CANCER TRENDS IN IDAHO
1971 - 1998

A Publication of the
Cancer Data Registry of Idaho

A Program of the
Idaho Hospital Association

IDAHO HOSPITAL
ASSOCIATION

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PREFACE

"Cancer Trends in Idaho, 1971-1998," the first report on cancer trends by the Cancer Data Registry of Idaho (CDRI), contains data on cancer deaths and cancer cases diagnosed from 1971 through 1998 among Idaho residents. These data can be used by public health officials, hospital administrators, physicians, 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.

This report is comprised of two sections. Section I includes an introduction to the Cancer Data Registry of Idaho and technical notes. Section II provides trend information on the 24 most common cancer sites and all sites combined. For each site, information is provided on the numbers of cases, numbers of deaths, age-adjusted (2000 U.S.) incidence and mortality rates by sex and year of diagnosis, comparisons of Idaho to SEER rates, stage-specific rates, and maps depicting trends in five-year average cancer incidence by county.

ACKNOWLEDGMENTS

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 and/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 Bureau of Vital Records and Health Statistics, the Bureau of Clinical and Preventive Services, the Bureau of Health Promotion, and the Bureau of Environmental Health and Safety of the Idaho Department of Health and Welfare, Division of Health, and the American Cancer Society for their continued partnership in using CDRI data as a tool in cancer control and prevention.

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EXECUTIVE SUMMARY

From 1971 to 1998, there were 95,762 newly-diagnosed cases of cancer and 42,026 cancer deaths in Idaho. For all cancer sites combined, the age-adjusted incidence rate increased over time from 323.0 to 448.2 cases per 100,000. The estimated annual percent change (EAPC) in cancer incidence in Idaho was 1.3%. The cancer mortality rate increased over time from 172.4 to 187.4 cases per 100,000. The estimated annual percent change in cancer mortality in Idaho was 0.5%. Some of the increase in cancer incidence is attributable to increases in cancer screening (e.g. the use of the prostate-specific antigen (PSA) test for prostate cancer).

Cancer remains the second leading cause of death in Idaho. While cancer survival has improved over time, cancer mortality increased over the 1971-1998 time period partially due to a shift in deaths from heart disease. Data from the National Cancer Institute and the Centers for Disease Control and Prevention showed that cancer incidence and mortality rates for all cancers combined and for most of the top 10 cancer sites declined between 1990 and 1995, reversing an almost 20-year trend of increasing cancer cases and deaths in the United States. In Idaho, cancer incidence and mortality have been decreasing since the early 1990s among males, but not among females, for whom lung cancer incidence and mortality continue to rise.

Among males, the leading sites for increases in cancer incidence (EAPC) were melanoma of the skin (5.0%), prostate (3.2%), brain (3.2%), non-Hodgkin's lymphoma (3.1%), and esophagus (3.1%). There was a statistically significant decrease (EAPC) in stomach cancer incidence among males (-1.5%). The leading sites for increases in cancer mortality (EAPC) among males were melanoma of the skin (4.3%), brain (3.9%), esophagus (3.6%), liver (3.0%), and non-Hodgkin's lymphoma (2.8%). There were statistically significant decreases (EAPC) in cancer mortality among males in three sites: stomach (-3.9%), Hodgkin's lymphoma (-3.6%), and bladder (-0.9%).

Among females, the leading sites for increases in cancer incidence (EAPC) were lung (5.8%), brain (3.4%), non-Hodgkin's lymphoma (3.1%), melanoma of the skin (3.0%), and thyroid (2.4%). There were statistically significant decreases (EAPC) in cancer incidence among females in three sites: cervix (-2.9%), stomach (-2.0%), and endometrium (-1.1%). The leading sites for increases in cancer mortality (EAPC) among females were lung (5.6%), brain (4.4%), esophagus (3.0%), liver (2.6%), and non-Hodgkin's lymphoma (2.5%). There were statistically significant decreases (EAPC) in cancer mortality among females in three sites: cervix (-2.2%), stomach (-2.2%), and colon (-1.0%).

For several cancer sites, there were notable geographic trends. Overall, eastern Idaho had lower cancer incidence rates, and several counties in central and northern Idaho had higher cancer incidence rates compared with the remainder of the state. Counties in eastern Idaho more often had lower rates of cancers of the bladder, breast, colon, and lung. A several county area of eastern Idaho had higher incidence rates of brain cancer from 1985-1994. Counties in northern Idaho have consistently had higher rates of cervical and lung cancers. Counties in central Idaho have had lower rates of colon cancer and higher rates of oral cavity/pharyngeal cancers.

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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 the 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 in 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.

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 Sections 57-1703 through 57-1707. Funding is appropriated in Idaho Code Sections 57-1701 and 63-2520, which delineates one percent of the cigarette tax to be dedicated to fund the statewide cancer registry. Additional funding has been awarded to CDRI from the Centers for Disease Control and Prevention (CDC) with a federal cooperative agreement aimed at enhancing 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 and/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 are coded according to the *"International Classification of Diseases for Oncology, 2nd edition."*[1] Stage of disease variables are coded using *"SEER's Summary Staging Guide"* and *"AJCC Manual for Staging of Cancer, 5th edition."*[2-3] All other variables are coded following the rules of the North American Association of Central Cancer Registries, the SEER program, and the American College of Surgeons.[4-6]

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, 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 the North American Association of Central Cancer Registries, 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 EDITS 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, or site/age combinations. In addition to computerized edits, each case is manually reviewed for errors.

Records are also routinely checked for duplicate entries. Duplicate case checking is performed both manually and electronically using various methodologies.

Idaho data have qualified for inclusion in all volumes of NAACCR's publication *"Cancer Incidence in North America*." In order to be included, states must meet standards for quality and completeness.

Technical Notes

DATA SOURCES

Incidence. The data presented in this report cover those cases diagnosed among Idaho residents between January 1, 1971, and December 31, 1998. Numbers of cases and rates may differ between this report and individual CDRI annual reports due to changes in cancer case records since annual report publication dates and revisions to population estimates.

Mortality. Mortality data from 1971-1998 were obtained from the Bureau of Vital Records and Health Statistics, Division of Health, Idaho Department of Health and Welfare. Numbers of cases and rates may differ between this report and individual vital statistics annual reports due to changes in mortality records since annual report publication dates, revisions to population estimates, and differences in the methodology for age-adjusting rates.

Population Estimates. Estimates of the population of Idaho by county, age, sex, and year for the years 1971-1989 were obtained from the SEER program and were based on U.S. Bureau of the Census population estimates for these years. Population estimates for the years 1990-1998 were obtained from the U.S. Bureau of the Census.[7]

Idaho is comprised of 44 counties grouped into seven health districts. The composition of the health districts, as well as their 1998 population estimates by gender, are shown below:

Health District	Counties	Male	Female
District 1	Benewah, Bonner, Boundary, Kootenai, Shoshone	84,323	85,082
District 2	Clearwater, Latah, Lewis, Idaho, Nez Perce	49,101	48,185
District 3	Adams, Canyon, Gem, Owyhee, Payette, Washington	89,261	90,592
District 4	Ada, Boise, Elmore, Valley	155,886	158,093
District 5	Blaine, Camas, Cassia, Gooding, Jerome, Lincoln, Minidoka, Twin Falls	78,807	78,450
District 6	Bannock, Bear Lake, Bingham, Butte, Caribou, Franklin, Oneida, Power	78,495	78,655
District 7	Bonneville, Clark, Custer, Fremont, Jefferson, Lemhi, Madison, Teton	77,212	76,542

DEFINITIONS

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

Standard Site Analysis 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 and are adopted by NAACCR.[4,5] Most neoplasms are grouped by the organ where they occur. Neoplasms of the lymphatic, hematopoietic, and reticuloendothelial systems are grouped by their histologies (leukemias, lymphomas, etc.) and not by the anatomical site where they occurred.

Rates. A crude rate is the number of cases per 100,000 in a given population. Incidence rates represent the average number of new cases diagnosed annually per 100,000 persons. Mortality rates represent the average number of cancer deaths per 100,000 persons.

Age-Adjusted Rates. An age-adjusted rate is a weighted average of crude rates, where the crude rates are calculated for different age groups and the weights are the proportions of persons in the corresponding age groups of a standard population. 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 different age distributions. Any observed differences among populations in age-adjusted incidence rates are not due to differing age structures.

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.

Age-adjusted incidence rates published within this report were calculated using the direct method and standardized to the age distribution of the U.S. 2000 population. Because federal and state agencies will be required to use the U.S. 2000 standard population beginning with 1999 deaths and *Cancer Trends in Idaho* will not be updated for several years, CDRI chose to use the U.S. 2000 standard population for age-adjusted rates in this document. The U.S. 2000 standard population, with five-year age groups, was provided by the SEER program.[8] This is the first CDRI population to use the U.S. 2000 standard population for age-adjustment.

The table below shows both the 1970 and 2000 U.S. standard populations, as well as standardized estimates of Idaho's population, for comparison. The U.S. 2000 population differs from the U.S. 1970 population mostly in the youngest and oldest age groups, with a shift toward more population in the oldest age groups in 2000. As seen in the table, the age distribution of Idaho's standard million population is somewhere between the U.S. standards. Compared to the U.S. 2000 standard, Idaho has more population in younger age groups, less population in middle age groups, and about the same in the oldest age groups.

	Standard Million Population		
Age Group	Idaho 94-98	U.S. 1970	U.S. 2000
0-4	76,131	84,416	69,135
5-9	77,423	98,204	72,533
10-14	84,899	102,304	73,032
15-19	89,946	93,845	72,169
20-24	74,336	80,561	66,478
25-29	60,719	66,320	64,529
30-34	65,716	56,249	71,044
35-39	77,373	54,656	80,762
40-44	77,515	58,958	81,851
45-49	67,052	59,622	72,118
50-54	53,143	54,643	62,716
55-59	43,560	49,077	48,454
60-64	37,855	42,403	38,793
65-69	32,388	34,406	34,264
70-74	28,711	26,789	31,773
75-79	23,825	18,871	26,999
80-84	16,341	11,241	17,842
85 +	13,066	7,435	15,508
Total	1,000,000	1,000,000	1,000,000

The choice of the standard population for age-adjustment has profound implications on the values of age-adjusted rates. The table below shows crude and age-adjusted (U.S. 1970 and U.S. 2000) Idaho cancer incidence rates for cases diagnosed from 1994-1998. Using the U.S. 2000 instead of the U.S. 1970 population "increases" the age-adjusted rate by 19.5%, although both numbers are based upon 24,030 cases. The largest percent increases in age-adjusted rates from changing the standard population occur in sites which differentially afflict older persons (e.g. colon, stomach). The smallest percent increases in age-adjusted rates occur in sites which differentially afflict younger persons (e.g. testis).

Primary Site	New Cases	Person-Years	Rates per 100,000			% Increase
			Crude	U.S. 1970	U.S. 2000	'70 to '00*
All sites combined	24,030	5,921,599	405.8	371.6	444.0	19.5%
Bladder	1,139	5,921,599	19.2	17.1	21.2	24.0%
Brain	396	5,921,599	6.7	6.4	7.1	11.5%
Breast (female)	3,538	2,967,875	119.2	105.6	124.2	17.7%
Cervix	237	2,967,875	8.0	7.1	8.5	19.8%
Colon	1,818	5,921,599	30.7	26.7	34.0	27.2%
Endometrium	660	2,967,875	22.2	19.8	23.0	16.2%
Esophagus	223	5,921,599	3.8	3.6	4.1	16.1%
Hodgkin's Lymphoma	167	5,921,599	2.8	2.6	2.9	11.8%
Kidney and Renal Pelvis	552	5,921,599	9.3	8.8	10.2	16.0%
Larynx	172	5,921,599	2.9	2.8	3.2	12.4%
Leukemia	692	5,921,599	11.7	10.8	12.5	15.7%
Liver	144	5,921,599	2.4	2.2	2.7	24.0%
Lung and Bronchus	3,039	5,921,599	51.3	47.6	56.3	18.3%
Melanoma of the Skin	1,016	5,921,599	17.2	15.7	18.6	18.8%
Plasma Cell Tumors (Myeloma)	260	5,921,599	4.4	3.9	4.8	23.8%
Non-Hodgkin's Lymphoma	996	5,921,599	16.8	15.4	18.3	19.3%
Oral Cavity and Pharynx	648	5,921,599	10.9	10.1	12.0	18.9%
Ovary	495	2,967,875	16.6	14.6	17.2	17.1%
Pancreas	493	5,921,599	8.3	7.4	9.2	24.8%
Prostate	3,737	2,953,724	126.5	128.5	152.4	18.7%
Rectum & Rectosigmoid	718	5,921,599	12.1	11.0	13.4	21.3%
Stomach	334	5,921,599	5.6	5.0	6.2	25.6%
Testis	171	2,953,724	5.8	5.2	5.9	13.7%
Thyroid	351	5,921,599	5.9	5.5	6.3	15.9%

* Note: Percent increase in Idaho 1994-1998 incidence rates from changing age-adjustment standard population from U.S. 1970 to U.S. 2000.

In conformity with 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.

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 extensive of tumor to adjacent organs, and/or lymph nodes),
- distant (metastasis to tissues or lymph nodes remote from the primary site), or
- unknown.

STATISTICAL ANALYSES

Trends (crude or age-adjusted). These are changes in rates (crude or age-adjusted) over time. They are expressed in two forms: the percent change (PC), and the estimated annual percent change (EAPC). Trend measures were calculated using SEER*Stat [8] and Joinpoint,[9,10] software developed in consultation with the SEER Program of the National Cancer Institute. Because the methods used in the calculation of PC and EAPC are not directly related, it is possible that the signs of the PC and the EAPC may disagree.

Percent Change (PC). The percent change in rates over a particular time period is calculated by taking the difference of the first two years average rate and the last two years average rate. The difference is then divided by the average rate of the first two years and multiplied by 100 to convert it to a percent.

Estimated Annual Percent Change (EAPC). The Estimated Annual Percent Change (EAPC) is calculated by fitting a least squares regression line to the natural logarithm of the rates using the calendar year as a regressor variable.

r = rates
x = calendar year
$Ln(r) = mx + b$
EAPC = $100 \times (e^m - 1)$

Significance Test for EAPC. Testing the hypothesis that the EAPC is equal to zero is equivalent to testing the hypothesis that the regression parameter m is equal to zero, or that the rate is not increasing or decreasing. The hypothesis is rejected at a significance level p if ProbT (abs(m/SEm),n-2) >= 1-p/2, where ProbT(x,n) is the t distribution function evaluated at x and with n degrees of freedom, and where SEm is the standard error of m from the regression. Tests of significance were conducted using alpha = 0.05; NS denotes not significant.

Observed vs. Expected Numbers of Cases. The expected numbers of cases were calculated using Poisson regression in SAS PROC GENMODs [11] with a log link, and age group, sex, and time period as variables in the model for each site analysis category. Tests of significance for differences between observed (obs) and expected (exp) cases were performed using alpha = 0.05, two-tailed, based upon the Poisson probability distribution.

LIMITATIONS TO DATA INTERPRETATION AND COMPARISON

Rates Based on Population Estimates. 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. State and county population figures are estimates. Errors in the estimates will impact the accuracy of the rates.

Rate Comparisons. Age-adjusted incidence 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. When race is not specified, the case is coded as white. This can result in biased race-specific rates.

Trends. Random fluctuations in annual rates are usual and may not indicate real underlying changes in incidence or mortality. Small numbers of cases or deaths for individual cancer sites in any or all years may be associated with a greater annual fluctuation in rates.

Statistical Significance. Statistically significant variations can occur by chance alone and additional assessment is required to separate chance occurrences from true public health problems. Statistical significance does not necessarily indicate the overall importance of the result.

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SECTION II

Cancer Trends in Idaho
1971-1998

ALL SITES COMBINED

Primary Site Codes (ICD-0-2): *see individual sites*
Histologic Types: *see individual sites*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	5,079	2,617	2,461	2,103	1,105	998	448.2	507.2	405.8	187.4	224.5	161.5
1997	4,962	2,557	2,403	1,973	1,102	871	447.8	504.3	405.9	179.7	228.8	144.7
1996	4,736	2,538	2,198	2,011	1,120	891	437.1	515.2	380.1	187.6	239.0	150.1
1995	4,717	2,489	2,225	2,041	1,097	944	446.7	518.6	393.3	195.1	241.0	163.4
1994	4,536	2,484	2,051	1,868	991	877	439.9	530.3	371.7	182.9	221.8	155.6
1993	4,556	2,542	2,014	1,890	1,047	843	453.6	562.3	375.7	190.8	243.6	154.5
1992	4,625	2,529	2,095	1,827	991	836	473.4	573.7	403.7	189.7	237.8	157.7
1991	4,430	2,528	1,901	1,744	921	823	466.9	596.4	377.2	185.8	228.5	158.3
1990	4,000	2,137	1,861	1,744	945	799	434.1	520.6	376.8	192.2	241.1	159.1
1989	3,828	2,072	1,752	1,698	935	763	423.3	508.8	363.7	190.6	238.6	157.0
1988	3,591	1,914	1,677	1,625	882	743	406.7	484.3	358.5	186.8	229.7	157.1
1987	3,494	1,847	1,647	1,554	833	721	403.3	468.8	359.0	183.2	224.3	154.4
1986	3,467	1,810	1,657	1,597	868	729	405.7	465.2	367.6	188.7	234.0	157.1
1985	3,396	1,761	1,635	1,425	788	637	400.5	465.8	361.7	173.0	222.6	140.3
1984	3,227	1,695	1,531	1,504	811	693	386.9	454.2	343.5	185.1	230.0	155.2
1983	3,167	1,689	1,478	1,465	797	668	390.0	465.1	341.2	184.5	232.8	152.9
1982	3,173	1,707	1,465	1,370	764	606	397.8	476.3	345.1	176.3	224.7	141.8
1981	2,977	1,597	1,380	1,352	753	599	382.8	455.6	335.3	177.6	220.1	145.9
1980	2,883	1,570	1,313	1,293	723	570	381.2	459.1	325.2	175.3	217.3	141.6
1979	2,748	1,436	1,312	1,220	693	527	373.4	436.6	333.1	170.2	218.3	134.5
1978	2,651	1,341	1,310	1,180	645	535	370.3	415.6	344.7	169.5	209.5	141.1
1977	2,497	1,277	1,220	1,165	639	526	359.0	405.2	328.4	171.3	207.8	144.1
1976	2,483	1,249	1,234	1,175	644	531	365.2	399.9	343.9	178.9	216.1	150.1
1975	2,316	1,232	1,084	1,119	633	486	351.3	406.7	311.2	175.2	219.4	141.3
1974	2,199	1,111	1,088	1,073	607	466	340.9	376.1	319.4	171.9	213.9	139.5
1973	2,158	1,076	1,082	1,006	567	439	345.7	370.4	331.5	166.1	204.5	136.3
1972	1,931	957	974	1,006	590	416	319.7	340.6	308.6	168.6	216.5	130.6
1971	1,935	998	937	998	579	419	323.0	358.3	298.8	172.4	215.8	136.7

From 1971 to 1998, there were 95,762 new cases of cancer and 42,026 cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 39.4% over the time period, with an estimated annual percent change of 1.3% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 44.7% over the time period, with an estimated annual percent change of 1.6% ($p<0.05$) and, for females, the age-adjusted cancer incidence rate increased 33.6% over the time period, with an estimated annual percent change of 1.0% ($p<0.05$). The overall age-adjusted cancer mortality rate increased 7.7% over the time period, with an estimated annual percent change of 0.5% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 4.9% over the time period, with an estimated annual percent change of 0.4% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 14.6% over the time period, with an estimated annual percent change of 0.6% ($p<0.05$).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate increased 23.6% over the time period, with an estimated annual percent change of 1.2% ($p<0.05$). For SEER Whites, the age-adjusted cancer incidence rate increased 20.1% over the time period, with an estimated annual percent change of 1.1% ($p<0.05$). Prior to 1980, Idaho's age-adjusted cancer incidence rate increased approximately 1.9% per year. From 1980-1988, the rate increased 0.7% per year. From 1988-1991, the period corresponding to increased use of cancer screening tools such as the PSA test for prostate cancer, the rate increased 4.4% per year. From 1991-1998, the rate decreased 0.7% per year. Idaho residents had lower age-adjusted incidence rates than residents of SEER regions for the entire time period.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

