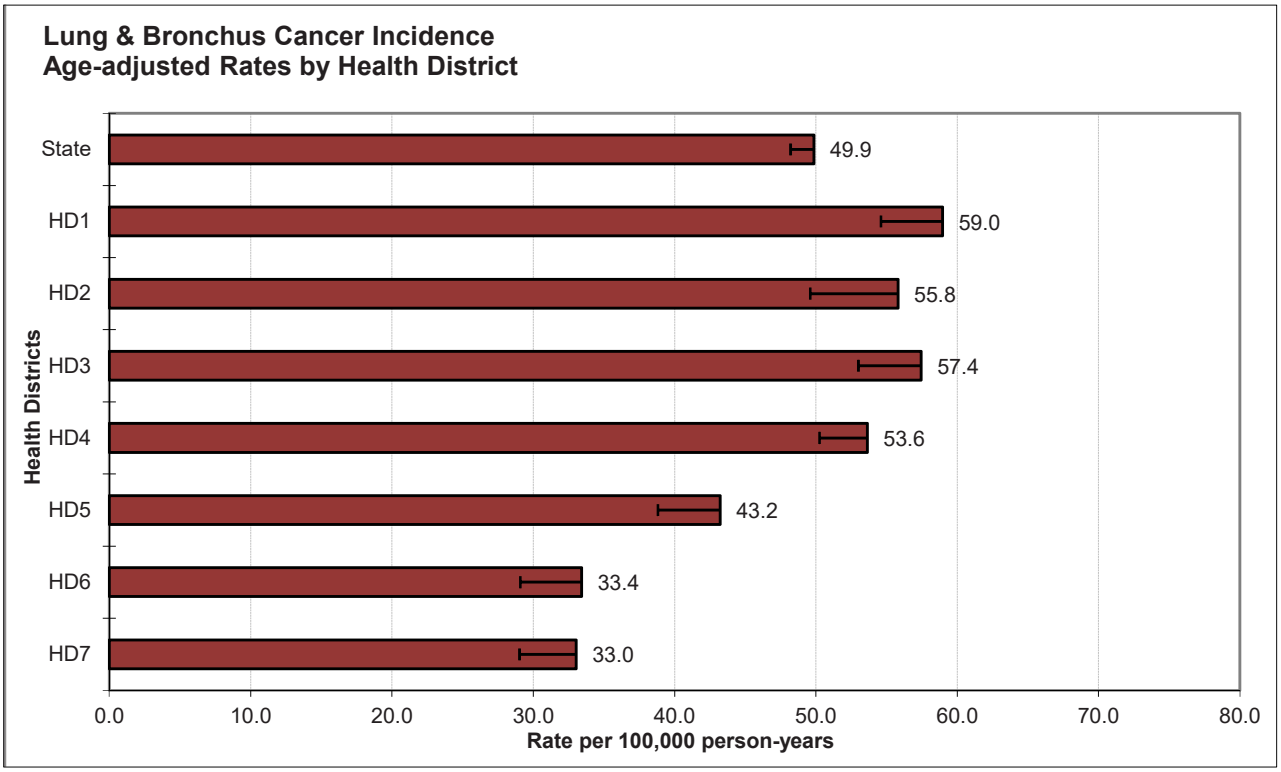
Other Cigarette smoking, including exposure to second-hand smoke, is the most important risk factor, accounting for over 85% of lung cancer deaths. Evidence exists that rates are about 1.3 times higher, adjusted for smoking, in urban areas than rural areas due to air pollution, mostly from motor vehicles.

Special Notes

Mean age-adjusted incidence rate across health districts:	47.9
95% confidence interval on the mean age-adjusted incidence rate:	39.6- 56.3
Median age-adjusted incidence rate of health districts:	53.6
Range of age-adjusted incidence rate for health districts:	33.0- 59.0
USCS rate (2014, all races):	56.2

There were few cases of lung cancer among persons less than 50 years of age. The age-specific incidence rates for males were uniformly higher than the rates for females after age 59. The incidence rates increased with age, peaking in the age group 80-84 for males and 75-79 for females. Health Districts 1 and 3 had statistically significantly more cases of lung cancer than expected based upon rates for the remainder of Idaho, and Health Districts 6 and 7 had statistically significantly fewer.


State Lung & Bronchus Cancer Incidence
Age-specific Rates
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)
Male
Female
All


Lung & Bronchus Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
49.9
59.0
55.8
57.4
53.6
43.2
33.4
33.0
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

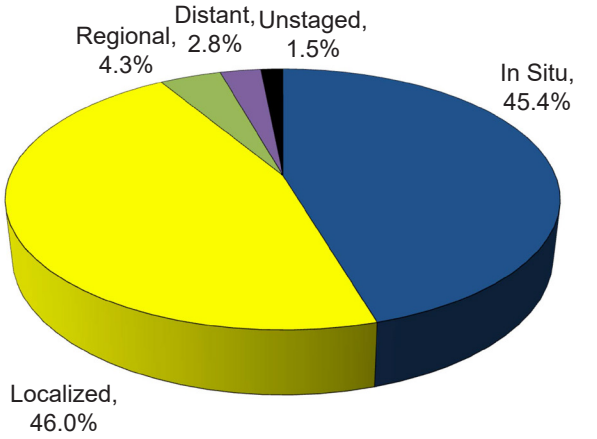
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	28.0	32.8	24.4
# of new invasive cases	500	282	218
# of new in situ cases	416	250	166
# of deaths	69	45	24

Total Cases by County

Ada	303	Cassia	10	Lewis	2
Adams	3	Clark	1	Lincoln	2
Bannock	42	Clearwater	6	Madison	10
Bear Lake	1	Custer	2	Minidoka	11
Benewah	6	Elmore	8	Nez Perce	21
Bingham	16	Franklin	3	Oneida	4
Blaine	19	Fremont	9	Owyhee	3
Boise	2	Gem	10	Payette	7
Bonner	31	Gooding	9	Power	3
Bonneville	59	Idaho	17	Shoshone	2
Boundary	4	Jefferson	19	Teton	9
Butte	1	Jerome	13	Twin Falls	21
Camas	-	Kootenai	100	Valley	10
Canyon	76	Latah	21	Washington	4
Caribou	5	Lemhi	11		

Stage at Diagnosis - Melanoma of Skin



Risk and Associated Factors

Age Melanoma is extremely uncommon before puberty. Rates increase with age.

Gender Incidence rates are higher among females than males in younger age groups, and higher in males than females in older age groups.

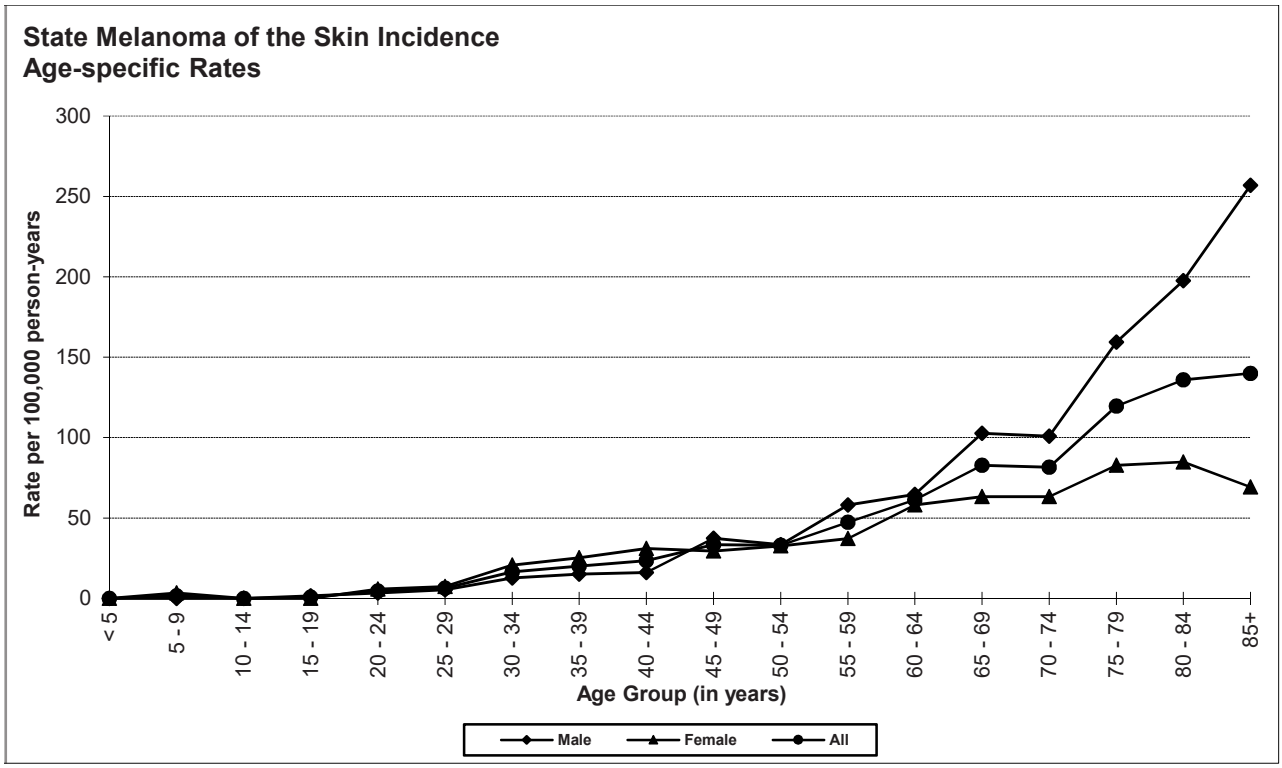
Race & SES The incidence rate is highest in whites and lowest in blacks. Incidence rates of melanoma of the skin are higher in higher income groups (indoor workers).

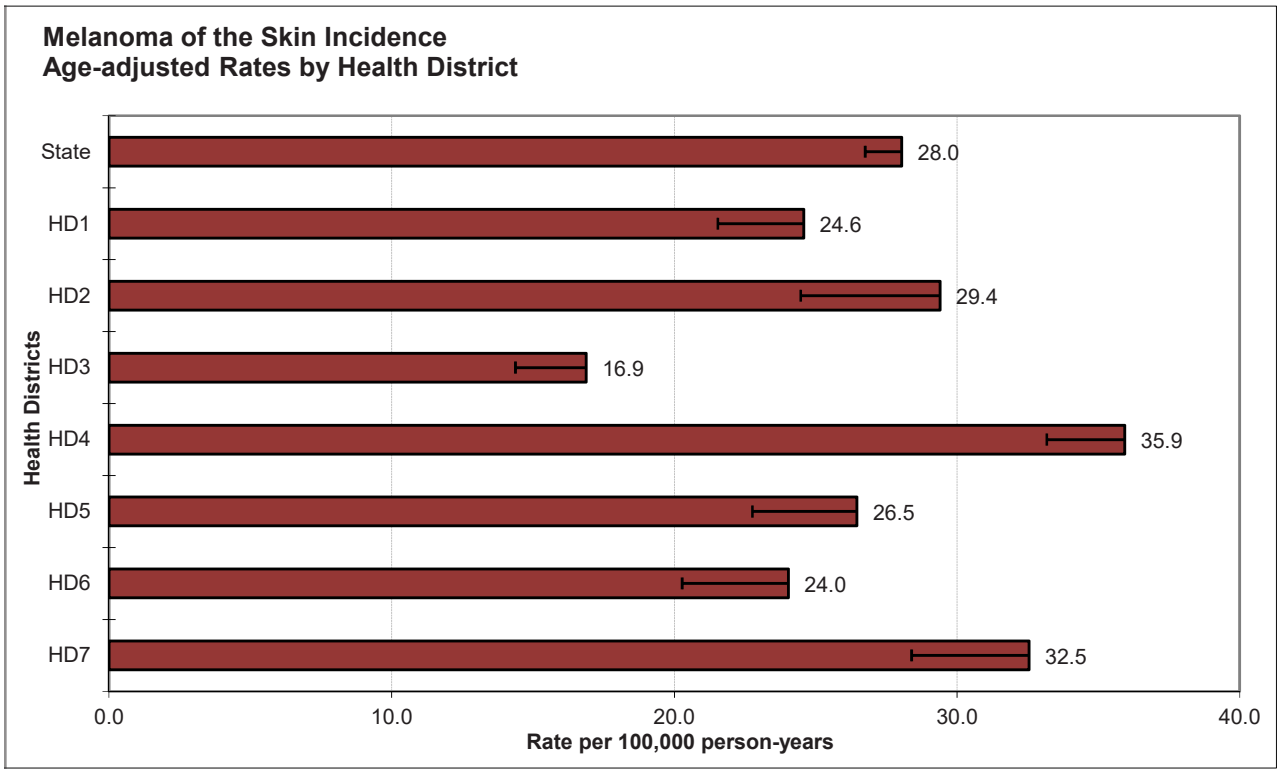
Other Ultra-violet light exposure, especially blistering sunburns during childhood and intermittent exposure of untanned skin to intense sunlight, is a major risk factor. Melanoma incidence rates are increasing around the world. Blue eyes, fair or red hair and pale complexion are well-known risk factors for melanoma. Apart from race and age, the number of melanocytic nevi is the strongest known risk factor for melanoma.

Special Notes

Mean age-adjusted incidence rate across health districts:	27.1
95% confidence interval on the mean age-adjusted incidence rate:	22.5- 31.7
Median age-adjusted incidence rate of health districts:	26.5
Range of age-adjusted incidence rate for health districts:	16.9- 35.9
USCS rate (2014, all races):	21.4

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 4 had statistically significantly more cases of melanoma than expected based upon rates for the remainder of Idaho, and Health District 3 had statistically significantly fewer.


State Melanoma of the Skin Incidence
Age-specific Rates
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


Melanoma of the Skin Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
28.0
24.6
29.4
16.9
35.9
26.5
24.0
32.5
0.0
10.0
20.0
30.0
40.0
Rate per 100,000 person-years

MYELOMA

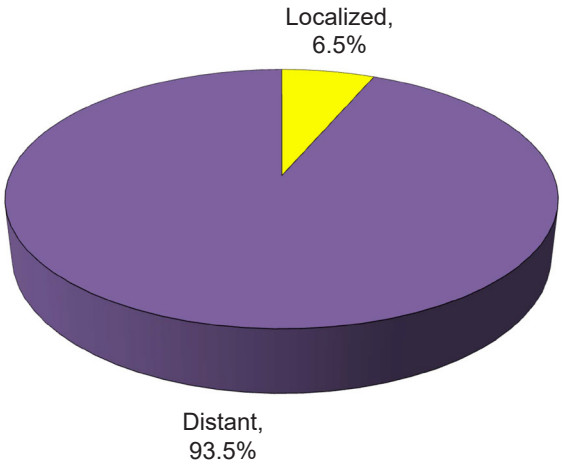
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	6.6	8.0	5.2
# of new invasive cases	124	73	51
# of new in situ cases	0	0	0
# of deaths	58	34	24

Total Cases by County

Ada	33	Cassia	3	Lewis	1
Adams	1	Clark	-	Lincoln	-
Bannock	6	Clearwater	2	Madison	-
Bear Lake	1	Custer	-	Minidoka	-
Benewah	1	Elmore	3	Nez Perce	4
Bingham	3	Franklin	-	Oneida	-
Blaine	1	Fremont	1	Owyhee	1
Boise	-	Gem	4	Payette	5
Bonner	3	Gooding	1	Power	-
Bonneville	9	Idaho	3	Shoshone	1
Boundary	1	Jefferson	1	Teton	-
Butte	-	Jerome	2	Twin Falls	4
Camas	-	Kootenai	10	Valley	1
Canyon	9	Latah	3	Washington	2
Caribou	1	Lemhi	3		

Stage at Diagnosis - Myeloma



Risk and Associated Factors

Age Multiple myeloma is an age-dependent cancer; incidence rates increase with age and it rarely occurs before age 40.

Gender Rates for males are somewhat higher than for females.

Race Blacks have higher incidence rates than whites.

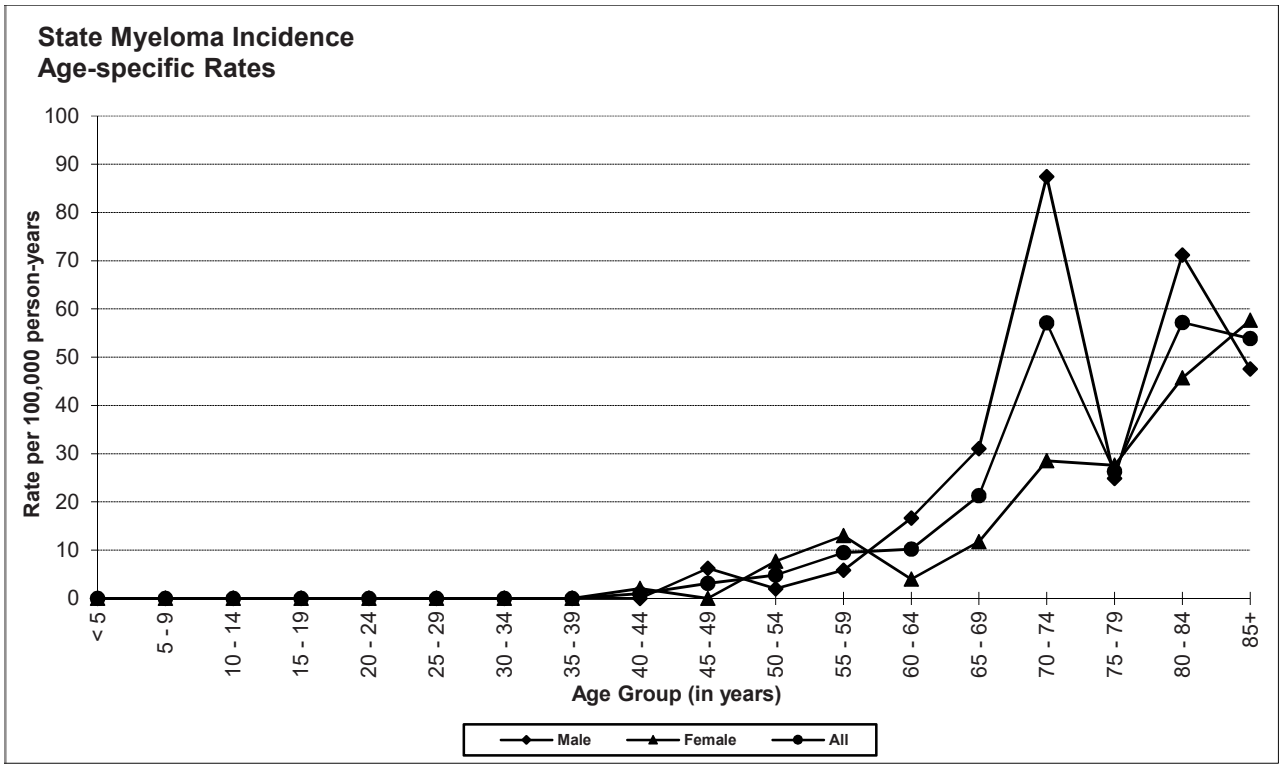
Genetics Genetic factors play an important role in its development, but how so is not completely understood. Familial factors and chronic antigenic stimulation have also been implicated.

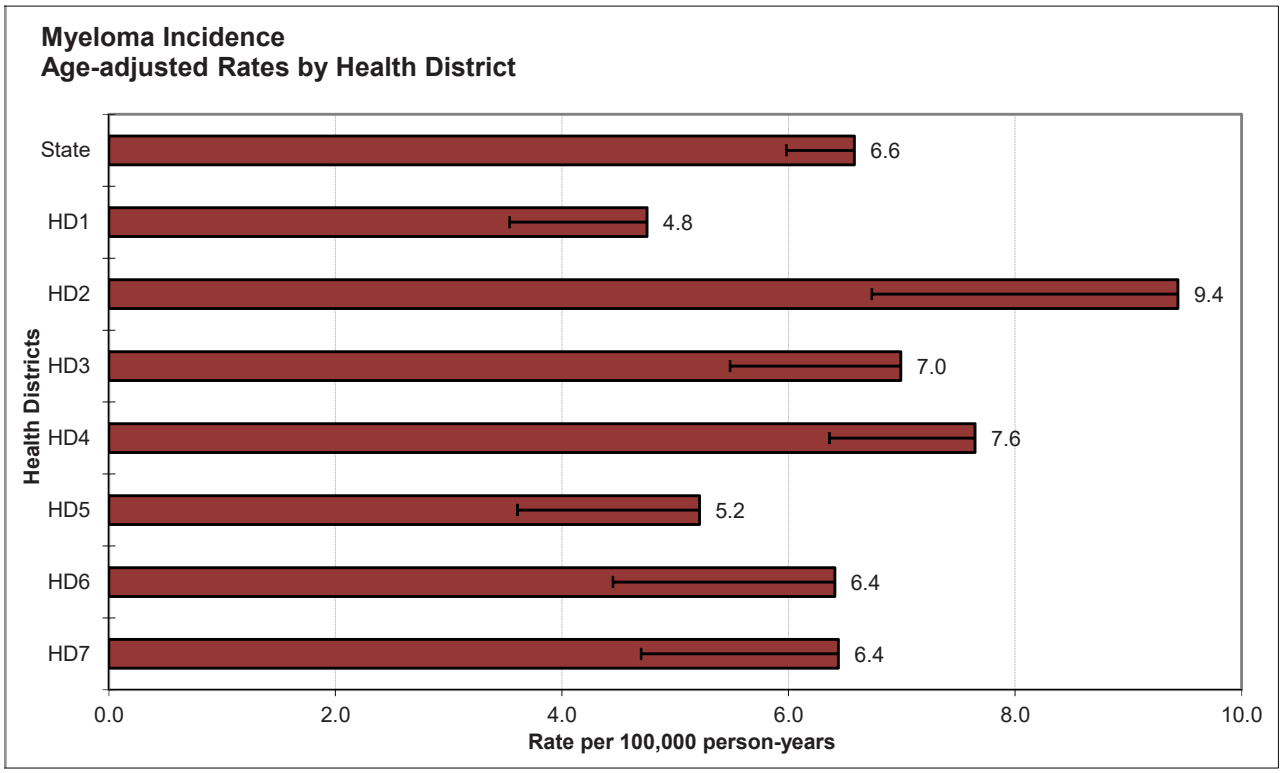
Other Multiple myeloma has been associated with lymphomas such as Burkitt's and non-Hodgkin lymphomas. Studies have suggested several possible viral etiologies, and multiple myeloma has been linked to ionizing radiation exposure. Several specific chemical and physical substances have been linked to myeloma 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 are predisposed to develop multiple myeloma.

Special Notes

Mean age-adjusted incidence rate across health districts:	6.7
95% confidence interval on the mean age-adjusted incidence rate:	5.5- 7.9
Median age-adjusted incidence rate of health districts:	6.4
Range of age-adjusted incidence rate for health districts:	4.8- 9.4
USCS rate (2014, all races):	6.2

There were no cases of myeloma among persons less than 40 years of age. The age-specific incidence rates increased rapidly for both males and females after age group 60-64. No health district had statistically significantly fewer or more cases than expected based upon rates for the remainder of Idaho.


State Myeloma Incidence
Age-specific Rates
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


Myeloma Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
6.6
4.8
9.4
7.0
7.6
5.2
6.4
6.4
0.0
2.0
4.0
6.0
8.0
10.0
Rate per 100,000 person-years

NON-HODGKIN LYMPHOMA

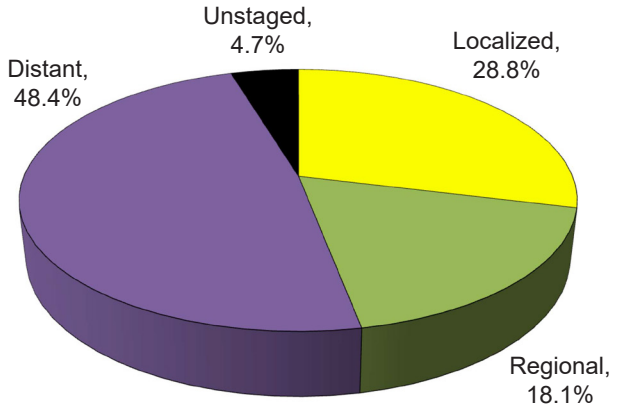
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	19.7	22.9	16.9
# of new invasive cases	364	203	161
# of new in situ cases	0	0	0
# of deaths	100	54	46

Total Cases by County

Ada	88	Cassia	10	Lewis	2
Adams	4	Clark	-	Lincoln	-
Bannock	15	Clearwater	6	Madison	6
Bear Lake	-	Custer	1	Minidoka	3
Benewah	5	Elmore	3	Nez Perce	8
Bingham	6	Franklin	3	Oneida	2
Blaine	6	Fremont	1	Owyhee	2
Boise	2	Gem	3	Payette	9
Bonner	12	Gooding	3	Power	4
Bonneville	18	Idaho	2	Shoshone	3
Boundary	3	Jefferson	4	Teton	2
Butte	1	Jerome	5	Twin Falls	18
Camas	-	Kootenai	30	Valley	6
Canyon	42	Latah	15	Washington	5
Caribou	1	Lemhi	5		

Stage at Diagnosis - Non-Hodgkin Lymphoma



Risk and Associated Factors

Age Rates increase with age, reaching the highest levels in the eighth and ninth decades of life.

Gender Males have higher rates than females.

Race & SES Generally in the United States, incidence rates are generally higher for whites than blacks. Rates are higher in upper income groups.