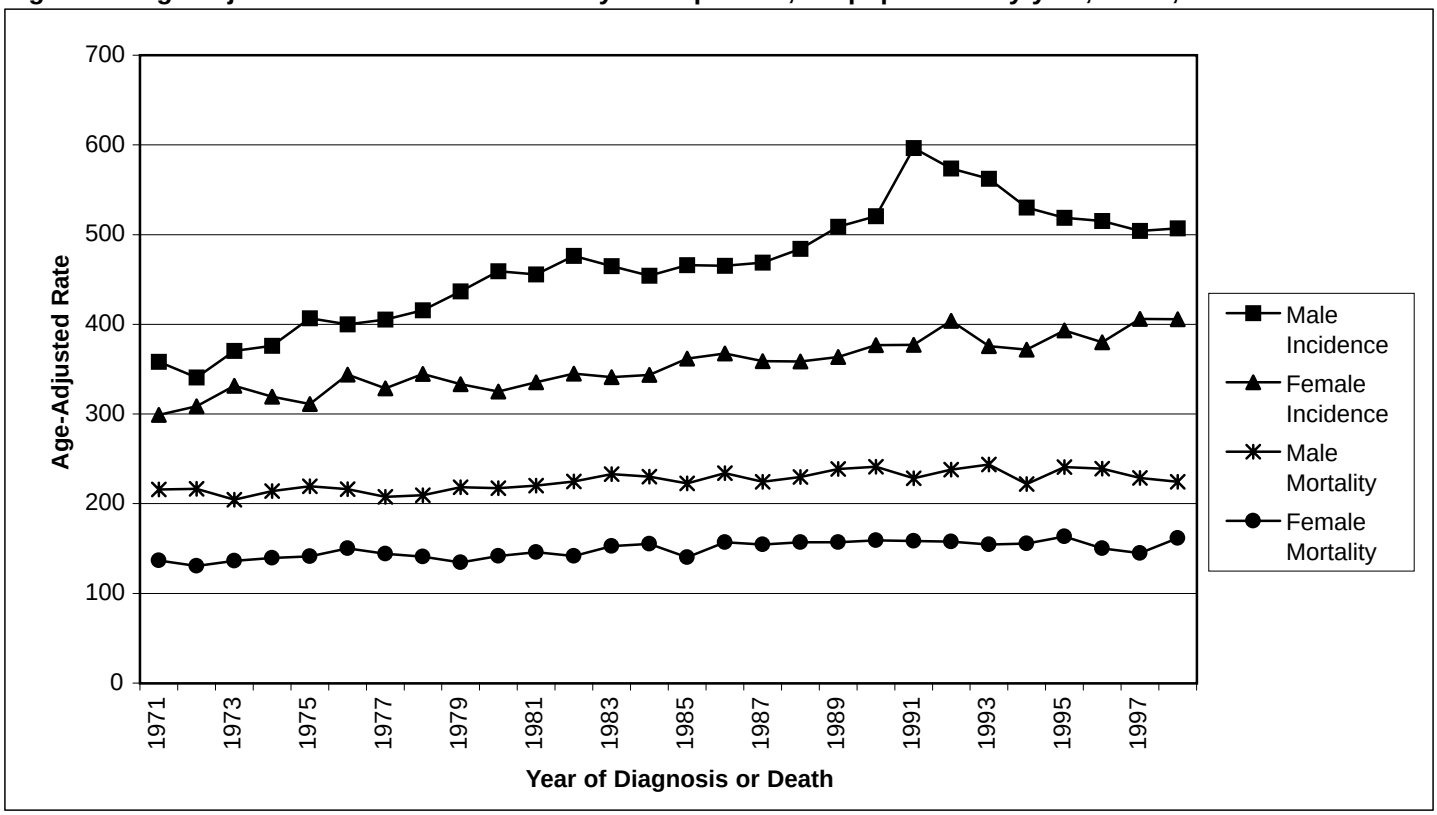


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

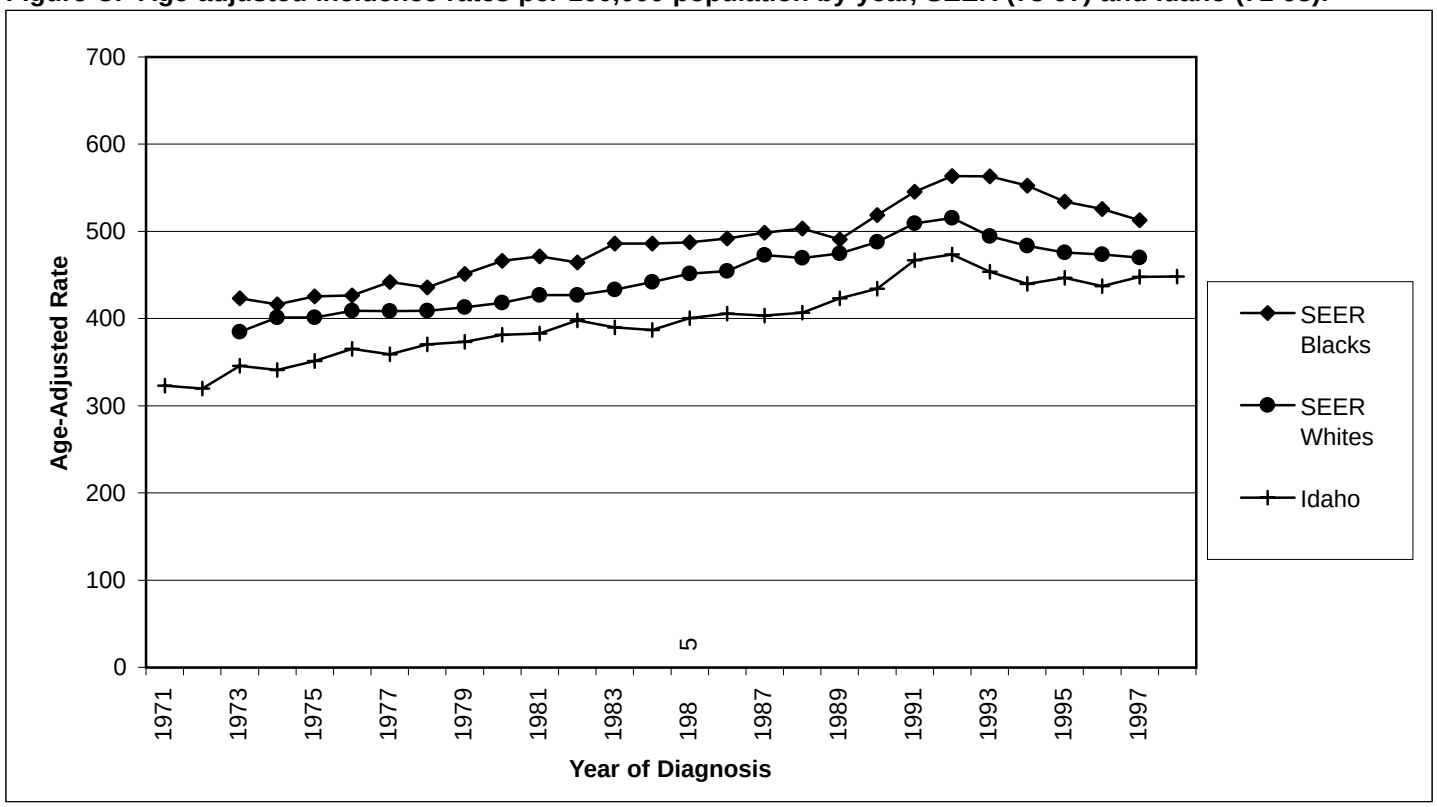


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

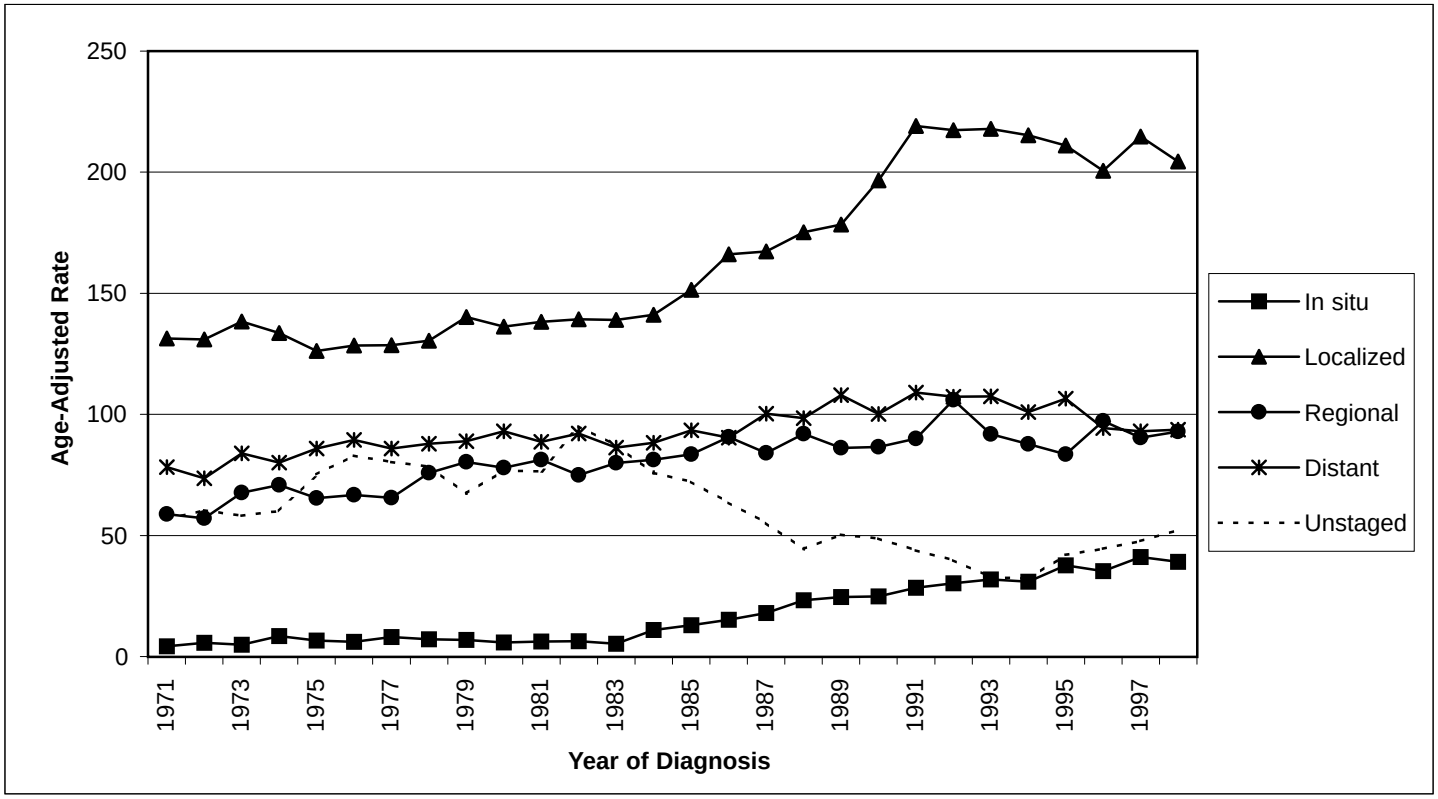
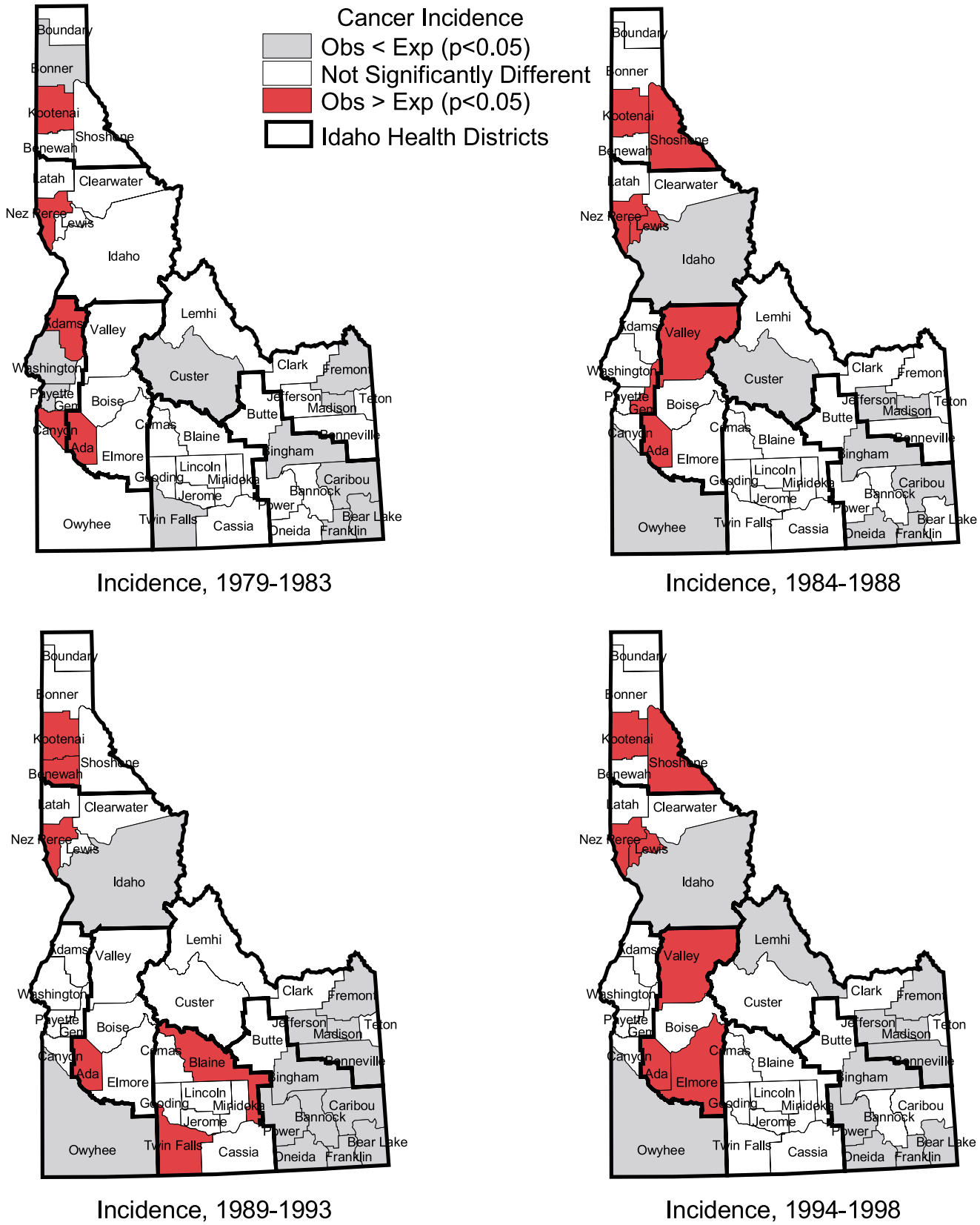


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For in-situ cases, the rate increased 1.7% per year from 1971-1983, 26.6% per year from 1983-1988, and 5.7% per year from 1988-1998. For localized cases, the rate increased 0.6% per year from 1971-1984 and 5.7% per year from 1984-1992, and decreased 1.3% per year from 1992-1998. For regional cases, the rate increased 1.5% per year from 1971-1998. For distant cases, the rate increased 1.5% per year from 1971-1993 and decreased 3.0% per year from 1993-1998. For unstaged cases, the rate increased 3.8% per year from 1971-1982, decreased 7.9% per year from 1982-1994, and increased 12.4% per year from 1994-1998. See Figures A-D for common cancer sites (particularly breast, colon, melanoma, and prostate) for descriptions of incidence trends most impacting the overall trends.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. Ada, Kootenai, and Nez Perce Counties had statistically significantly higher rates of cancer during all four five-year time periods. Lewis, Shoshone, and Valley Counties had statistically significantly higher rates of cancer during two of the four five-year time periods. Bingham, Franklin, and Madison Counties had statistically significantly lower rates of cancer during all four five-year time periods. Bear Lake, Caribou, Fremont, Idaho, Jefferson, Oneida, and Owyhee Counties had statistically significantly lower rates of cancer during three of the four five-year time periods. Bonneville, Custer, and Power Counties had statistically significantly lower rates of cancer during two of the four five-year time periods. Overall, eastern Idaho has had lower cancer incidence rates, and several counties in central and northern Idaho have had higher cancer incidence rates. County-level trends for individual cancer sites help explain some of the variation and trends in overall cancer incidence.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



BLADDER

Primary Site Codes (ICD-0-2): *670-679*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	254	193	61	55	41	14	22.7	38.7	9.9	5.0	9.1	2.2
1997	221	182	39	44	30	14	20.2	37.3	6.5	4.0	6.5	2.3
1996	245	197	48	47	30	17	22.8	41.5	8.0	4.4	6.6	2.7
1995	216	158	58	54	40	14	20.5	33.4	10.1	5.3	9.6	2.3
1994	203	158	45	41	26	15	19.8	34.6	7.9	4.1	6.5	2.6
1993	229	177	52	46	36	10	22.9	39.8	9.4	4.7	8.9	1.8
1992	200	155	45	32	21	11	20.7	36.7	8.2	3.3	5.3	2.0
1991	214	169	45	28	19	9	22.7	39.9	8.7	3.1	5.3	1.7
1990	175	135	40	37	28	9	18.8	32.5	8.0	4.1	7.4	1.7
1989	172	134	38	36	26	10	19.2	34.4	7.6	4.3	8.0	2.0
1988	182	134	48	31	28	3	20.4	34.3	9.9	3.6	8.4	0.6
1987	173	137	36	42	33	9	20.0	35.1	7.5	5.0	9.4	1.8
1986	157	132	25	37	25	12	18.4	35.1	5.5	4.7	8.3	2.5
1985	162	121	41	31	21	10	19.7	34.2	9.0	4.0	6.1	2.3
1984	157	122	35	35	24	11	19.8	33.8	8.4	4.8	7.7	2.6
1983	149	118	31	33	24	9	18.8	33.1	7.3	4.4	7.6	2.1
1982	170	128	42	35	28	7	21.8	37.5	10.0	4.9	9.6	1.7
1981	154	114	40	29	21	8	20.4	34.8	9.6	4.0	6.9	1.9
1980	156	122	34	29	23	6	20.9	35.9	8.3	4.0	6.9	1.6
1979	134	99	35	38	31	7	18.2	30.2	8.7	5.6	10.5	1.9
1978	136	111	25	26	20	6	19.8	36.1	6.8	4.1	7.6	1.6
1977	113	91	22	26	24	2	17.2	31.9	5.8	4.3	9.4	0.6
1976	110	77	33	23	18	5	16.4	26.0	8.9	3.8	7.0	1.5
1975	99	75	24	23	17	6	15.5	25.4	7.3	4.0	6.8	1.9
1974	101	81	20	30	23	7	16.3	28.2	6.3	5.2	8.9	2.3
1973	89	66	23	34	24	10	14.4	22.3	7.4	5.8	9.5	2.9
1972	83	65	18	32	23	9	13.9	23.1	5.7	5.9	9.3	3.1
1971	95	83	12	41	30	11	16.3	31.2	3.6	7.6	11.6	4.0

From 1971 to 1998, there were 4,549 new cases of bladder cancer and 995 bladder cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 42.2% over the time period, with an estimated annual percent change of 1.3% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 40.1% over the time period, with an estimated annual percent change of 1.4% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 75.8% over the time period, with an estimated annual percent change of 1.4% ($p<0.05$). The overall age-adjusted cancer mortality rate decreased 33.3% over the time period, with an estimated annual percent change of -0.9% ($p<0.05$). For males, the age-adjusted cancer incidence rate decreased 25.4% over the time period, with an estimated annual percent change of -0.9% ($p<0.05$); for females, the age-adjusted cancer incidence rate decreased 37.9% over the time period, with an estimated annual percent change of -0.1% (NS).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate increased 26.8% over the time period, with an estimated annual percent change of 0.7% ($p<0.05$). For SEER Whites, the age-adjusted cancer incidence rate increased 11.2% over the time period, with an estimated annual percent change of 0.5% ($p<0.05$). Age-adjusted incidence rates for Idaho residents were lower than, but now are about the same as, rates for White residents of SEER regions. Black residents of SEER regions have had significantly lower incidence rates of bladder cancer.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

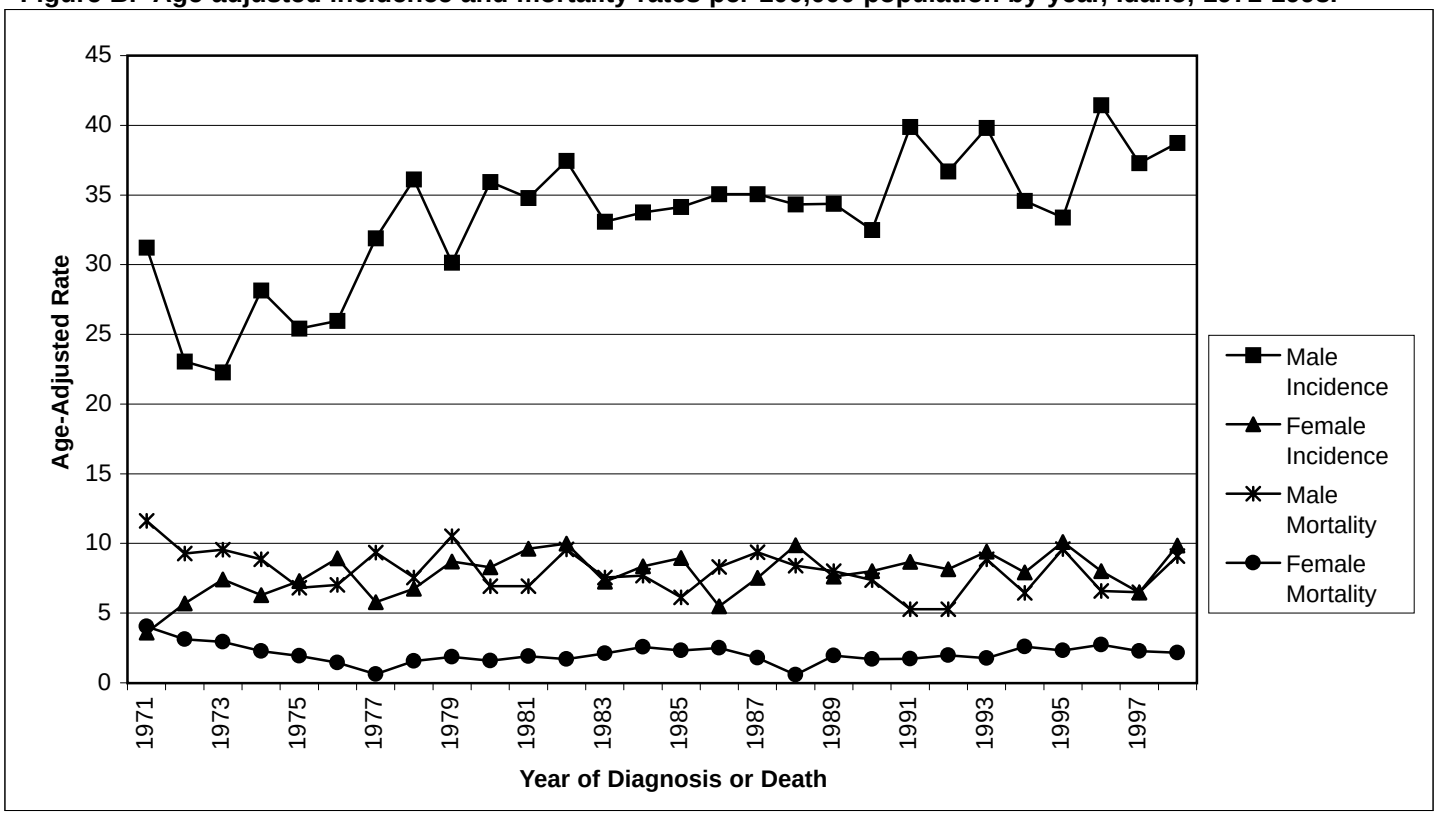


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

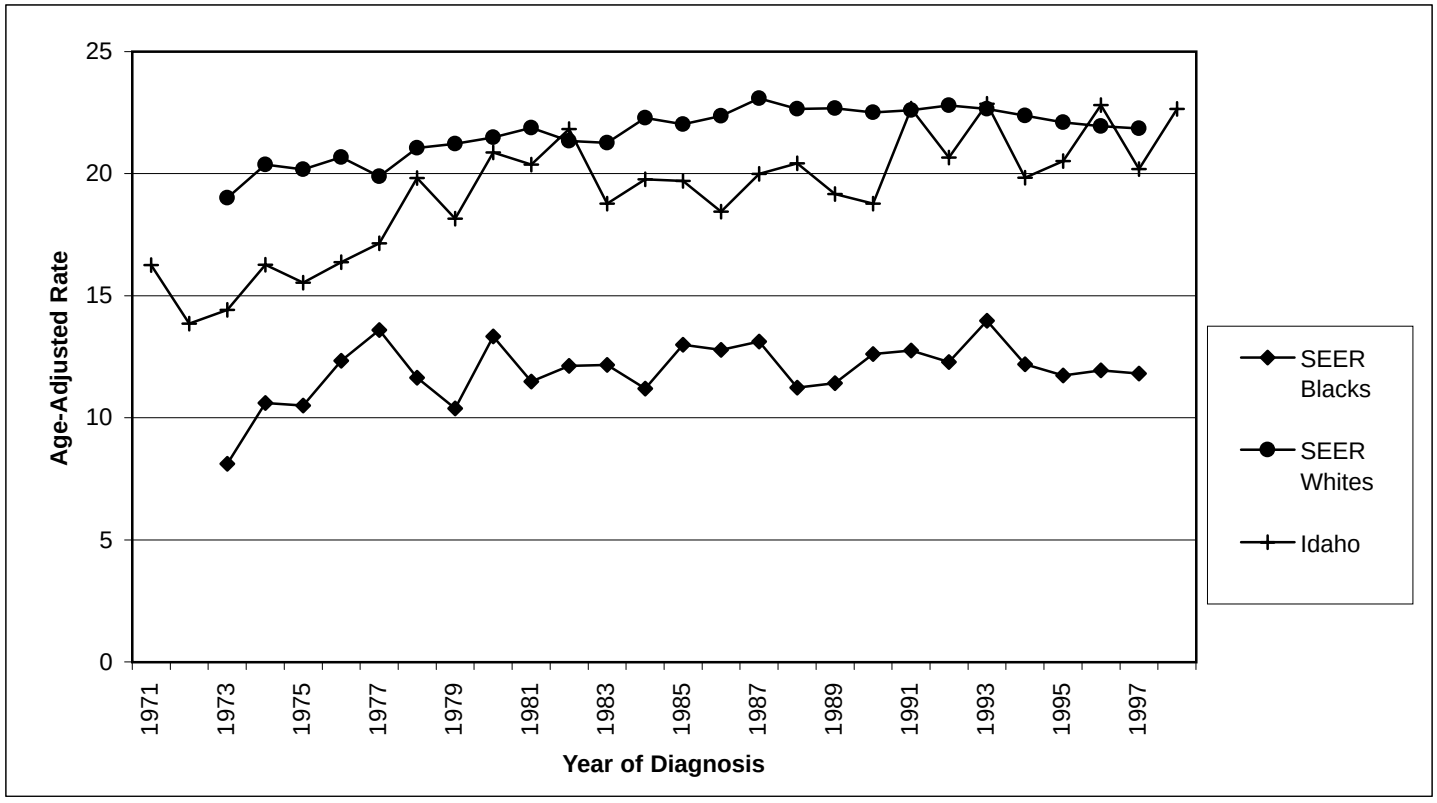


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

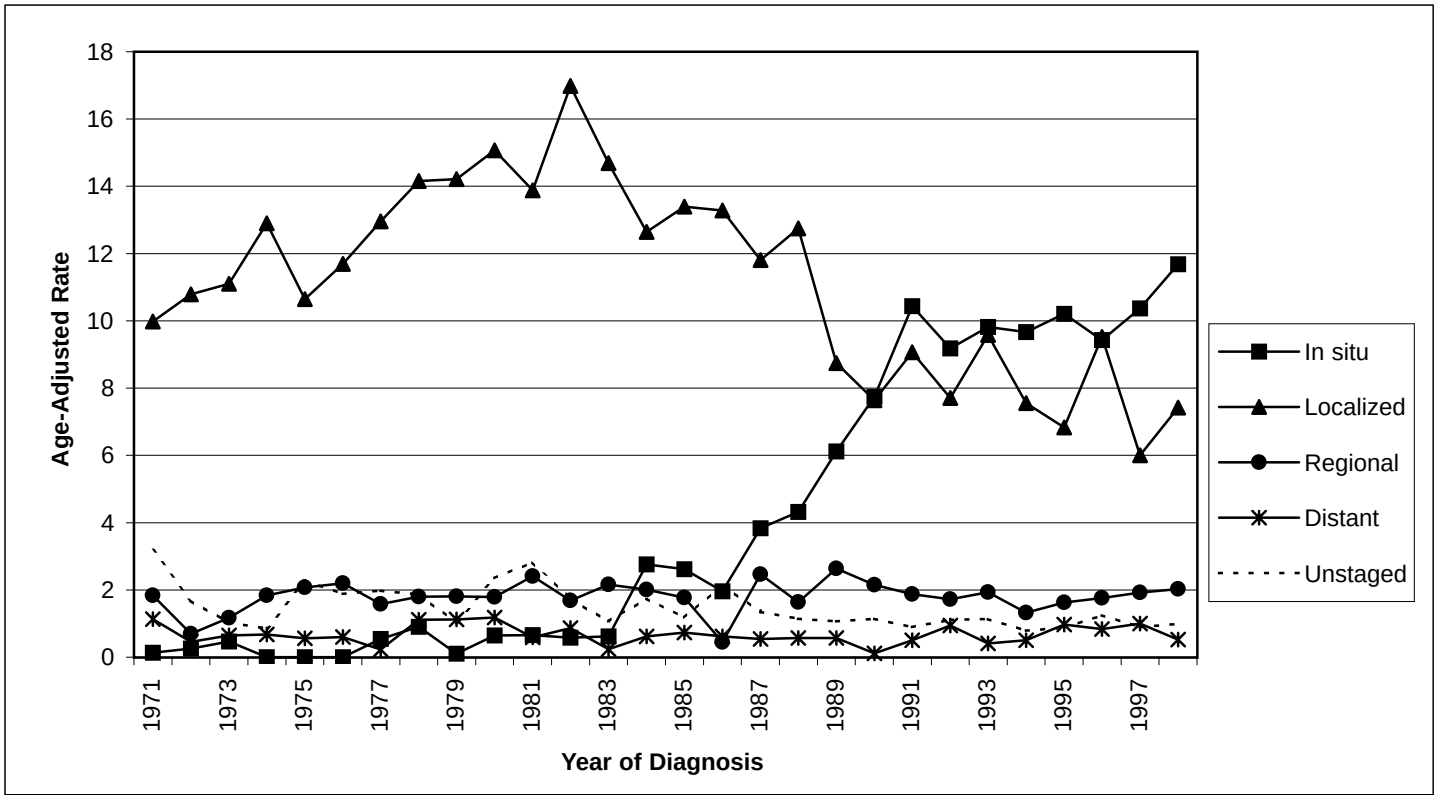
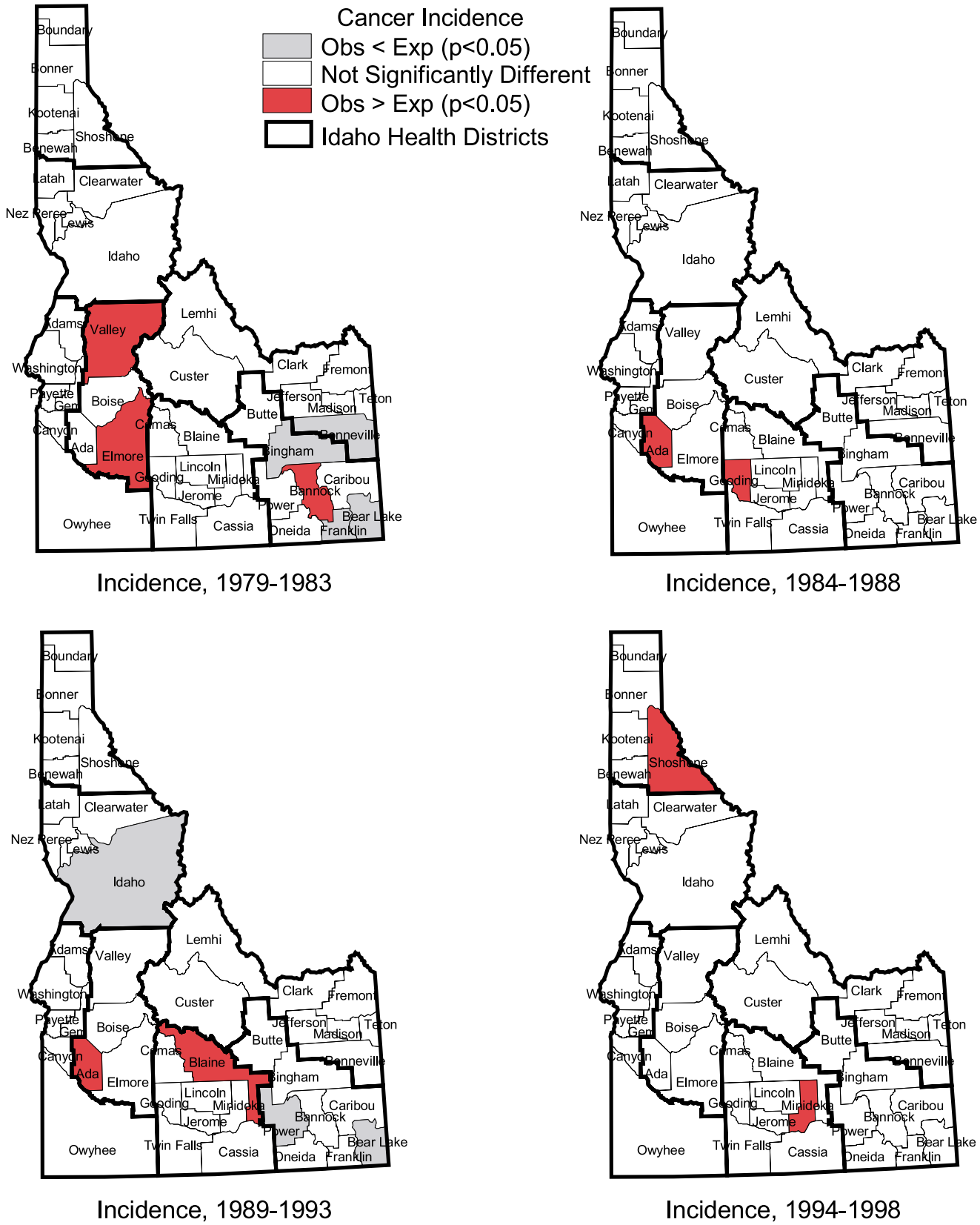


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For in-situ cases, the rate for this cancer increased 5,600% over the entire time period, from 0.1 (1971) to 11.7 (1998) cases per 100,000 population. For localized cases, the rate increased 3.7% per year from 1971-1982, and decreased 5.2% per year from 1982-1998. For regional and distant cases, the trends were flat. For unstaged cases, the rate decreased 2.7% per year from 1971-1998 ($p<0.05$). There has been a shift from localized to in-situ stage at diagnosis beginning in the 1980s. The reasons for this shift are unclear.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of bladder cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. Ada County had statistically significantly higher rates of this cancer during two of the four five-year time periods. Bear Lake County had statistically significantly lower rates of this cancer during two of the four five-year time periods. Several counties in eastern Idaho had lower rates of bladder cancer compared with the remainder of the state.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



BRAIN

Primary Site Codes (ICD-0-2): *710-719*
Histologic Types: *Excludes 9530-9539, 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	100	56	44	65	39	26	8.5	9.9	7.3	5.7	7.2	4.4
1997	86	49	37	65	40	25	7.6	8.9	6.3	5.8	7.6	4.2
1996	70	41	29	55	33	22	6.3	7.7	5.1	5.0	6.4	3.7
1995	69	38	31	49	26	23	6.3	7.3	5.4	4.6	4.9	4.0
1994	71	39	32	56	33	23	6.6	7.3	5.8	5.4	6.6	4.1
1993	73	43	30	62	33	29	7.0	8.7	5.4	6.1	7.1	5.5
1992	71	38	33	51	24	27	6.9	7.6	6.1	5.1	5.0	5.0
1991	65	36	29	56	26	30	6.7	8.1	5.6	5.8	5.9	5.6
1990	65	35	30	56	32	24	6.8	8.2	5.6	6.1	7.8	4.7
1989	73	38	35	53	28	25	7.7	8.5	7.0	5.8	6.4	5.3
1988	56	26	30	37	18	19	6.1	6.1	6.1	4.3	4.5	3.9
1987	65	30	35	51	24	27	7.4	6.8	7.6	6.2	6.4	5.8
1986	60	39	21	44	25	19	6.9	9.7	4.7	5.0	6.2	4.1
1985	52	32	20	35	22	13	5.8	7.7	4.1	3.8	5.2	2.7
1984	60	31	29	31	17	14	6.7	7.3	6.1	3.5	3.8	3.0
1983	53	28	25	42	26	16	5.8	6.1	5.3	4.8	6.4	3.2
1982	59	32	27	39	24	15	6.7	8.1	5.5	4.7	6.1	3.5
1981	45	27	18	35	25	10	5.3	6.2	4.5	4.4	6.6	2.4
1980	60	36	24	37	17	20	7.2	8.8	5.7	4.3	3.8	4.6
1979	40	21	19	29	14	15	5.1	5.5	4.5	3.8	3.8	3.8
1978	42	17	25	29	13	16	4.8	4.3	5.5	3.5	3.2	3.8
1977	57	23	34	21	12	9	7.0	5.8	8.1	2.5	2.9	2.0
1976	41	29	12	24	16	8	5.0	7.5	2.8	3.2	4.7	2.0
1975	44	29	15	13	8	5	5.6	7.3	4.0	1.6	2.0	1.2
1974	40	23	17	19	12	7	5.5	6.6	4.4	2.5	3.3	1.8
1973	27	17	10	8	5	3	3.6	4.5	2.6	1.2	1.5	0.9
1972	12	6	6	22	16	6	1.8	1.8	1.8	3.4	4.9	1.9
1971	12	8	4	14	8	6	1.7	2.3	1.2	2.2	2.4	2.1

From 1971 to 1998, there were 1,568 new cases of brain cancer; and 1,098 brain cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 361.2% over the time period, with an estimated annual percent change of 3.2% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 365.4% over the time period, with an estimated annual percent change of 3.2% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 361.7% over the time period, with an estimated annual percent change of 3.4% ($p<0.05$). The overall age-adjusted cancer mortality rate increased 103.5% over the time period, with an estimated annual percent change of 4.1% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 103.8% over the time period, with an estimated annual percent change of 3.9% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 115.3% over the time period, with an estimated annual percent change of 4.4% ($p<0.05$).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate increased 23.4% over the time period, with an estimated annual percent change of 0.8% (NS). For SEER Whites, the age-adjusted cancer incidence rate increased 25.4% over the time period, with an estimated annual percent change of 0.9% ($p<0.05$). Prior to 1974, Idaho's age-adjusted cancer incidence rate for this site increased approximately 56.7% per year. From 1974-1998, the rate increased 1.2% per year. Since 1974, the age-adjusted incidence rates for Idaho residents have been similar to the rates for White residents of SEER regions. The rates for Idahoans show considerable variability due to the relatively small numbers of cases per year. Black residents of SEER regions have had significantly lower incidence rates of brain cancer.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

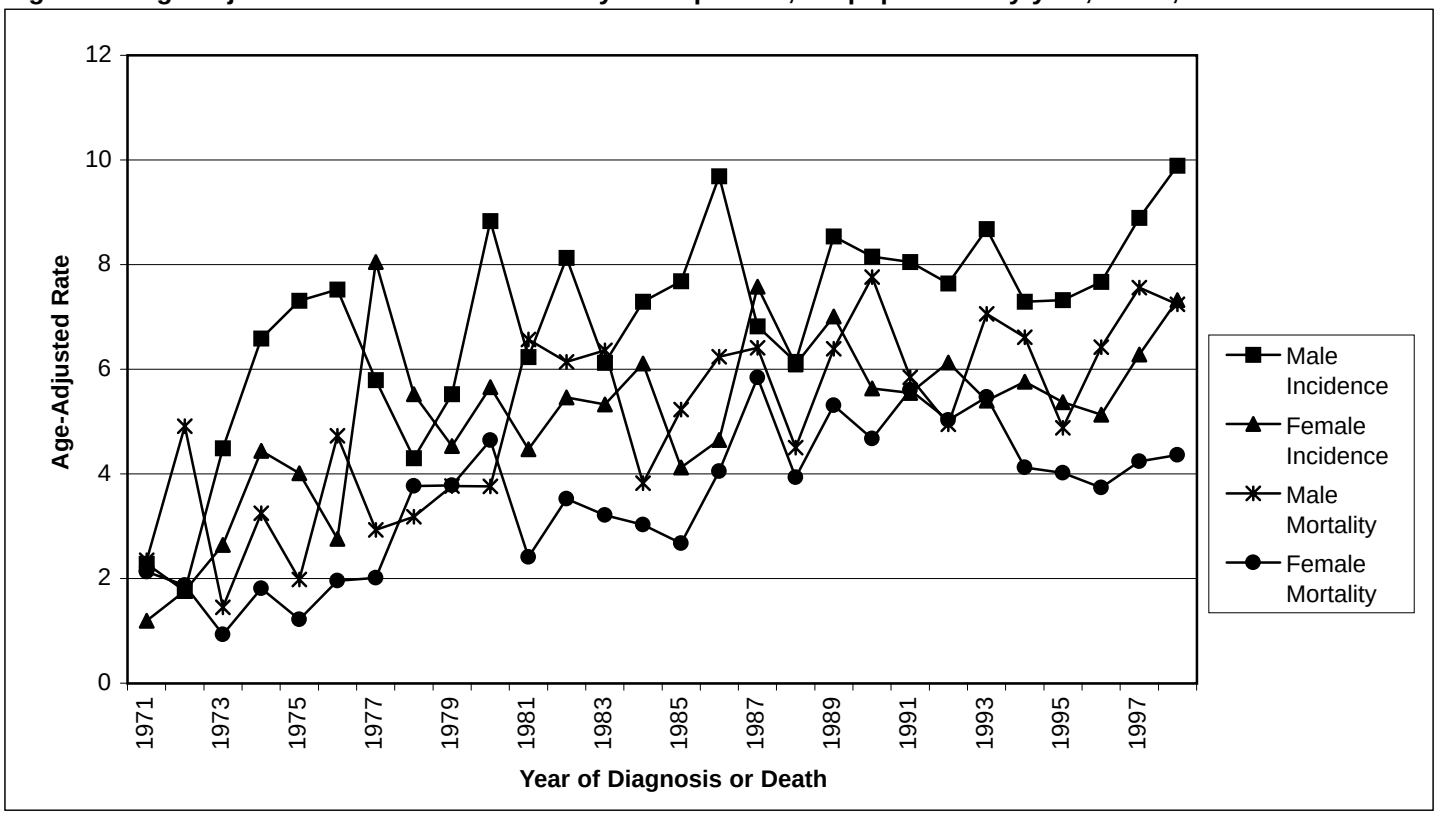
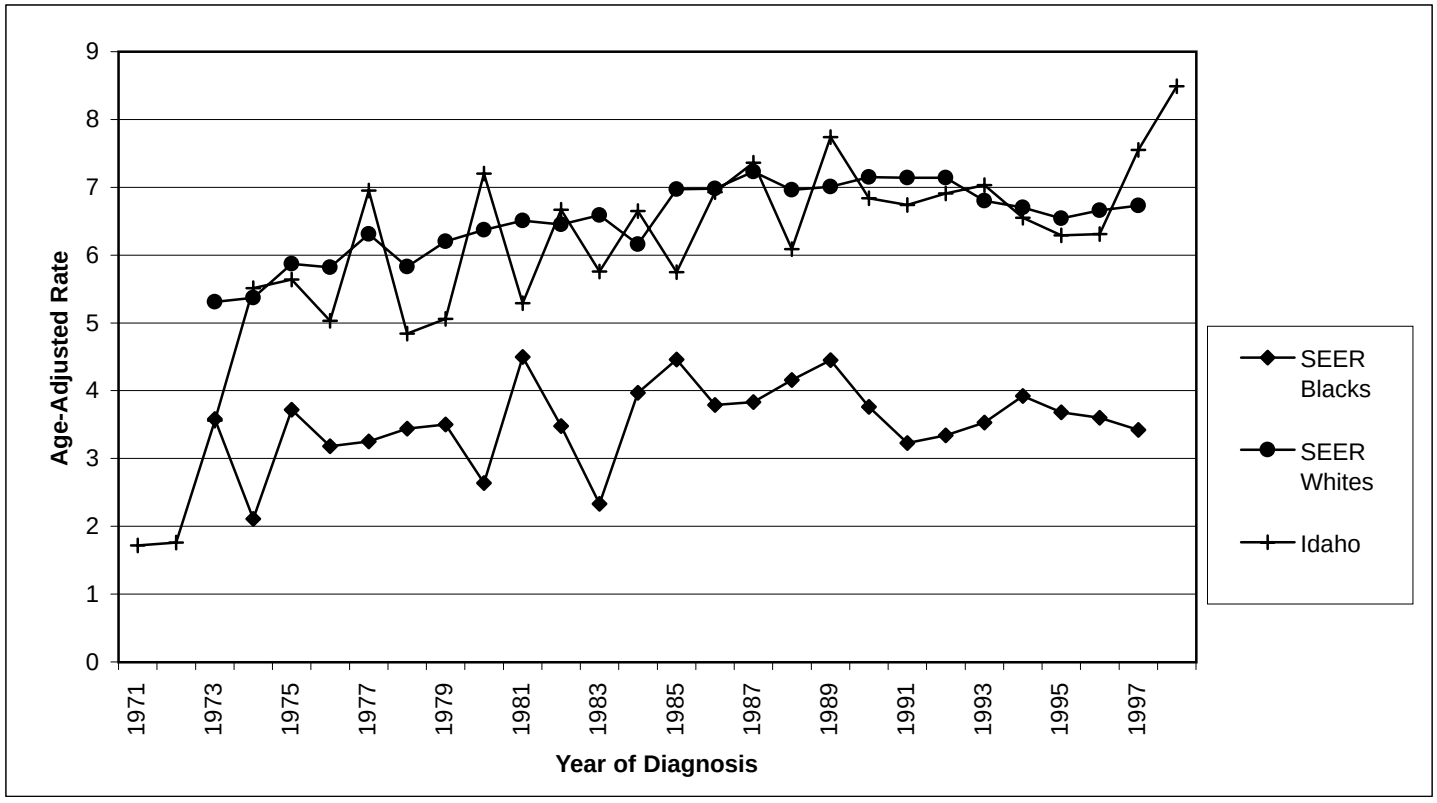


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).