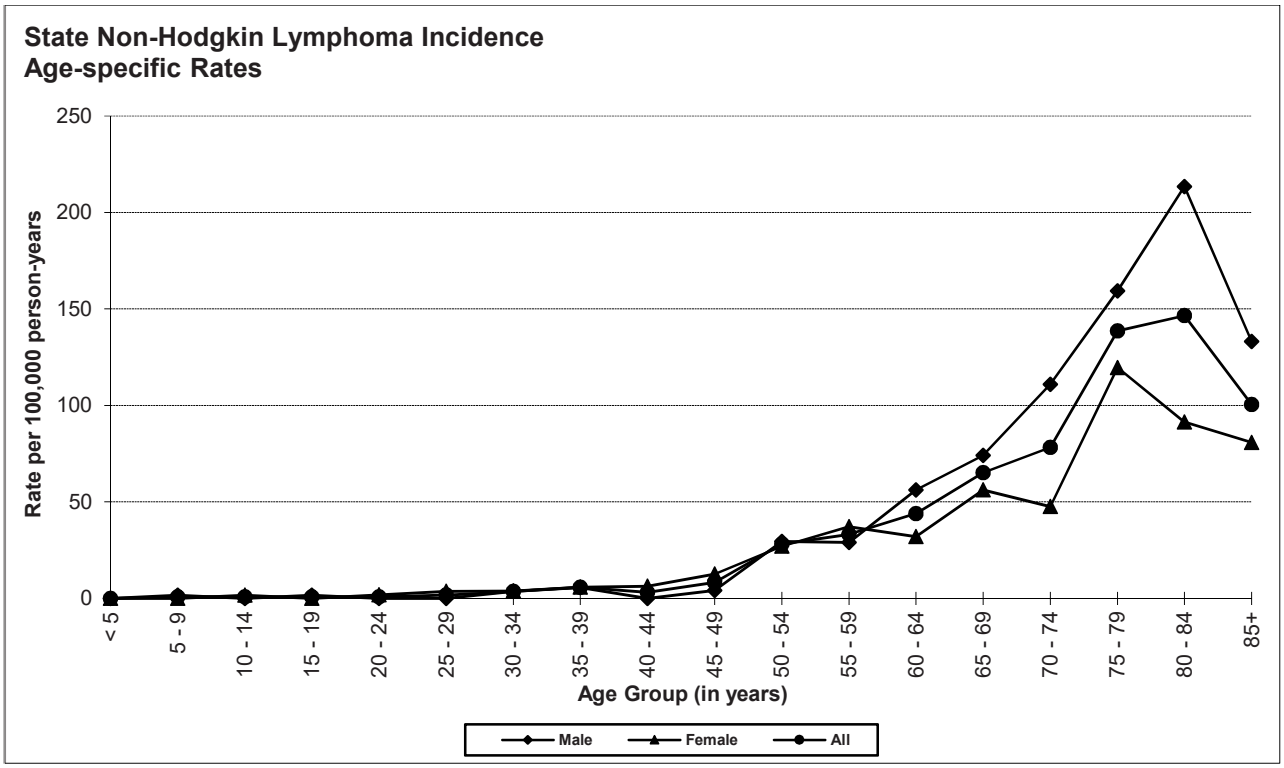
Occupation Exposure to ethylene oxide, such as through commercial production or use as a sterilant in the manufacture of medical and pharmaceutical products or production of food spices, has been identified as a risk factor.

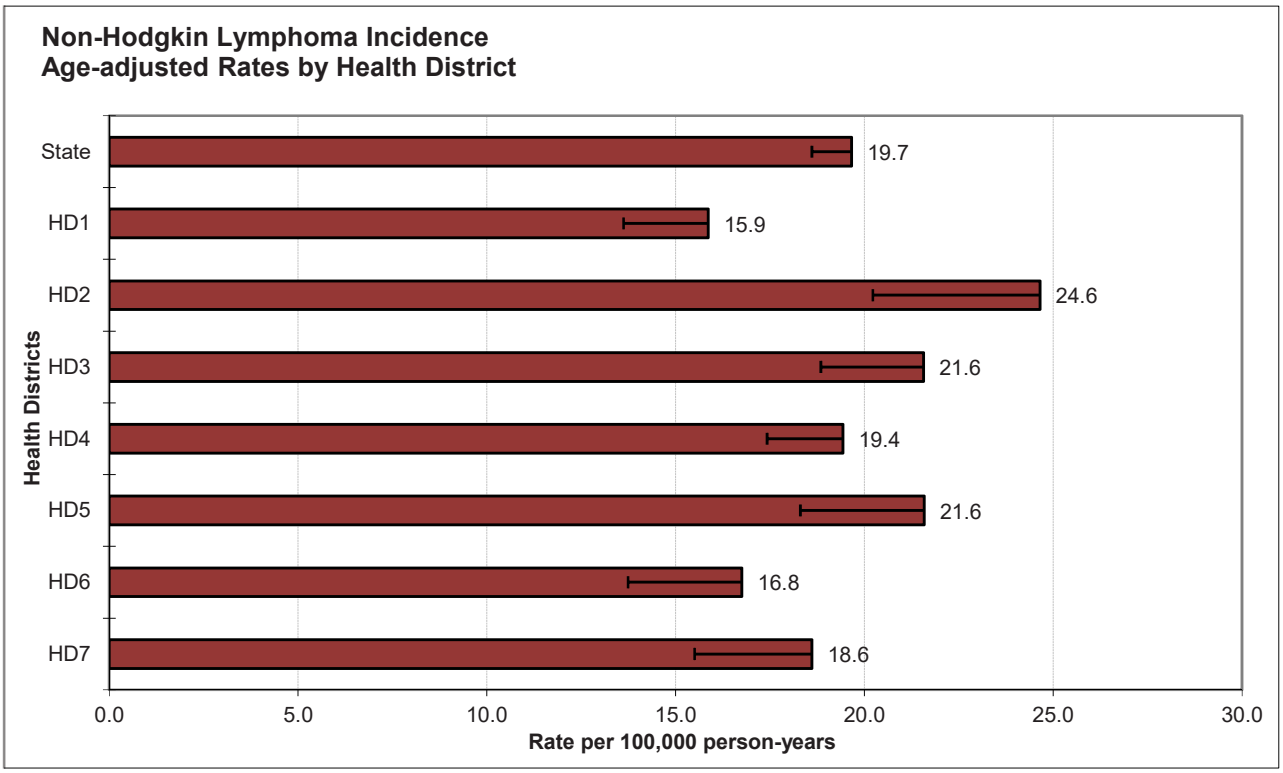
Other Non-Hodgkin lymphoma (NHL) develops with increased frequency in individuals infected with certain viruses, including HTLV-I, HIV, and EBV. Exposures to agricultural chemicals and PCBs have also been implicated. Treatment with some immunosuppressants increases the risk of NHL among organ transplant patients, evidently by reactivating Epstein-Barr virus.

Special Notes

Mean age-adjusted incidence rate across health districts:	19.8
95% confidence interval on the mean age-adjusted incidence rate:	17.5- 22.0
Median age-adjusted incidence rate of health districts:	19.4
Range of age-adjusted incidence rate for health districts:	15.9- 24.6
USCS rate (2014, all races):	18.3

The age-specific incidence rates of non-Hodgkin lymphoma 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 than expected based upon rates for the remainder of Idaho.


State Non-Hodgkin Lymphoma Incidence
Age-specific Rates
Rate per 100,000 person-years
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


Non-Hodgkin Lymphoma Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
19.7
15.9
24.6
21.6
19.4
21.6
16.8
18.6
0.0
5.0
10.0
15.0
20.0
25.0
30.0
Rate per 100,000 person-years

ORAL CAVITY AND PHARYNX

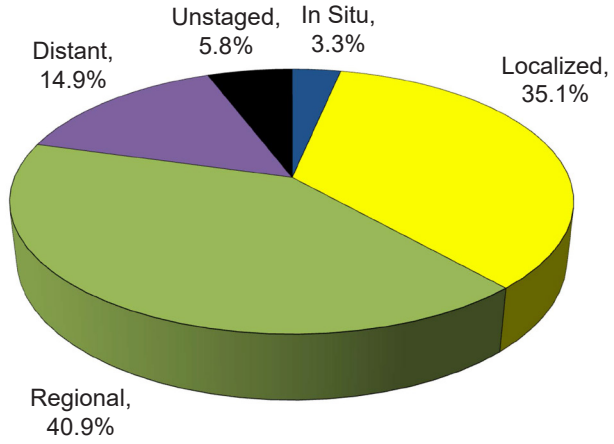
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	12.5	17.8	7.7
# of new invasive cases	234	163	71
# of new in situ cases	8	4	4
# of deaths	49	33	16

Total Cases by County

Ada	59	Cassia	3	Lewis	-
Adams	2	Clark	-	Lincoln	1
Bannock	7	Clearwater	2	Madison	3
Bear Lake	1	Custer	3	Minidoka	3
Benewah	2	Elmore	3	Nez Perce	9
Bingham	6	Franklin	-	Oneida	-
Blaine	1	Fremont	3	Owyhee	-
Boise	1	Gem	1	Payette	9
Bonner	14	Gooding	4	Power	-
Bonneville	21	Idaho	2	Shoshone	1
Boundary	-	Jefferson	3	Teton	2
Butte	-	Jerome	2	Twin Falls	14
Camas	1	Kootenai	20	Valley	2
Canyon	28	Latah	5	Washington	1
Caribou	-	Lemhi	3		

Stage at Diagnosis - Oral Cavity and Pharynx



Risk and Associated Factors

Age Most cases occur in people over age 60.

Gender Males have higher incidence rates than females, 2-6 times higher in most parts of the world.

Race & SES Rates are higher for blacks than for whites. Rates are also higher among lower income groups.

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

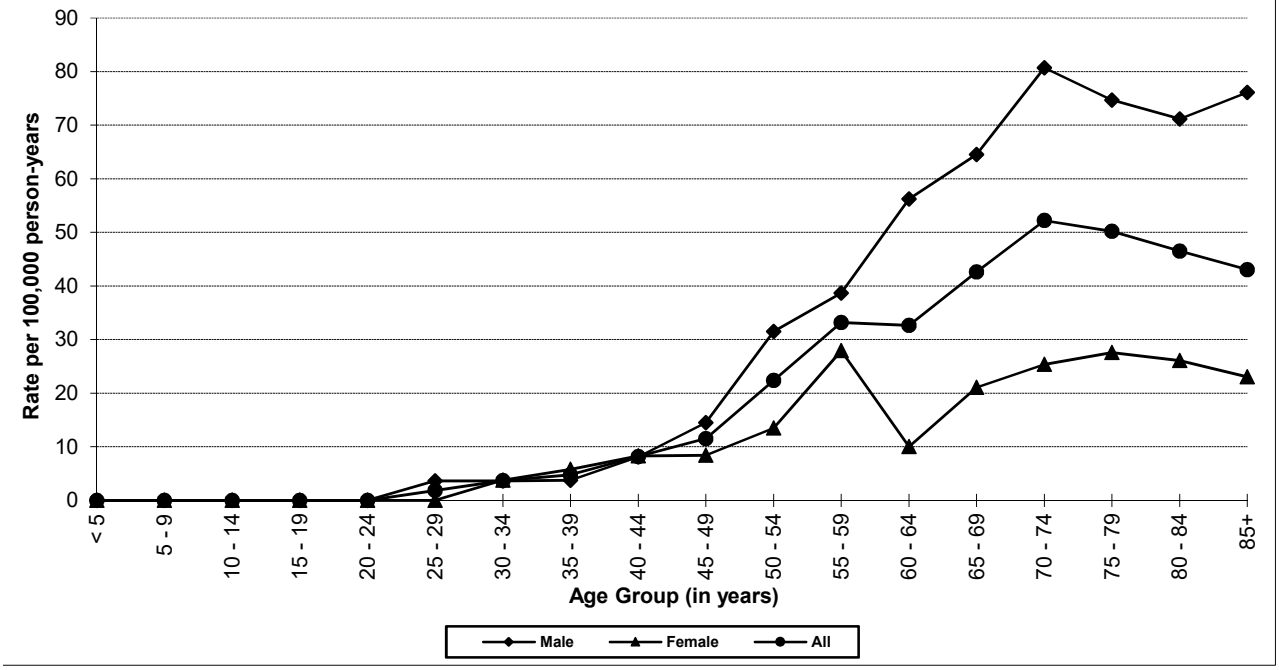
Other Smoking and spit tobacco use are major risk factors for cancers of the oral cavity and pharynx. Alcohol use, especially excessive, is a major risk factor. Combined exposure to tobacco and alcohol multiply the risks of each other. It is estimated that smoking and drinking account for 75% of all 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.

Special Notes

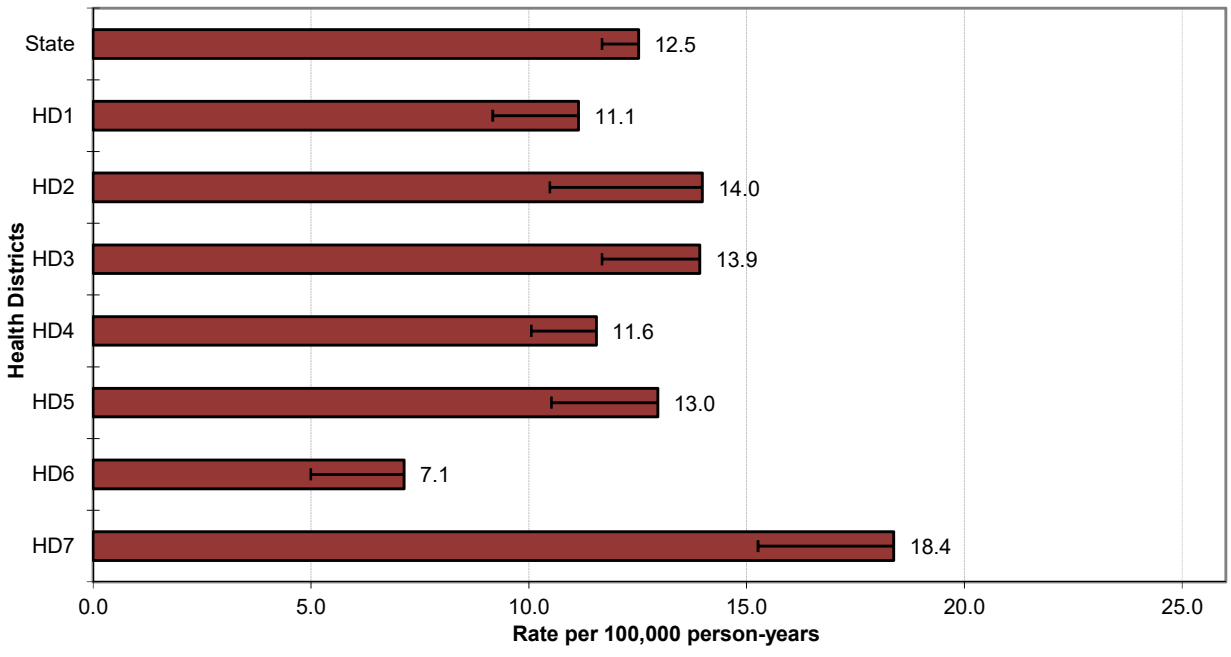
Mean age-adjusted incidence rate across health districts:	12.7
95% confidence interval on the mean age-adjusted incidence rate:	10.2- 15.3
Median age-adjusted incidence rate of health districts:	13.0
Range of age-adjusted incidence rate for health districts:	7.1- 18.4
USCS rate (2014, all races):	11.4

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 49, peaking in the age group 70-74 for males and 75-79 for females. Health District 7 had statistically significantly more cases than expected based upon rates for the remainder of Idaho, and Health District 6 had statistically significantly fewer.

State Oral Cavity & Pharyngeal Cancer Incidence
Age-specific Rates



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



OVARY

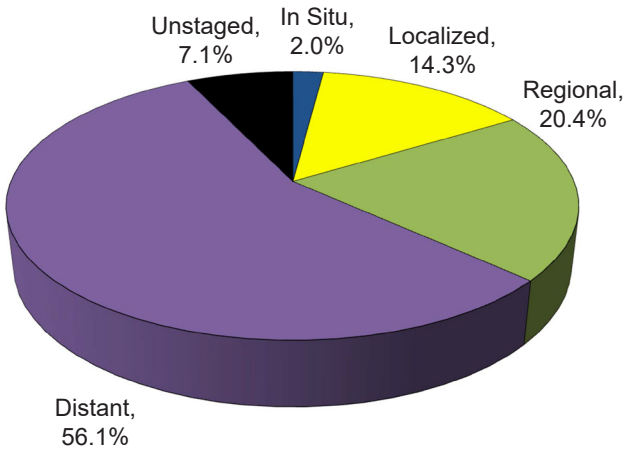
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	-	-	10.3
# of new invasive cases	-	-	96
# of new in situ cases	-	-	2
# of deaths	-	-	77

Total Cases by County

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

Stage at Diagnosis - Ovary



Risk and Associated Factors

Age The rate of ovarian cancer increases with age, and it is primarily a disease of older women.

Race & SES Incidence rates are slightly higher among white females than blacks. Rates are higher among upper income 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.

Hormonal Risk of ovarian cancer is significantly reduced via suppression of ovulation through pregnancy or oral contraceptive use. The highest risk is in post-menopausal women. Ovarian cancer is also associated with a personal history of breast, endometrial, and colon cancers.

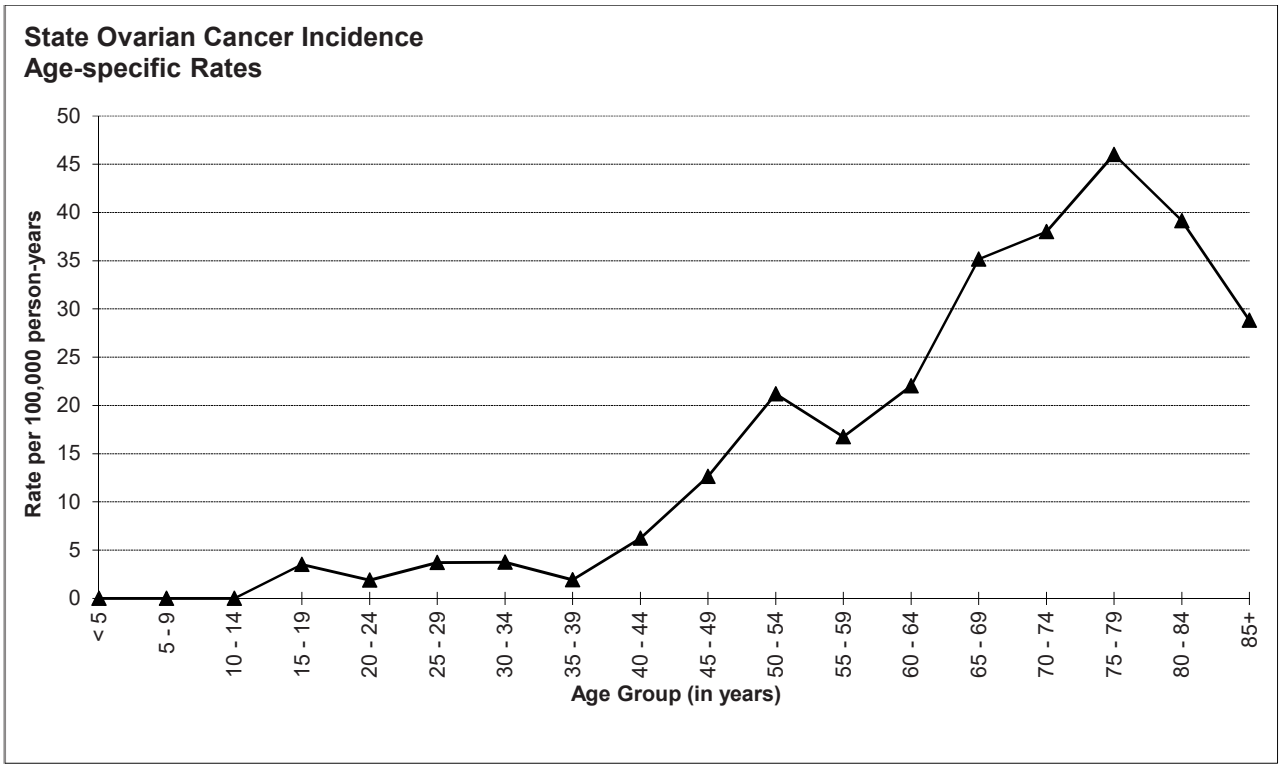
Diet Dietary animal fat may increase the risk.

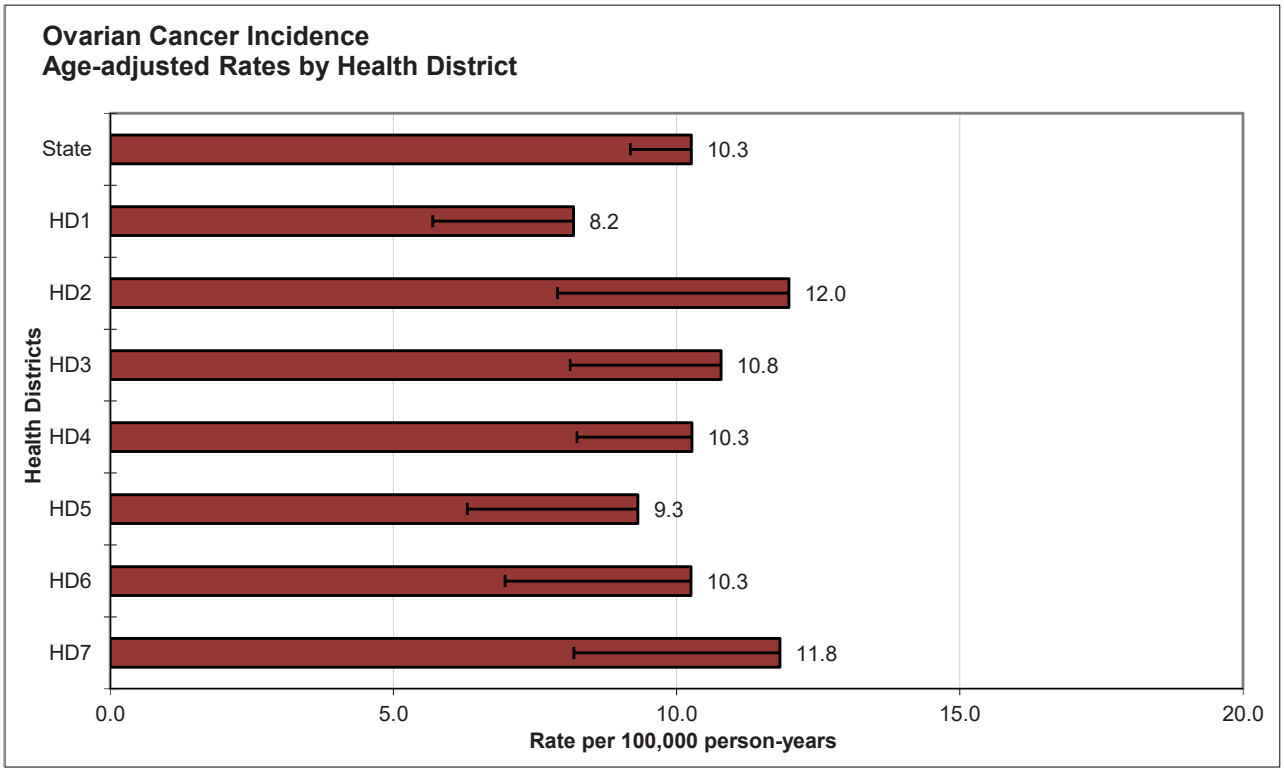
Other High dose (>100 rads) ionizing radiation roughly doubles the risk of ovarian cancer.

Special Notes

Mean age-adjusted incidence rate across health districts:	10.4
95% confidence interval on the mean age-adjusted incidence rate:	9.4- 11.4
Median age-adjusted incidence rate of health districts:	10.3
Range of age-adjusted incidence rate for health districts:	8.2- 12.0
USCS rate (2014, all races):	10.7

There were few cases of ovarian cancer among females aged less than 35 years. The age-specific incidence rates of ovarian cancer generally increased with age starting in the 40-44 age group. The highest age-specific rate was for women aged 75-79. No health district had statistically significantly more, or fewer, cases than expected based upon rates for the remainder of Idaho.


State Ovarian Cancer Incidence
Age-specific Rates
Rate per 100,000 person-years
50
45
40
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)


Ovarian Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
10.3
8.2
12.0
10.8
10.3
9.3
10.3
11.8
0.0
5.0
10.0
15.0
20.0
Rate per 100,000 person-years

PANCREAS

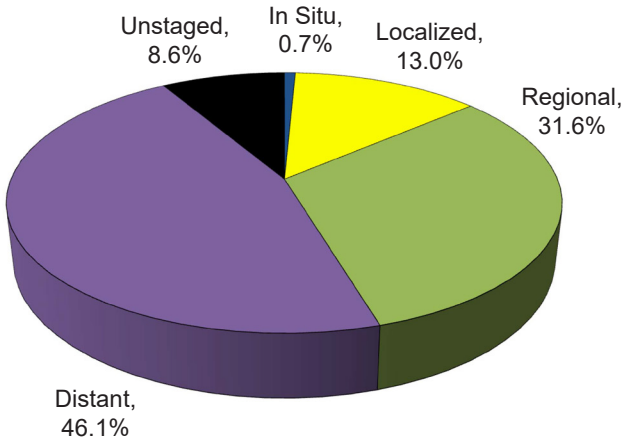
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	14.2	19.0	9.9
# of new invasive cases	267	167	100
# of new in situ cases	2	2	0
# of deaths	213	130	83

Total Cases by County

Ada	60	Cassia	3	Lewis	2
Adams	1	Clark	-	Lincoln	1
Bannock	11	Clearwater	1	Madison	2
Bear Lake	1	Custer	2	Minidoka	2
Benewah	2	Elmore	3	Nez Perce	10
Bingham	11	Franklin	2	Oneida	1
Blaine	3	Fremont	1	Owyhee	3
Boise	2	Gem	4	Payette	3
Bonner	10	Gooding	1	Power	2
Bonneville	18	Idaho	2	Shoshone	3
Boundary	1	Jefferson	1	Teton	-
Butte	-	Jerome	4	Twin Falls	12
Camas	-	Kootenai	34	Valley	3
Canyon	34	Latah	3	Washington	5
Caribou	2	Lemhi	3		

Stage at Diagnosis - Pancreas



Risk and Associated Factors

Age Pancreatic cancer increases with age and is rare in persons younger than 40 years old.

Gender Incidence rates of pancreatic cancer are about 50% higher in males than females.

Race In the United States, the incidence is higher in blacks.

Diet Investigators have generally found increased risks associated with animal protein and fat consumption, and decreased risks associated with vegetables and fruit intake. The normal range of body mass index (>=18 - <25 kg/m^2) has been associated with decreased risk of pancreatic cancer.