BRAIN

Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

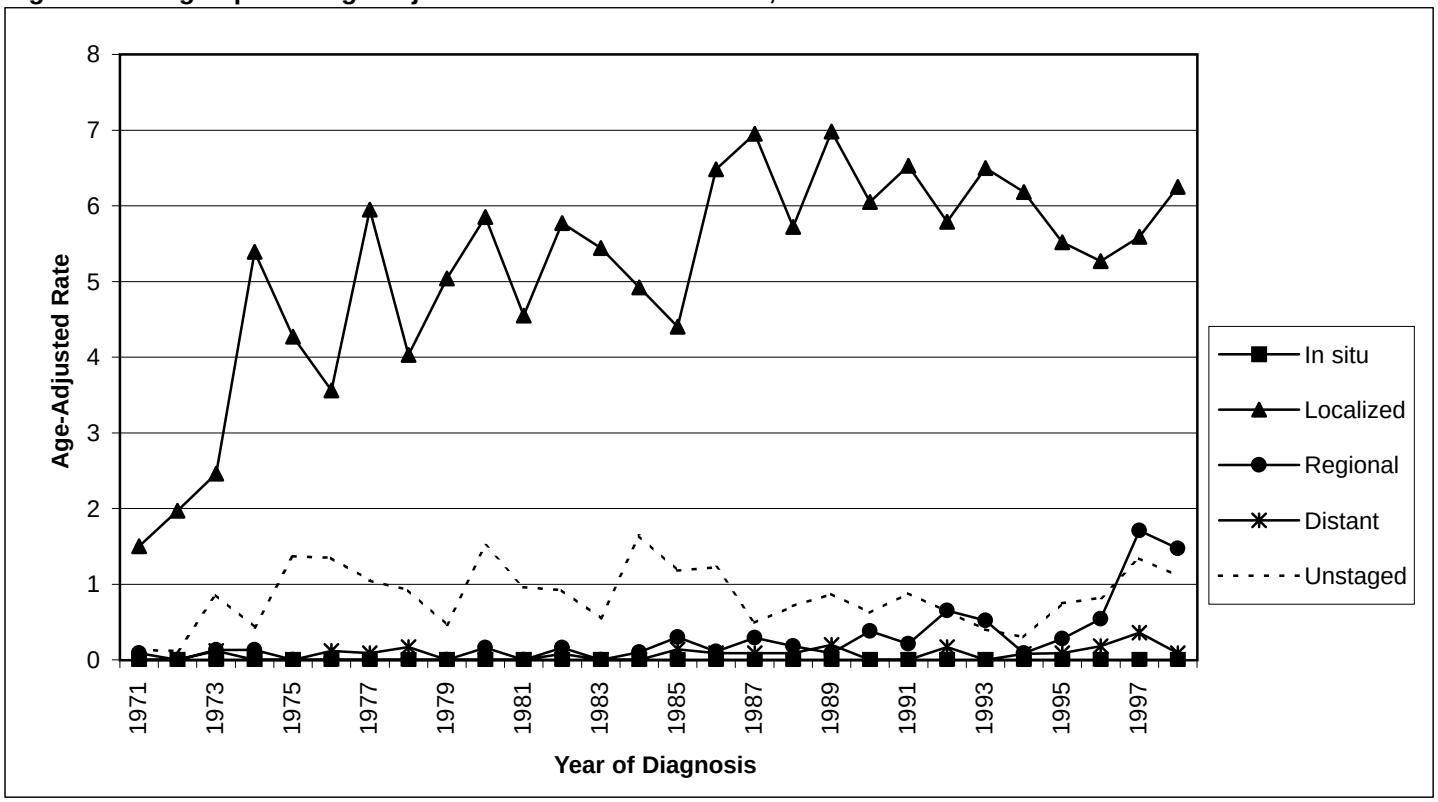
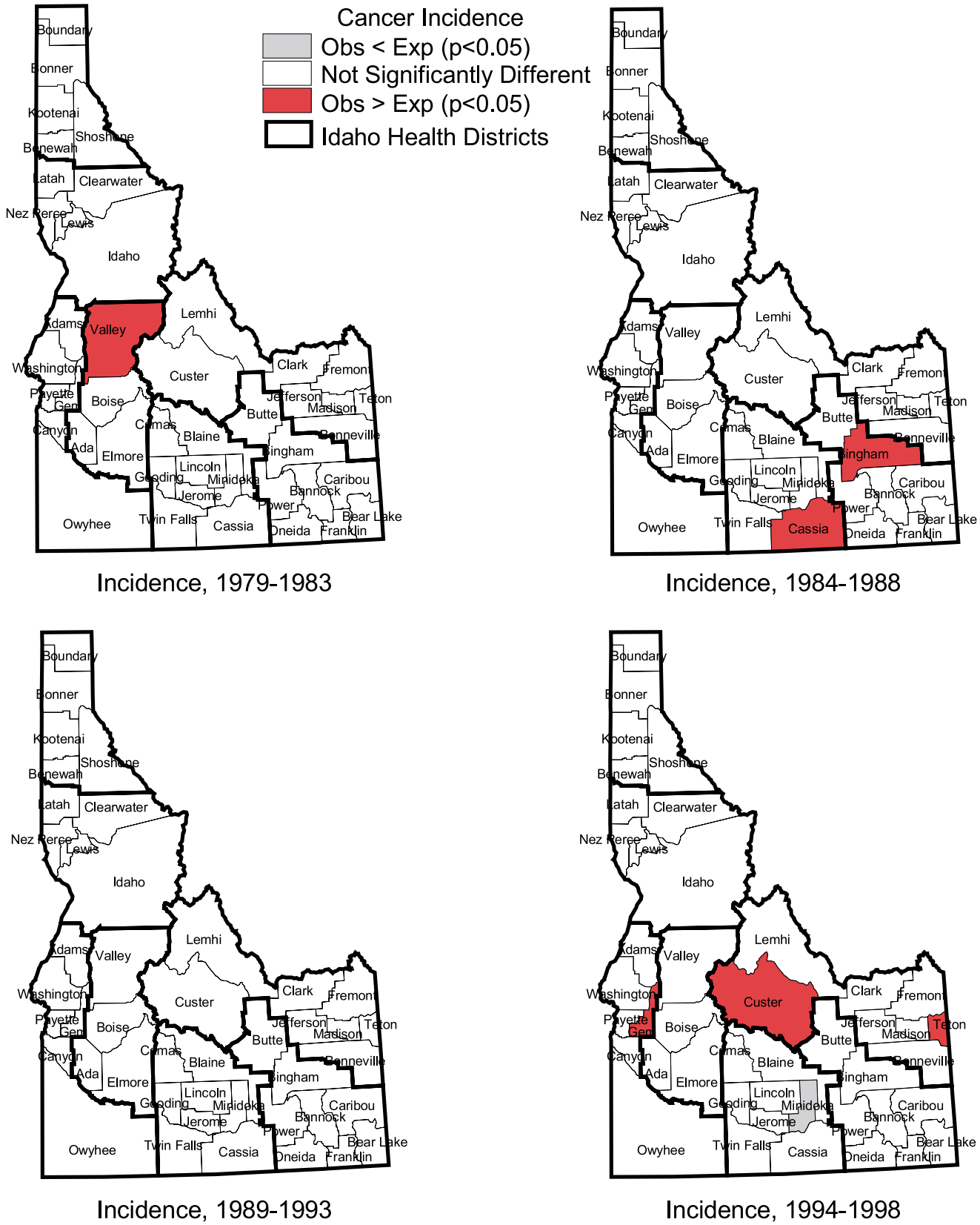


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For localized cases, the rate increased 56.1% per year from 1971-1974 and 1.1% per year from 1974-1998. For regional cases, the rate increased 3,400% over the entire time period, from 0.1 (1971) to 1.5 (1998) cases per 100,000 population. For distant cases, the rate ranged from 0.0 to 0.4 cases per 100,000 population, with considerable variability due to the small numbers of cases. For unstaged cases, the trend was flat.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of this cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. No individual counties had statistically significantly higher rates of this cancer during more than one of the four five-year time periods and no individual counties had statistically significantly lower rates of this cancer during more than one of the four five-year time periods.

Results of an evaluation of cancer rates in eastern Idaho requested by citizens revealed an elevated rate of brain cancer in the six-county area of Bingham, Bonneville, Butte, Clark, Jefferson, and Madison Counties compared to the rest of the state for the period 1985 through 1994. In response to the elevated rate in the six-county area, an investigation by the Cluster Analysis Work Group (CAWG) was undertaken in May 1997. A survey was designed by members of CAWG at the Idaho Department of Health and Welfare and the Cancer Data Registry of Idaho (CDRI) to gather more information about possible exposures among persons with brain cancer in the area with elevated rates. No common factors were identified that clearly linked the cases.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



BREAST

Primary Site Codes (ICD-0-2): *500-509*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	795	8	787	172	2	170	69.8	1.5	131.3	15.3	0.4	27.9
1997	766	3	763	159	1	158	69.1	0.6	130.1	14.5	0.2	26.8
1996	689	2	687	154	1	153	63.8	0.5	120.9	14.3	0.2	26.1
1995	698	3	694	159	1	158	66.5	0.6	125.0	15.2	0.2	27.9
1994	610	3	607	155	1	154	59.9	0.6	112.5	15.2	0.2	27.9
1993	625	1	624	162	2	160	63.2	0.2	118.4	16.6	0.4	30.5
1992	654	4	650	143	4	139	68.5	0.9	128.9	15.2	1.1	27.3
1991	560	4	556	149	0	149	59.9	0.9	112.5	16.1	0.0	29.8
1990	589	0	589	161	2	159	65.4	0.0	123.1	18.3	0.5	33.4
1989	517	4	513	155	1	154	58.6	0.8	109.3	17.8	0.2	32.9
1988	533	2	531	119	1	118	62.0	0.4	116.5	14.1	0.3	25.6
1987	506	3	503	128	1	127	60.3	0.8	112.4	15.2	0.2	27.7
1986	486	3	483	113	1	112	58.3	0.6	110.2	13.5	0.3	24.7
1985	475	4	471	128	0	128	57.6	0.9	108.4	16.3	0.0	29.6
1984	416	3	413	123	0	123	50.8	1.1	95.0	15.0	0.0	27.9
1983	419	2	417	118	0	118	53.3	0.6	99.9	14.6	0.0	27.5
1982	396	2	394	109	0	109	51.5	0.5	97.0	14.1	0.0	26.3
1981	427	6	421	122	3	119	56.8	1.7	106.1	16.2	0.9	29.5
1980	362	2	360	118	0	118	50.2	0.7	93.4	16.0	0.0	29.4
1979	364	1	363	93	0	93	50.7	0.3	95.6	12.9	0.0	24.0
1978	365	3	362	107	1	106	51.4	0.9	97.4	15.7	0.3	29.2
1977	346	2	344	116	0	116	51.3	0.5	96.8	17.4	0.0	32.6
1976	379	3	376	132	2	130	57.0	1.0	107.0	20.2	0.5	37.1
1975	323	3	320	107	0	107	49.6	0.7	93.5	16.5	0.0	30.9
1974	344	0	344	97	2	95	53.8	0.0	103.5	15.8	0.8	29.1
1973	313	1	312	85	0	85	51.9	0.4	98.8	13.7	0.0	26.1
1972	289	3	286	90	0	90	48.6	0.9	92.6	14.6	0.0	28.1
1971	267	2	265	85	1	84	44.8	0.8	85.9	13.9	0.3	26.5

From 1971 to 1998, there were 13,513 new cases of breast cancer and 3,559 breast cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 48.8% over the time period, with an estimated annual percent change of 1.3% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 31.1% over the time period; for females the age-adjusted cancer incidence rate increased 46.5% over the time period, with an estimated annual percent change of 1.3% ($p<0.05$). The overall age-adjusted cancer mortality rate increased 4.3% over the time period, with an estimated annual percent change of 0.0% (NS). For males, the age-adjusted cancer incidence rate increased 74.7% over the time period; for females, the age-adjusted cancer incidence rate increased 0.2% over the time period, with an estimated annual percent change of -0.1% (NS).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For Black females in SEER regions, the age-adjusted cancer incidence rate increased 37.0% over the time period, with an estimated annual percent change of 1.8% ($p<0.05$). For White females in SEER regions, the age-adjusted cancer incidence rate increased 27.6% over the time period, with an estimated annual percent change of 1.5% ($p<0.05$). Among females, Idahoans and Black residents of SEER regions have had about 10% lower breast cancer incidence rates than White residents of SEER regions.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

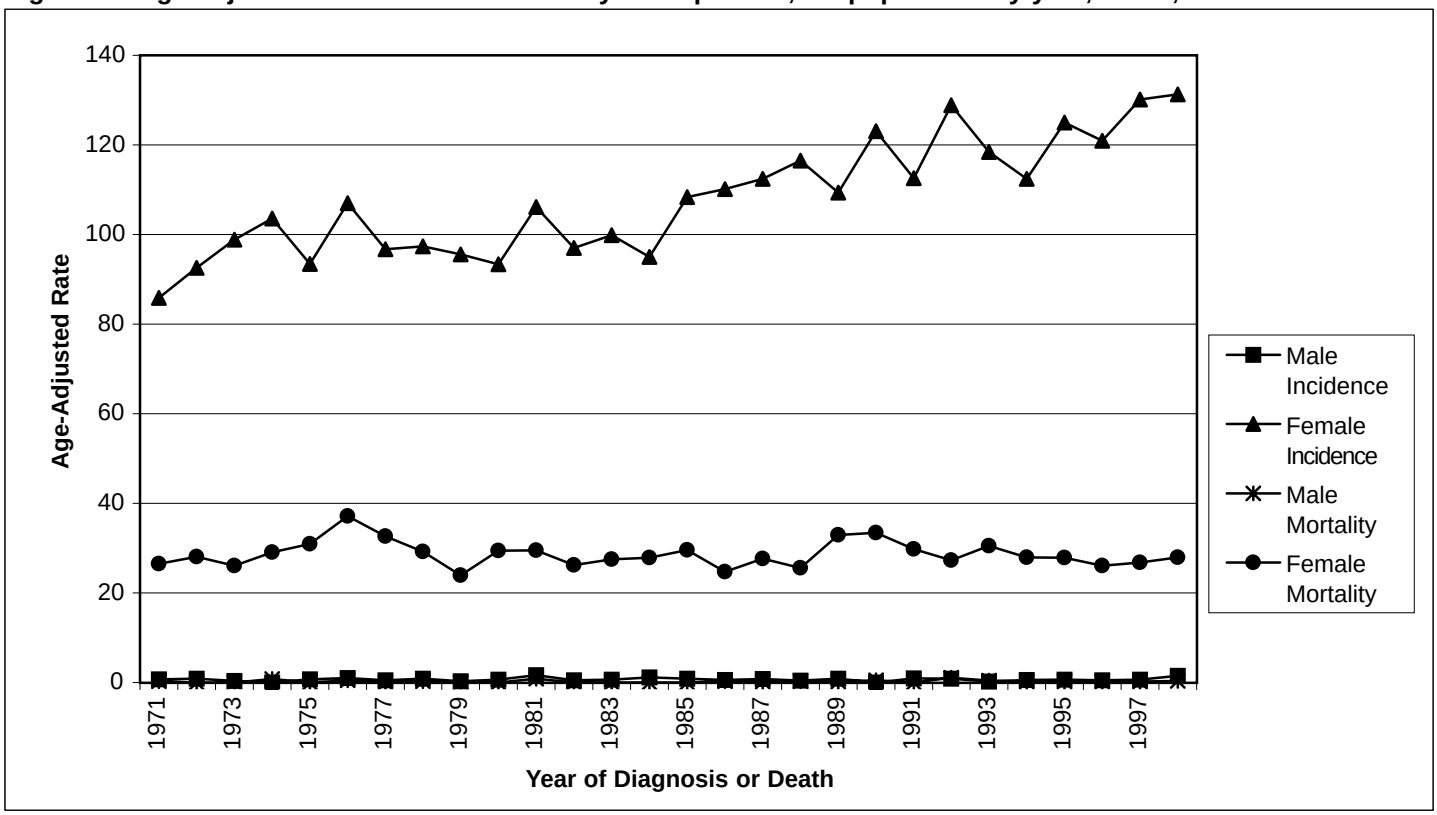


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

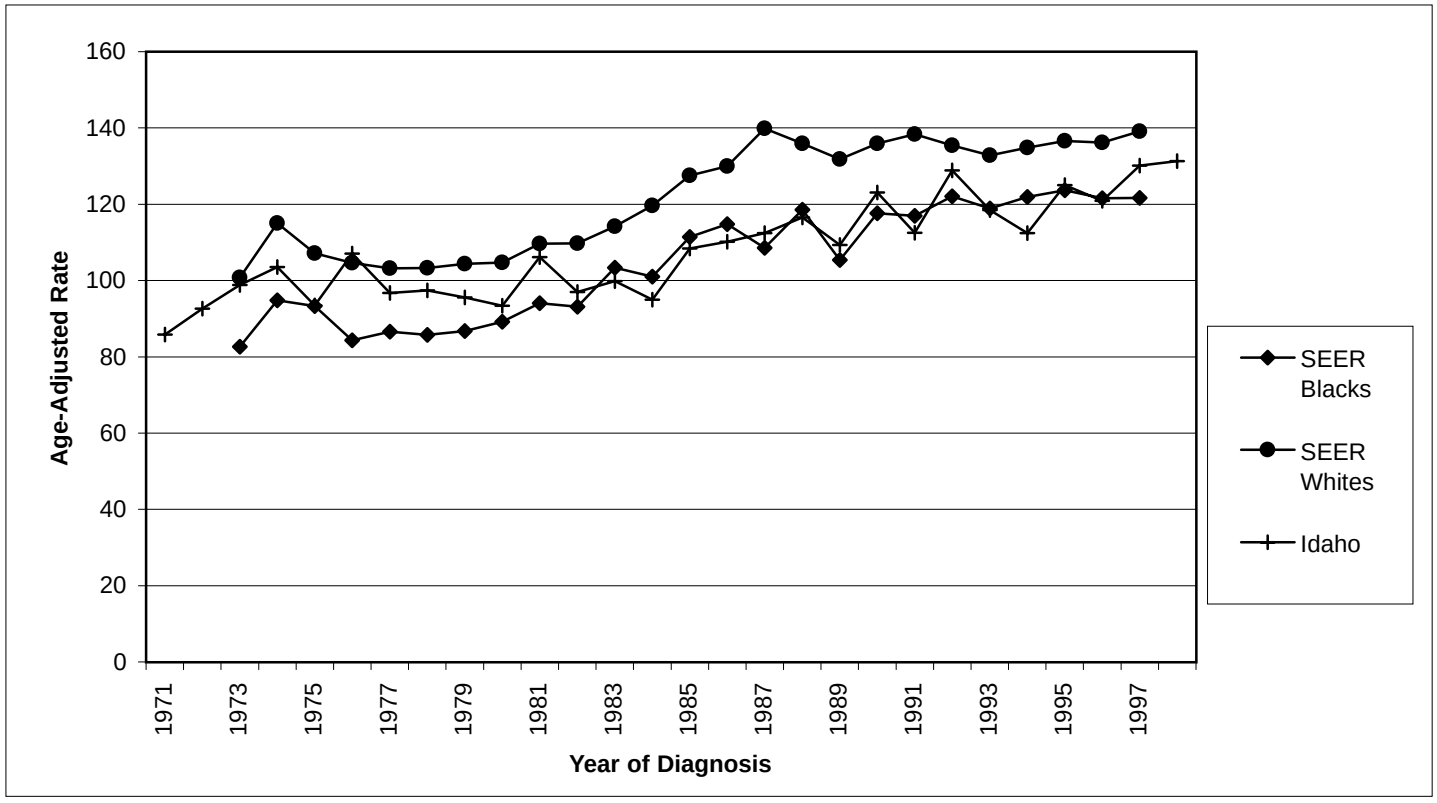


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

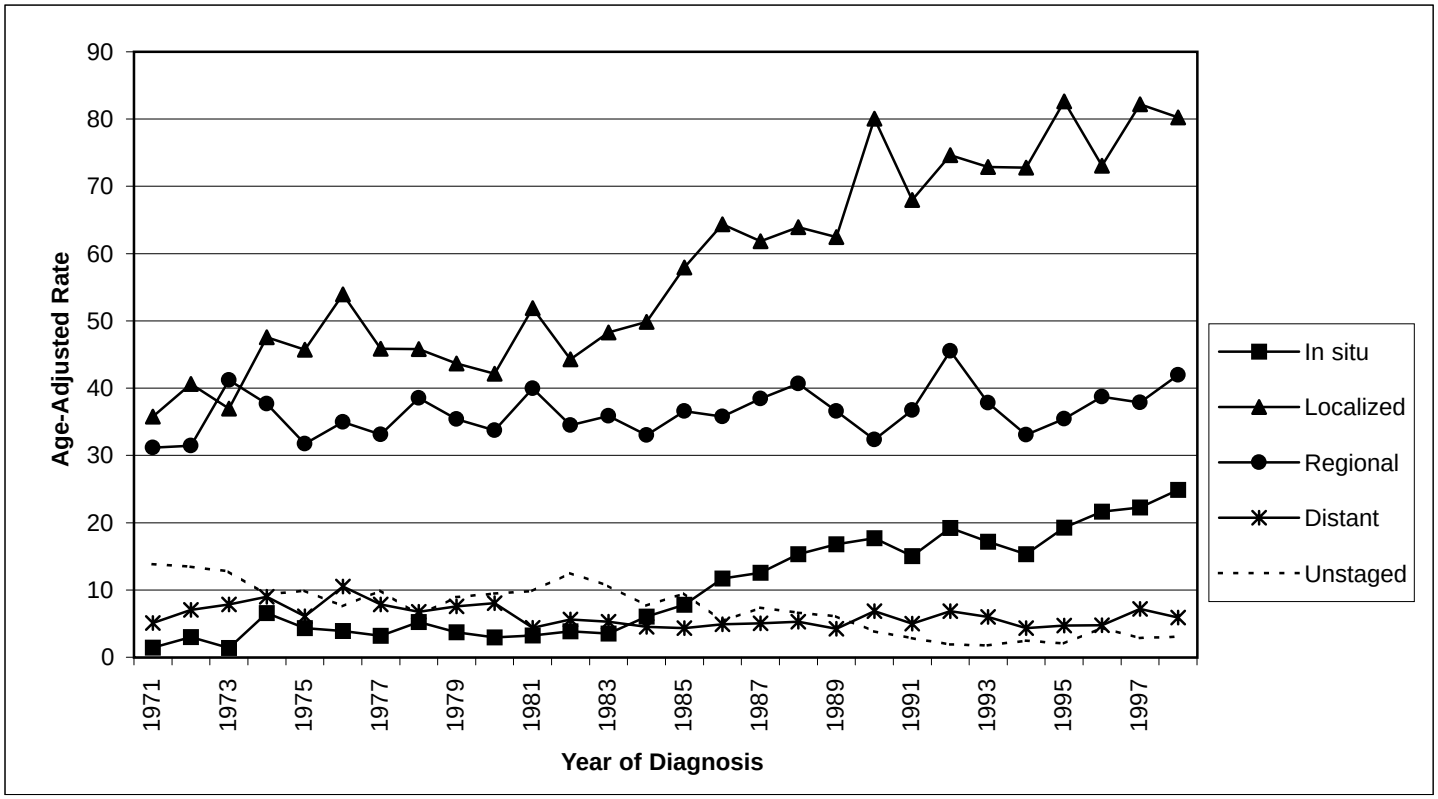
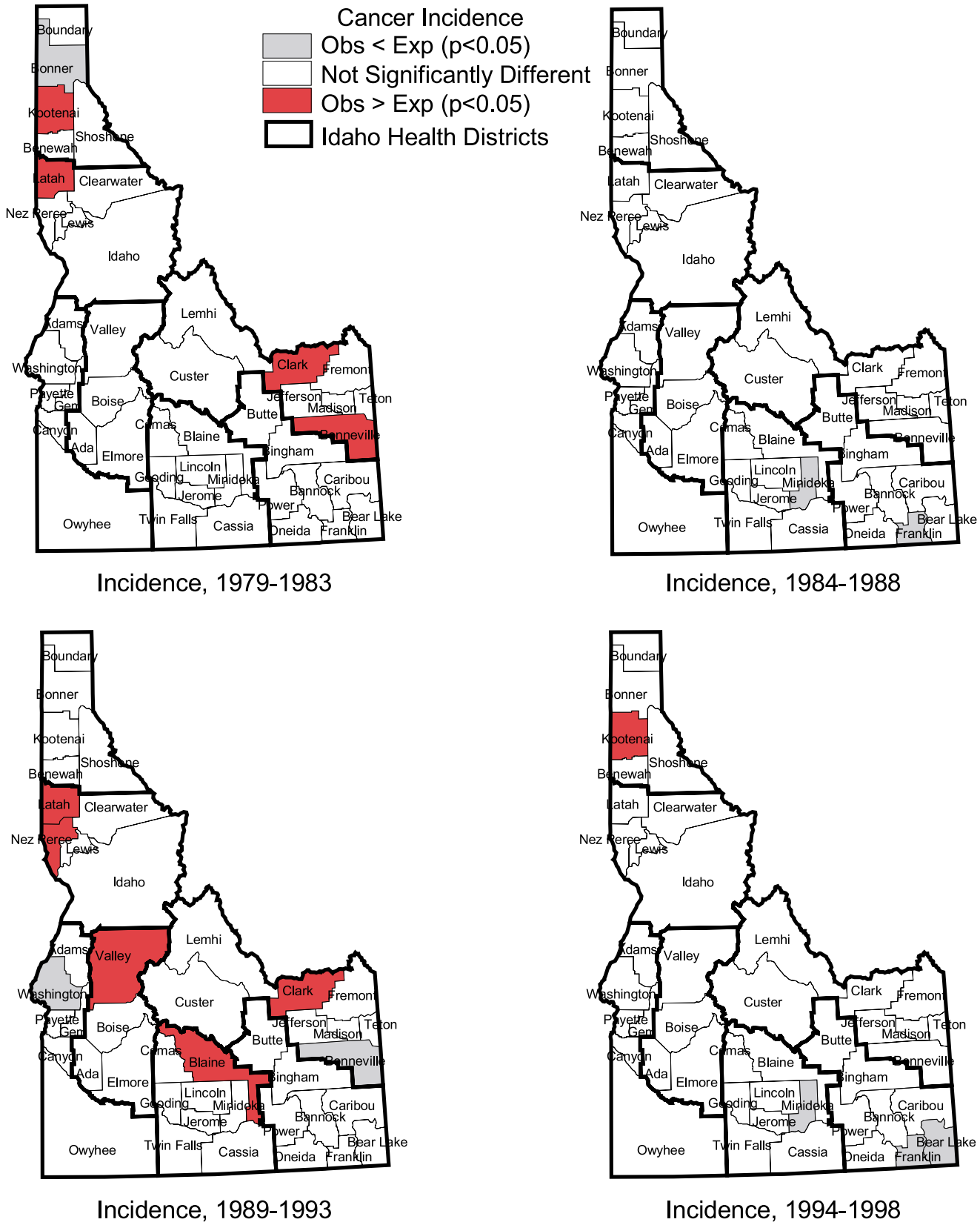


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For in-situ cases, the rate decreased 0.5% per year from 1971-1983, and increased 50.8% per year from 1983-1986 and 5.2% per year from 1986-1998. For localized cases, the rate increased 3.0% per year from 1971-1978. For regional cases, the rate increased 0.5% per year from 1971-1998. For distant cases, the rate decreased 3.6% per year from 1971-1986, and the trend was flat from 1986-1998. For unstaged cases, the rate decreased 2.8% per year from 1971-1988 and 28.3% per year from 1988-1992 and increased 10.3% per year from 1992-1998. The marked increase in in-situ and localized cases has been partially attributed to increased breast cancer screening, including mammography and clinical breast exams.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of female breast cancer than elsewhere in Idaho, and counties in grey had significantly lower rates than elsewhere in Idaho. Clark, Kootenai, and Latah Counties had statistically significantly higher rates of female breast cancer during two of the four five-year time periods. Franklin and Minidoka Counties had statistically significantly lower rates of female breast cancer during two of the four five-year time periods. Southeast Idaho has consistently had lower rates of female breast cancer.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



CERVIX

Primary Site Codes (ICD-0-2): *530-539*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	-	-	42	-	-	18	-	-	7.3	-	-	3.1
1997	-	-	57	-	-	17	-	-	10.0	-	-	2.9
1996	-	-	50	-	-	14	-	-	8.9	-	-	2.5
1995	-	-	48	-	-	22	-	-	8.7	-	-	3.9
1994	-	-	40	-	-	14	-	-	7.4	-	-	2.6
1993	-	-	42	-	-	6	-	-	8.0	-	-	1.0
1992	-	-	41	-	-	11	-	-	7.9	-	-	2.2
1991	-	-	42	-	-	12	-	-	8.4	-	-	2.4
1990	-	-	41	-	-	11	-	-	8.7	-	-	2.2
1989	-	-	38	-	-	12	-	-	8.1	-	-	2.5
1988	-	-	37	-	-	11	-	-	7.8	-	-	2.6
1987	-	-	37	-	-	18	-	-	8.6	-	-	4.1
1986	-	-	40	-	-	17	-	-	9.5	-	-	4.0
1985	-	-	39	-	-	13	-	-	8.9	-	-	3.1
1984	-	-	46	-	-	11	-	-	10.3	-	-	2.7
1983	-	-	40	-	-	10	-	-	9.4	-	-	2.6
1982	-	-	28	-	-	4	-	-	7.0	-	-	0.9
1981	-	-	36	-	-	7	-	-	8.7	-	-	1.6
1980	-	-	45	-	-	12	-	-	11.1	-	-	2.8
1979	-	-	48	-	-	11	-	-	12.6	-	-	2.9
1978	-	-	44	-	-	15	-	-	11.4	-	-	3.7
1977	-	-	39	-	-	11	-	-	10.3	-	-	3.3
1976	-	-	54	-	-	16	-	-	15.0	-	-	4.7
1975	-	-	38	-	-	14	-	-	11.4	-	-	4.3
1974	-	-	54	-	-	22	-	-	15.2	-	-	6.8
1973	-	-	61	-	-	10	-	-	19.2	-	-	3.2
1972	-	-	52	-	-	13	-	-	17.4	-	-	3.9
1971	-	-	70	-	-	18	-	-	22.8	-	-	5.7

From 1971 to 1998, there were 1,251 new cases of cervical cancer and 370 cervical cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year. Figure B shows trends in age-adjusted incidence and mortality rates. The overall age-adjusted cancer incidence rate decreased 57.1% over the time period, with an estimated annual percent change of -2.9% ($p<0.05$). The overall age-adjusted cancer mortality rate decreased 37.5% over the time period, with an estimated annual percent change of -2.2% ($p<0.05$).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho resident females. For SEER Whites, the age-adjusted cancer incidence rate decreased 43.8% over the time period, with an estimated annual percent change of -2.0% ($p<0.05$). For SEER Blacks, the age-adjusted cancer incidence rate decreased 58.8% over the time period, with an estimated annual percent change of -4.0% ($p<0.05$). Prior to 1982, Idaho's age-adjusted cancer incidence rate for this site decreased approximately 7.5% per year. From 1982-1998, the trend was flat. Since 1973, the age-adjusted incidence rates for Idaho residents have been similar to the rates for White residents of SEER regions. Black residents of SEER regions have had significantly higher rates of cervical cancer.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