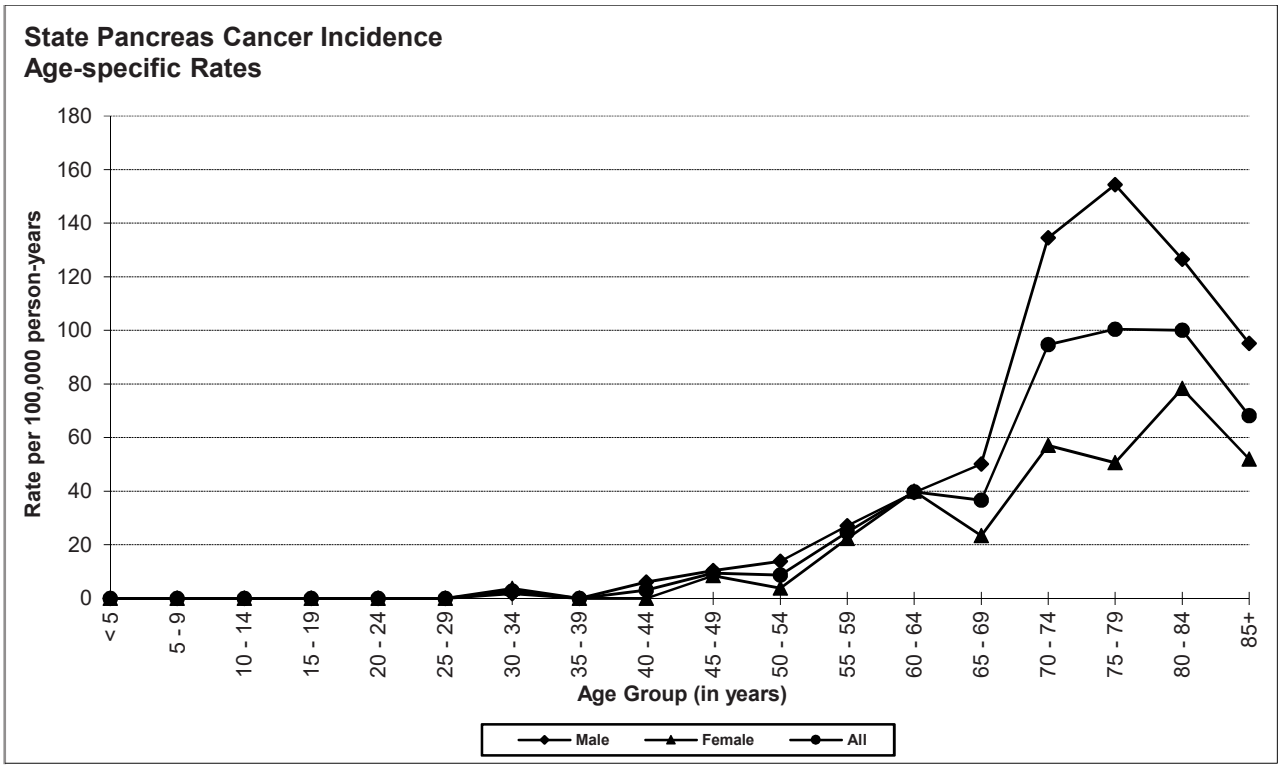
Occupation Persons in certain occupations, such as chemists, metal workers, and persons employed in the manufacture of benzidine and betanaphthylene, are believed to be at higher risk.

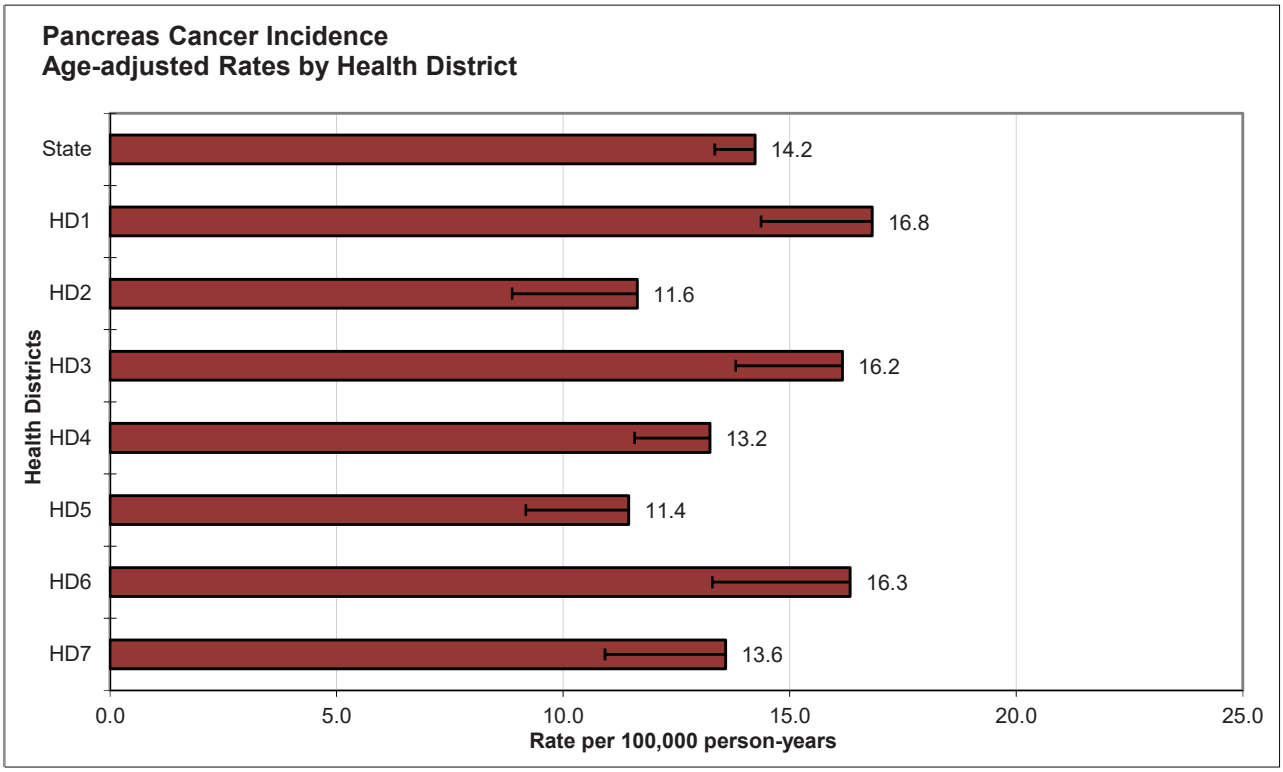
Other Pancreatic cancer is more common among smokers than non-smokers. Familial clustering has been observed in some studies. Pancreatic cancer usually progresses to an advanced stage before symptoms develop. It is rapidly fatal in over 90% of cases.

Special Notes

Mean age-adjusted incidence rate across health districts:	14.2
95% confidence interval on the mean age-adjusted incidence rate:	12.5- 15.9
Median age-adjusted incidence rate of health districts:	13.6
Range of age-adjusted incidence rate for health districts:	11.4- 16.8
USCS rate (2014, all races):	11.9

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 54, peaking in the age group 75-79 for males and 80-84 for females. No health district had statistically significantly more, or fewer, cases than expected based upon rates for the remainder of Idaho.


State Pancreas Cancer Incidence
Age-specific Rates
Rate per 100,000 person-years
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


Pancreas Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
14.2
16.8
11.6
16.2
13.2
11.4
16.3
13.6
0.0
5.0
10.0
15.0
20.0
25.0
Rate per 100,000 person-years

PROSTATE

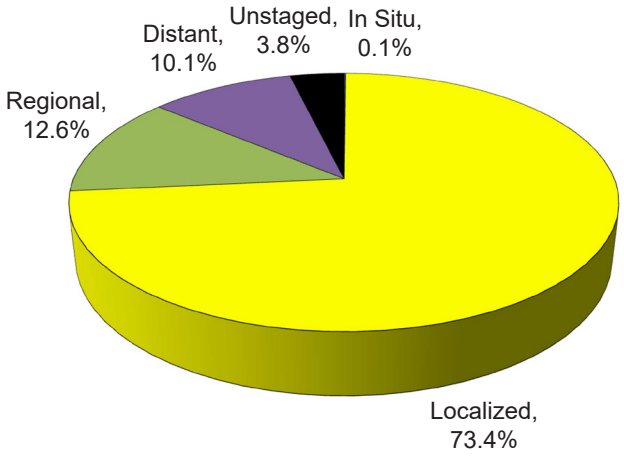
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	-	98.7	-
# of new invasive cases	-	949	-
# of new in situ cases	-	1	-
# of deaths	-	194	-

Total Cases by County

Ada	233	Cassia	9	Lewis	2
Adams	-	Clark	1	Lincoln	3
Bannock	34	Clearwater	8	Madison	12
Bear Lake	2	Custer	3	Minidoka	8
Benewah	5	Elmore	8	Nez Perce	26
Bingham	19	Franklin	6	Oneida	6
Blaine	17	Fremont	4	Owyhee	5
Boise	5	Gem	10	Payette	11
Bonner	42	Gooding	14	Power	3
Bonneville	65	Idaho	13	Shoshone	12
Boundary	7	Jefferson	17	Teton	5
Butte	1	Jerome	9	Twin Falls	52
Camas	1	Kootenai	115	Valley	11
Canyon	97	Latah	22	Washington	13
Caribou	5	Lemhi	9		

Stage at Diagnosis - Prostate



Risk and Associated Factors

Age Prostate cancer is rarely diagnosed before age 50, and it is primarily a disease of older men.

Race Black males have substantially higher incidence and mortality rates than white males.

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.

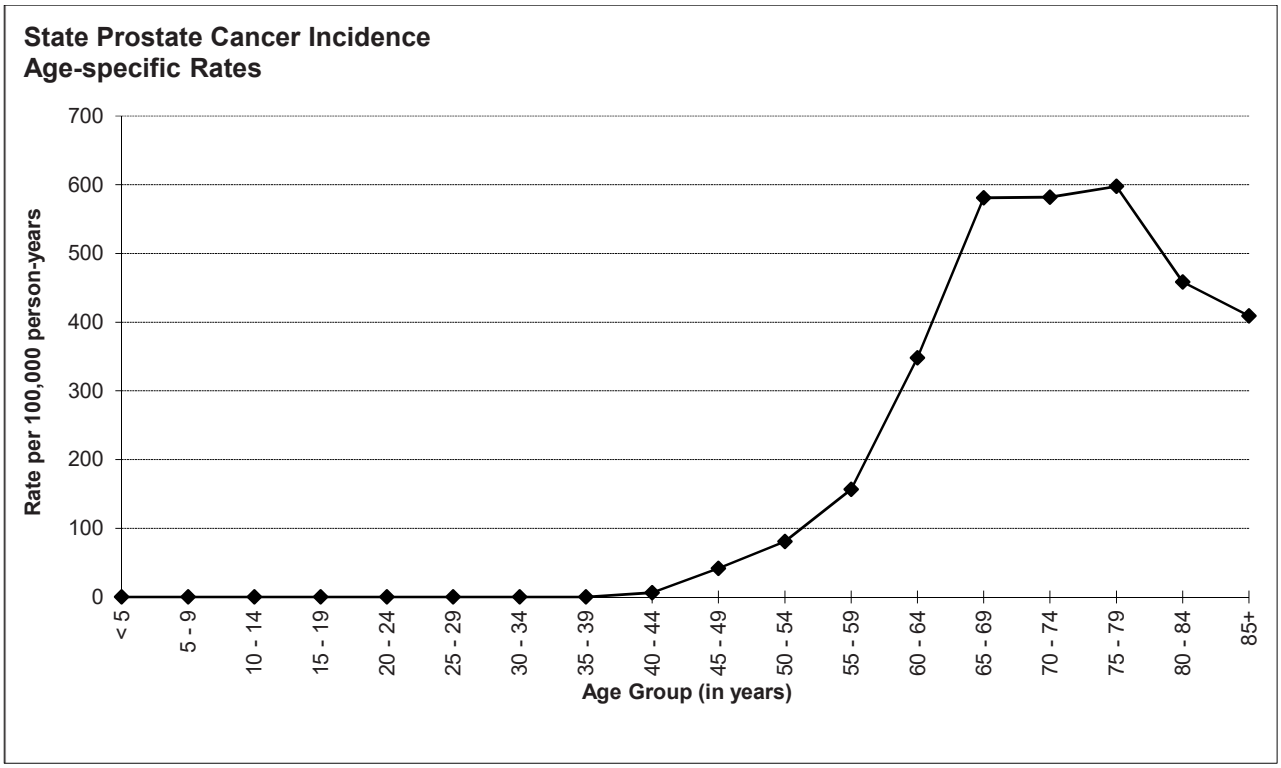
Other Environmental and familial factors may contribute to an increased incidence but no specific factor in these two groups of potential risk factors has been clearly identified. Three risk factors are well established: age, family history, and ethnic group/country of residence.

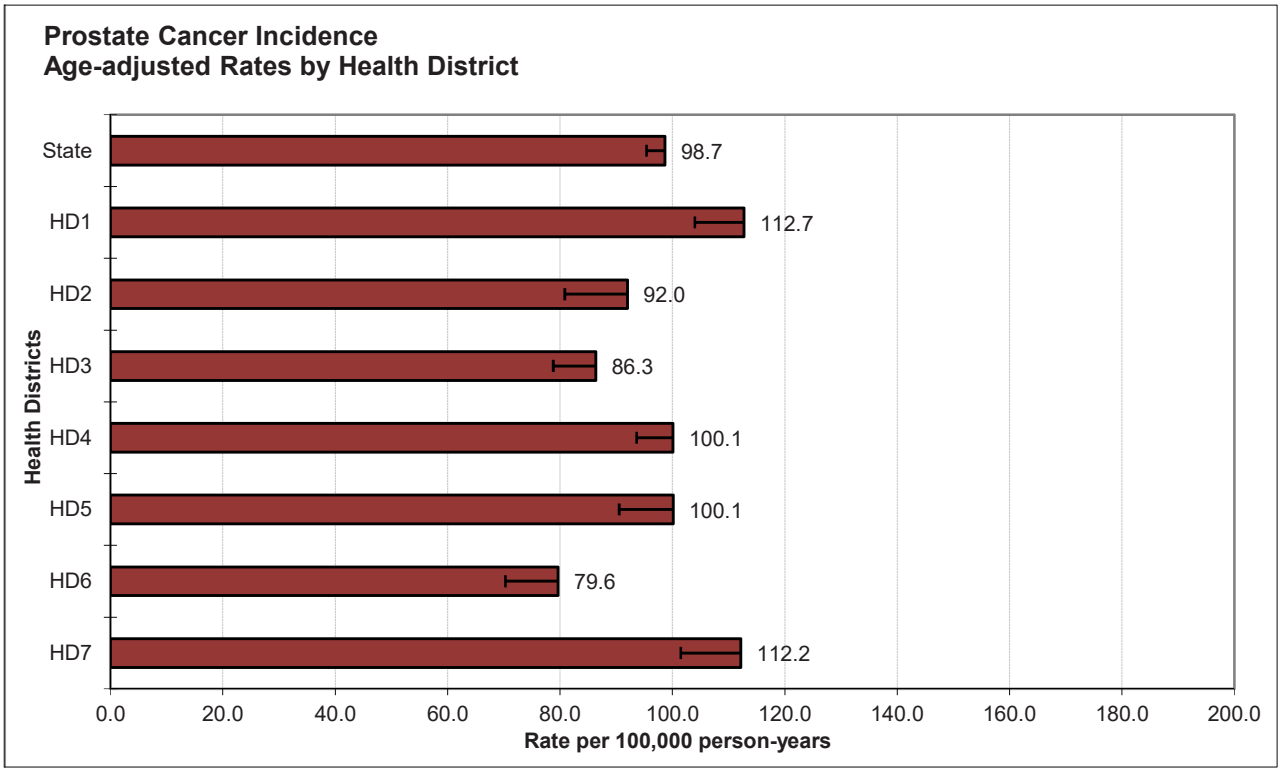
Occupation Farming is the most consistent occupational risk factor for prostate cancer. Methyl bromide pesticide application has been identified as a risk factor by the Agricultural Health Study. It is likely that only a very small proportion of all prostate cancer cases can be attributed to a specific industrial chemical exposure.

Special Notes

Mean age-adjusted incidence rate across health districts:	97.6
95% confidence interval on the mean age-adjusted incidence rate:	88.3-106.8
Median age-adjusted incidence rate of health districts:	100.1
Range of age-adjusted incidence rate for health districts:	79.6-112.7
USCS rate (2014, all races):	93.9

There were few cases of prostate cancer among men aged less than 50 years. The age-specific incidence rates of prostate cancer increased with age, peaking in the 75-79 age group. No health district had statistically significantly more, or fewer, cases than expected based upon rates for the remainder of Idaho.


State Prostate Cancer Incidence
Age-specific Rates
Rate per 100,000 person-years
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
98.7
112.7
92.0
86.3
100.1
100.1
79.6
112.2
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

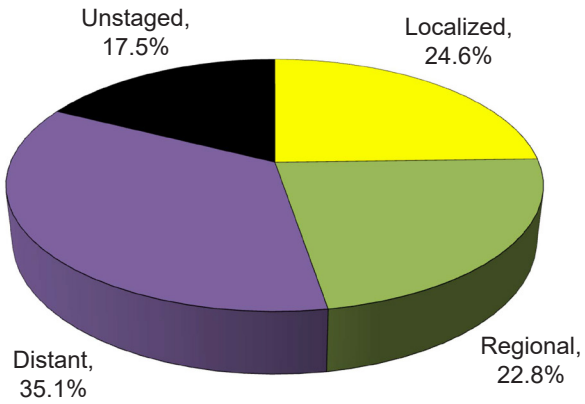
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	6.0	8.5	4.0
# of new invasive cases	114	74	40
# of new in situ cases	0	0	0
# of deaths	45	31	14

Total Cases by County

Ada	27	Cassia	2	Lewis	-
Adams	-	Clark	-	Lincoln	1
Bannock	1	Clearwater	2	Madison	1
Bear Lake	-	Custer	-	Minidoka	1
Benewah	-	Elmore	-	Nez Perce	4
Bingham	2	Franklin	-	Oneida	1
Blaine	-	Fremont	1	Owyhee	1
Boise	-	Gem	5	Payette	5
Bonner	5	Gooding	-	Power	1
Bonneville	4	Idaho	1	Shoshone	3
Boundary	1	Jefferson	2	Teton	-
Butte	1	Jerome	1	Twin Falls	7
Camas	-	Kootenai	18	Valley	-
Canyon	15	Latah	1	Washington	-
Caribou	-	Lemhi	-		

Stage at Diagnosis - Stomach



Risk and Associated Factors

Age Stomach cancer incidence rates increase with age.

Gender Incidence rates for males are usually more than twice as high as for females.

Race & SES Incidence rates are higher among blacks and Asian/Pacific Islanders, and incidence is also higher in lower SES groups.

Diet Increased risk has been attributed to diets high in smoked foods and foods high in nitrates. Salt and salted foods contribute to stomach cancer risk. Diets high in fresh fruits and vegetables seem to be protective.

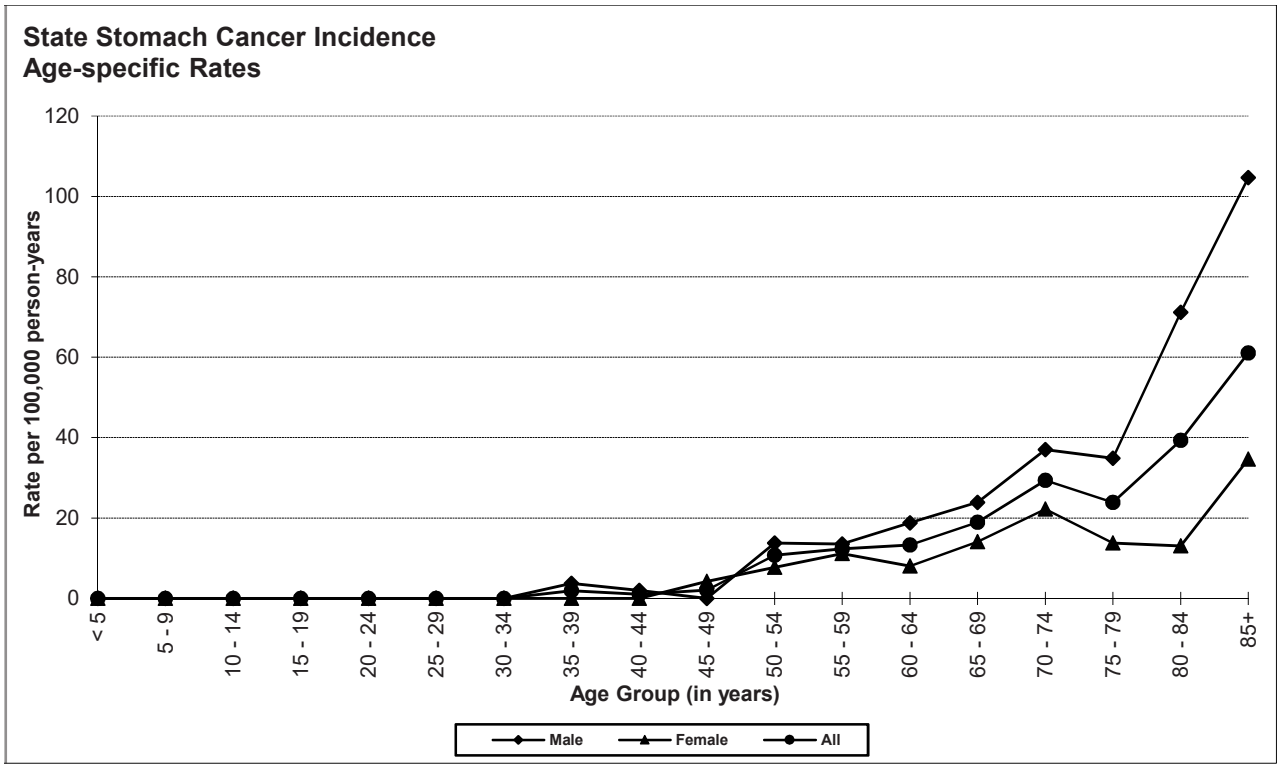
Occupation Elevated rates have been found in certain occupational groups, especially coal miners and asbestos workers, and occupations with mineral dust exposure.

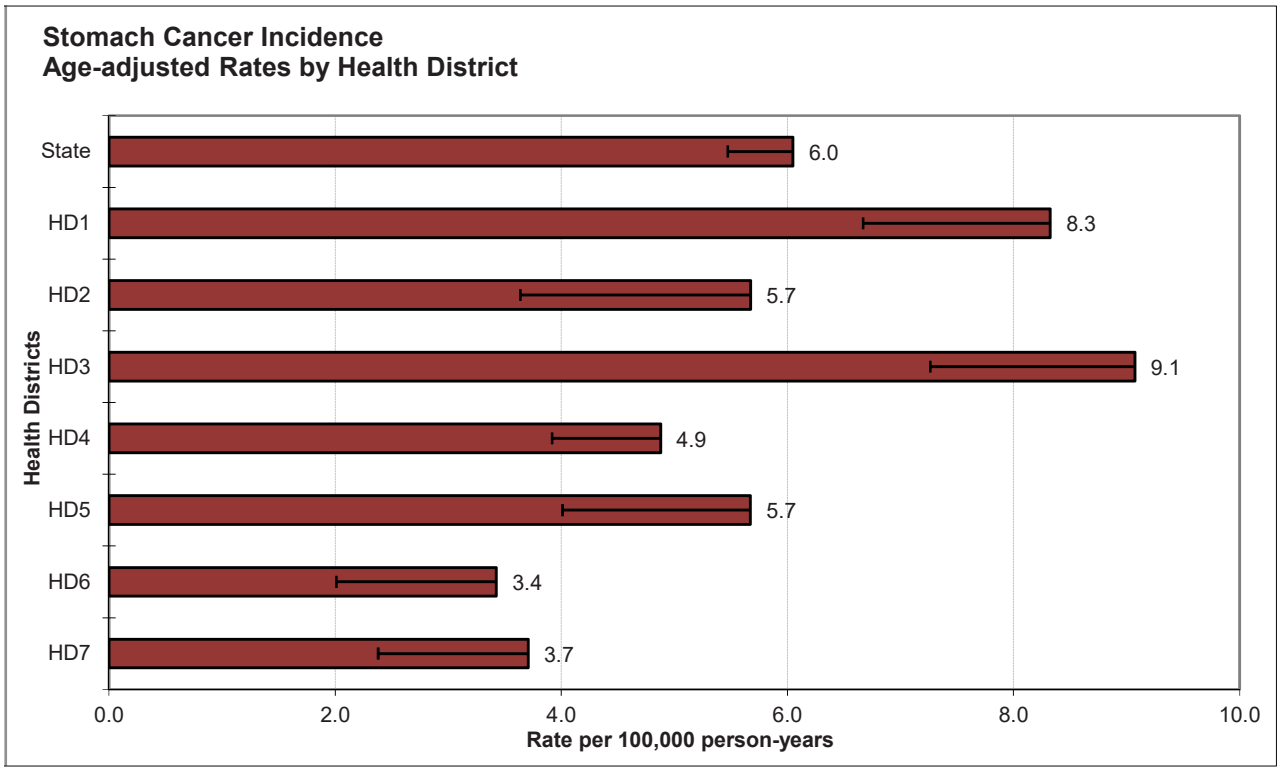
Other Stomach cancer has been linked to peptic ulcer disease and to certain bacteria.

Special Notes

Mean age-adjusted incidence rate across health districts:	5.8
95% confidence interval on the mean age-adjusted incidence rate:	4.2- 7.4
Median age-adjusted incidence rate of health districts:	5.7
Range of age-adjusted incidence rate for health districts:	3.4- 9.1
USCS rate (2014, all races):	6.4

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 both males and females. Health Districts 1 and 3 had statistically significantly more cases than expected based upon rates for the remainder of Idaho.


State Stomach Cancer Incidence
Age-specific Rates
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)
Male
Female
All


Stomach Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
6.0
8.3
5.7
9.1
4.9
5.7
3.4
3.7
0.0
2.0
4.0
6.0
8.0
10.0
Rate per 100,000 person-years

TESTIS

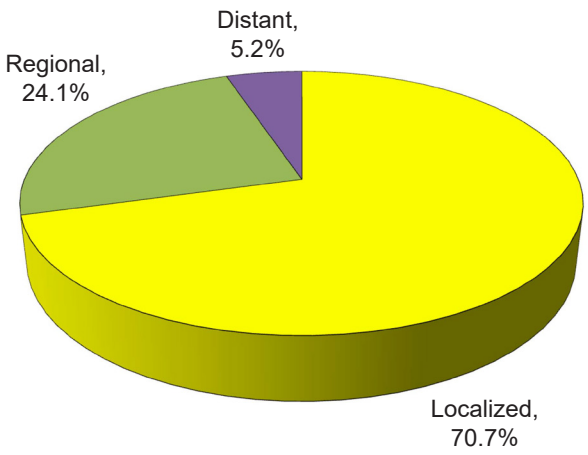
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	-	7.6	-
# of new invasive cases	-	58	-
# of new in situ cases	-	0	-
# of deaths	-	0	-

Total Cases by County

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

Stage at Diagnosis - Testis



Risk and Associated Factors

Age Testicular cancer is the most common cancer in young males, especially males between the ages of 20 and 34.