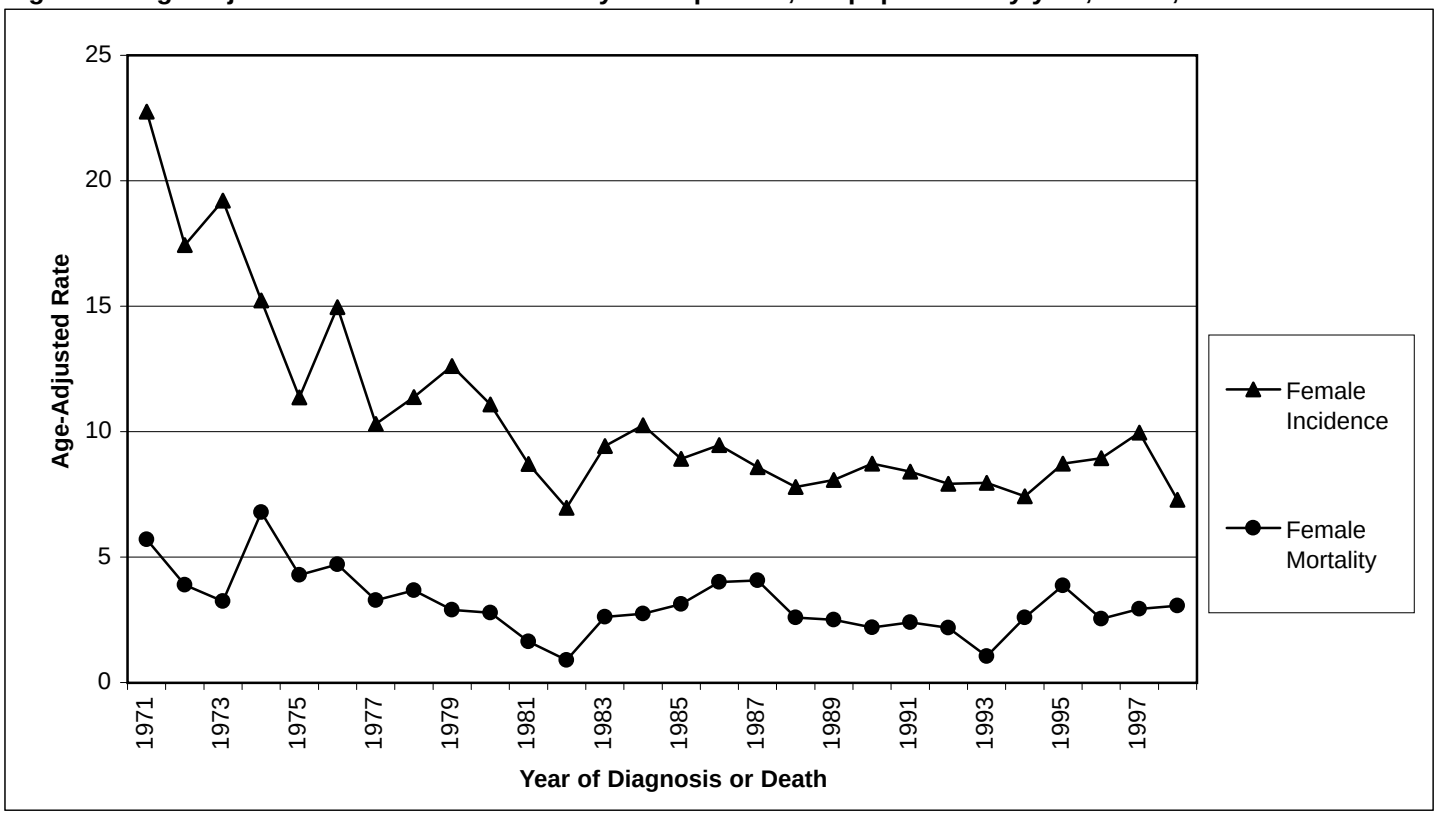


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

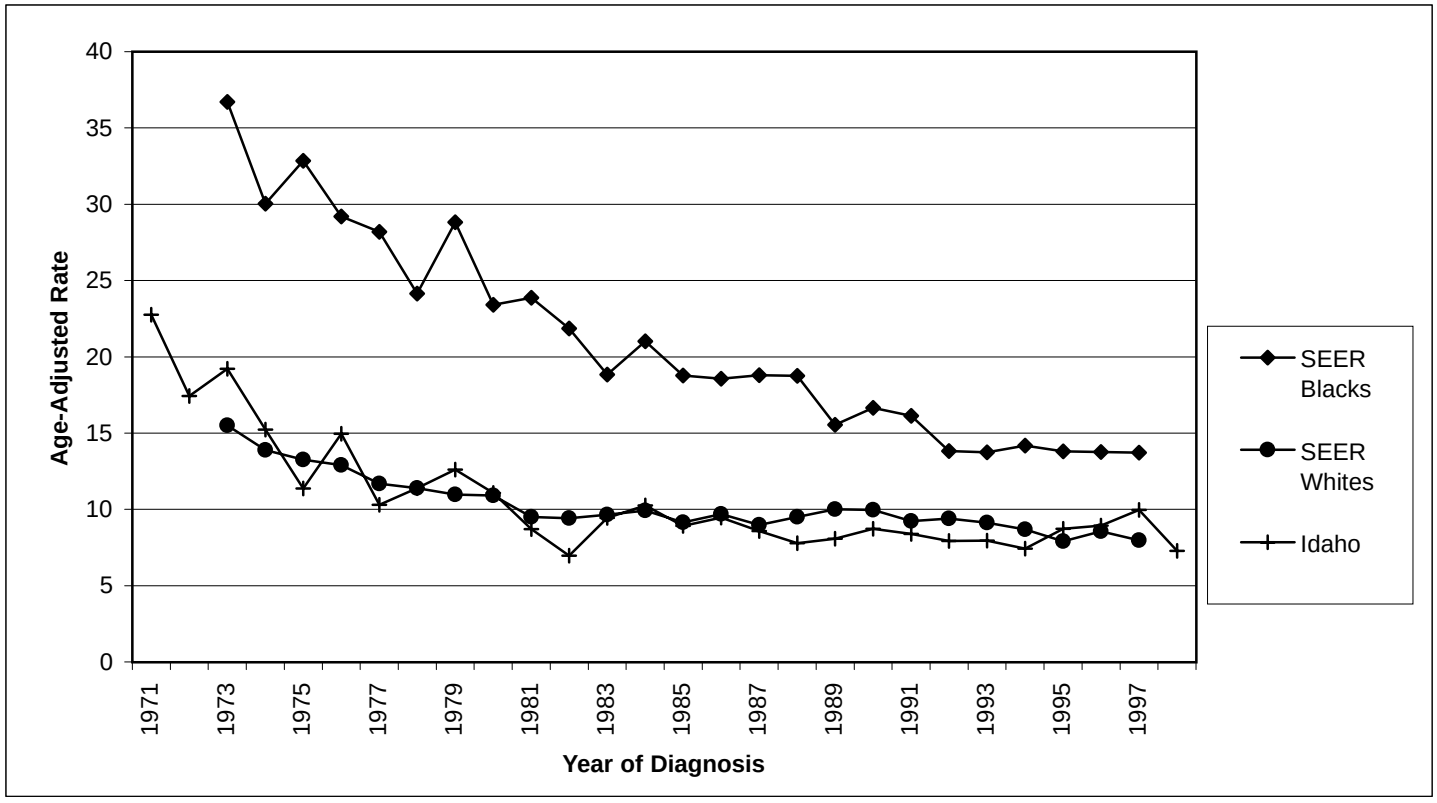


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

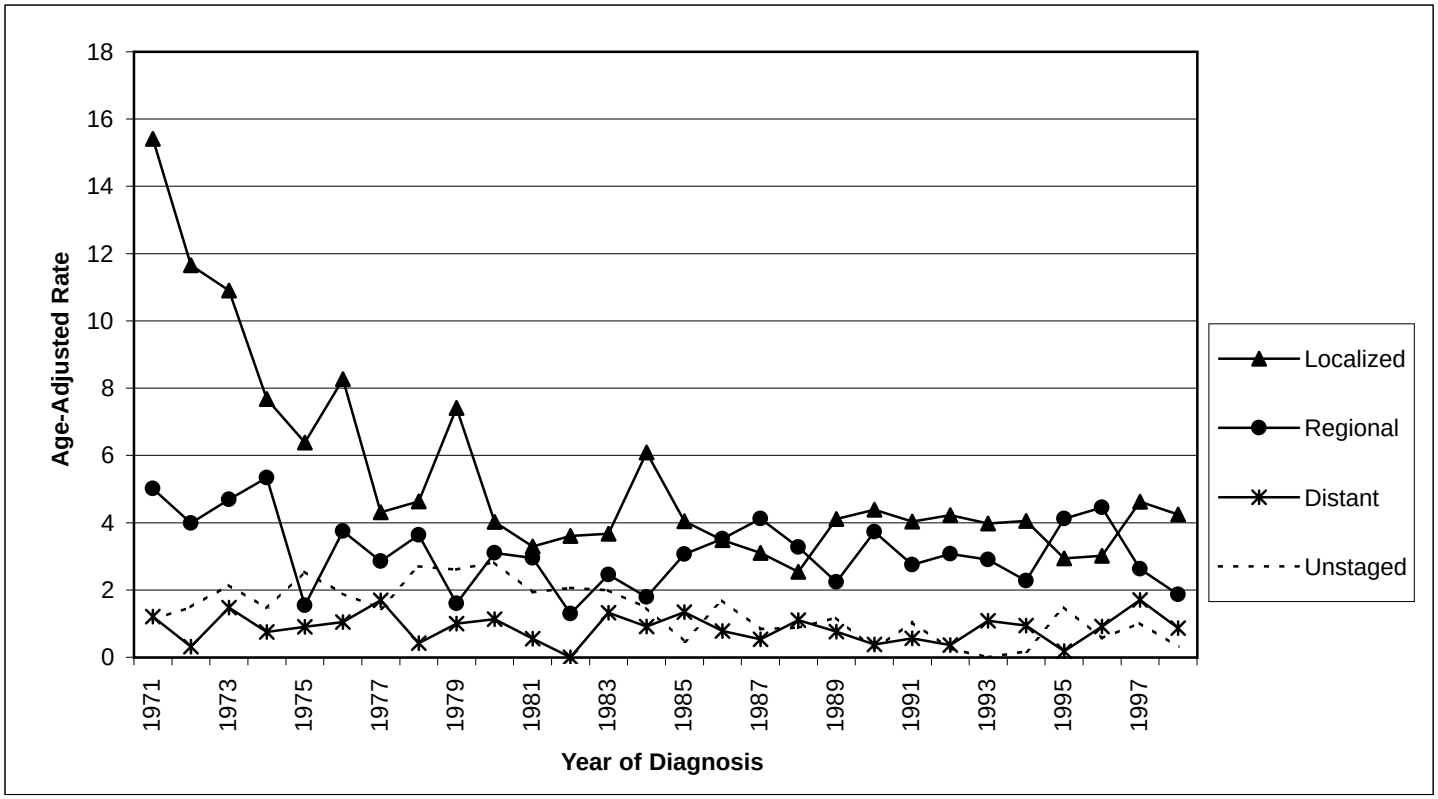
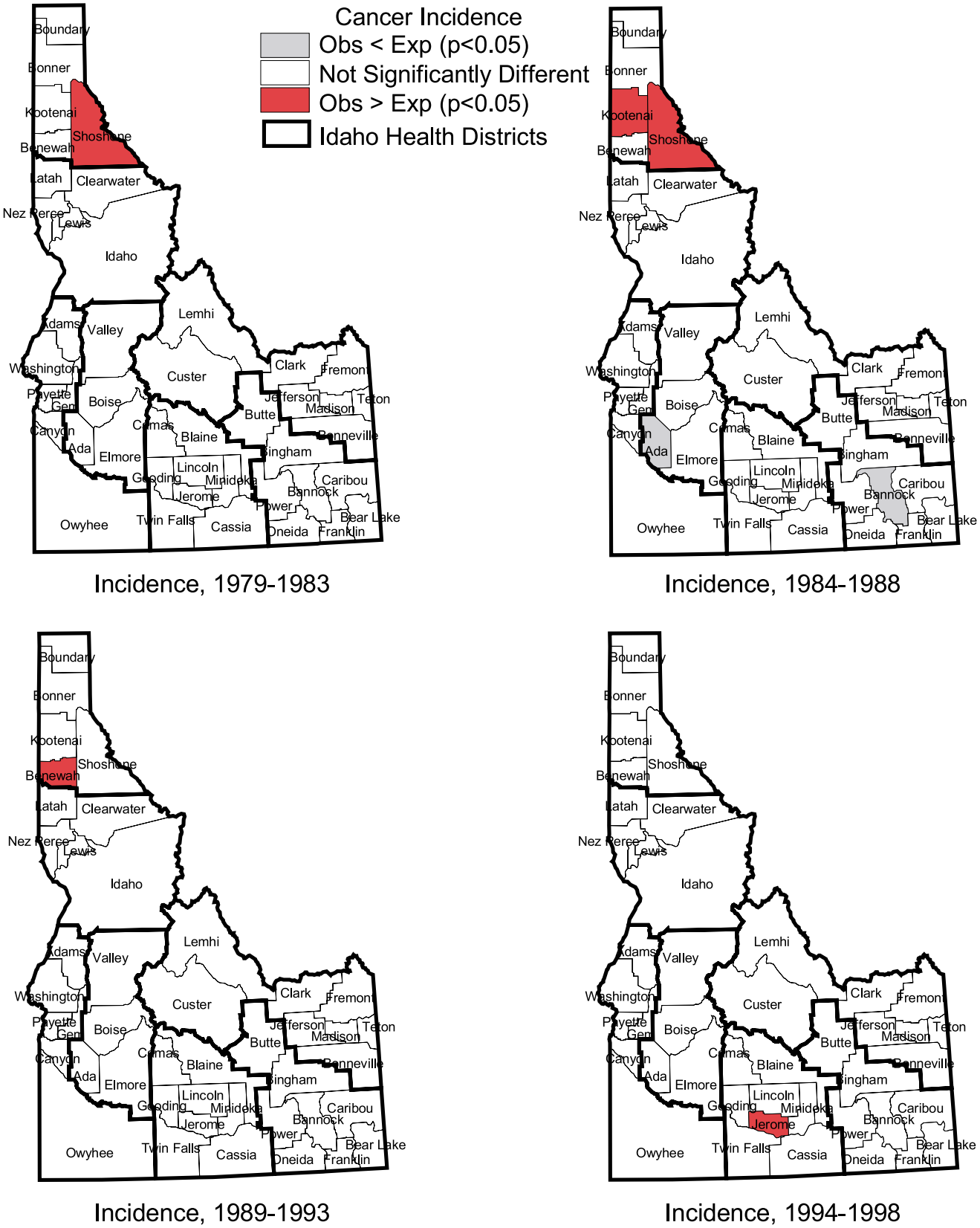


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For localized cases, the rate decreased 11.6% per year from 1971-1981; the trend has been flat since 1981. For regional, distant, and unstaged cases, there have no discernable trends.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of cervical cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. Shoshone County had statistically significantly higher rates of this cancer during two of the four five-year time periods. No individual counties had statistically significantly lower rates of this cancer during more than one of the four five-year time periods. Counties in northern Idaho have consistently had higher rates of cervical cancer.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



COLON

Primary Site Codes (ICD-0-2): *180-189, 260*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	393	191	202	178	83	95	35.1	38.6	32.3	16.0	17.4	15.0
1997	384	179	205	160	86	74	35.1	35.7	33.6	14.6	18.0	12.1
1996	383	195	188	176	94	82	35.5	40.4	31.6	16.5	20.0	13.5
1995	339	164	174	153	78	75	32.5	35.5	29.8	14.8	17.7	12.9
1994	319	162	157	153	85	68	31.2	35.7	27.6	15.0	19.3	11.8
1993	329	173	156	162	90	72	33.4	40.9	28.3	16.6	21.9	12.9
1992	319	162	157	165	85	80	32.6	36.7	29.5	17.2	20.4	14.8
1991	330	169	161	166	90	76	35.3	41.6	30.8	18.4	24.1	14.7
1990	324	154	170	161	88	73	36.0	40.5	33.8	18.4	23.9	14.4
1989	308	159	149	151	77	74	34.4	40.1	29.4	17.4	20.9	14.8
1988	340	191	149	168	89	79	39.0	49.2	31.0	19.9	25.0	16.6
1987	280	143	137	144	67	77	33.0	37.9	29.9	17.6	18.3	16.7
1986	329	149	180	165	82	83	39.5	40.2	38.5	19.6	21.4	17.8
1985	323	160	163	145	76	69	38.8	43.0	36.3	17.9	22.4	14.9
1984	266	116	150	137	63	74	32.5	32.2	32.9	17.0	18.3	16.4
1983	286	126	160	149	72	77	36.8	36.5	37.5	19.6	22.3	17.9
1982	284	138	146	130	76	54	36.3	39.8	33.8	17.9	24.2	13.2
1981	262	133	129	132	59	73	34.9	39.2	31.5	18.2	17.9	18.0
1980	270	131	139	133	65	68	37.4	40.4	34.9	18.8	20.3	17.3
1979	227	99	128	112	51	61	33.6	32.8	34.5	16.3	16.9	15.7
1978	225	100	125	110	54	56	33.4	32.4	34.1	16.6	18.9	15.4
1977	209	101	108	103	45	58	31.5	32.4	30.1	15.8	14.2	16.6
1976	185	90	95	105	51	54	29.3	31.7	27.5	16.9	16.8	16.2
1975	191	83	108	106	53	53	29.9	28.1	31.2	17.3	18.6	16.1
1974	179	79	100	121	62	59	29.6	29.4	30.5	20.0	23.0	17.6
1973	172	80	92	87	36	51	28.7	29.9	28.2	14.7	13.6	16.0
1972	156	68	88	103	52	51	27.3	23.9	29.3	18.3	20.1	16.7
1971	159	70	89	113	61	52	27.5	26.7	28.7	20.8	24.7	17.7

From 1971 to 1998, there were 7,771 new cases of colon cancer, and 3,888 colon cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 28.0% over the time period, with an estimated annual percent change of 0.7% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 46.9% over the time period, with an estimated annual percent change of 1.4% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 13.4% over the time period, with an estimated annual percent change of 0.1% (NS). The overall age-adjusted cancer mortality rate decreased 21.9% over the time period, with an estimated annual percent change of -0.4% (NS). For males, the age-adjusted cancer incidence rate decreased 21.0% over the time period, with an estimated annual percent change of 0.3% (NS); for females, the age-adjusted cancer incidence rate decreased 21.3% over the time period, with an estimated annual percent change of -1.0% ($p<0.05$).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate increased 20.7% over the time period, with an estimated annual percent change of 0.7% ($p<0.05$). For SEER Whites, the age-adjusted cancer incidence rate decreased 4.9% over the time period, with an estimated annual percent change of -0.3% (NS). Prior to 1982, Idaho's age-adjusted cancer incidence rate for this site increased approximately 2.9% per year. Since 1982, the trend has been flat. The age-adjusted incidence rates for Idaho residents have been lower than the rates for White or Black residents of SEER regions. Since the mid-1990s, the rates for SEER Whites have been approaching the rates for Idahoans, which are both lower than the rates for SEER Blacks.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

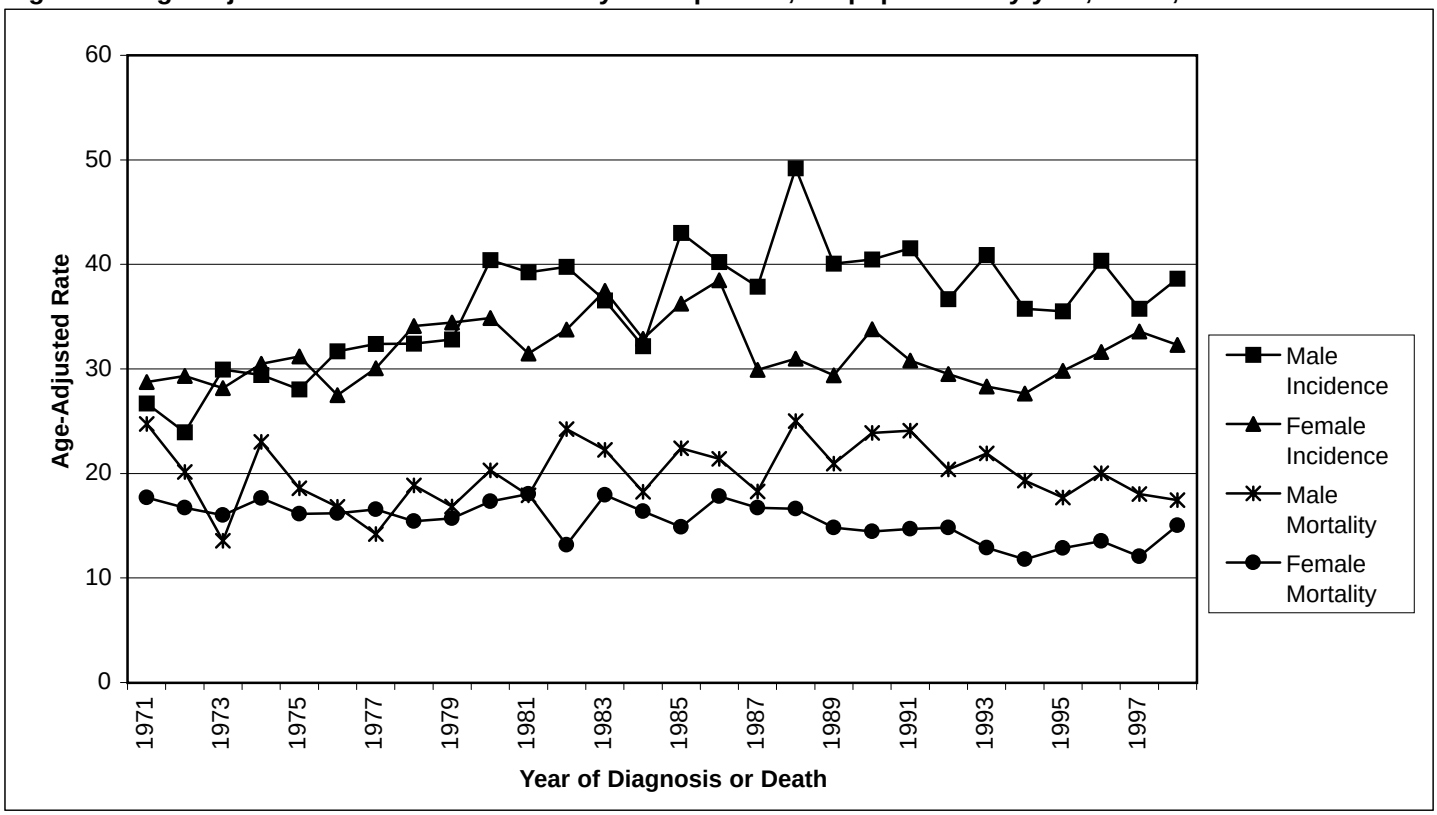


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

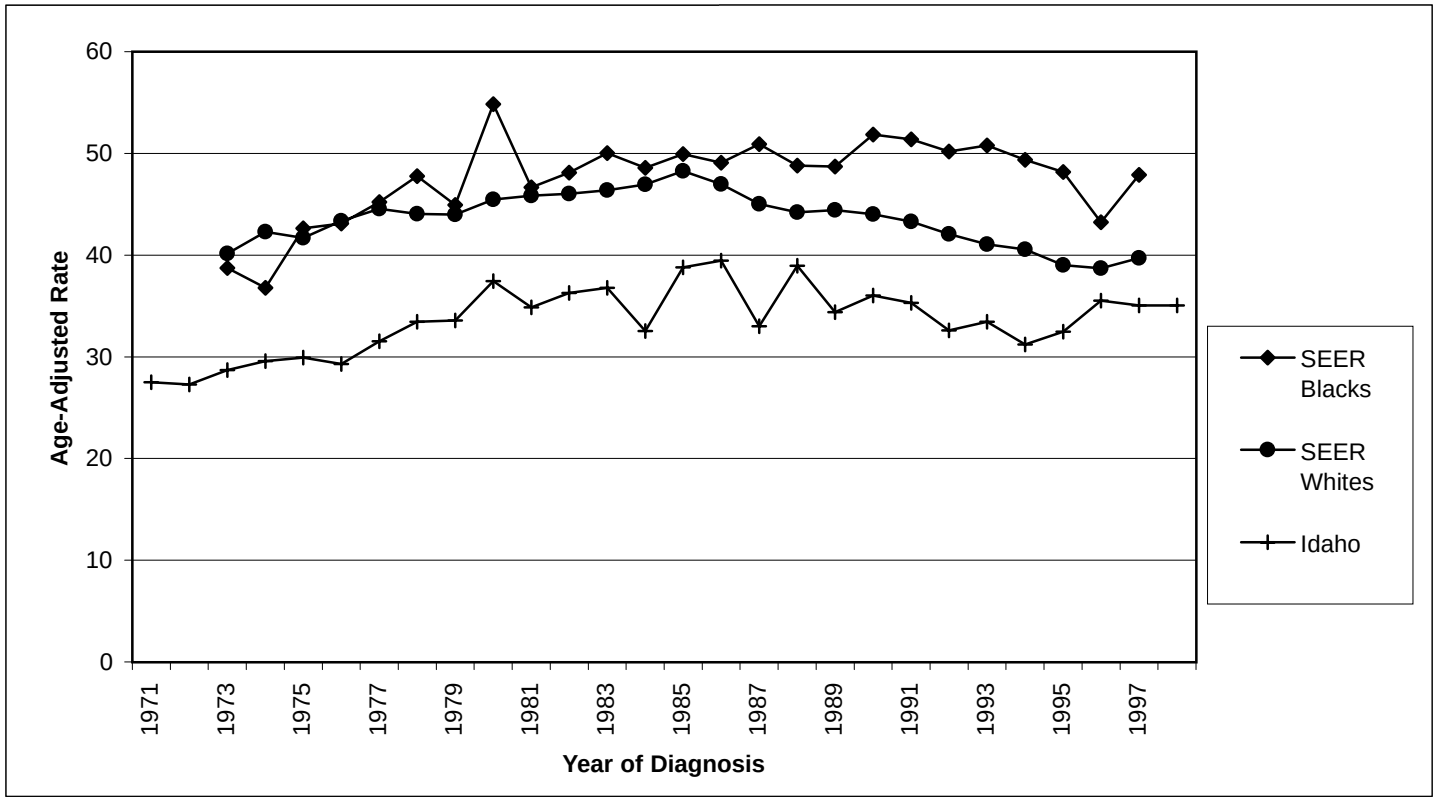


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

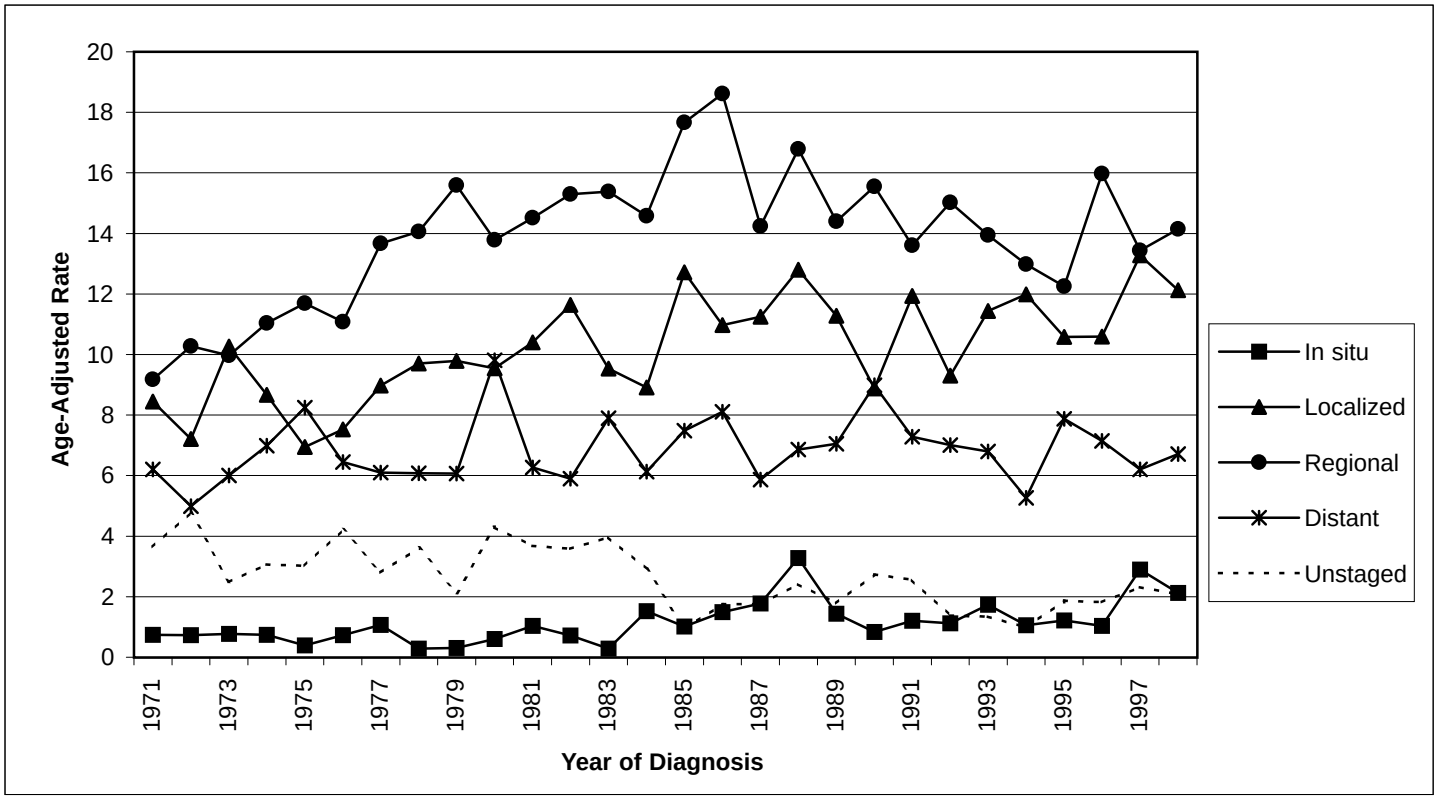
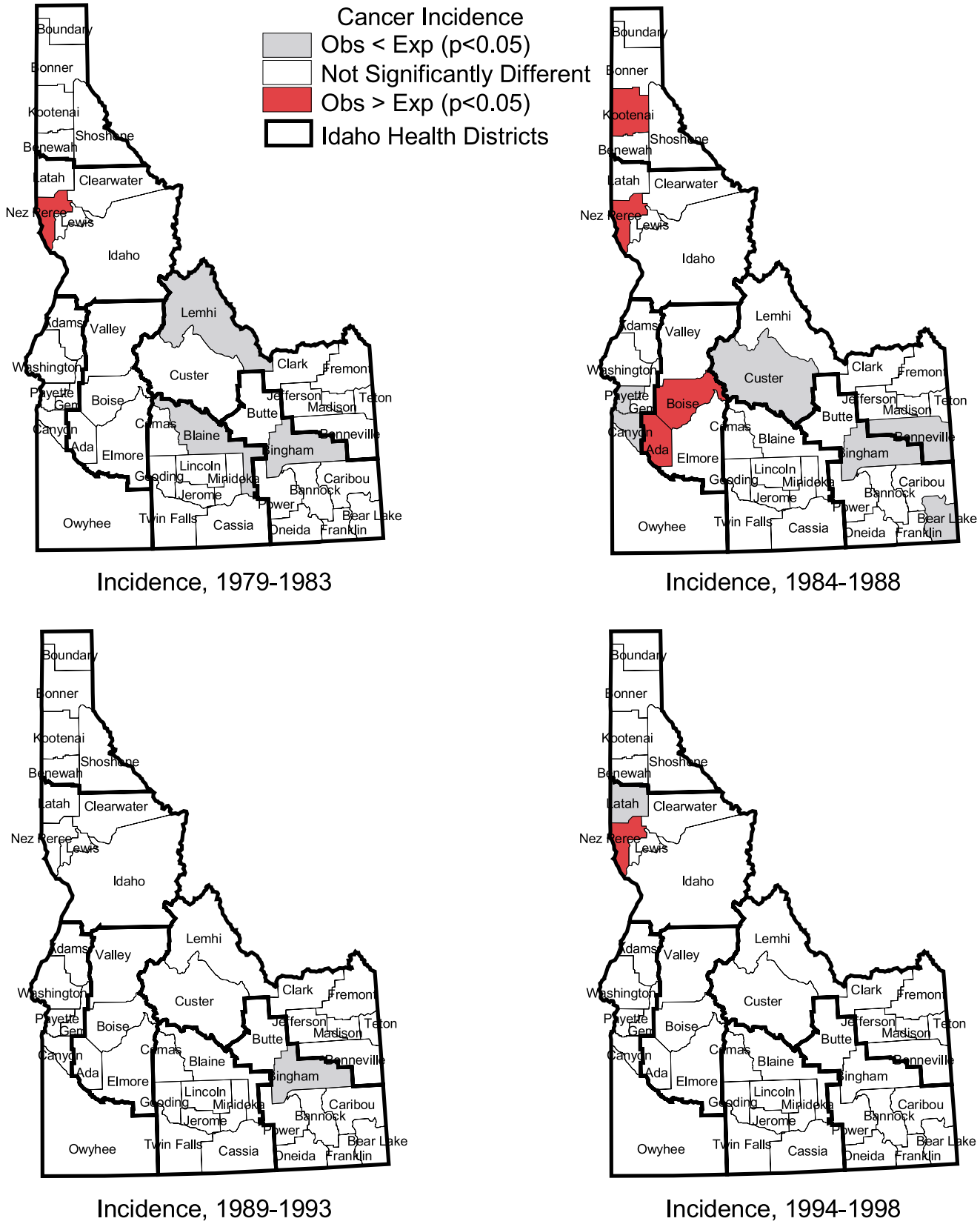


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For in-situ cases, the rate increased 4.7% per year from 1971-1998 ($p<0.05$). For localized cases, the rate increased 1.5% per year from 1971-1998 ($p<0.05$). For regional cases, the rate increased 3.7% per year from 1971-1985, and decreased 1.8% per year from 1985-1998. For distant cases, the trend has been flat. For unstaged cases, the rate decreased 3.3% per year from 1971-1998 ($p<0.05$).