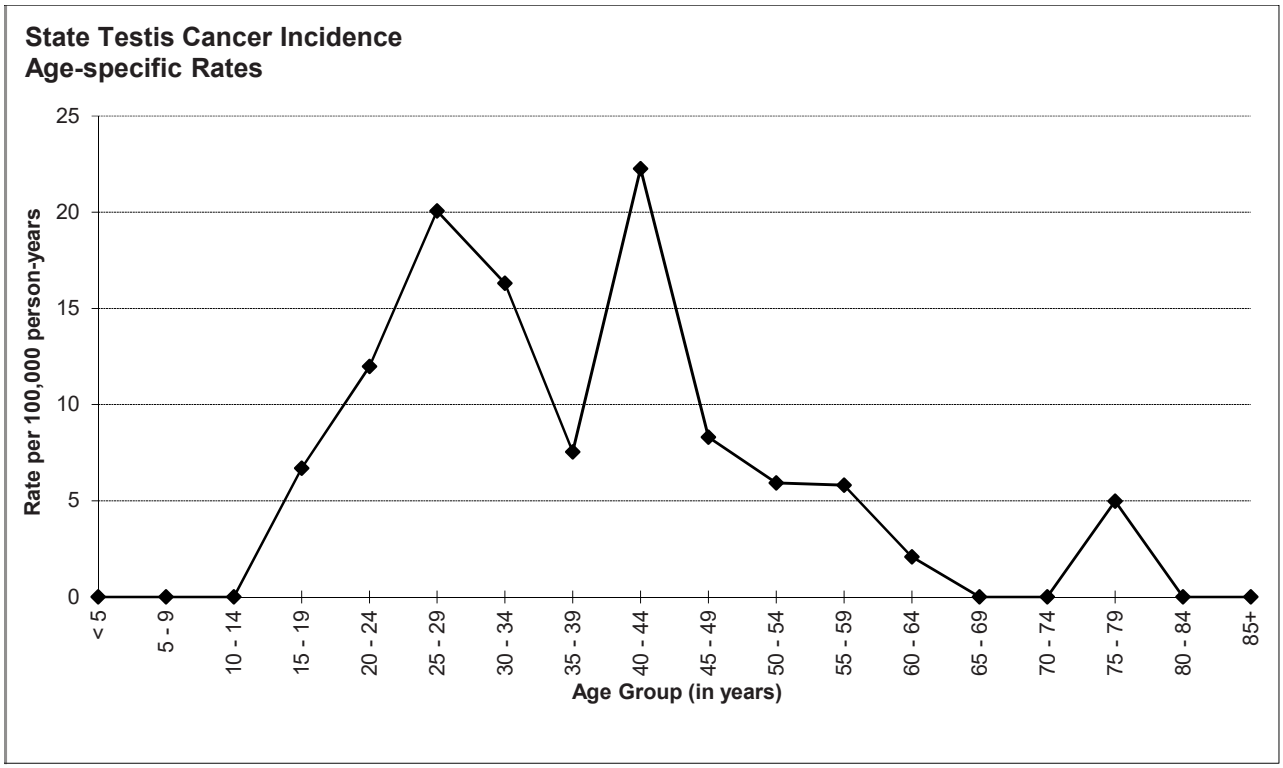
Race & SES Incidence rates are substantially higher in white males than in black males. Incidence of testicular cancer is highest in highest socioeconomic classes.

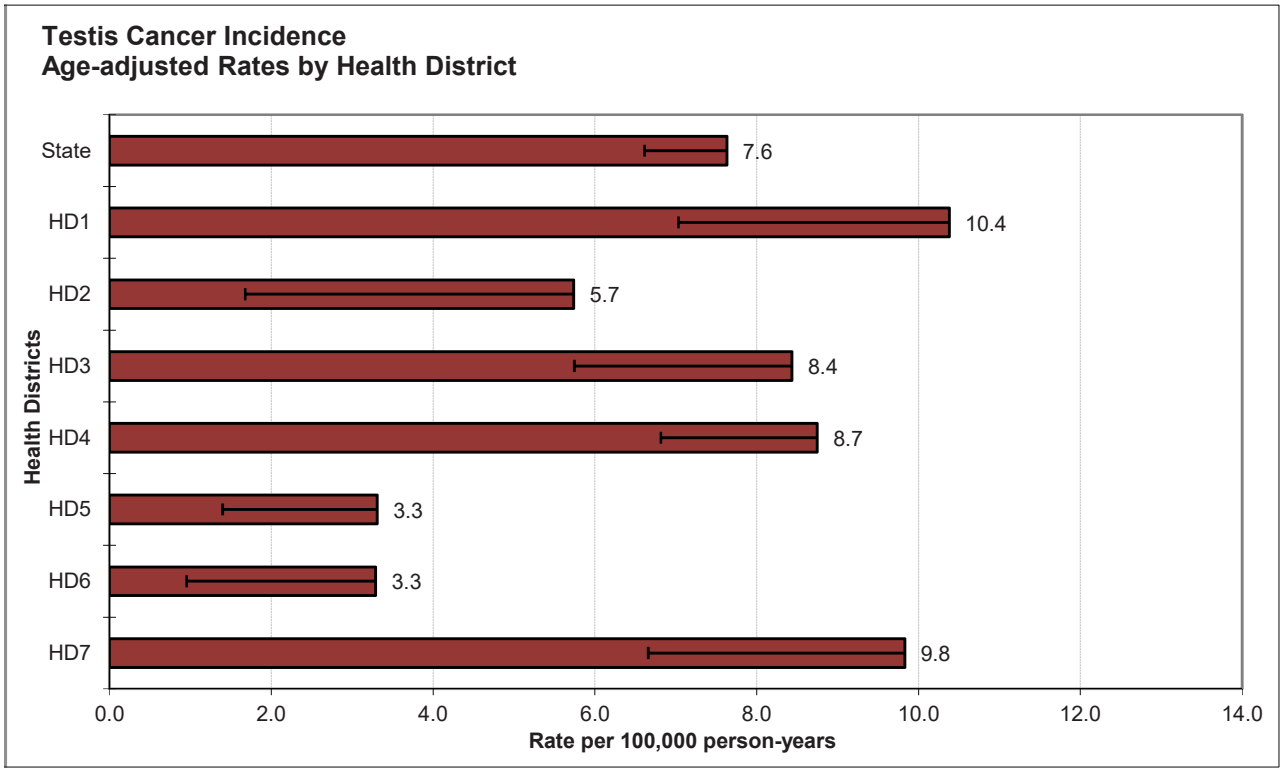
Other Undescended testis, a minor abnormality that can usually be detected and corrected with surgery in childhood, is responsible for a substantially high risk for testicular cancer when uncorrected. The extent to which surgical correction reduces cancer risk is unclear. Some evidence suggests that males exposed in utero to diethylstilbestrol (DES) are at increased risk. With current treatment the cure rates for testicular cancer are greater than 80%.

Special Notes

Mean age-adjusted incidence rate across health districts:	7.1
95% confidence interval on the mean age-adjusted incidence rate:	4.9- 9.3
Median age-adjusted incidence rate of health districts:	8.4
Range of age-adjusted incidence rate for health districts:	3.3- 10.4
USCS rate (2014, all races):	5.6

The highest age-specific incidence rate was in the 40-44 age group. No health district had statistically significantly more, or fewer, cases than expected based upon rates for the remainder of Idaho.


State Testis Cancer Incidence
Age-specific Rates
Rate per 100,000 person-years
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)


Testis Cancer Incidence
Age-adjusted Rates by Health District
Health Districts
State
HD1
HD2
HD3
HD4
HD5
HD6
HD7
7.6
10.4
5.7
8.4
8.7
3.3
3.3
9.8
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
Rate per 100,000 person-years

THYROID

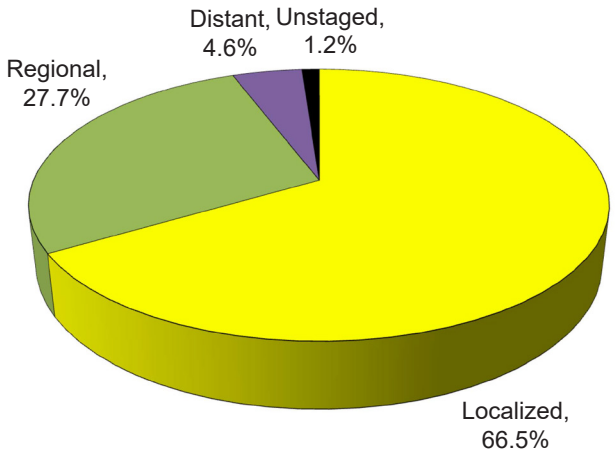
Incidence and Mortality Summary

	Total	Male	Female
Age-adjusted incidence rate per 100,000	15.6	6.5	24.7
# of new invasive cases	260	58	202
# of new in situ cases	0	0	0
# of deaths	10	7	3

Total Cases by County

Ada	63	Cassia	4	Lewis	1
Adams	1	Clark	-	Lincoln	-
Bannock	12	Clearwater	-	Madison	9
Bear Lake	3	Custer	-	Minidoka	-
Benewah	2	Elmore	3	Nez Perce	2
Bingham	17	Franklin	2	Oneida	-
Blaine	2	Fremont	4	Owyhee	-
Boise	-	Gem	5	Payette	8
Bonner	3	Gooding	-	Power	-
Bonneville	30	Idaho	1	Shoshone	3
Boundary	1	Jefferson	8	Teton	5
Butte	-	Jerome	3	Twin Falls	9
Camas	1	Kootenai	17	Valley	1
Canyon	32	Latah	3	Washington	1
Caribou	1	Lemhi	3		

Stage at Diagnosis - Thyroid



Risk and Associated Factors

Age Thyroid cancer is one of the most common malignancies affecting adolescents and adults up to 50 years of age.

Gender Two-thirds of the cases are among females.

Race & SES The incidence is higher among whites and in upper income groups.

Hormonal Hormonal factors are believed to contribute to the increased risk in females. This is demonstrated by the sharp increase in incidence among women after menarche.

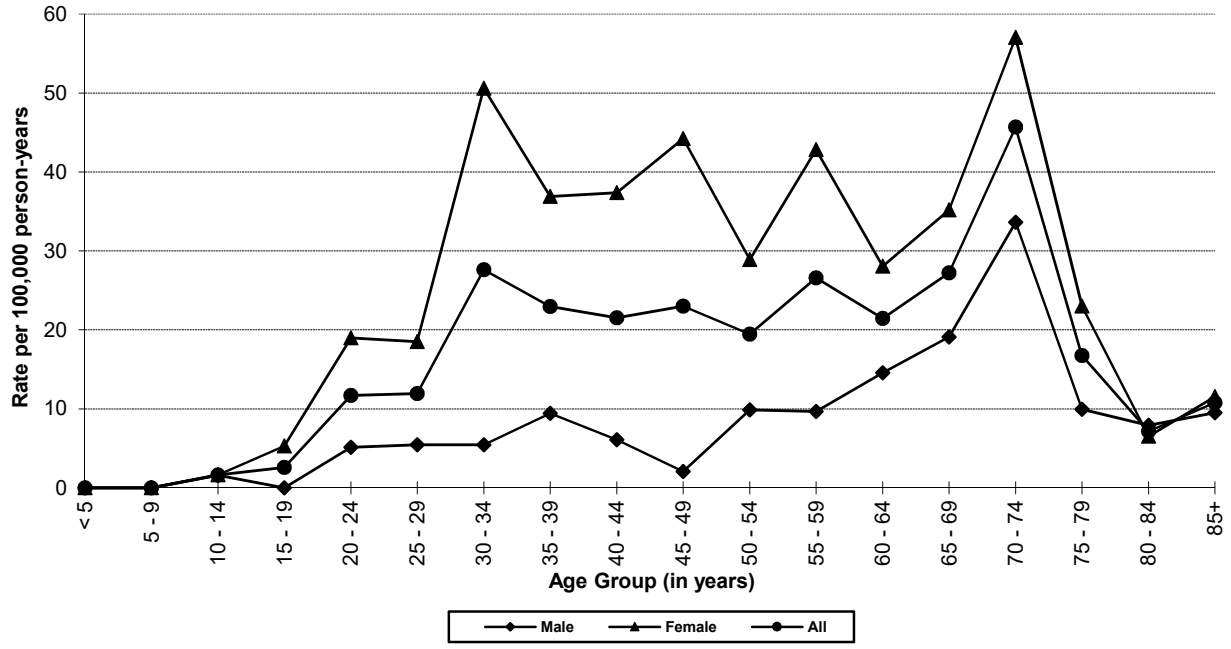
Other Occupational and environmental exposures to ionizing radiation have been associated with higher rates of thyroid cancer. Radiation exposure to the head and neck in childhood is a well-known risk factor. Family history of thyroid cancer substantially increases the risk. Prognosis worsens with each 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.

Special Notes

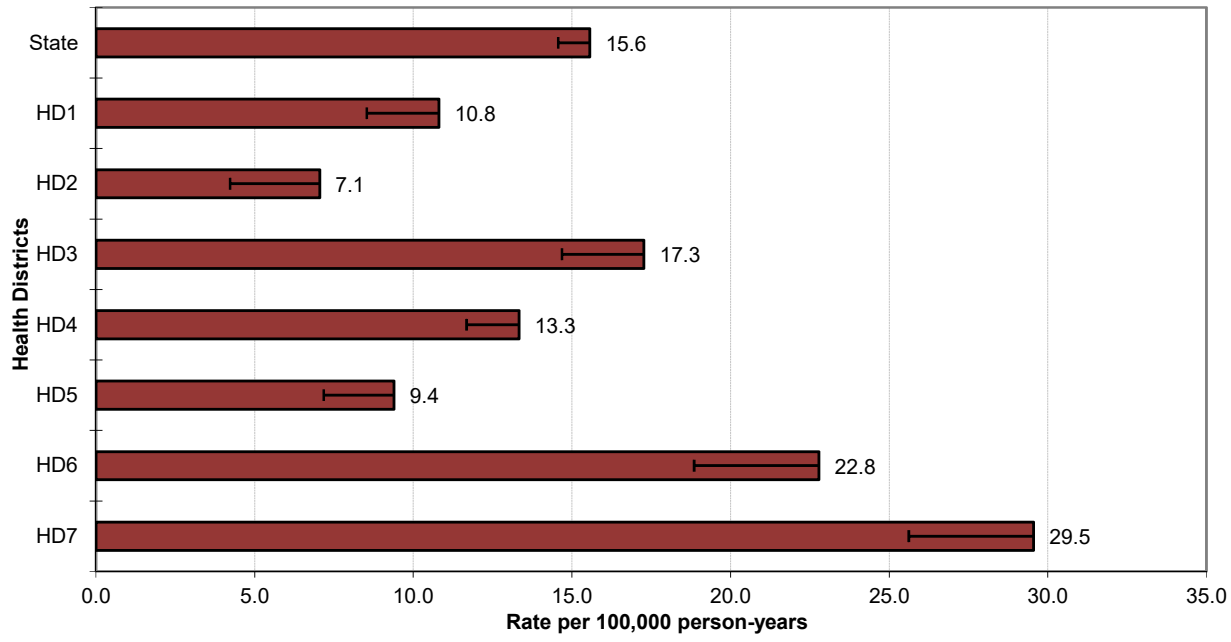
Mean age-adjusted incidence rate across health districts:	15.7
95% confidence interval on the mean age-adjusted incidence rate:	9.8- 21.7
Median age-adjusted incidence rate of health districts:	13.3
Range of age-adjusted incidence rate for health districts:	7.1- 29.5
USCS rate (2014, all races):	14.4

The age-specific incidence rates of thyroid cancer were typically higher for females than males. Health District 7 had statistically significantly more cases than expected based upon rates for the remainder of Idaho and Health Districts 1, 2, and 5 had statistically significantly fewer cases than expected.

State Thyroid Cancer Incidence
Age-specific Rates



Thyroid Cancer Incidence
Age-adjusted Rates by Health District



SECTION II

STATE OF IDAHO – 2015
INCIDENCE DATA BY SITE AND GENDER

Idaho Resident Cancer Cases - 2015

Primary Site of Cancer	Invasive			In situ		
	Total	Male	Female	Total	Male	Female
All Sites	7,936	4,008	3,928	884	428	456
Oral Cavity and Pharynx	234	163	71	8	4	4
Lip	40	32	8	4	2	2
Tongue	63	42	21	1	-	1
Salivary Gland	33	19	14	-	-	-
Floor of Mouth	8	4	4	1	-	1
Gum and Other Mouth	20	12	8	1	1	-
Nasopharynx	6	5	1	-	-	-
Tonsil	43	34	9	1	1	-
Oropharynx	9	6	3	-	-	-
Hypopharynx	7	5	2	-	-	-
Other Oral Cavity and Pharynx	5	4	1	-	-	-
Digestive System	1,415	808	607	16	9	7
Esophagus	81	66	15	1	1	-
Stomach	114	74	40	-	-	-
Small Intestine	39	21	18	-	-	-
Colon and Rectum	645	326	319	10	6	4
Colon excluding Rectum	465	223	242	7	6	1
Cecum	96	48	48	1	1	-
Appendix	35	15	20	-	-	-
Ascending Colon	80	35	45	1	-	1
Hepatic Flexure	24	13	11	-	-	-
Transverse Colon	45	21	24	-	-	-
Splenic Flexure	19	12	7	-	-	-
Descending Colon	27	10	17	3	3	-
Sigmoid Colon	106	55	51	2	2	-
Large Intestine, NOS	33	14	19	-	-	-
Rectum and Rectosigmoid Junction	180	103	77	3	-	3
Rectosigmoid Junction	22	13	9	1	-	1
Rectum	158	90	68	2	-	2
Anus, Anal Canal and Anorectum	44	6	38	-	-	-
Liver and Intrahepatic Bile Duct	156	113	43	-	-	-
Liver	120	87	33	-	-	-
Intrahepatic Bile Duct	36	26	10	-	-	-
Gallbladder	21	13	8	3	-	3
Other Biliary	25	15	10	-	-	-
Pancreas	267	167	100	2	2	-
Retroperitoneum	4	-	4	-	-	-
Peritoneum, Omentum and Mesentery	8	1	7	-	-	-
Other Digestive Organs	11	6	5	-	-	-
Respiratory System	987	539	448	9	6	3
Nose, Nasal Cavity and Middle Ear	8	5	3	1	-	1
Larynx	41	36	5	4	4	-
Lung and Bronchus	937	497	440	3	2	1
Pleura	-	-	-	-	-	-
Trachea, Mediastinum and Other Respiratory Organs	1	1	-	1	-	1
Skin excluding Basal and Squamous	528	295	233	416	250	166
Melanoma of the Skin	500	282	218	416	250	166
Other Non-Epithelial Skin	28	13	15	-	-	-
Breast	1,175	5	1,170	217	2	215

Primary Site of Cancer	Invasive			In situ		
	Total	Male	Female	Total	Male	Female
Female Genital System	436	-	436	6	-	6
Cervix Uteri	47	-	47	-	-	-
Corpus and Uterus, NOS	247	-	247	-	-	-
Corpus Uteri	239	-	239	-	-	-
Uterus, NOS	8	-	8	-	-	-
Ovary	96	-	96	2	-	2
Vagina	4	-	4	-	-	-
Vulva	30	-	30	3	-	3
Other Female Genital Organs	12	-	12	1	-	1
Male Genital System	1,015	1,015	-	6	6	-
Prostate	949	949	-	1	1	-
Testis	58	58	-	-	-	-
Penis	5	5	-	5	5	-
Other Male Genital Organs	3	3	-	-	-	-
Urinary System	508	342	166	204	149	55
Urinary Bladder	183	135	48	196	145	51
Kidney and Renal Pelvis	297	189	108	4	1	3
Ureter	11	8	3	2	1	1
Other Urinary Organs	17	10	7	2	2	-
Brain and Other Nervous System	155	97	58	-	-	-
Brain	148	94	54	-	-	-
Cranial Nerves Other Nervous System	7	3	4	-	-	-
Endocrine System	273	63	210	-	-	-
Thyroid	260	58	202	-	-	-
Other Endocrine including Thymus	13	5	8	-	-	-
Lymphoma	403	229	174	-	-	-
Hodgkin Lymphoma	39	26	13	-	-	-
Non-Hodgkin Lymphoma	364	203	161	-	-	-
Myeloma	124	73	51	-	-	-
Leukemia	301	174	127	-	-	-
Lymphocytic Leukemia	175	103	72	-	-	-
Acute Lymphocytic Leukemia	36	19	17	-	-	-
Chronic Lymphocytic Leukemia	131	79	52	-	-	-
Other Lymphocytic Leukemia	8	5	3	-	-	-
Myeloid and Monocytic Leukemia	113	67	46	-	-	-
Acute Myeloid Leukemia	65	42	23	-	-	-
Acute Monocytic Leukemia	4	2	2	-	-	-
Chronic Myeloid Leukemia	42	22	20	-	-	-
Other Myeloid/Monocytic Leukemia	2	1	1	-	-	-
Other Leukemia	13	4	9	-	-	-
Other Acute Leukemia	4	2	2	-	-	-
Aleukemic, Subleukemic and NOS	9	2	7	-	-	-
Other or Unknown Sites	382	205	177	2	2	-
Bones and Joints	14	6	8	-	-	-
Soft Tissue including Heart	60	31	29	-	-	-
Eye and Orbit	18	9	9	2	2	-
Mesothelioma	23	16	7	-	-	-
Kaposi Sarcoma	-	-	-	-	-	-
Miscellaneous	267	143	124	-	-	-

SECTION III

STATE OF IDAHO – 2015
MORTALITY RATES BY SITE AND GENDER

Idaho Resident Cancer Mortality Rates - 2015

Cause of Death	Total			Male			Female		
	Rate	Deaths	Pop	Rate	Deaths	Pop	Rate	Deaths	Pop
All Causes of Death	730.1	13,031	1,652,828	846.8	6,856	828,277	625.3	6,175	824,551
All Malignant Cancers	153.5	2,843	1,652,828	184.5	1,577	828,277	128.9	1,266	824,551
Bladder	3.9	71	1,652,828	6.2	50	828,277	2.0	21	824,551
Brain and Other Nervous System	5.2	98	1,652,828	7.4	65	828,277	3.3	33	824,551
Breast	11.7	210	1,652,828	0.0	0	828,277	22.1	210	824,551
Cervix	0.9	17	1,652,828	-	-	828,277	1.8	17	824,551
Colorectal	12.2	221	1,652,828	15.7	130	828,277	9.3	91	824,551
Corpus Uteri	1.5	28	1,652,828	-	-	828,277	2.9	28	824,551
Esophagus	4.8	89	1,652,828	7.6	66	828,277	2.3	23	824,551
Hodgkin Lymphoma	0.2	4	1,652,828	0.1	1	828,277	0.3	3	824,551
Kidney	4.0	76	1,652,828	5.8	52	828,277	2.4	24	824,551
Larynx	0.7	13	1,652,828	1.2	10	828,277	0.3	3	824,551
Leukemia	6.5	118	1,652,828	8.4	71	828,277	5.0	47	824,551
Liver and Bile Duct	6.1	117	1,652,828	8.1	77	828,277	4.2	40	824,551
Lung and Bronchus	34.3	648	1,652,828	39.2	347	828,277	30.2	301	824,551
Melanoma of the Skin	3.7	69	1,652,828	5.1	45	828,277	2.3	24	824,551
Myeloma	3.3	58	1,652,828	4.3	34	828,277	2.5	24	824,551
Non-Hodgkin Lymphoma	5.5	100	1,652,828	6.5	54	828,277	4.7	46	824,551
Oral Cavity and Pharynx	2.6	49	1,652,828	3.6	33	828,277	1.7	16	824,551
Ovary	4.0	77	1,652,828	-	-	828,277	7.7	77	824,551
Pancreas	11.2	213	1,652,828	14.6	130	828,277	8.2	83	824,551
Prostate	10.8	194	1,652,828	24.7	194	828,277	-	-	824,551
Stomach	2.5	45	1,652,828	3.9	31	828,277	1.4	14	824,551
Testis	0.0	0	1,652,828	0.0	0	828,277	-	-	824,551
Thyroid	0.6	10	1,652,828	0.8	7	828,277	0.3	3	824,551

Data source: Bureau of Vital Records and Health Statistics (BVRHS), Idaho Department of Health and Welfare, 2016.[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

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

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

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	16.7	15.4	16.2	26.6	39.6	67.9	105.9	136.8	218.3	347.0	501.7	769.4	1102.8	1512.6	1962.7	2271.9	2395.3	2207.6
Male	12.1	11.1	11.1	25.1	39.4	62.0	77.9	88.6	135.6	244.9	396.3	756.7	1152.1	1706.4	2371.2	2728.7	2854.4	2968.0
Female	21.5	20.0	21.5	28.2	39.9	74.0	134.9	186.4	303.1	450.8	604.6	781.7	1055.4	1322.4	1578.0	1849.7	2016.3	1746.7
Bladder																		
All	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.9	2.1	5.2	9.7	30.4	34.7	93.5	96.3	145.9	157.3	175.9
Male	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.9	4.1	6.2	13.8	46.5	47.9	133.8	151.4	229.1	276.8	352.0
Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	4.2	5.8	14.9	22.0	53.9	44.4	69.0	58.7	69.2
Brain																		
All	1.8	6.5	3.2	2.6	2.7	1.8	8.3	8.6	8.2	5.2	4.9	12.3	20.4	16.6	31.0	35.9	14.3	18.0
Male	0.0	6.3	1.6	1.7	3.4	1.8	9.1	9.4	12.2	4.2	3.9	15.5	33.3	23.9	47.1	59.8	15.8	28.5
Female	3.6	6.7	5.0	3.5	1.9	1.9	7.5	7.8	4.2	6.3	5.8	9.3	8.0	9.4	15.8	13.8	13.1	11.5
Brain & Other Central Nervous System (Non-Malignant)																		
All	0.0	2.4	2.4	0.9	8.1	3.7	1.8	10.5	9.2	8.4	18.5	16.1	22.5	46.2	45.7	28.7	46.5	75.4
Male	0.0	4.7	3.2	0.0	3.4	3.7	1.8	7.5	10.1	4.2	3.9	7.7	4.2	35.9	43.7	24.9	31.6	57.1
Female	0.0	0.0	1.7	1.8	13.3	3.7	1.9	13.6	8.3	12.6	32.7	24.2	40.1	56.3	47.5	32.2	58.7	86.5
Breast																		
Female Invasive	0.0	0.0	0.0	0.0	0.0	12.9	24.4	42.7	120.4	183.3	221.4	251.3	330.4	400.9	519.7	460.1	522.0	305.5
Female In Situ	0.0	0.0	0.0	0.0	1.9	0.0	1.9	0.0	37.4	46.3	57.8	44.7	58.1	89.1	101.4	64.4	19.6	17.3
Cervix																		
Female	0.0	0.0	0.0	0.0	1.9	5.6	7.5	11.7	8.3	10.5	13.5	9.3	8.0	11.7	3.2	4.6	0.0	5.8
Colorectal																		
All	0.0	0.0	0.8	2.6	0.0	1.8	2.8	15.3	23.6	32.4	48.7	54.1	83.7	119.5	124.0	174.6	200.2	254.9
Male	0.0	0.0	0.0	1.7	0.0	1.8	3.6	11.3	28.3	43.6	47.3	60.0	77.1	112.3	161.4	179.3	213.5	294.9
Female	0.0	0.0	1.7	3.5	0.0	1.9	1.9	19.4	18.7	21.1	50.1	48.4	90.1	126.6	88.7	170.3	189.2	230.6
Corpus Uteri																		
Female	0.0	0.0	0.0	0.0	0.0	0.0	3.8	3.9	22.8	40.0	36.6	68.9	120.2	91.4	66.5	82.8	45.7	23.1
Esophagus																		
All	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	6.8	9.5	16.3	11.8	21.2	40.7	10.7	14.4
Male	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	9.9	13.6	29.2	19.1	37.0	74.7	23.7	19.0
Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	5.6	4.0	4.7	6.3	9.2	0.0	11.5

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

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	0.8	0.8	3.4	4.5	6.4	1.8	3.8	1.0	2.1	0.0	3.8	3.1	1.2	0.0	4.8	3.6	3.6
Male	0.0	0.0	0.0	6.7	6.9	9.1	3.6	7.5	2.0	2.1	0.0	1.9	2.1	2.4	0.0	5.0	7.9	0.0
Female	0.0	1.7	1.7	0.0	1.9	3.7	0.0	0.0	0.0	2.1	0.0	5.6	4.0	0.0	0.0	4.6	0.0	5.8
Kidney & Renal Pelvis																		
All	1.8	0.0	0.0	0.0	0.9	0.9	3.7	2.9	7.2	13.6	16.6	35.1	33.7	54.4	68.5	105.2	96.5	71.8
Male	1.7	0.0	0.0	0.0	0.0	1.8	7.3	5.7	8.1	20.8	19.7	50.3	41.7	74.1	90.8	134.4	118.6	95.1
Female	1.8	0.0	0.0	0.0	1.9	0.0	0.0	0.0	6.2	6.3	13.5	20.5	26.0	35.2	47.5	78.2	78.3	57.7
Larynx																		
All	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	1.1	1.0	5.7	8.2	5.9	16.3	12.0	7.2	7.2
Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	9.7	14.6	12.0	33.6	24.9	7.9	19.0
Female	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0	2.1	0.0	1.9	2.0	0.0	0.0	0.0	6.5	0.0
Leukemia																		
All	7.9	4.9	5.7	3.4	2.7	1.8	2.8	3.8	2.1	13.6	13.6	23.7	25.5	42.6	75.1	67.0	153.7	111.3
Male	5.2	3.2	6.3	1.7	5.1	1.8	5.4	3.8	2.0	8.3	17.8	31.0	35.4	52.6	97.5	94.6	181.9	142.7
Female	10.8	6.7	5.0	5.3	0.0	1.9	0.0	3.9	2.1	19.0	9.6	16.8	16.0	32.8	53.9	41.4	130.5	92.2
Liver & Bile Duct																		
All	0.0	0.0	0.8	0.0	0.0	0.0	0.9	1.0	2.1	1.1	7.8	31.3	31.7	32.0	35.9	26.3	39.3	25.1
Male	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	2.0	2.1	7.9	52.3	52.1	45.4	53.8	34.9	71.2	28.5
Female	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.9	2.1	0.0	7.7	11.2	12.0	18.8	19.0	18.4	13.1	23.1
Lung & Bronchus																		
All	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0	1.0	10.5	44.8	64.5	109.3	168.1	310.0	389.8	400.4	348.2
Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	8.3	35.5	69.7	118.8	188.8	363.2	413.3	490.2	475.7
Female	0.0	0.0	0.0	0.0	0.0	5.6	0.0	0.0	0.0	12.6	53.9	59.6	100.1	147.7	259.8	368.1	326.3	270.9
Melanoma of the Skin																		
All	0.0	1.6	0.0	0.9	4.5	6.4	16.6	20.1	23.6	33.5	33.1	47.4	61.3	82.9	81.6	119.6	135.9	140.0
Male	0.0	0.0	0.0	1.7	3.4	5.5	12.7	15.1	16.2	37.4	33.5	58.1	64.6	102.8	100.9	159.3	197.7	256.9
Female	0.0	3.3	0.0	0.0	5.7	7.4	20.6	25.2	31.1	29.5	32.7	37.2	58.1	63.3	63.4	82.8	84.8	69.2
Myeloma																		
All	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.1	4.9	9.5	10.2	21.3	57.1	26.3	57.2	53.8
Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2	2.0	5.8	16.7	31.1	87.5	24.9	71.2	47.6
Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	7.7	13.0	4.0	11.7	28.5	27.6	45.7	57.7

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

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	0.0	0.8	0.8	0.9	0.9	1.8	3.7	5.7	3.1	8.4	28.3	33.2	43.9	65.1	78.3	138.7	146.6	100.5
Male	0.0	1.6	0.0	1.7	0.0	0.0	3.6	5.7	0.0	4.2	29.6	29.0	56.3	74.1	111.0	159.3	213.5	133.2
Female	0.0	0.0	1.7	0.0	1.9	3.7	3.8	5.8	6.2	12.6	27.0	37.2	32.0	56.3	47.5	119.6	91.4	80.7
Oral Cavity & Pharynx																		
All	0.0	0.0	0.0	0.0	0.0	1.8	3.7	4.8	8.2	11.5	22.4	33.2	32.7	42.6	52.2	50.2	46.5	43.1
Male	0.0	0.0	0.0	0.0	0.0	3.7	3.6	3.8	8.1	14.5	31.6	38.7	56.3	64.5	80.7	74.7	71.2	76.1
Female	0.0	0.0	0.0	0.0	0.0	0.0	3.8	5.8	8.3	8.4	13.5	27.9	10.0	21.1	25.4	27.6	26.1	23.1
Ovary																		
Female	0.0	0.0	0.0	3.5	1.9	3.7	3.8	1.9	6.2	12.6	21.2	16.8	22.0	35.2	38.0	46.0	39.2	28.8
Pancreas																		
All	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	3.1	9.4	8.8	24.7	39.8	36.7	94.6	100.4	100.1	68.2
Male	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	6.1	10.4	13.8	27.1	39.6	50.2	134.5	154.4	126.5	95.1
Female	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	8.4	3.9	22.3	40.1	23.5	57.0	50.6	78.3	51.9
Prostate																		
Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	41.5	80.8	156.8	347.9	580.8	581.9	597.5	458.6	409.1
Stomach																		
All	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.0	2.1	10.7	12.3	13.3	18.9	29.4	23.9	39.3	61.0
Male	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	2.0	0.0	13.8	13.6	18.8	23.9	37.0	34.9	71.2	104.6
Female	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	7.7	11.2	8.0	14.1	22.2	13.8	13.1	34.6
Testis																		
Male	0.0	0.0	0.0	6.7	12.0	20.1	16.3	7.5	22.3	8.3	5.9	5.8	2.1	0.0	0.0	5.0	0.0	0.0
Thyroid																		
All	0.0	0.0	1.6	2.6	11.7	11.9	27.6	23.0	21.5	23.0	19.5	26.6	21.4	27.2	45.7	16.7	7.2	10.8
Male	0.0	0.0	1.6	0.0	5.1	5.5	5.4	9.4	6.1	2.1	9.9	9.7	14.6	19.1	33.6	10.0	7.9	9.5
Female	0.0	0.0	1.7	5.3	19.0	18.5	50.6	36.9	37.4	44.2	28.9	42.8	28.0	35.2	57.0	23.0	6.5	11.5

SECTION V

2015 OBSERVED VS. EXPECTED NUMBERS BY HEALTH DISTRICT

2015 OBSERVED VERSUS EXPECTED NUMBERS
BY
HEALTH DISTRICT

ALL SEXES

	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	1,429	1,336.4 +	629	613.8	1,375	1,285.0 +	2,275	2,226.6	872	952.6 *	682	806.2 *	870	888.3
Bladder	91	59.7 *	22	30.7	58	61.0	102	101.3	46	44.3	30	37.8	30	41.8
Brain	21	23.0	11	10.3	24	24.0	49	38.7	17	17.2	10	15.2	16	17.4
Brain & CNS non-Malignant	28	36.6	10	17.0	42	34.1	70	58.7	19	26.3	19	21.9	33	23.9
Breast	188	194.9	104	84.9 +	201	185.5	353	320.8	126	136.3	105	114.9	98	131.4 *
Breast (in situ)	39	34.9	15	15.5	28	36.2	68	59.6	26	24.4	20	20.9	21	23.9
Cervix	8	6.6	2	3.2	7	7.6	15	13.7	4	5.5	6	4.4	5	5.5
Colorectal	123	103.8	45	49.1	110	101.5	159	185.5	62	76.7	57	63.5	89	67.7 +
Corpus Uteri	47	38.1	17	17.3	45	36.5	52	74.0 *	31	26.7	22	23.3	25	26.0
Esophagus	15	13.7	10	5.9	14	12.6	27	20.1	5	10.0	2	8.6 +	8	8.8
Hodgkin lymphoma	5	5.3	3	2.8	10	5.5	5	13.9 +	5	4.4	6	3.7	5	5.1
Kidney & renal pelvis	59	47.6	28	22.2	53	46.4	77	83.0	30	35.2	18	30.2 +	32	32.4
Larynx	8	6.9	1	3.4	8	6.3	15	9.8	2	5.1	4	4.0	3	4.6
Leukemia	56	47.5	25	22.7	58	46.6	67	87.1 +	35	35.5	36	29.3	24	34.9
Liver & bile duct	25	26.6	9	12.0	21	25.3	55	38.2 +	18	18.0	16	15.2	12	17.5
Lung & bronchus	191	155.4 *	83	73.6	173	146.0 +	263	246.3	98	112.0	61	95.1 *	70	104.0 *
Melanoma of skin	74	82.1	39	36.6	48	85.7 *	178	125.2 *	54	58.3	43	49.5	64	54.2
Myeloma	16	22.3	13	9.5	22	19.5	37	32.2	11	15.0	11	12.2	14	13.1
N-H Lymphoma	53	62.7	33	27.5	65	56.7	99	98.4	45	42.1	32	36.1	37	39.7
Oral cavity & pharynx	36	39.2	18	17.3	40	36.7	63	66.6	29	26.7	12	23.9 +	36	24.1 +
Ovary	12	16.5	9	6.9	17	15.1	27	26.8	10	11.2	10	9.3	11	10.5
Pancreas	50	44.7	18	20.9	49	41.8	67	74.1	26	31.9	30	25.7	27	28.9
Prostate	180	161.2	71	73.2	136	154.6	257	257.2	113	109.0	76	93.7	116	99.3
Stomach	27	17.5 +	8	8.9	26	16.6 +	27	32.7	12	13.5	6	11.7	8	12.8
Testis	10	7.0	2	4.0	10	9.2	21	16.3	3	6.9	2	6.2	10	7.0
Thyroid	26	40.6 +	7	18.5 *	47	40.7	67	81.0	19	30.8 +	35	24.5	59	26.6 *
Pediatric (age 0-19)	8	10.7	2	5.1	18	15.3	27	23.0	7	11.5	12	9.7	15	12.7

+ Statistically significant difference at p=0.05 or less.
* Statistically significant difference at p=0.01 or less.

Note: Observed and expected numbers exclude in-situ cases, basal/squamous sking cases, and cases with unknown age and/or gender.

2015 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	759	693.1 +	321	325.7	693	657.1	1,123	1,110.2	450	487.9	353	413.8 *	454	453.4
Bladder	70	44.1 *	16	23.3	46	44.6	65	76.2	35	32.7	24	28.0	24	30.9
Brain	14	15.0	9	6.7	15	15.1	27	25.7	10	11.0	7	9.6	12	10.6
Brain & CNS non-Malignant	9	11.8	2	5.7	15	11.0	20	19.7	7	8.5	7	7.1	12	7.7
Breast	2	0.6	0	0.4	0	1.0	2	0.9	1	0.5	0	0.5	0	0.6
Breast (in situ)	0	0.4	0	0.2	0	0.4	1	0.4	0	0.3	1	0.1	0	0.2
Colorectal	49	55.3	25	25.0	61	50.4	83	90.9	32	38.7	34	31.6	42	34.8
Esophagus	13	11.2	9	4.9	11	10.4	22	16.0	5	8.0	0	7.2 *	6	7.3
Hodgkin lymphoma	1	3.7	3	1.8	7	3.5	3	9.6 +	4	2.8	5	2.4	3	3.5
Kidney & renal pelvis	37	30.7	19	14.2	31	30.0	47	52.9	19	22.4	12	19.2	24	20.4
Larynx	7	6.2	1	3.0	7	5.5	12	8.8	2	4.5	4	3.5	3	4.0
Leukemia	36	27.1	14	13.5	29	27.7	34	50.6 +	20	20.5	23	16.7	18	19.7
Liver & bile duct	17	19.6	7	8.8	15	18.2	45	25.2 *	14	12.9	9	11.4	6	13.1 +
Lung & bronchus	103	83.7 +	39	40.6	87	78.6	142	125.8	54	59.2	40	49.9	33	56.0 *
Melanoma of skin	43	47.1	22	21.7	29	47.8 *	99	69.2 *	31	33.0	22	28.3	36	30.4
Myeloma	10	13.4	6	5.9	16	11.0	21	18.5	5	9.0	6	7.2	9	7.6
N-H Lymphoma	31	35.6	16	16.1	38	31.3	51	53.8	25	23.6	21	20.0	21	22.2
Oral cavity & pharynx	28	27.1	11	12.5	26	25.7	44	45.4	18	18.9	9	16.7	27	16.7 +
Pancreas	32	28.3	14	13.2	30	26.5	35	47.4	16	20.0	21	15.8	19	17.9
Prostate	180	162.5	71	75.0	136	153.9	257	252.2	113	109.1	76	94.4	116	100.3
Stomach	20	11.0 +	7	5.7	17	10.8	19	20.1	2	9.6 *	4	7.7	5	8.4
Testis	10	6.9	2	4.1	10	9.0	21	16.6	3	6.9	2	6.2	10	7.1
Thyroid	6	9.5	2	4.4	13	8.5	15	17.2	3	7.1	7	5.6	12	6.0 +
Pediatric (age 0-19)	1	4.7	0	2.2	7	6.3	9	10.1	4	4.4	7	3.7	8	4.7

+ Statistically significant difference at p=0.05 or less.
* Statistically significant difference at p=0.01 or less.

Note: Observed and expected numbers exclude in-situ cases, basal/squamous sking cases, and cases with unknown age and/or gender.

2015 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	670	647.3	308	289.6	682	629.5 +	1,152	1,107.0	422	464.1	329	393.4 *	416	435.1
Bladder	21	15.9	6	7.8	12	16.5	37	23.4 +	11	11.6	6	10.0	6	11.0
Brain	7	8.1	2	3.7	9	8.9	22	12.7 +	7	6.2	3	5.7	4	6.9
Brain & CNS non-Malignant	19	24.9	8	11.2	27	23.3	50	39.1	12	17.7	12	14.7	21	16.1
Breast	186	193.9	104	82.8 +	201	185.7	351	323.5	125	135.2	105	114.0	98	129.5 *
Breast (in situ)	39	34.5	15	15.1	28	36.2	67	59.6	26	24.1	19	20.7	21	23.4
Cervix	8	6.8	2	3.1	7	7.7	15	13.7	4	5.4	6	4.4	5	5.5
Colorectal	74	48.7 *	20	24.1	49	51.2	76	94.3	30	38.0	23	31.8	47	32.9 +
Corpus Uteri	47	38.3	17	17.0	45	36.7	52	74.7 *	31	26.6	22	23.2	25	25.7
Esophagus	2	2.6	1	1.2	3	2.3	5	3.8	0	2.0	2	1.4	2	1.6
Hodgkin lymphoma	4	1.6	0	1.0	3	1.9	2	4.4	1	1.6	1	1.4	2	1.5
Kidney & renal pelvis	22	17.1	9	8.1	22	16.3	30	29.7	11	12.8	6	11.0	8	12.1
Larynx	1	0.8	0	0.4	1	0.7	3	0.8	0	0.6	0	0.6	0	0.7
Leukemia	20	20.5	11	9.3	29	18.9 +	33	35.9	15	15.0	13	12.6	6	15.3 +
Liver & bile duct	8	7.0	2	3.3	6	7.0	10	12.8	4	5.1	7	3.8	6	4.5
Lung & bronchus	88	72.1	44	33.3	86	67.6 +	121	119.7	44	52.9	21	45.3 *	37	48.1
Melanoma of skin	31	35.2	17	15.1	19	38.1 *	79	55.4 *	23	25.3	21	21.4	28	23.9
Myeloma	6	9.0	7	3.7	6	8.5	16	13.4	6	6.0	5	5.0	5	5.5
N-H Lymphoma	22	27.3	17	11.6	27	25.5	48	43.7	20	18.5	11	16.2	16	17.6
Oral cavity & pharynx	8	12.1	7	5.0	14	10.8	19	20.8	11	7.8	3	7.3	9	7.6
Ovary	12	16.4	9	6.7	17	15.2	27	27.0	10	11.1	10	9.3	11	10.5
Pancreas	18	16.7	4	7.9	19	15.3	32	26.1	10	11.9	9	9.9	8	11.0
Stomach	7	6.6	1	3.2	9	5.9	8	12.3	10	3.9 +	2	4.0	3	4.4
Thyroid	20	31.3 +	5	13.9 +	34	32.6	52	63.3	16	23.6	28	19.0	47	20.6 *
Pediatric (age 0-19)	7	6.1	2	2.9	11	9.1	18	12.9	3	7.0	5	6.0	7	8.1

+ Statistically significant difference at p=0.05 or less.
* Statistically significant difference at p=0.01 or less.

Note: Observed and expected numbers exclude in-situ cases, basal/squamous sking cases, and cases with unknown age and/or gender.

SECTION VI

RISKS OF BEING DIAGNOSED AND DYING FROM CANCER

Risks of Being Diagnosed with and Dying from Cancer

All Sites, Invasive in Females

If your current age is:	Then your risk of 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 64	1 in 20	1 in 9	1 in 5	1 in 3	1 in 2
40		1 in 29	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 691	1 in 153	1 in 49	1 in 19	1 in 9	1 in 5
40		1 in 195	1 in 52	1 in 20	1 in 9	1 in 5
50			1 in 69	1 in 21	1 in 10	1 in 6
60				1 in 30	1 in 11	1 in 6
70					1 in 15	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 127	1 in 38	1 in 12	1 in 5	1 in 3	1 in 2
40		1 in 52	1 in 13	1 in 5	1 in 3	1 in 2
50			1 in 16	1 in 5	1 in 3	1 in 2
60				1 in 7	1 in 3	1 in 2
70					1 in 4	1 in 2
80						1 in 3

If your current age is:	Then your risk of 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 722	1 in 185	1 in 46	1 in 17	1 in 8	1 in 5
40		1 in 245	1 in 49	1 in 17	1 in 8	1 in 5
50			1 in 59	1 in 18	1 in 8	1 in 4
60				1 in 24	1 in 8	1 in 5
70					1 in 11	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 238	1 in 58	1 in 26	1 in 14	1 in 9	1 in 8
40		1 in 76	1 in 29	1 in 15	1 in 10	1 in 8
50			1 in 45	1 in 18	1 in 11	1 in 8
60				1 in 28	1 in 13	1 in 10
70					1 in 22	1 in 13
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 2526	1 in 564	1 in 214	1 in 106	1 in 59	1 in 38
40		1 in 719	1 in 232	1 in 110	1 in 60	1 in 38
50			1 in 335	1 in 127	1 in 64	1 in 39
60				1 in 197	1 in 76	1 in 42
70					1 in 113	1 in 49
80						1 in 67

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 16070	1 in 378	1 in 55	1 in 17	1 in 10	1 in 8
40		1 in 381	1 in 54	1 in 17	1 in 10	1 in 8
50			1 in 61	1 in 17	1 in 10	1 in 8
60				1 in 21	1 in 10	1 in 8
70					1 in 17	1 in 11
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 24646	1 in 1550	1 in 293	1 in 86	1 in 32
40		1 in 24260	1 in 1526	1 in 288	1 in 84	1 in 31
50			1 in 1580	1 in 283	1 in 82	1 in 30
60				1 in 322	1 in 81	1 in 29
70					1 in 94	1 in 28
80						1 in 28

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

Risks of Being Diagnosed with and Dying from Cancer

Colon/Rectal Cancer in Females

If your current age is:	Then your risk of 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 1380	1 in 331	1 in 132	1 in 67	1 in 38	1 in 25
40		1 in 431	1 in 144	1 in 69	1 in 39	1 in 25
50			1 in 212	1 in 81	1 in 42	1 in 26
60				1 in 124	1 in 50	1 in 28
70					1 in 75	1 in 33
80						1 in 46

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 6189	1 in 1417	1 in 529	1 in 241	1 in 120	1 in 65
40		1 in 1821	1 in 573	1 in 249	1 in 121	1 in 65
50			1 in 820	1 in 283	1 in 127	1 in 66
60				1 in 414	1 in 145	1 in 69
70					1 in 203	1 in 76
80						1 in 93

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 1579	1 in 340	1 in 121	1 in 57	1 in 33	1 in 24
40		1 in 427	1 in 129	1 in 58	1 in 33	1 in 24
50			1 in 178	1 in 65	1 in 35	1 in 25
60				1 in 94	1 in 40	1 in 26
70					1 in 60	1 in 32
80						1 in 47

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 5694	1 in 1450	1 in 401	1 in 171	1 in 89	1 in 54
40		1 in 1914	1 in 424	1 in 174	1 in 89	1 in 54
50			1 in 529	1 in 186	1 in 91	1 in 54
60				1 in 267	1 in 102	1 in 56
70					1 in 144	1 in 62
80						1 in 76

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 496	1 in 199	1 in 118	1 in 77	1 in 57	1 in 46
40		1 in 330	1 in 153	1 in 90	1 in 64	1 in 50
50			1 in 278	1 in 120	1 in 77	1 in 58
60				1 in 202	1 in 102	1 in 70
70					1 in 185	1 in 96
80						1 in 154

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 12917	1 in 4857	1 in 1909	1 in 1035	1 in 576	1 in 321
40		1 in 7713	1 in 2220	1 in 1115	1 in 597	1 in 327
50			1 in 3055	1 in 1278	1 in 635	1 in 334
60				1 in 2107	1 in 768	1 in 360
70					1 in 1103	1 in 396
80						1 in 477

Melanoma in Males

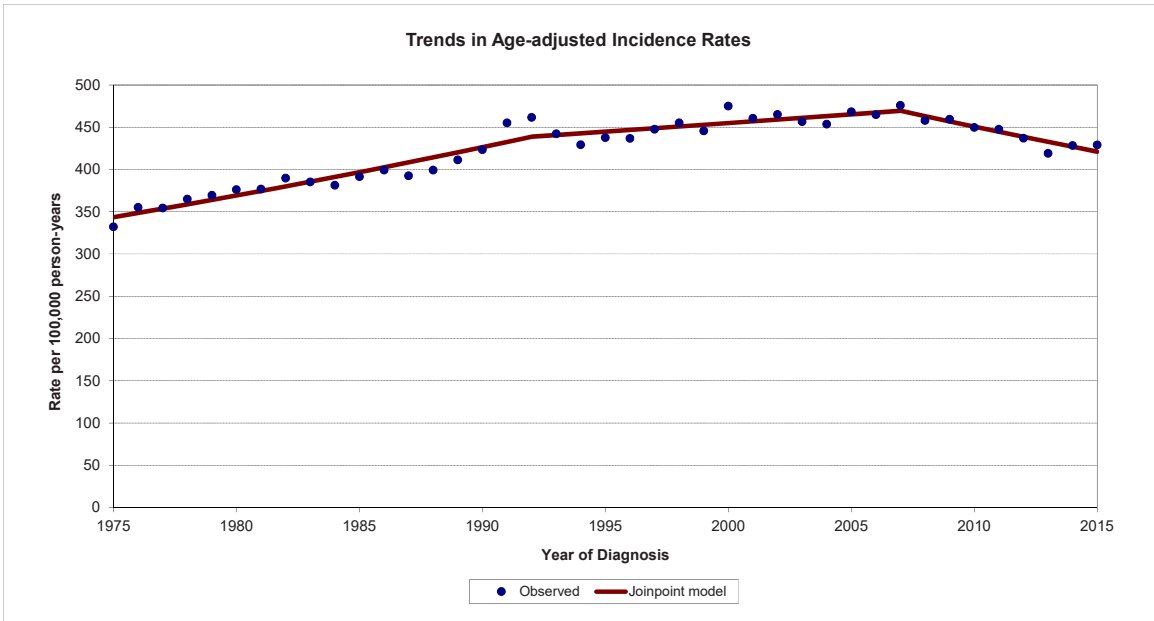
If your current age is:	Then your risk of being diagnosed with melanoma by a given age is:					
	By age 40	By age 50	By age 60	By age 70	By age 80	Ever
30	1 in 750	1 in 289	1 in 133	1 in 65	1 in 42	1 in 31
40		1 in 464	1 in 159	1 in 70	1 in 43	1 in 31
50			1 in 234	1 in 80	1 in 46	1 in 33
60				1 in 113	1 in 54	1 in 35
70					1 in 88	1 in 44
80						1 in 63

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 7784	1 in 3471	1 in 1131	1 in 492	1 in 281	1 in 179
40		1 in 6167	1 in 1303	1 in 517	1 in 286	1 in 180
50			1 in 1603	1 in 547	1 in 292	1 in 180
60				1 in 776	1 in 333	1 in 189
70					1 in 507	1 in 218
80						1 in 270