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of colon cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. Nez Perce County had statistically significantly higher rates of colon cancer during three of the four five-year time periods. Bingham County had statistically significantly lower rates of colon cancer during three of the four five-year time periods. Counties in central and eastern Idaho have consistently had lower rates of colon cancer.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



ENDOMETRIUM

Primary Site Codes (ICD-0-2): *540-549*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	-	-	132	-	-	20	-	-	21.9	-	-	3.2
1997	-	-	132	-	-	7	-	-	22.6	-	-	1.2
1996	-	-	127	-	-	12	-	-	21.9	-	-	2.0
1995	-	-	140	-	-	6	-	-	24.9	-	-	1.1
1994	-	-	129	-	-	10	-	-	23.6	-	-	1.7
1993	-	-	126	-	-	11	-	-	23.6	-	-	1.9
1992	-	-	117	-	-	3	-	-	23.1	-	-	0.5
1991	-	-	141	-	-	5	-	-	28.2	-	-	1.0
1990	-	-	117	-	-	13	-	-	23.7	-	-	2.4
1989	-	-	115	-	-	7	-	-	24.0	-	-	1.4
1988	-	-	120	-	-	13	-	-	25.4	-	-	2.6
1987	-	-	122	-	-	12	-	-	26.4	-	-	2.4
1986	-	-	130	-	-	13	-	-	27.8	-	-	2.7
1985	-	-	112	-	-	10	-	-	24.1	-	-	2.0
1984	-	-	133	-	-	11	-	-	28.7	-	-	2.2
1983	-	-	110	-	-	12	-	-	25.0	-	-	2.5
1982	-	-	104	-	-	14	-	-	23.5	-	-	3.0
1981	-	-	116	-	-	7	-	-	27.6	-	-	1.6
1980	-	-	112	-	-	14	-	-	26.2	-	-	3.4
1979	-	-	116	-	-	6	-	-	27.9	-	-	1.4
1978	-	-	114	-	-	9	-	-	28.5	-	-	2.3
1977	-	-	101	-	-	5	-	-	25.1	-	-	1.4
1976	-	-	135	-	-	7	-	-	35.6	-	-	1.7
1975	-	-	102	-	-	10	-	-	26.7	-	-	2.8
1974	-	-	112	-	-	6	-	-	31.5	-	-	1.8
1973	-	-	115	-	-	8	-	-	33.3	-	-	2.5
1972	-	-	93	-	-	9	-	-	27.5	-	-	2.9
1971	-	-	91	-	-	4	-	-	27.4	-	-	1.2

From 1971 to 1998, there were 3,314 new cases of endometrial cancer and 264 endometrial cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year of diagnosis. Figure B shows trends in age-adjusted incidence and mortality rates. The overall age-adjusted cancer incidence rate decreased 19.0% over the time period, with an estimated annual percent change of -1.1% ($p<0.05$). The overall age-adjusted cancer mortality rate has remained unchanged.

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho resident females. For SEER Blacks, the age-adjusted cancer incidence rate increased 6.2% over the time period, with an estimated annual percent change of 0.0% (NS). For SEER Whites, the age-adjusted cancer incidence rate decreased 23.3% over the time period, with an estimated annual percent change of -1.4% ($p<0.05$). Since 1973, the age-adjusted incidence rates for Idaho resident females have been similar to the rates for White resident females of SEER regions. The rates for Idahoans show higher variability due to the relatively small numbers of cases per year. Black residents of SEER regions have had significantly lower incidence rates of endometrial cancer.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

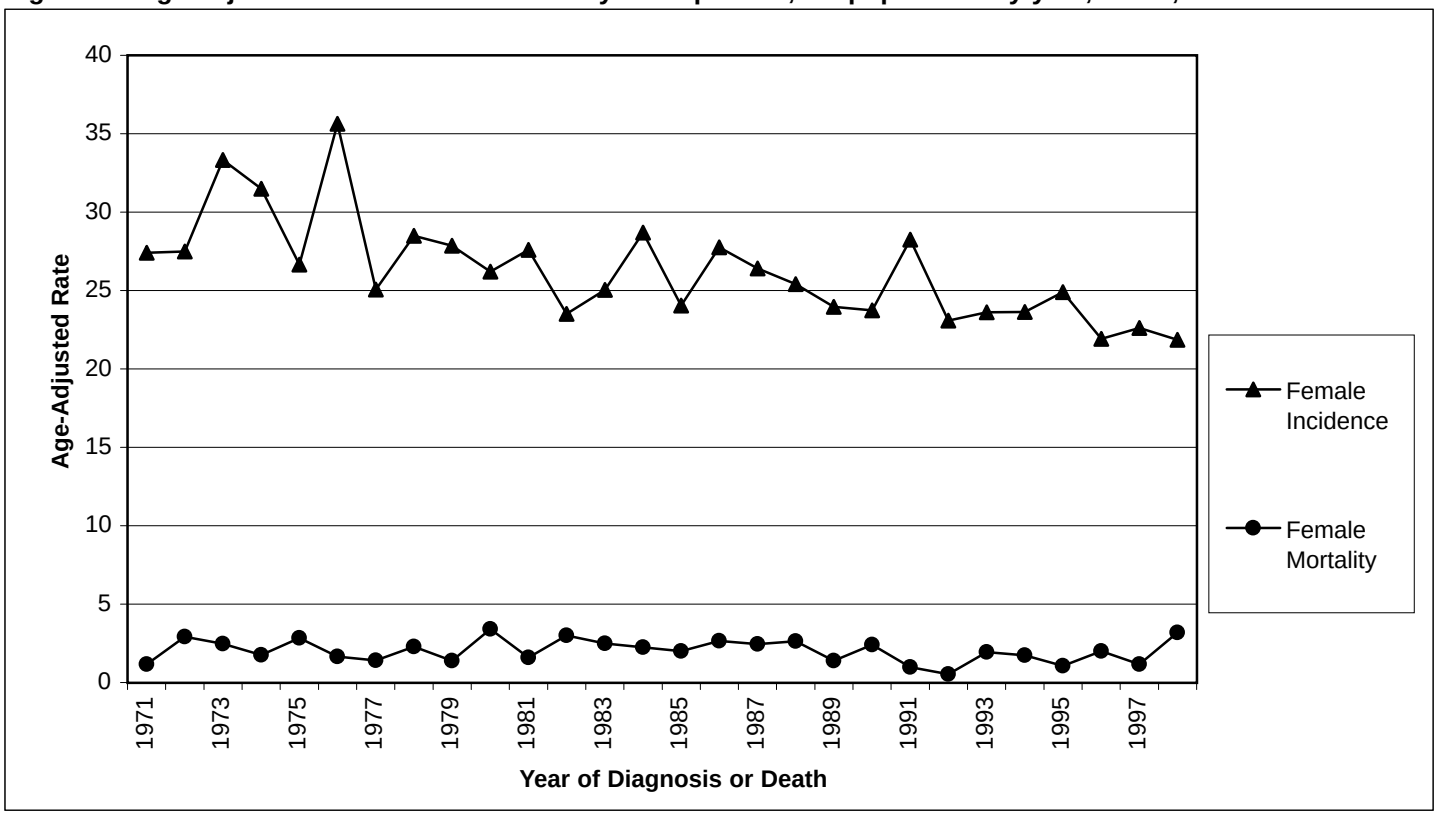


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

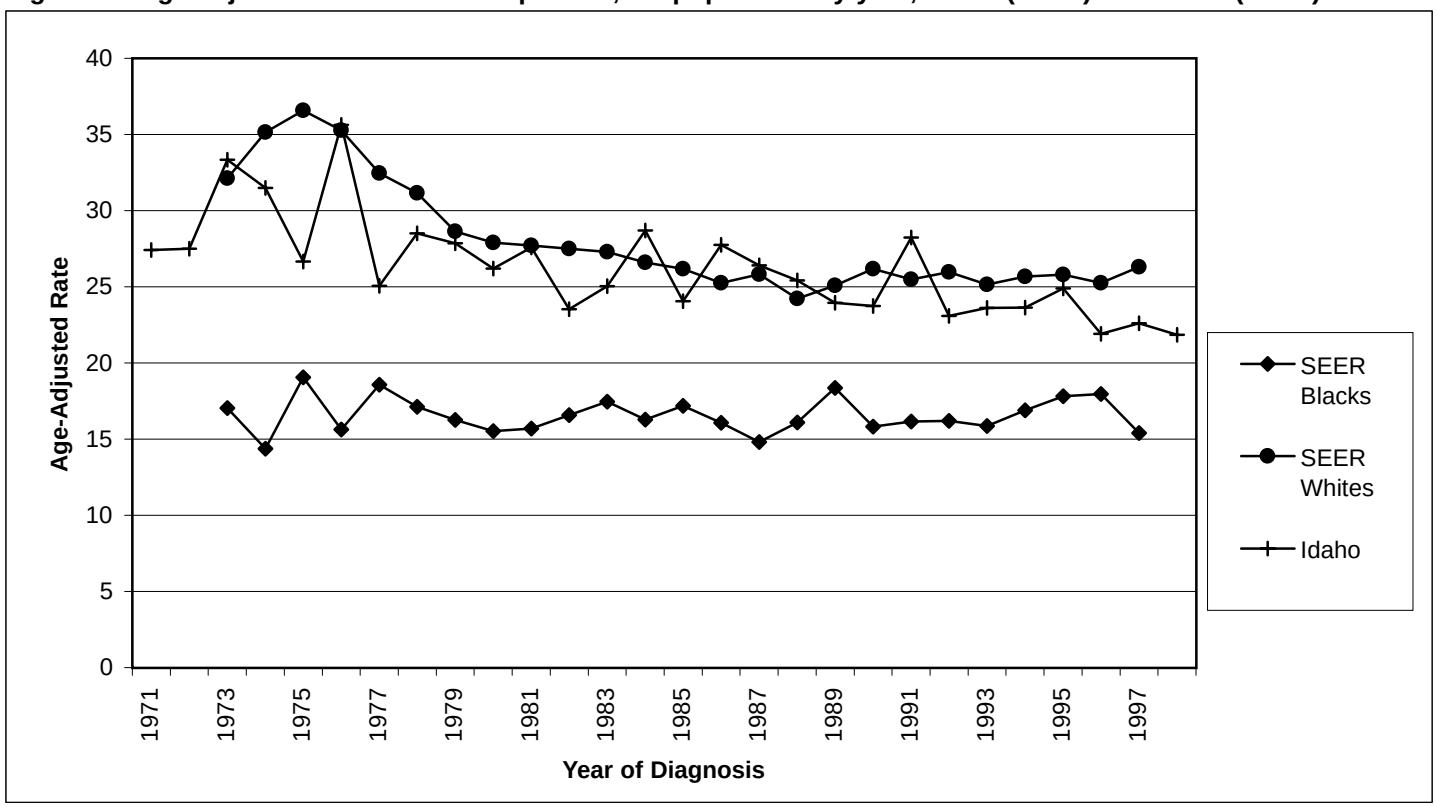


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

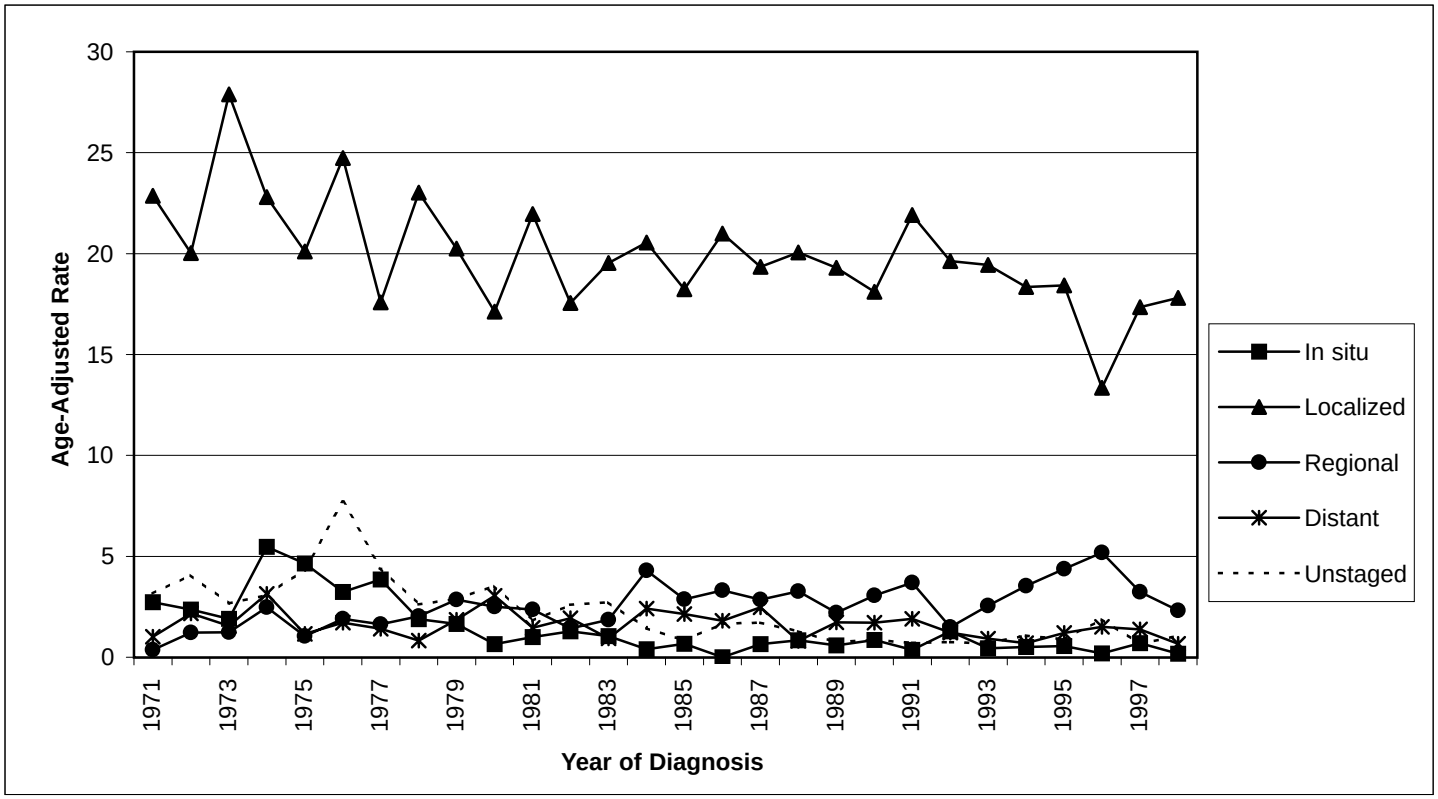
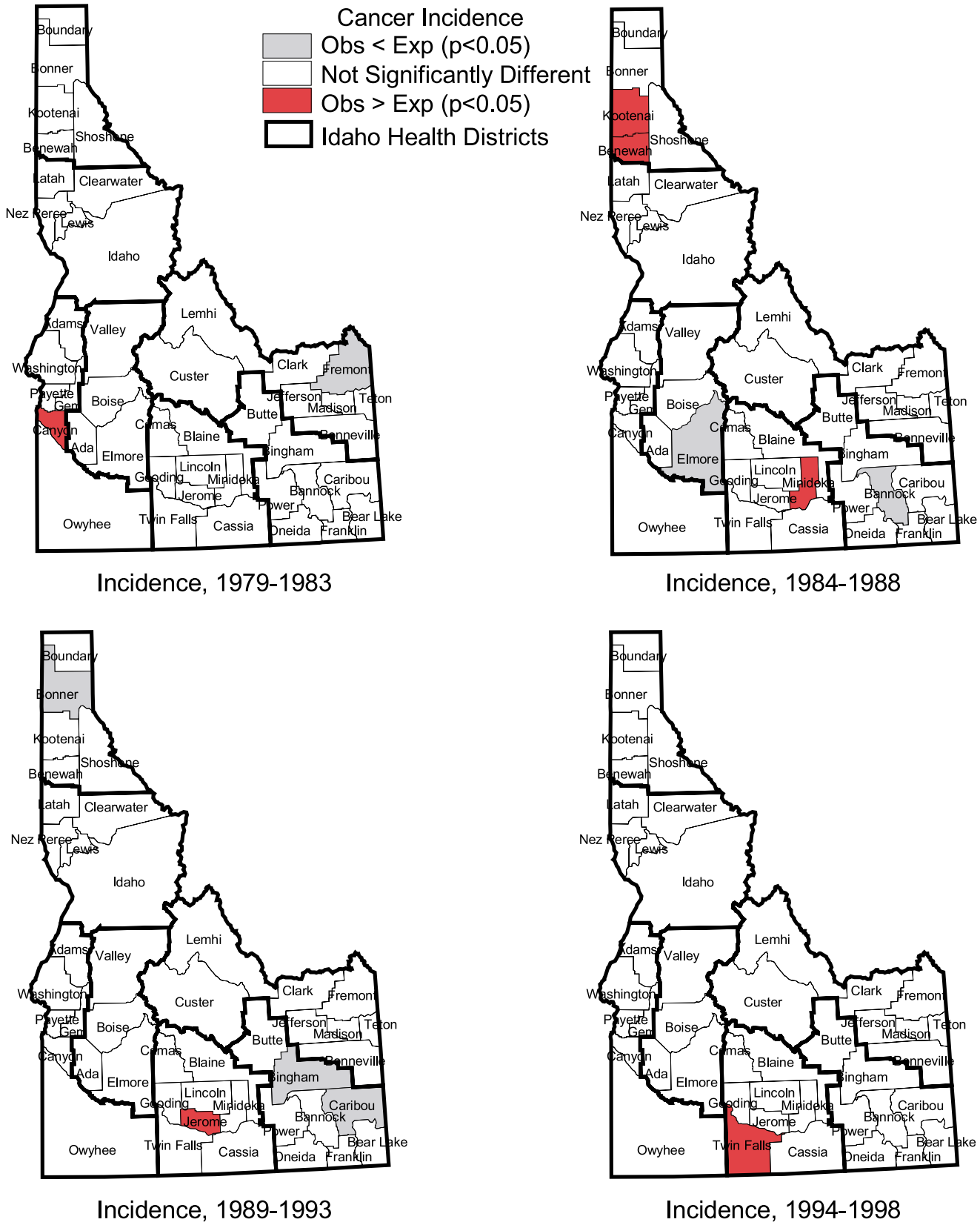


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For localized cases, the rate decreased 1.0% per year from 1971-1998. For regional cases, the rate increased 4.5% per year from 1971-1998. For distant cases, the trend was flat. For unstaged cases, the rate increased 13.5% per year from 1971-1976 and decreased 12.3% per year from 1976-1991; the trend has been flat since 1991.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of endometrial cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. No individual counties had statistically significantly higher rates of this cancer during more than one of the four five-year time periods, and no individual counties had statistically significantly lower rates of this cancer during more than one of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