SECTION VII

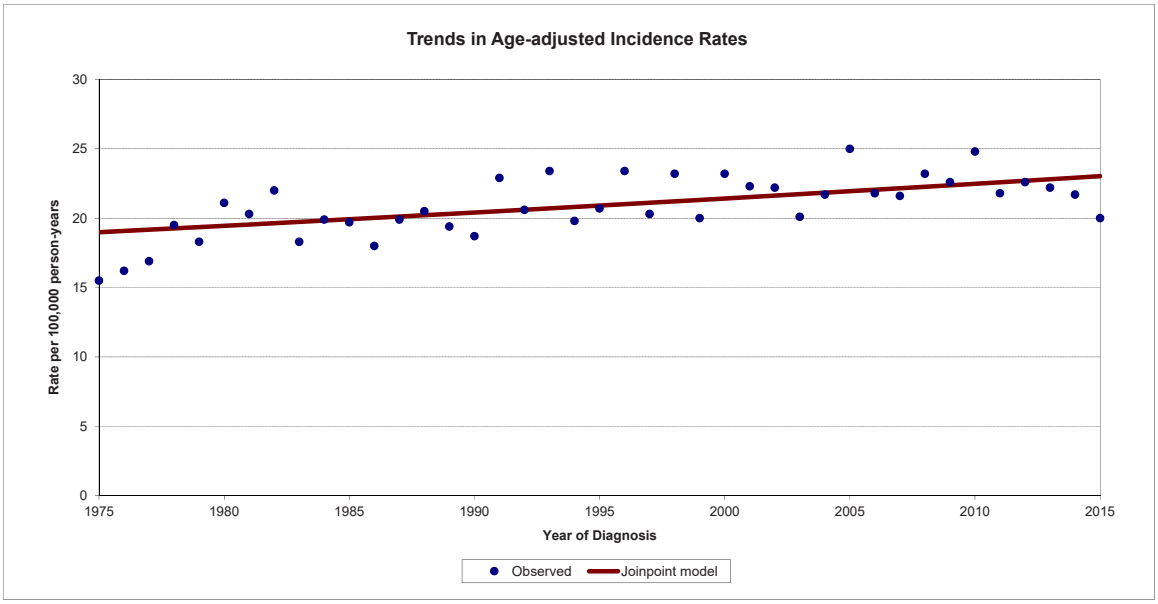
CANCER TRENDS IN IDAHO
1975-2015

All Sites



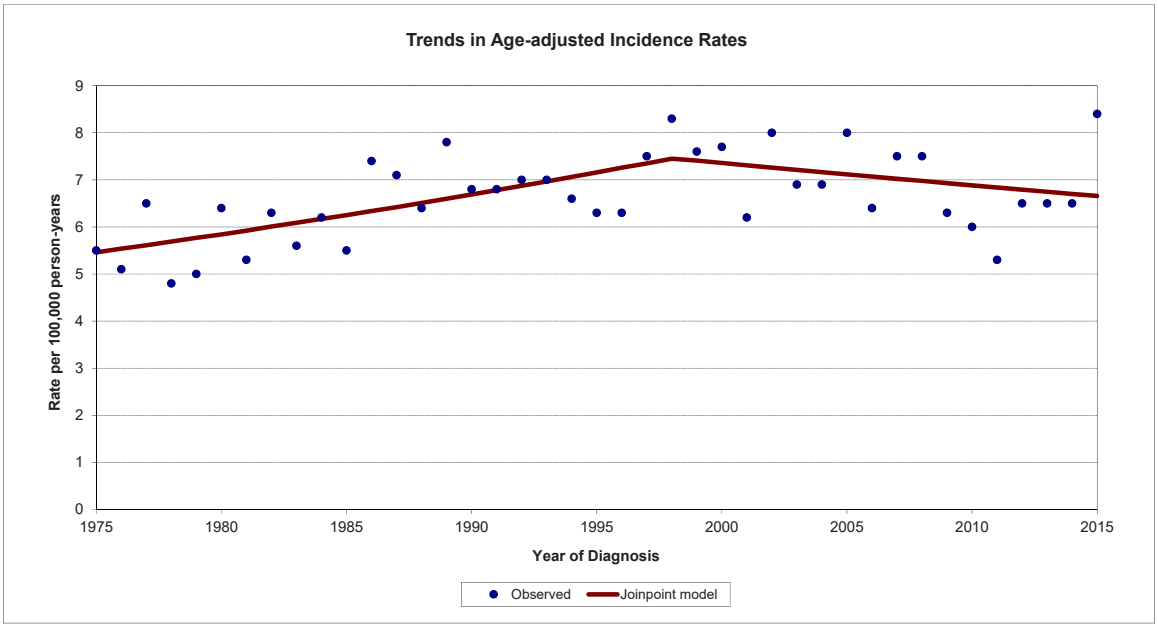
Cancer incidence increased at a rate of about 1.4% per year in Idaho from 1975 to 1992, and at a rate of about 0.5% per year from 1992 to 2007. Since 2007, overall cancer incidence has declined about 1.4% per year. Cancer incidence trends over time were different for males and females. For males, much 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



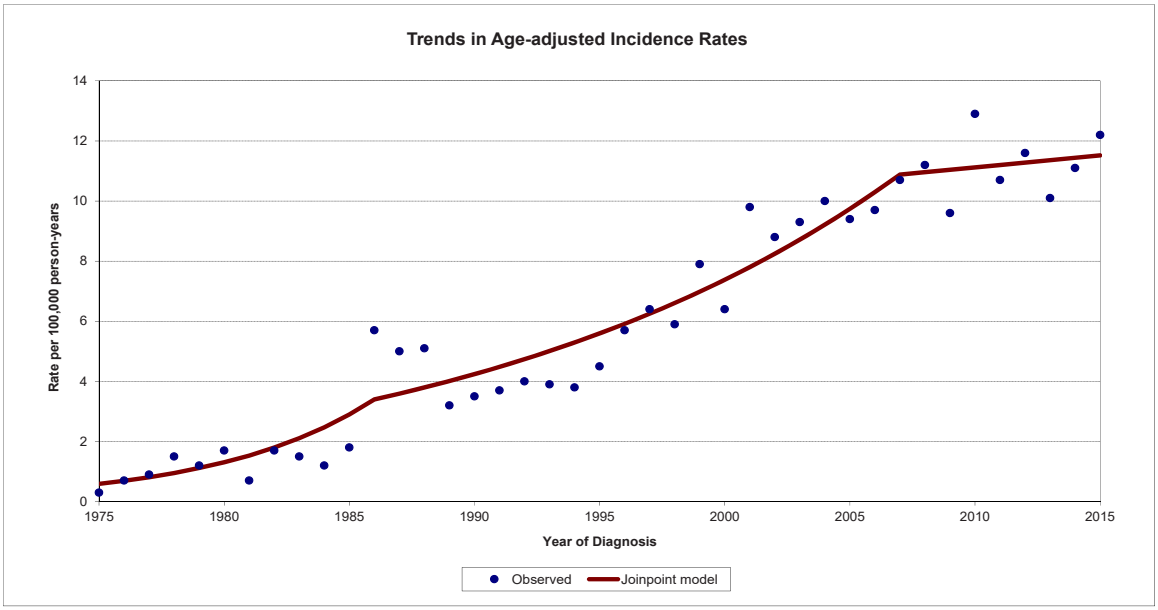
Bladder cancer incidence includes in situ and invasive cases. Bladder cancer incidence increased at a rate of about 0.5% per year in Idaho from 1975 to 2015. Most of the increase in bladder cancer incidence is attributable to males, who have rates of bladder cancer incidence about 4-5 times those of females.

Brain



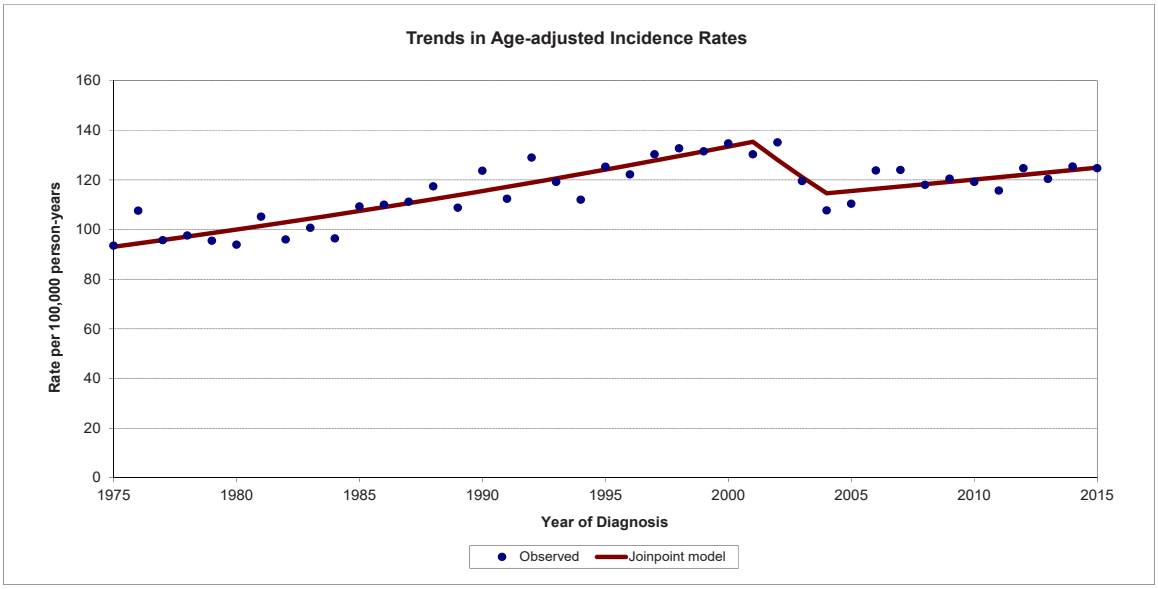
Malignant brain cancer incidence increased at a rate of about 1.4% per year in Idaho from 1975 to 1998, after which the rate has declined about 0.7% per year. Among males, malignant brain cancer incidence rates followed the same pattern. Among females, the rate has been stable 1975 to present.

Brain and Other CNS, Non-Malignant



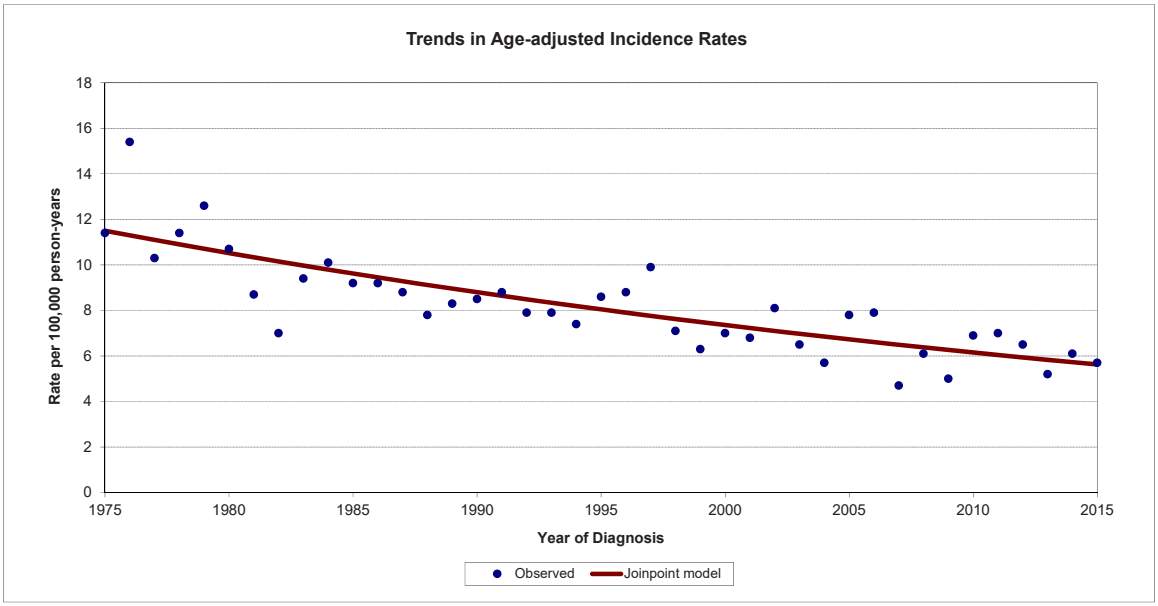
Non-malignant brain and other central nervous system tumors include those with benign and borderline behavior. Non-malignant brain and other CNS tumor incidence increased at a rate of about 17.2% per year in Idaho from 1975 to 1986, then increased by about 5.7% until 2007, after which the rate has been generally stable.

Breast Female



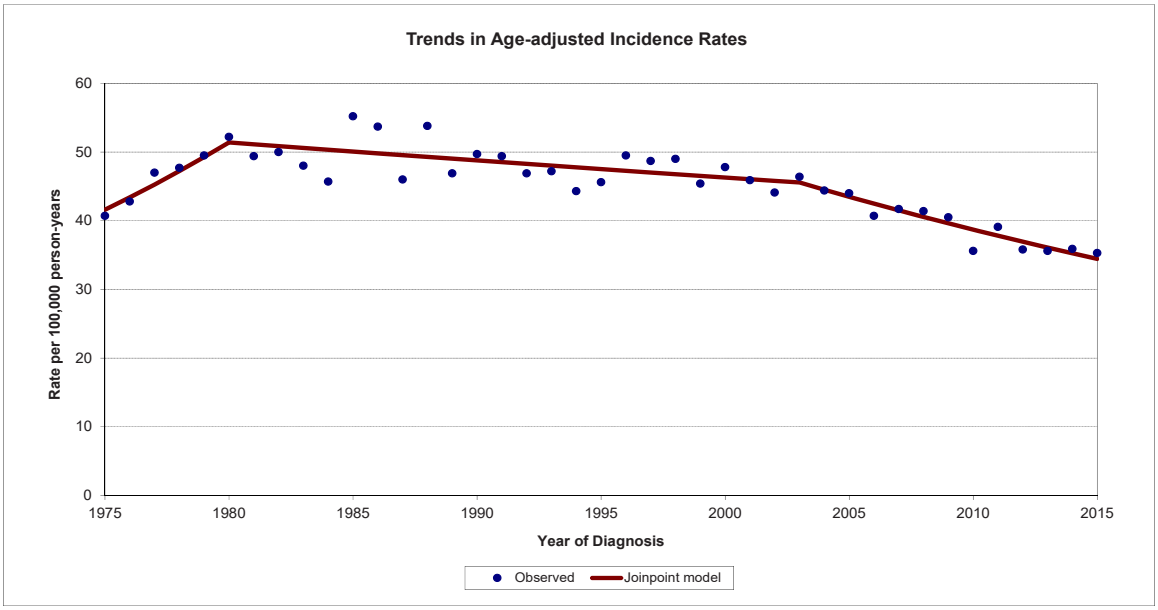
Invasive breast cancer incidence increased at a rate of about 1.5% per year among female Idahoans from 1975 to 2001. From 2001 to 2004, the rate decreased sharply by about 5.4% per year. This decrease may be due in part to a decrease in the use of hormone replacement therapy. Since 2004, the invasive breast cancer incidence rate has increased about 0.8% per year. In situ breast cancer rates increased at a rate of about 13.2% per year from 1975 to 1992, after which the rate of increase slowed to about 0.9% per year (data not shown).

Cervix



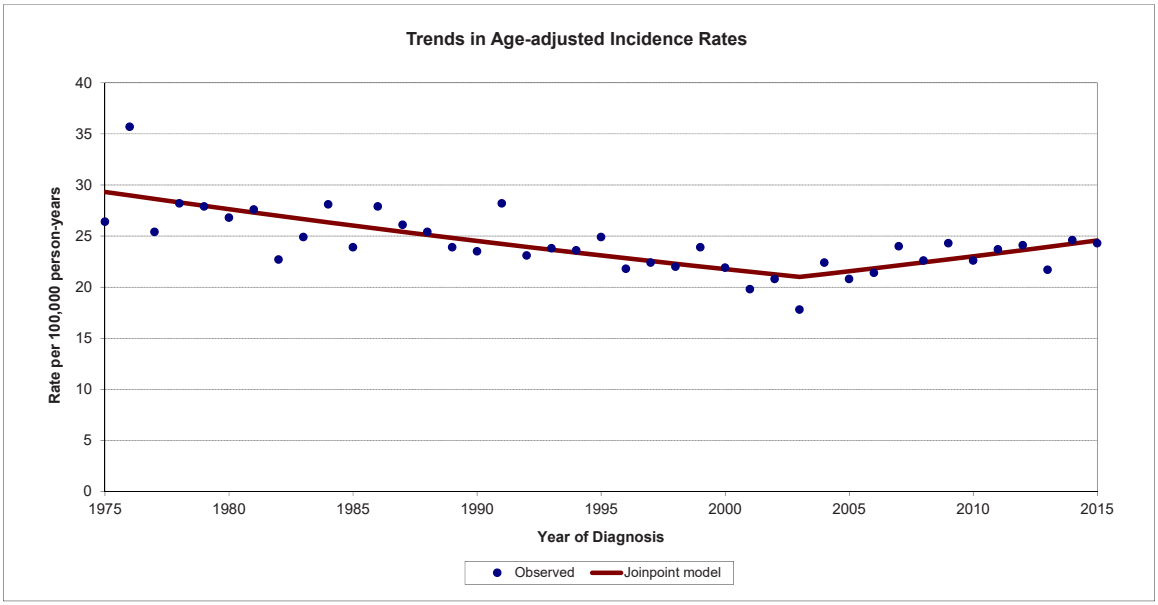
Invasive cervical cancer incidence has decreased about 1.8% per year in Idaho from 1975 to 2015.

Colorectal



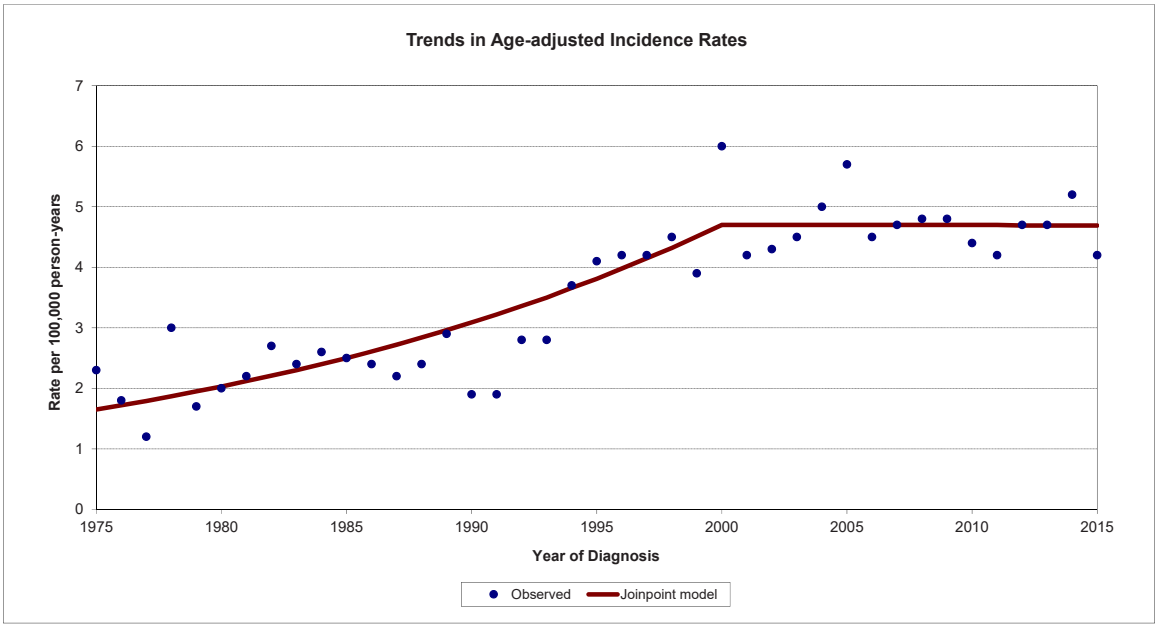
Colorectal cancer incidence increased at a rate of about 4.3% per year in Idaho from 1975 to 1980. From 1980 to 2003, the rate decreased about 0.5% per year, and then the rate decreased about 2.3% per year from 2003 to 2015. Colorectal cancer incidence trends over time were different for males and females. For males, rates increased from 1975 to 1988, then decreased. For females, rates were stable from 1975-2000, then decreased.

Corpus Uteri



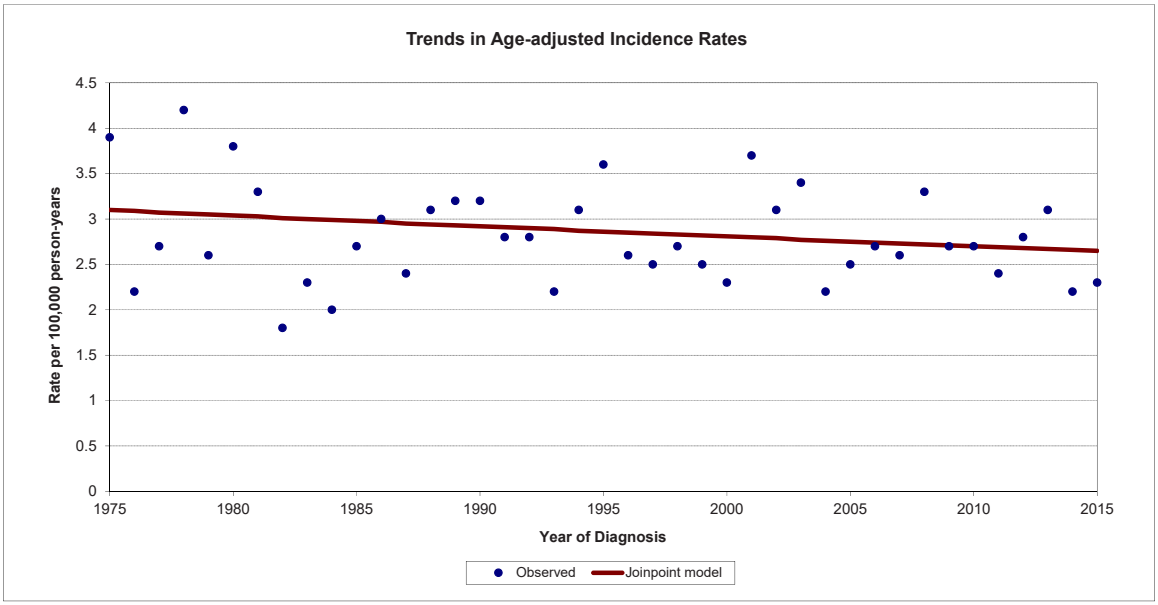
Corpus uteri cancer incidence rates decreased about 1.2% per year in Idaho from 1975 to 2003, and have increased by 1.3% per year since 2003.

Esophagus



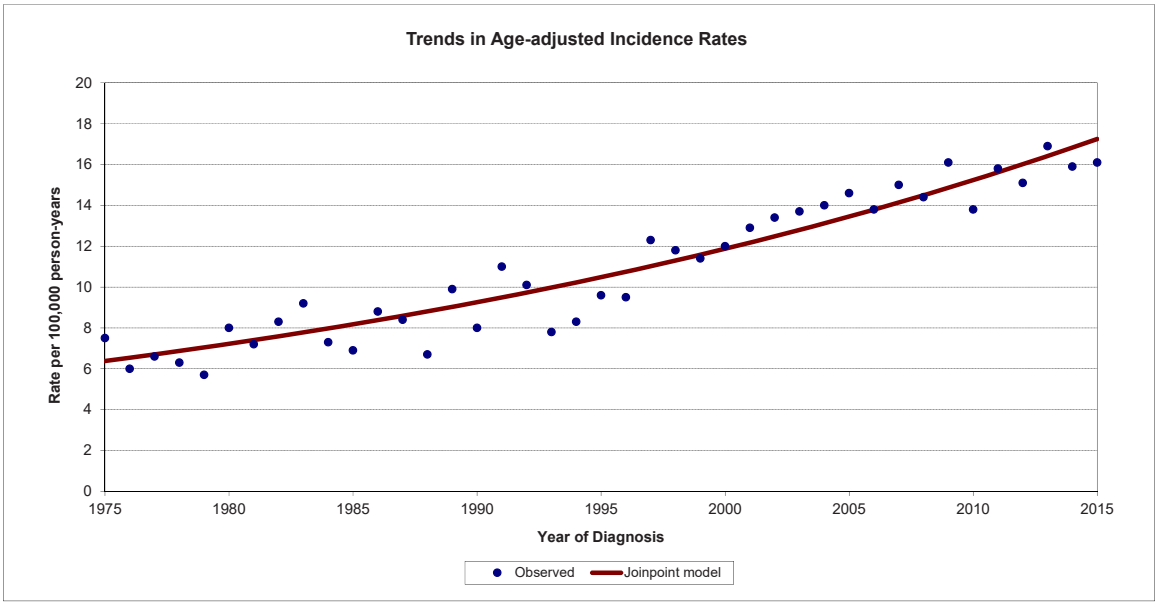
Esophageal cancer incidence increased at a rate of about 4.3% per year in Idaho from 1975 to 2000, after which the incidence rate has been stable. Rates of esophageal cancers among males were about 3-4 times higher than those among females.

Hodgkin Lymphoma



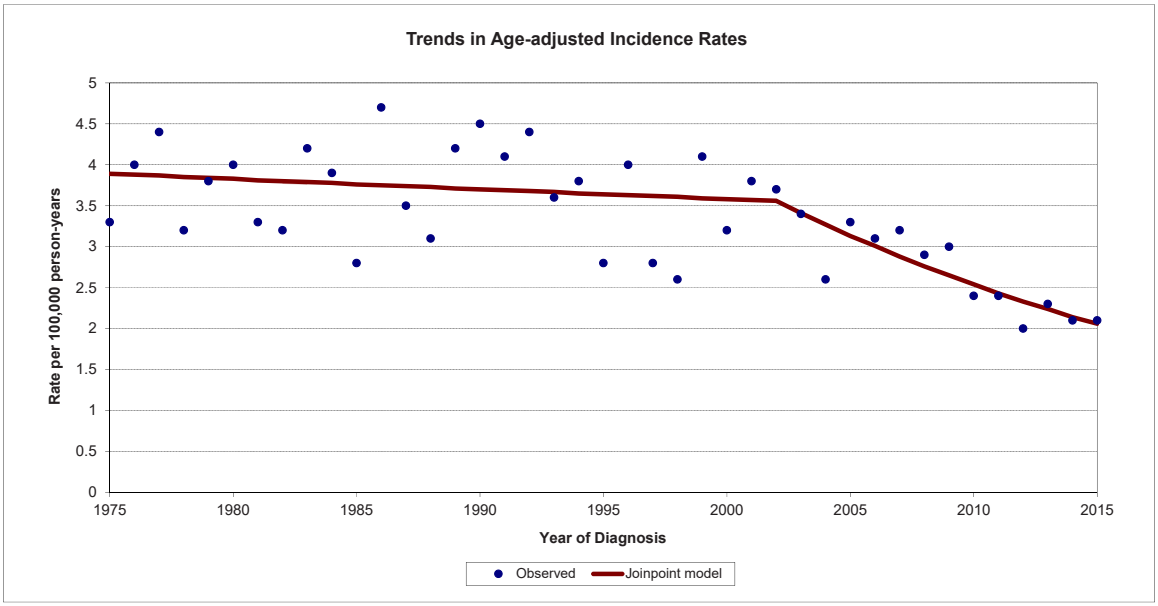
There was no statistically significant trend in Hodgkin lymphoma incidence in Idaho from 1975 to 2015; rates were stable but showed year-to-year variability due to the relatively small numbers of cases diagnosed annually.

Kidney and Renal Pelvis



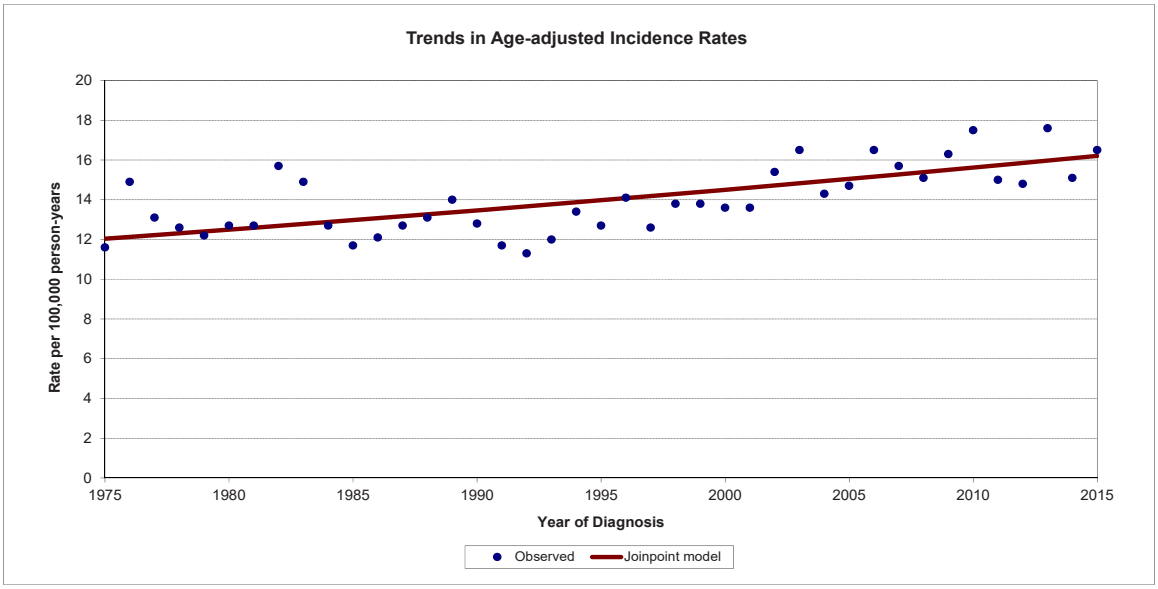
Kidney and renal pelvis cancer incidence increased at a rate of about 2.5% per year in Idaho from 1975 to 2015. The rate of increase was similar for males and females, although rates of kidney and renal pelvis cancers among males were about twice as high as among females.

Larynx



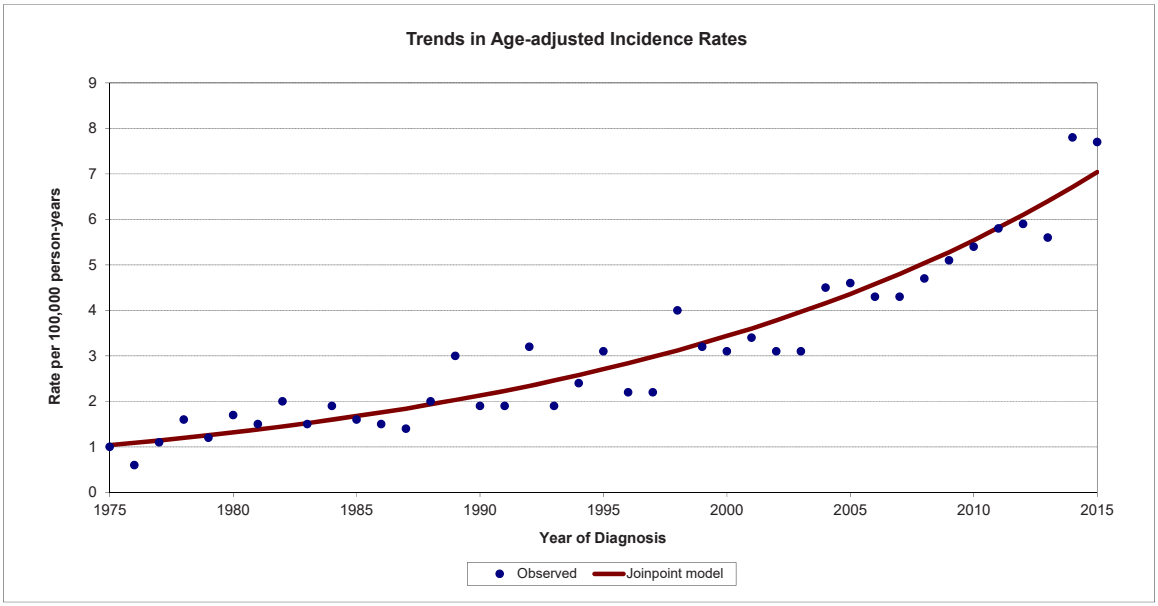
Laryngeal cancer incidence decreased about 0.3% per year in Idaho from 1975 to 2002, and decreased about 4.1% per year since 2002. Rates showed year-to-year variability due to the relatively small numbers of cases diagnosed annually. The temporal pattern was similar for males. Among females, incidence rates of laryngeal cancer decreased about 1.6% per year from 1975 to 2015. Incidence rates of laryngeal cancers among males were about 4 times as high as among females.

Leukemia



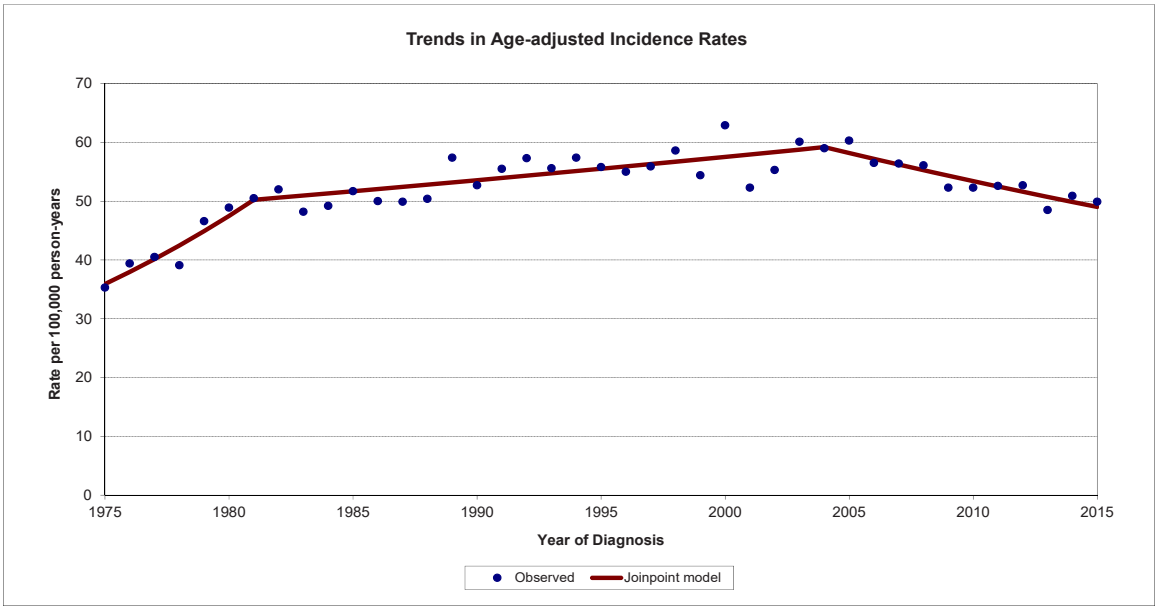
Leukemia incidence has increased about 0.7% per year from 1975 to 2015. Rates showed year-to-year variability due to the relatively small numbers of cases diagnosed annually.

Liver and Bile Duct



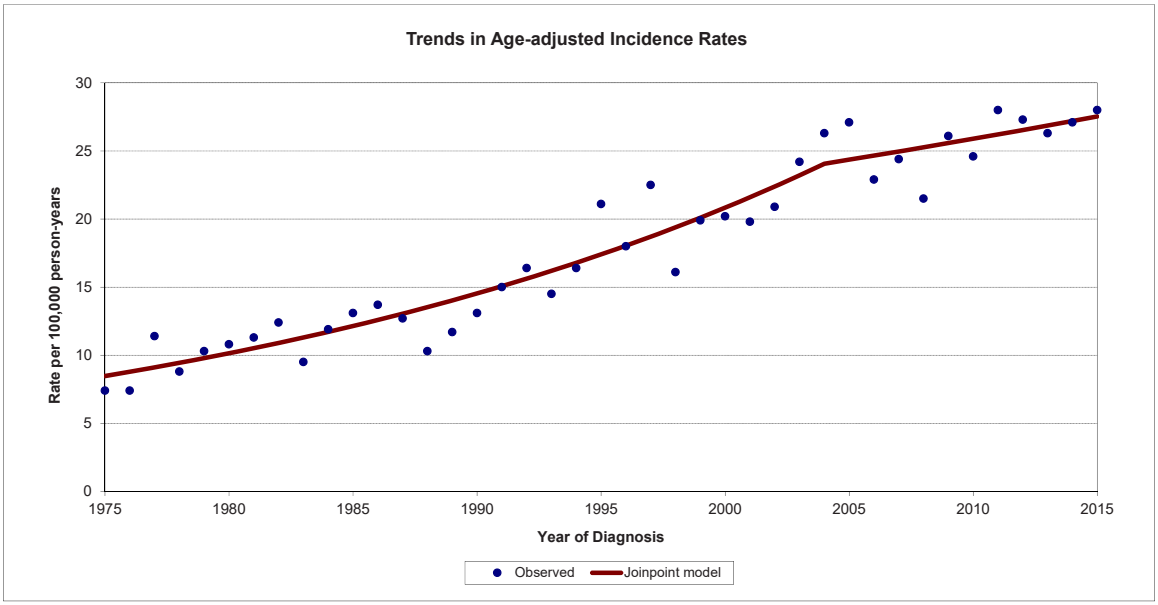
Liver cancer incidence increased at a rate of about 4.9% per year in Idaho from 1975 to 2015. The rate of increase was higher for males (5.5% per year) than for females (3.6% per year), and rates of liver cancers among males were about twice as high as among females.

Lung and Bronchus



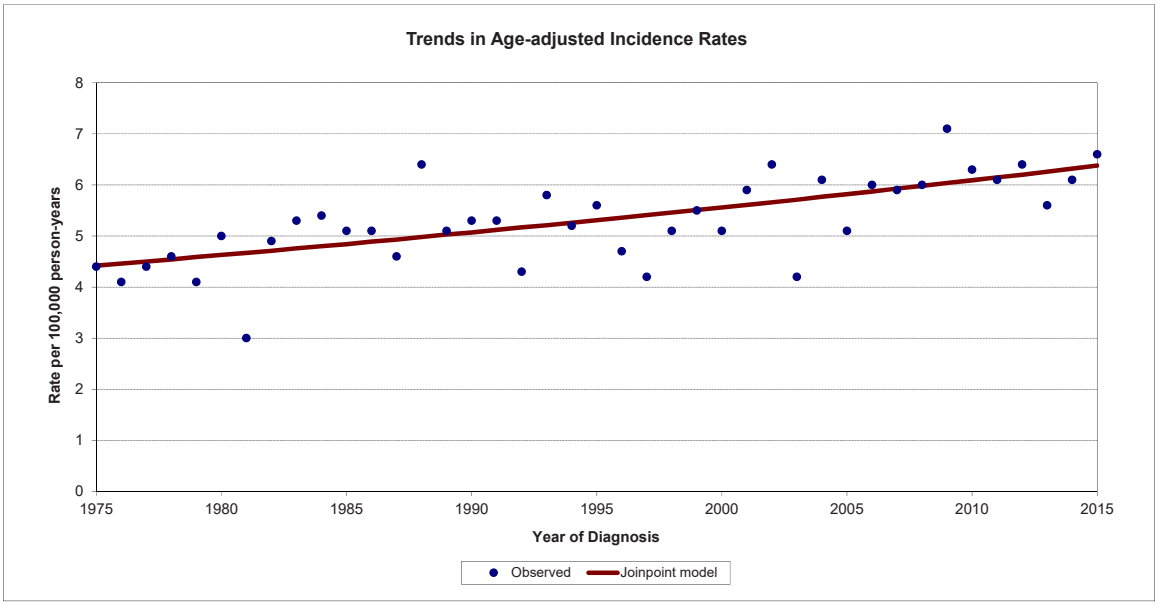
Lung cancer incidence increased at a rate of about 5.8% per year in Idaho from 1975 to 1981, after which the rate of increase lessened to about 0.7% per year until 2004. From 2004 to 2015, the rate has decreased about 1.7% per year. Lung cancer incidence trends over time were different for males and females. For males, lung cancer incidence increased at a rate of about 5.9% per year from 1975 to 1980, and then decreased by about 0.4% per year until 2003, after which it has decreased by about 2.4% per year. For females, lung cancer incidence increased at a rate of about 5.9% per year from 1975 to 1989, after which the rate of increase lessened to about 1.7% per year until 2006. From 2006 to 2015, there has been no statistically significant trend in lung cancer incidence among females. Historically, lung cancer incidence rates have been two or more times higher among males as among females, but the gap is continuing to narrow, reflecting long-term trends in smoking prevalence.

Melanoma



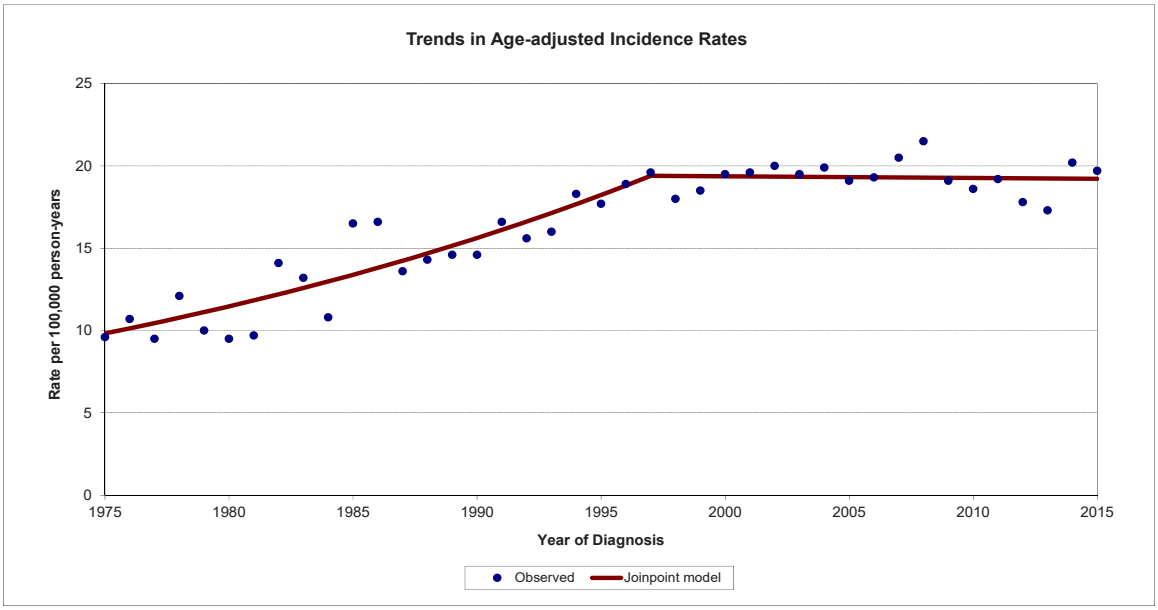
The incidence of melanoma of the skin increased at a rate of about 3.7% per year in Idaho from 1975 to 2004. Since 2004 there has been no statistically significant trend in melanoma incidence. The temporal pattern was similar for males. Among females, incidence rates of melanoma of the skin increased about 2.6% per year from 1975 to 2015. The incidence of in situ melanoma of the skin increased at a higher rate (6.6% per year from 1980 to 2015) than for the invasive cases depicted in the graph.

Myeloma



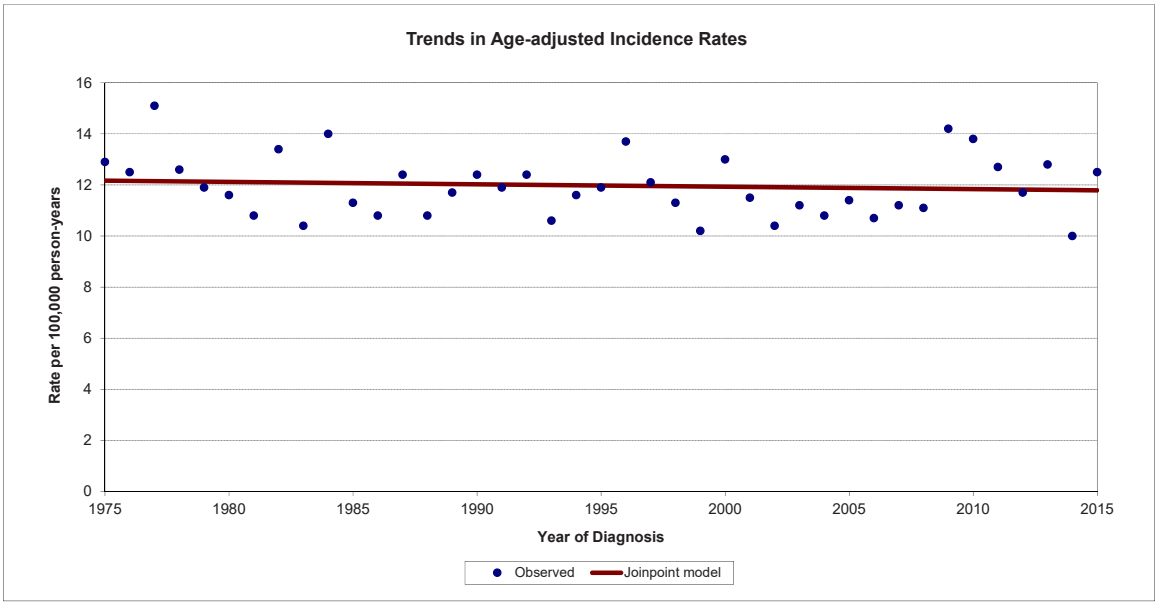
The incidence of myeloma increased at a rate of about 0.9% per year in Idaho from 1975 to 2015. The rate of increase was higher for males (1.3% per year) than for females (no significant trend), and rates of myeloma incidence among males were higher than among females.

Non-Hodgkin Lymphoma



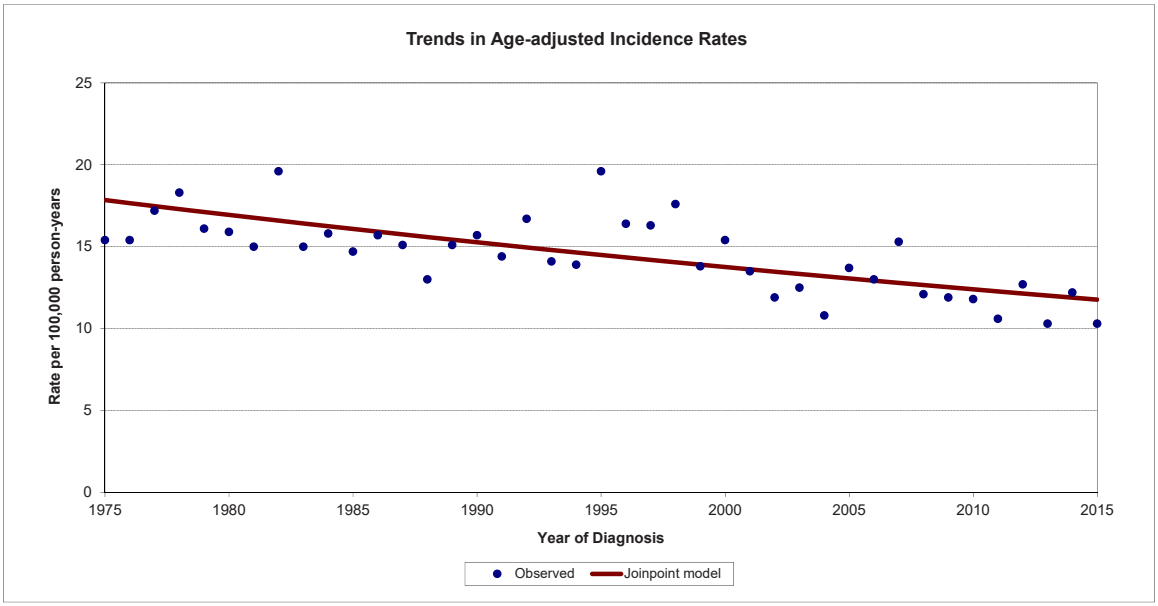
The incidence of non-Hodgkin lymphoma increased at a rate of about 3.1% per year in Idaho from 1975 to 1997, after which there has been no significant trend. Non-Hodgkin lymphoma incidence trends over time were similar for males and females, but rates of non-Hodgkin lymphoma incidence among males were higher than among females.

Oral Cavity and Pharynx



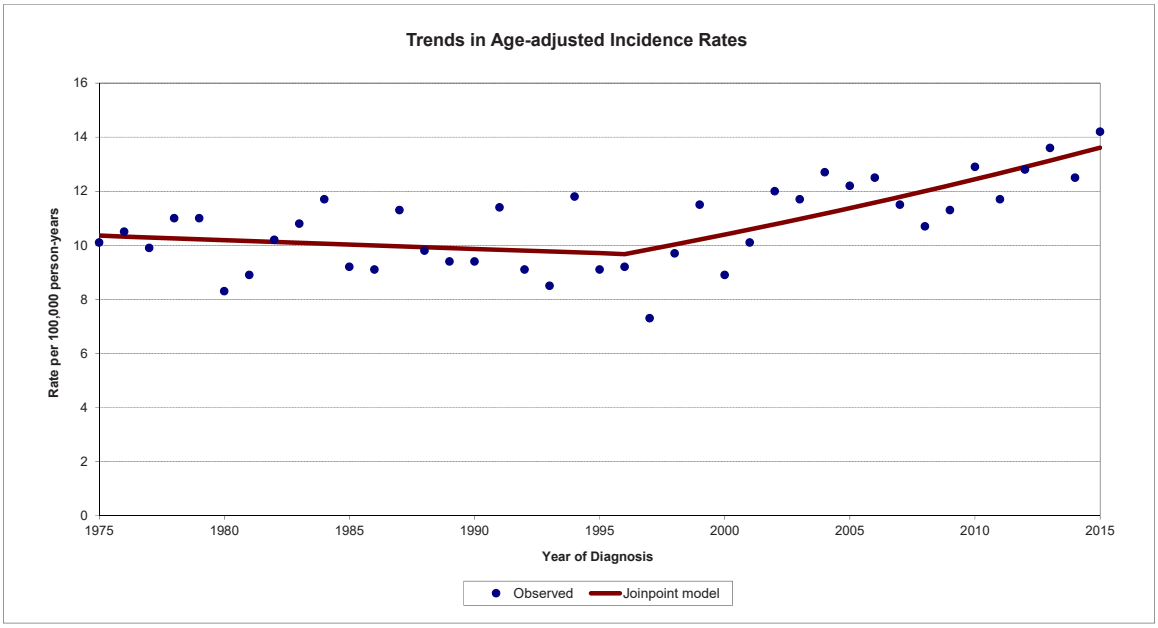
The incidence of cancers of the oral cavity and pharynx decreased at a rate of about 0.1% per year in Idaho from 1975 to 2015. Among males, the rate of decrease was about 0.5% per year for the entire time period. Among females, incidence of cancers of the oral cavity and pharynx increased at a rate of about 0.7% per year 1975 to 2015. Rates of cancers of the oral cavity and pharynx were about 3 times higher among males than among females. This latter result likely reflects differences in long-term prevalence trends for tobacco use and alcohol consumption between males and females.

Ovary



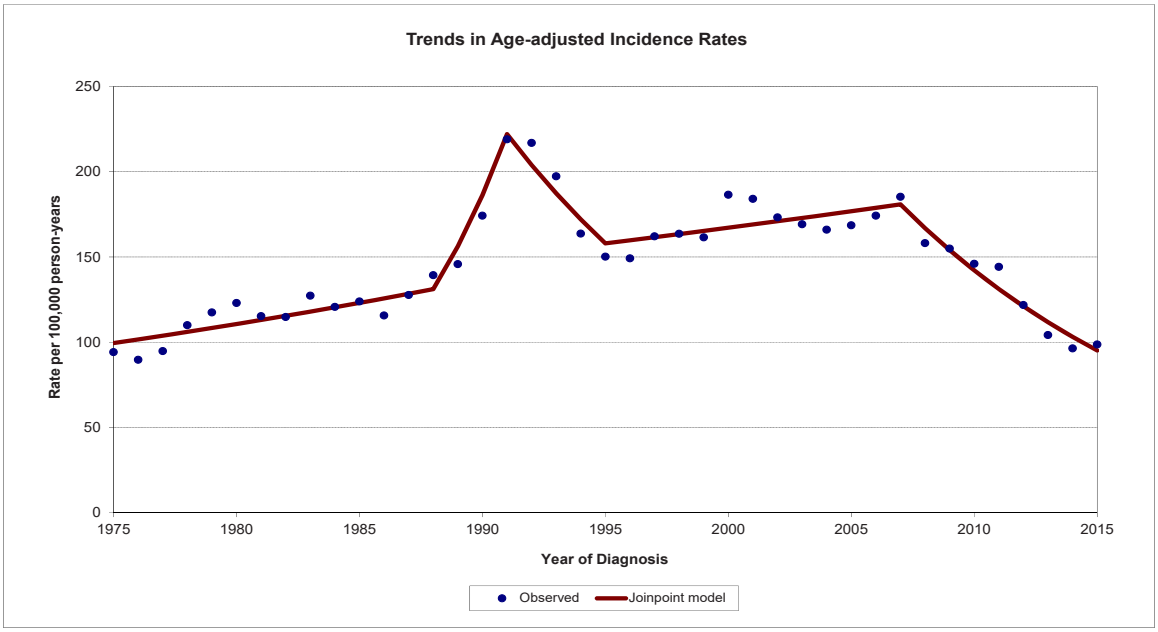
The incidence of ovarian cancer among females in Idaho decreased about 1.0% per year from 1975 to 2015. Part of the decrease in ovarian cancer incidence rates may have been due to a decrease in the use of hormone replacement therapy.

Pancreas



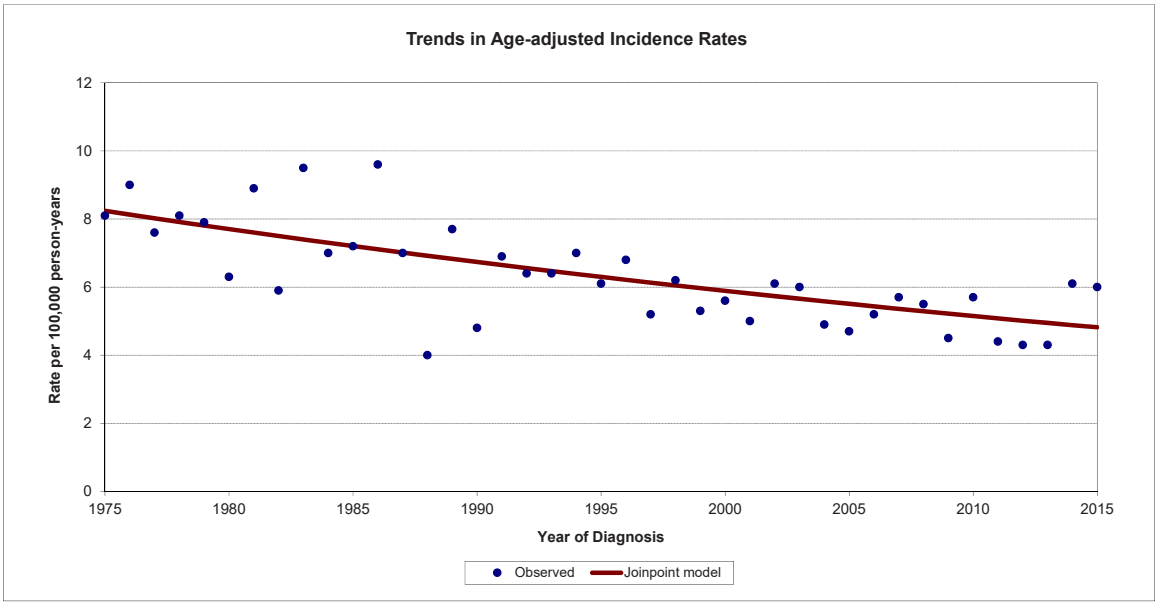
Pancreas cancer incidence decreased at a rate of 0.3% per year from 1975 to 1996, and increased at a rate of about 1.8% per year from 1996 to 2015. Pancreas cancer incidence trends over time were different for males and females. Among males, pancreas cancer incidence decreased about 1.1% per year from 1975-1999, and has increased about 2.5% per year since 1999. Among females, pancreas cancer increased about 1.2% per year from 1975-2015. Rates of pancreas cancer incidence among males were higher than among females.

Prostate



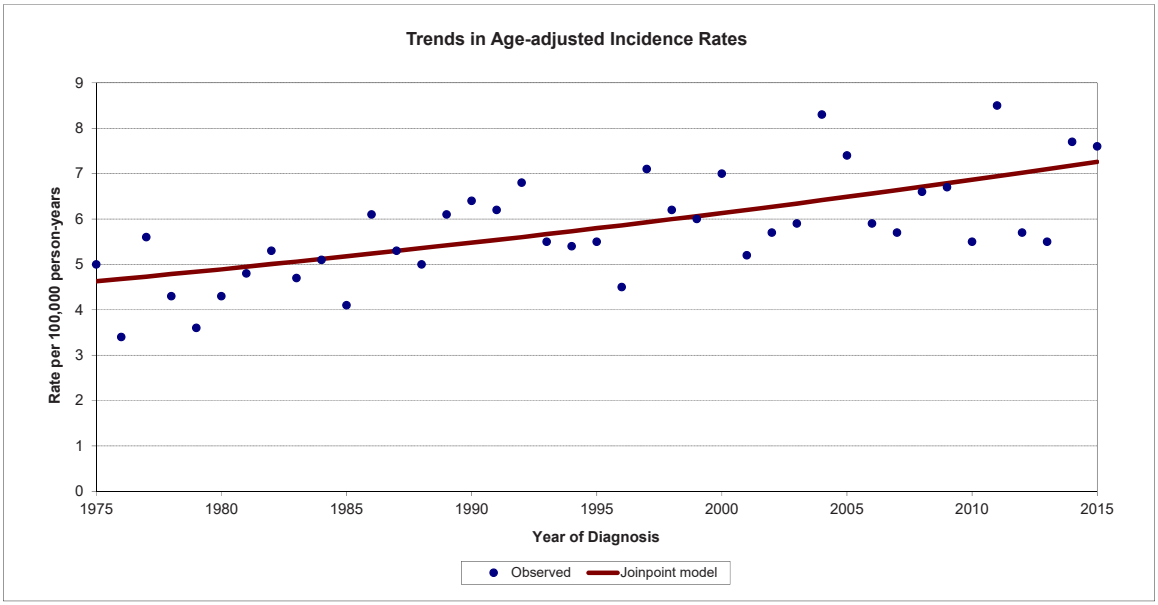
Trends in prostate cancer incidence are complicated, owing to the adoption of the Prostate-Specific Antigen (PSA) screening test in the late 1980s and early 1990s. From 1975 to 1988, prostate cancer incidence increased in Idaho at a rate of about 2.2% per year. From 1988 to 1991, prostate cancer incidence increased at a rate of about 19.2% per year. For the period 1991 to 1995, prostate cancer incidence rates decreased by about 8.2% per year. From 1995 to 2007, the rates increased about 1.1% per year, and from 2007 to 2015, the rate decreased about 7.7% per year. In May 2012, the United States Preventive Service Task Force issued a recommendation against PSA-based screening for prostate cancer in all age groups. 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. The prostate cancer incidence rates in 2014-2015 were similar to the rates at the beginning of the time series, before the adoption of the PSA test.

Stomach



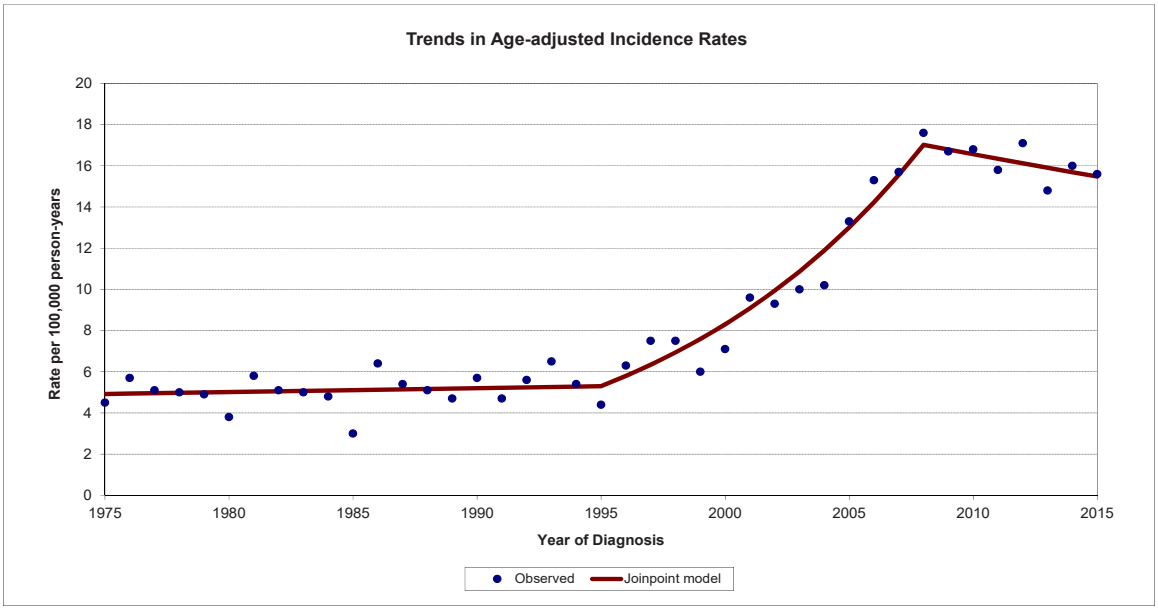
Stomach cancer incidence decreased at a rate of about 1.3% per year in Idaho from 1975 to 2015. Stomach cancer incidence trends over time were similar for males and females, although stomach cancer incidence rates among males were about twice as high as among females.

Testis



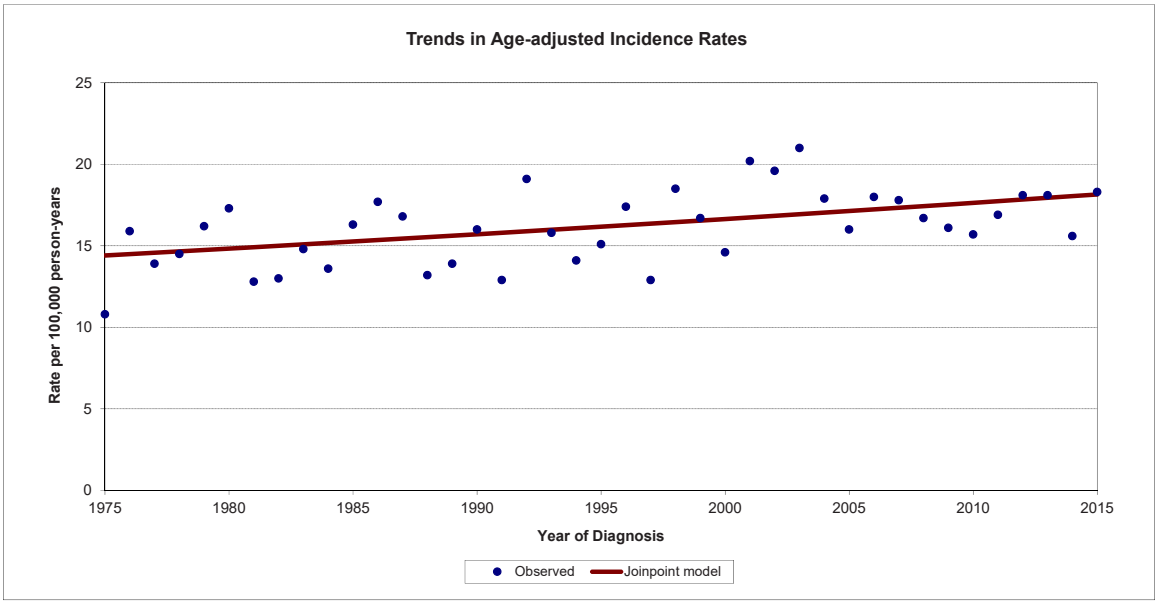
Testis cancer incidence increased at a rate of about 1.1% per year in Idaho from 1975 to 2015.

Thyroid



Thyroid cancer incidence was essentially stable in Idaho from 1975 to 1995. From 1995-2008, thyroid cancer incidence increased at a rate of about 9.4% per year, and thyroid cancer incidence has been stable since 2008. Thyroid cancer incidence trends over time were different for males and females. For males, thyroid cancer incidence increased at a rate of about 4.0% per year from 1975 to 2015. Among females, the trend was similar to both sexes combined. Historically, thyroid cancer incidence rates have been about 3 times higher among females as among males.

Pediatric (age 0 to 19) Cancer



Pediatric cancer incidence increased at a rate of about 0.6% per year in Idaho from 1975 to 2015. Pediatric cancer incidence trends over time were similar for males and females although pediatric cancer incidence rates among males were slightly higher than among females. For more detailed information on pediatric cancer in Idaho, see: https://www.idcancer.org/pediatriccancer.

SECTION VIII

CANCER INCIDENCE BY RACE AND ETHNICITY
2011-2015

Idaho Cancer Incidence Rates by Race and Ethnicity, 2011 - 2015

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	440.0	38,676	442.7	35,865	342.8	1,525	321.3	112	338.7	372	268.1	285
Bladder	21.6	1,893	21.9	1,799	12.3	36	^	^	8.2	10	11.0	10
Brain - malignant	6.7	570	6.8	522	5.8	33	^	^	^	^	^	^
Brain and other CNS - non-malignant	11.1	945	11.3	871	9.2	48	^	^	7.2	10	^	^
Breast	122.2	5,487	123.6	5,102	94.2	228	^	^	106.0	62	72.4	50
Breast - in situ	24.0	1,053	24.6	981	19.2	50	^	^	^	^	^	^
Cervix	6.1	241	5.7	196	10.0	33	0.0	-	^	^	^	^
Colorectal	36.3	3,151	36.3	2,917	29.3	120	^	^	42.1	41	26.2	27
Corpus Uteri	23.6	1,112	23.6	1,017	22.1	57	^	^	12.9	10	15.8	11
Esophagus	4.6	410	4.7	390	^	^	0.0	-	^	^	^	^
Hodgkin Lymphoma	2.6	206	2.6	179	3.1	23	0.0	-	^	^	^	^
Kidney and Renal Pelvis	16.0	1,413	15.8	1,295	17.7	82	^	^	13.5	14	^	^
Larynx	2.2	201	2.2	193	^	^	0.0	-	^	^	^	^
Leukemia	16.0	1,382	16.3	1,282	10.9	67	^	^	10.1	13	8.9	10
Liver and Bile Duct	6.6	630	6.1	532	13.3	56	^	^	16.9	20	8.5	11
Lung and Bronchus	50.8	4,493	51.3	4,262	37.8	124	^	^	56.2	48	40.8	36
Melanoma of the Skin	27.3	2,343	29.6	2,295	8.2	39	^	^	^	^	0.0	-
Myeloma	6.2	538	6.1	501	6.7	21	^	^	^	^	^	^
Non-Hodgkin Lymphoma	18.9	1,638	18.9	1,522	16.4	73	^	^	^	^	10.9	11
Oral Cavity and Pharynx	11.9	1,069	12.1	996	9.0	35	0.0	-	^	^	^	^
Ovary	11.2	511	11.4	476	8.8	23	^	^	^	^	^	^
Pancreas	13.0	1,160	13.1	1,093	10.8	40	^	^	^	^	14.9	14
Prostate	112.2	5,021	108.7	4,535	78.5	144	106.4	24	70.5	40	52.6	24
Stomach	5.1	443	4.9	403	4.7	22	^	^	^	^	^	^
Testis	7.0	263	7.4	227	4.9	29	0.0	-	^	^	^	^
Thyroid	15.8	1,275	16.1	1,137	12.8	89	^	^	13.1	17	8.9	12
Pediatric Age 0 to 19	17.8	420	18.8	346	13.5	56	^	^	^	^	^	^

Notes:
Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130) standard.
Rates and case counts include all invasive and bladder in situ cases. Statistics for non-malignant brain and other CNS, and breast in situ categories are not included in the all sites totals
Rates and case counts for cancers of the breast, cervix, corpus uteri, and ovary are for females only, and rates and case counts for cancers of the prostate and testis are for males only.
Statistics for Black, American Indian/Alaska Native, and Asian or Pacific Islander include non-Hispanic and Hispanic ethnicity. All races category includes unknown race.
^ Statistic not displayed due to fewer than 10 cases.

SECTION IX

CANCER SURVIVAL
2008-2014

Actual (Crude) Measures of Cancer Prognosis at 5 Years After Diagnosis
Idaho Cases Diagnosed 2008-2014 Followed Through December 31, 2015

	Single or First Primary Cancers Only							All Primaries			
		Using Cause of Death			Using Expected Survival				Using Expected Survival		
Primary Site	N	Cancer Death	Other Death	Survival	Cancer Death	Other Death	Survival	N	Cancer Death	Other Death	Survival
All Sites	41,164	31.1	8.4	60.5	29.3	8.7	62.0	47,875	30.9	9.3	59.8
Brain & Other Nervous System	594	74.2	2.7	23.1	73.3	1.6	25.1	673	75.3	1.8	22.9
Breast	5,872	12.2	6.0	81.8	7.8	8.6	83.6	7,024	8.5	9.4	82.1
Cervix Uteri	308	33.3	3.2	63.5	32.5	2.3	65.2	322	32.5	2.4	65.1
Colon & Rectum	3,440	35.8	9.6	54.6	32.4	10.8	56.8	4,133	33.8	11.4	54.8
Corpus & Uterus, NOS	1,328	21.0	4.8	74.2	18.5	5.9	75.6	1,511	19.8	6.4	73.8
Esophagus	428	77.0	9.0	14.0	80.0	4.0	16.0	530	80.5	4.4	15.1
Hodgkin Lymphoma	259	9.4	1.2	89.4	8.2	1.9	89.9	281	10.9	2.3	86.8
Kidney & Renal Pelvis	1,385	25.3	9.6	65.1	25.5	8.1	66.4	1,734	27.3	9.0	63.7
Larynx	233	32.0	10.9	57.1	33.9	8.3	57.8	286	35.8	8.8	55.4
Leukemia	1,261	33.0	9.4	57.6	31.6	9.2	59.2	1,630	35.4	9.7	54.9
Liver & Intrahepatic Bile Duct	556	79.5	10.5	10.0	86.5	2.4	11.1	673	85.8	2.7	11.5
Lung & Bronchus	4,375	75.9	9.7	14.4	79.4	4.8	15.8	5,683	79.1	5.3	15.6
Melanoma of the Skin	2,293	12.2	6.3	81.5	8.2	9.2	82.6	2,826	9.8	10.6	79.6
Mesothelioma	87	90.6	4.6	4.8	88.5	4.4	7.1	126	87.1	6.0	6.9
Myeloma	536	44.3	14.0	41.7	45.0	9.1	45.9	686	48.8	9.8	41.4
Non-Hodgkin Lymphoma	1,652	29.1	8.9	62.0	26.9	9.4	63.7	2,109	29.3	10.5	60.2
Oral Cavity & Pharynx	1,118	27.2	10.4	62.4	27.3	8.8	63.9	1,394	29.7	9.9	60.4
Ovary	577	60.3	3.6	36.1	55.1	4.6	40.3	678	55.6	5.0	39.4
Pancreas	1,067	91.5	2.7	5.8	90.8	2.3	6.9	1,343	90.8	2.6	6.6
Prostate	6,761	7.7	8.7	83.6	2.6	13.1	84.3	7,482	3.4	13.7	82.9
Stomach	450	68.9	8.7	22.4	69.9	5.5	24.6	555	69.2	6.0	24.8
Testis	323	3.4	1.3	95.3	4.3	0.6	95.1	334	4.1	1.4	94.5
Thyroid	1,562	3.0	2.4	94.6	2.0	3.5	94.5	1,764	2.5	4.2	93.3
Urinary Bladder	1,836	17.6	16.0	66.4	16.7	15.7	67.6	2,513	19.8	16.8	63.4

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.

^ Statistic not able to be calculated.

Net Measures of Cancer Survival at 5 Years After Diagnosis
Idaho Cases Diagnosed 2008-2014 Followed Through December 31, 2015

Primary Site	Single or First Primary Cancers Only					All Primaries		
	N	Cause Specific Survival (95% CI)		Relative Survival Ratio (95% CI)		N	Relative Survival Ratio (95% CI)	
All Sites	41,164	65.9	(65.4, 66.4)	68.4	(67.8, 69.1)	47,875	67.3	(66.7, 67.9)
Brain & Other Nervous System	594	26.7	(23.0, 30.4)	28.0	(24.4, 31.8)	673	27.5	(24.0, 31.2)
Breast	5,872	86.4	(85.1, 87.5)	92.2	(90.6, 93.5)	7,024	91.2	(89.7, 92.4)
Cervix Uteri	308	57.7	(50.8, 64.0)	56.8	(49.9, 63.0)	322	57.8	(51.0, 64.0)
Colon & Rectum	3,440	62.2	(60.3, 64.1)	65.9	(63.6, 68.1)	4,133	64.9	(62.8, 67.0)
Corpus & Uterus, NOS	1,328	72.9	(69.3, 76.1)	75.3	(71.3, 78.8)	1,511	74.5	(70.8, 77.8)
Esophagus	428	***17.9***	***(13.9, 22.4)***	***18.0***	***(13.8, 22.7)***	530	***17.3***	***(13.5, 21.4)***
Hodgkin Lymphoma	259	87.8	(82.8, 91.4)	89.5	(83.8, 93.3)	281	87.8	(82.6, 91.5)
Kidney & Renal Pelvis	1,385	70.5	(67.3, 73.3)	70.3	(66.2, 74.0)	1,734	69.8	(66.4, 73.0)
Larynx	233	65.7	(57.6, 72.6)	62.6	(53.4, 70.5)	286	61.2	(52.5, 68.9)
Leukemia	1,261	64.9	(61.9, 67.7)	66.1	(62.3, 69.5)	1,630	63.4	(60.2, 66.5)
Liver & Intrahepatic Bile Duct	556	***13.6***	***(10.0, 17.7)***	***12.0***	***(8.6, 15.9)***	673	11.0	(7.8, 14.7)
Lung & Bronchus	4,375	20.2	(18.6, 21.9)	19.5	(17.8, 21.2)	5,683	19.8	(18.3, 21.4)
Melanoma of the Skin	2,293	87.7	(85.9, 89.2)	91.0	(89.1, 92.6)	2,826	89.6	(87.9, 91.1)
Mesothelioma	87	***5.1***	***(1.1, 13.7)***	***8.0***	***(1.9, 19.9)***	126	***8.6***	***(2.4, 20.1)***
Myeloma	536	53.9	(48.8, 58.7)	54.5	(48.7, 59.9)	686	52.2	(47.2, 57.1)
Non-Hodgkin Lymphoma	1,652	68.8	(66.2, 71.2)	70.9	(67.7, 73.8)	2,109	70.0	(67.3, 72.6)
Oral Cavity & Pharynx	1,118	68.6	(65.2, 71.9)	69.3	(64.7, 73.3)	1,394	67.5	(63.7, 71.0)
Ovary	577	33.9	(29.7, 38.2)	38.3	(33.4, 43.2)	678	38.7	(34.2, 43.2)
Pancreas	1,067	7.8	(5.9, 10.1)	8.7	(6.6, 11.1)	1,343	8.8	(6.8, 11.1)
Prostate	6,761	90.7	(89.8, 91.5)	96.2	(94.7, 97.3)	7,482	95.2	(94.0, 96.2)
Stomach	450	28.7	(24.0, 33.6)	28.3	(23.3, 33.4)	555	29.6	(25.0, 34.4)
Testis	323	***96.6***	***(93.7, 98.2)***	***95.7***	***(92.4, 97.6)***	334	***95.9***	***(91.9, 97.9)***
Thyroid	1,562	94.4	(92.4, 95.9)	95.0	(92.1, 96.8)	1,764	95.3	(92.7, 97.0)
Urinary Bladder	1,836	82.4	(80.3, 84.3)	82.9	(79.7, 85.6)	2,513	80.6	(77.9, 83.0)

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

N: Number of cases included in analysis; CI: Confidence Interval.
^ Statistic not able to be calculated.

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APPENDICES

APPENDIX A

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, 2017.[16]

APPENDIX B

2015 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	6,631	3,031	11,178	14,758	7,477	6,600	9,065	57,892
5 to 9	7,168	3,084	12,044	17,157	8,208	7,153	9,171	63,283
10 to 14	7,482	3,031	11,791	17,681	7,697	7,099	8,756	63,043
15 to 19	7,167	4,023	12,130	16,468	6,937	6,665	8,075	59,834
20 to 24	6,362	6,018	12,725	15,923	6,056	5,585	9,666	58,371
25 to 29	6,284	3,703	10,034	17,552	5,916	5,640	7,582	54,823
30 to 34	6,596	3,241	9,911	17,766	6,332	5,709	7,052	55,190
35 to 39	6,389	2,900	9,416	16,903	6,288	5,409	6,771	53,052
40 to 44	6,455	2,772	9,065	16,261	5,457	4,554	5,693	49,394
45 to 49	6,717	2,853	8,698	15,792	5,293	4,306	5,297	48,193
50 to 54	7,485	3,288	8,914	15,565	5,812	4,750	5,789	50,716
55 to 59	8,161	3,662	9,107	14,879	6,023	5,214	5,880	51,671
60 to 64	8,102	3,622	8,408	13,472	5,453	4,891	5,287	47,999
65 to 69	7,620	3,271	7,519	11,551	4,565	3,962	4,344	41,842
70 to 74	5,454	2,379	5,608	7,443	3,474	2,824	3,100	29,732
75 to 79	3,719	1,715	3,742	4,736	2,424	1,942	2,157	20,083
80 to 84	2,258	1,143	2,342	2,953	1,590	1,307	1,376	12,647
85+	1,621	974	1,973	2,760	1,310	1,098	1,132	10,512
Total	111,671	54,710	154,605	239,620	96,312	84,708	106,193	828,277
	HD 1	**HD 2**	**HD 3**	**HD 4**	**HD 5**	**HD 6**	**HD 7**	**STATE**
Females								
< 5	6,458	2,928	10,877	14,157	7,105	6,367	8,874	55,833
5 to 9	6,677	2,869	11,421	16,259	7,827	6,806	8,715	59,940
10 to 14	7,191	2,749	11,207	16,885	7,527	6,714	8,512	60,450
15 to 19	6,701	3,780	11,441	15,355	6,366	6,028	8,780	56,841
20 to 24	5,747	5,029	11,651	13,902	5,725	5,255	8,593	52,645
25 to 29	6,577	3,318	10,312	16,695	5,881	5,781	7,240	54,092
30 to 34	6,533	2,968	9,846	16,625	6,220	5,555	6,852	53,365
35 to 39	6,457	2,652	9,402	16,175	5,795	5,352	6,400	51,513
40 to 44	6,350	2,560	8,961	15,430	5,411	4,564	5,605	48,177
45 to 49	6,850	2,873	8,672	15,188	5,094	4,427	5,200	47,475
50 to 54	7,996	3,395	9,337	15,820	5,748	4,852	5,711	51,939
55 to 59	8,784	3,768	9,485	15,652	6,121	5,295	5,859	53,730
60 to 64	8,716	3,595	8,770	14,304	5,532	4,923	5,328	49,935
65 to 69	7,754	3,119	7,811	11,800	4,760	3,947	4,343	42,651
70 to 74	5,471	2,450	6,000	8,320	3,647	2,962	3,300	31,560
75 to 79	3,721	1,750	3,992	5,460	2,712	2,186	2,334	21,733
80 to 84	2,537	1,261	2,770	3,940	1,936	1,657	1,611	15,325
85+	2,793	1,625	3,285	4,765	2,103	1,617	1,884	17,347
Total	113,313	52,689	155,240	236,732	95,510	84,288	105,141	824,551
Total	224,984	107,399	309,845	476,352	191,822	168,996	211,334	1,652,828

Source: National Center for Health Statistics, 2017.