ESOPHAGUS

Primary Site Codes (ICD-0-2): *150-159*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	51	47	4	47	41	6	4.5	8.9	0.6	4.1	7.7	1.0
1997	46	36	10	61	50	11	4.1	7.1	1.7	5.5	10.0	1.8
1996	45	35	10	49	38	11	4.2	7.2	1.7	4.6	7.9	1.8
1995	43	33	10	50	36	14	4.1	6.6	1.7	4.7	7.5	2.5
1994	38	28	10	32	27	5	3.7	6.0	1.7	3.1	5.7	0.8
1993	29	24	5	29	25	4	2.9	5.6	0.9	3.0	6.0	0.7
1992	28	22	6	31	21	10	2.8	4.8	1.1	3.1	4.5	1.8
1991	18	9	9	28	22	6	1.9	2.0	1.7	3.0	5.0	1.2
1990	19	15	4	25	24	1	2.1	3.6	0.7	2.8	6.2	0.2
1989	27	19	8	20	15	5	2.8	4.2	1.5	2.2	3.5	1.0
1988	21	17	4	22	17	5	2.5	4.2	0.8	2.5	4.2	1.1
1987	20	16	4	23	16	7	2.2	3.7	0.8	2.5	3.7	1.4
1986	22	17	5	21	18	3	2.4	4.0	1.0	2.4	4.4	0.7
1985	20	17	3	21	15	6	2.3	4.4	0.7	2.7	4.5	1.3
1984	19	15	4	19	17	2	2.3	3.9	0.9	2.3	4.6	0.5
1983	23	21	2	19	12	7	2.7	5.3	0.4	2.5	3.0	1.7
1982	21	14	7	23	19	4	2.8	3.9	1.8	2.7	4.7	0.9
1981	18	16	2	17	15	2	2.2	4.4	0.4	2.0	3.8	0.5
1980	15	10	5	13	10	3	2.0	2.6	1.3	1.9	2.9	0.8
1979	13	11	2	15	11	4	1.8	3.2	0.6	2.2	3.7	1.0
1978	18	13	5	9	6	3	2.8	4.5	1.4	1.4	2.4	0.8
1977	8	6	2	14	10	4	1.2	2.3	0.5	2.1	3.5	1.1
1976	14	10	4	15	10	5	2.0	2.8	1.2	2.2	3.0	1.5
1975	16	11	5	14	13	1	2.4	3.5	1.5	2.0	3.9	0.2
1974	11	11	0	9	8	1	1.8	3.8	0.0	1.3	2.4	0.3
1973	13	12	1	16	11	5	2.0	3.7	0.3	2.4	3.4	1.5
1972	10	8	2	10	7	3	1.4	2.4	0.5	1.7	2.7	0.8
1971	9	8	1	12	11	1	1.5	2.8	0.3	2.3	4.7	0.3

From 1971 to 1998, there were 635 new cases of esophageal cancer and 664 esophageal cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 196.1% over the time period, with an estimated annual percent change of 3.3% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 209.8% over the time period, with an estimated annual percent change of 3.1% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 174.2% over the time period. The overall age-adjusted cancer mortality rate increased 145.3% over the time period, with an estimated annual percent change of 3.4% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 139.1% over the time period, with an estimated annual percent change of 3.6% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 142.1% over the time period, with an estimated annual percent change of 3.0% ($p<0.05$).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate decreased 24.9% over the time period, with an estimated annual percent change of -1.3% ($p<0.05$). For SEER Whites, the age-adjusted cancer incidence rate increased 25.1% over the time period, with an estimated annual percent change of 1.1% ($p<0.05$). Prior to 1991, Idaho's age-adjusted cancer incidence rate for this site increased approximately 1.7% per year. From 1991-1998, the rate increased 9.2% per year. The rates for Idahoans and SEER Whites have been converging over time. The rate for SEER Blacks appears to be trending towards the other two rates, but remains significantly higher.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

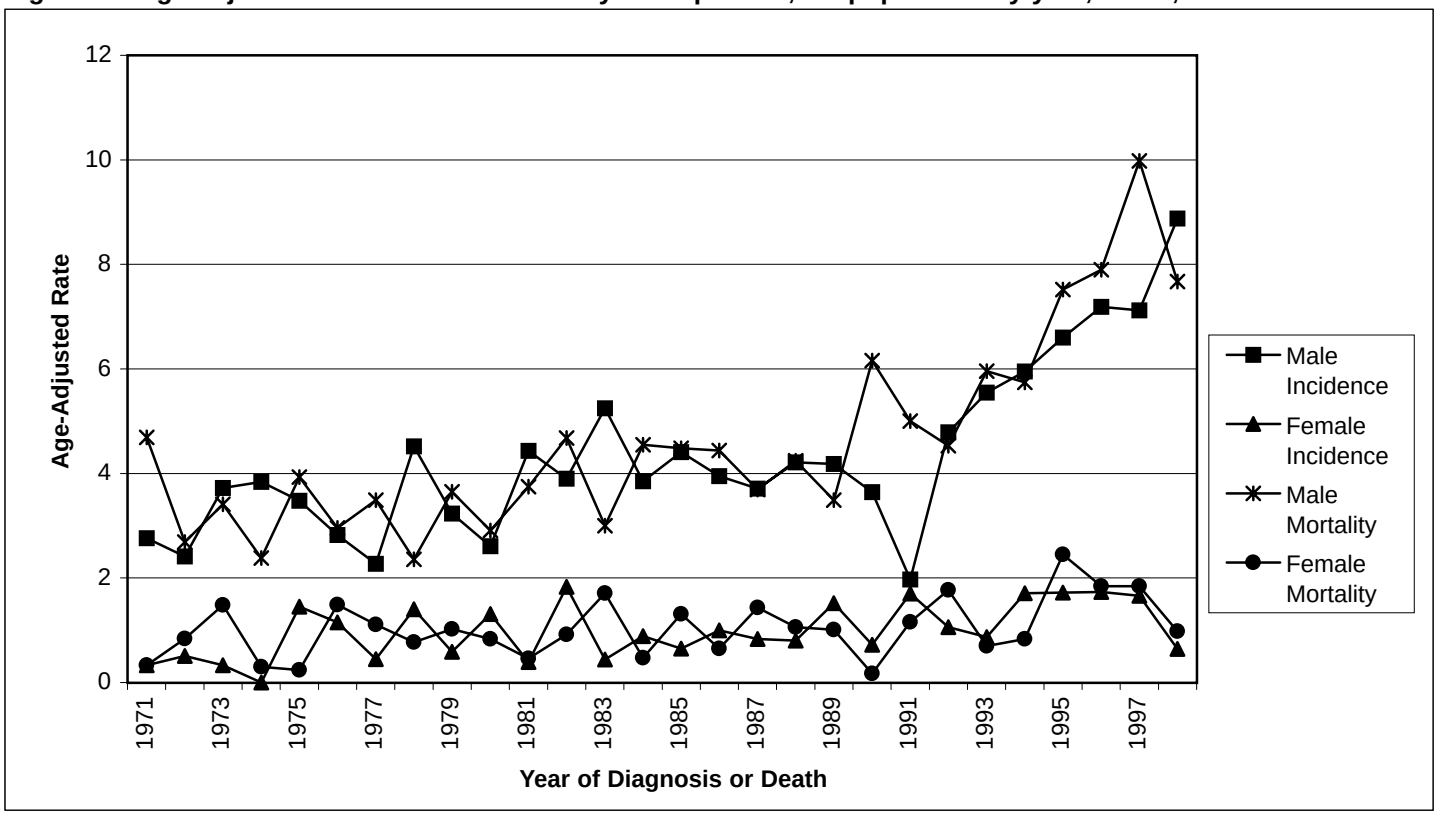


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

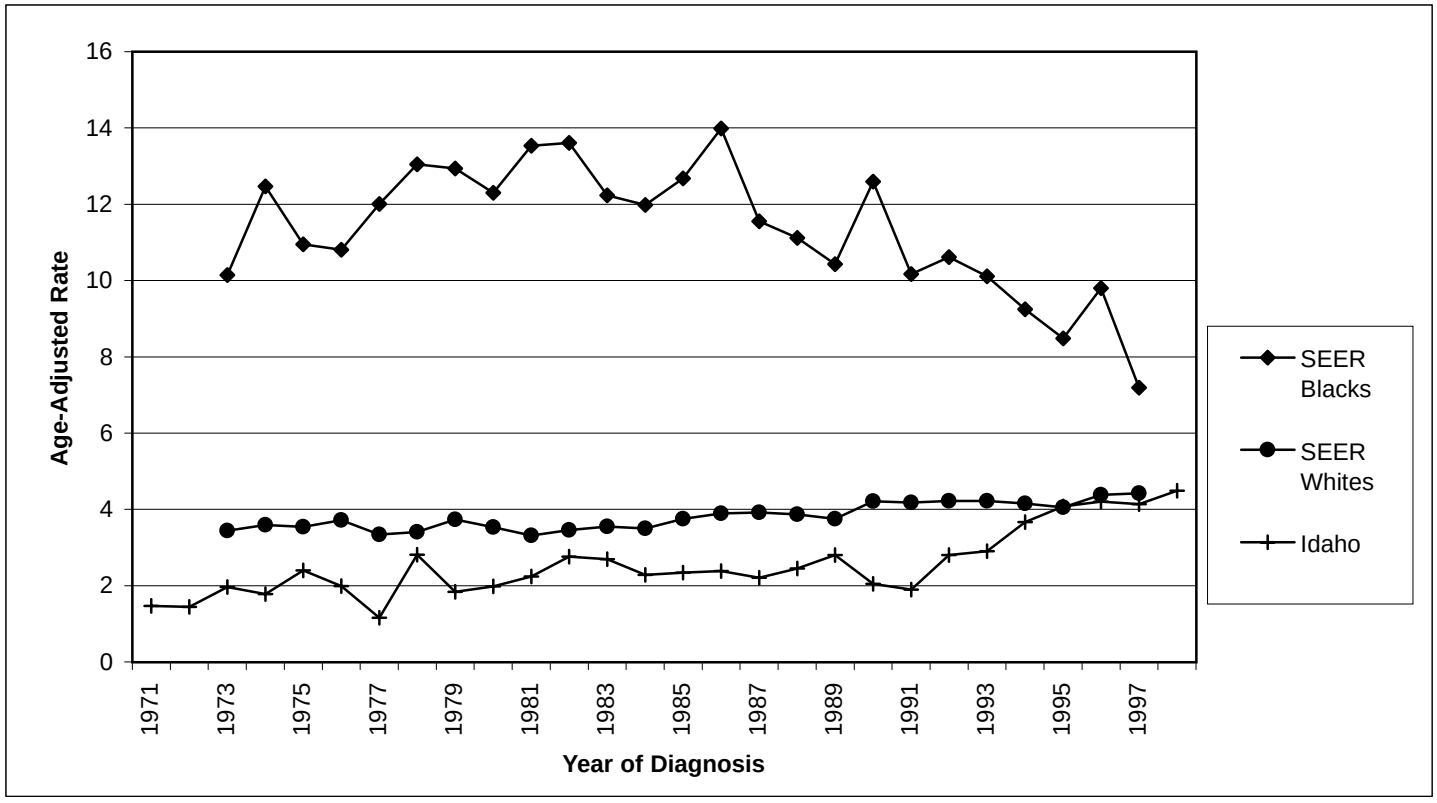


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

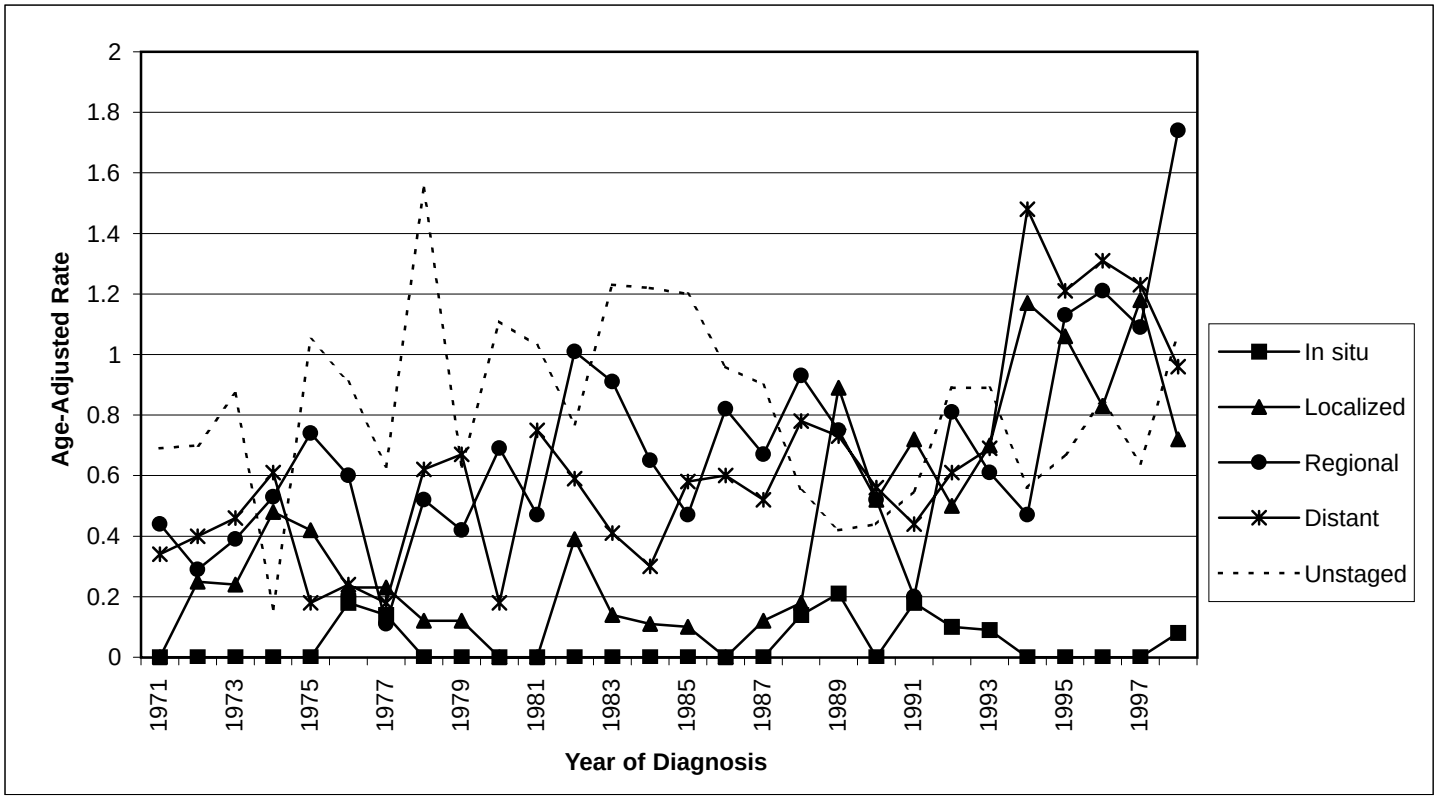
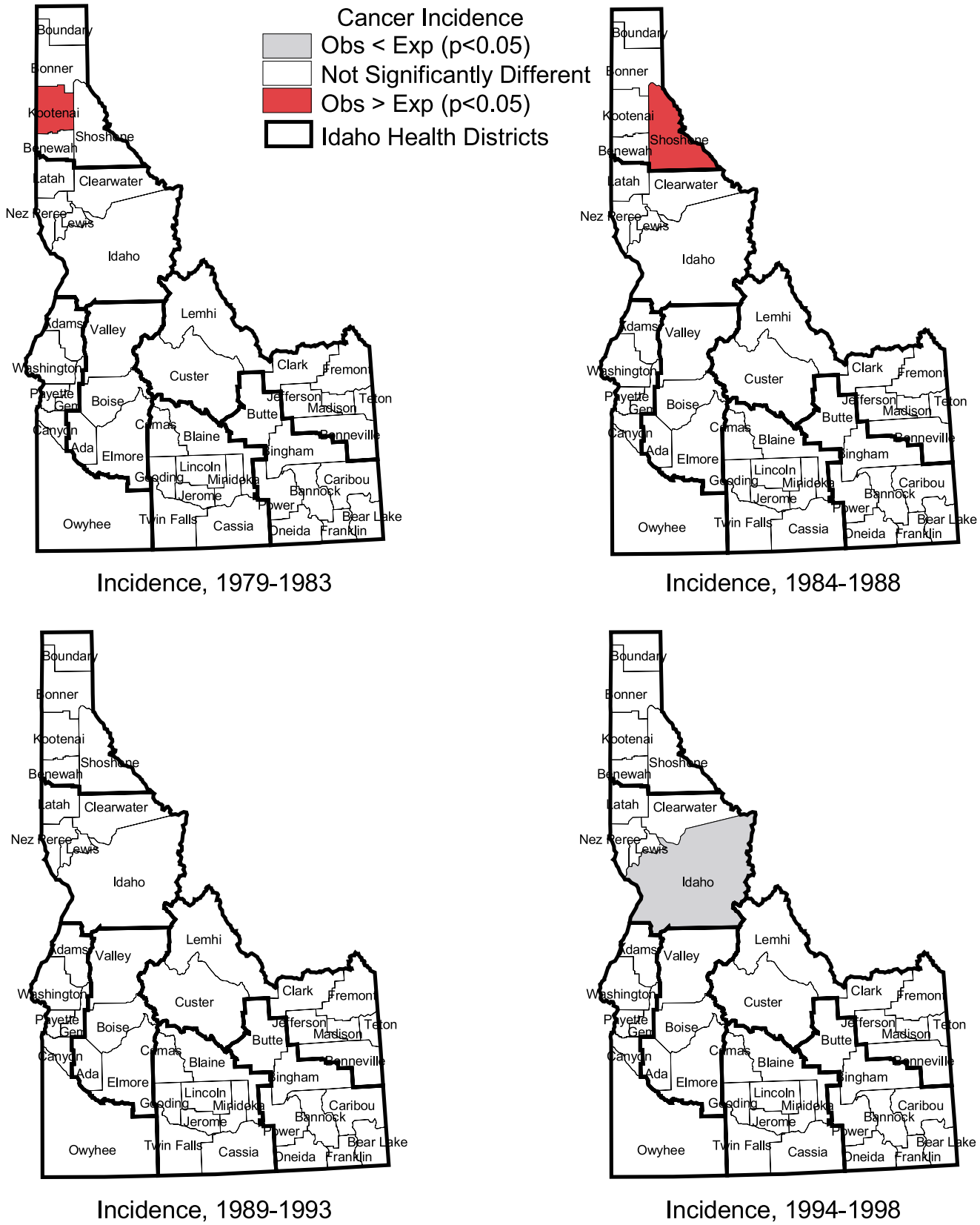


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For localized cases, the rate increased 648.2% from an average of 0.2 cases per 100,000 in 1971-1973 to an average of 0.9 cases per 100,000 in 1996-1998. For regional cases, the rate increased 3.5% per year from 1971-1998 ($p<0.05$). For distant cases, the rate increased 5.0% per year from 1971-1998. For unstaged cases, the trend was flat. Many of the stage-specific rate trends show considerable variability due to the small numbers of cases per year.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of esophageal cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. No individual counties had statistically significantly higher rates of this cancer during more than one of the four five-year time periods, and no individual counties had statistically significantly lower rates of this cancer during more than one of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



HODGKIN'S LYMPHOMA

Primary Site Codes (ICD-0-2): *All sites*
Histologic Types: *9650-9667*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	32	17	15	6	3	3	2.7	3.1	2.5	0.5	0.7	0.5
1997	30	16	14	6	2	4	2.6	2.7	2.3	0.5	0.4	0.6
1996	31	17	14	8	6	2	2.7	2.9	2.4	0.7	1.2	0.4
1995	41	24	17	4	3	1	3.7	4.4	3.0	0.4	0.6	0.2
1994	33	14	19	7	4	3	3.1	2.7	3.4	0.7	0.8	0.5
1993	23	15	8	2	1	1	2.3	3.1	1.5	0.2	0.2	0.2
1992	30	21	9	11	7	4	2.9	4.0	1.8	1.1	1.4	0.7
1991	28	19	9	5	3	2	2.8	4.1	1.6	0.5	0.7	0.4
1990	32	15	17	2	1	1	3.2	3.3	3.2	0.2	0.3	0.2
1989	32	17	15	4	2	2	3.3	3.5	3.2	0.4	0.4	0.4
1988	33	19	14	2	2	0	3.4	4.0	2.9	0.2	0.6	0.0
1987	24	13	11	4	4	0	2.5	2.8	2.1	0.4	0.8	0.0
1986	31	17	14	2	2	0	3.0	3.5	2.6	0.2	0.5	0.0
1985	28	16	12	2	1	1	2.8	3.5	2.2	0.2	0.3	0.2
1984	19	12	7	5	2	3	2.0	2.7	1.3	0.5	0.4	0.6
1983	22	8	14	9	5	4	2.3	1.7	2.8	0.9	0.9	0.8
1982	15	9	6	8	3	5	1.7	2.1	1.3	0.9	0.7	1.0
1981	30	16	14	3	1	2	3.4	3.9	2.9	0.3	0.2	0.4
1980	34	26	8	5	1	4	3.8	5.9	1.6	0.8	0.3	1.2
1979	24	9	15	10	9	1	2.7	2.0	3.2	1.2	2.1	0.3
1978	38	25	13	7	5	2	4.1	5.5	2.7	0.9	1.2	0.5
1977	23	14	9	3	1	2	2.7	3.4	2.1	0.4	0.3	0.4
1976	19	10	9	4	2	2	2.2	2.4	2.0	0.6	0.7	0.5
1975	32	17	15	8	5	3	3.9	4.2	3.6	1.2	1.6	0.8
1974	19	10	9	8	8	0	2.2	2.2	2.2	1.1	2.4	0.0
1973	31	19	12	7	4	3	4.5	5.4	3.4	1.0	1.0	0.8
1972	21	14	7	7	5	2	2.9	4.2	1.7	1.1	1.7	0.6
1971	12	7	5	11	9	2	1.5	1.7	1.3	1.8	2.8	0.8

From 1971 to 1998, there were 767 new cases of Hodgkin's lymphoma and 160 Hodgkin's lymphoma deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 20.8% over the time period, with an estimated annual percent change of 0.2% (NS). For males, the age-adjusted cancer incidence rate decreased 0.6% over the time period, with an estimated annual percent change of 0.2% (NS); for females, the age-adjusted cancer incidence rate increased 63.9% over the time period, with an estimated annual percent change of 0.5% (NS). The overall age-adjusted cancer mortality rate decreased 63.7% over the time period, with an estimated annual percent change of -3.7% ($p<0.05$). For males, the age-adjusted cancer incidence rate decreased 76.3% over the time period, with an estimated annual percent change of -3.6% ($p<0.05$); for females, the age-adjusted cancer incidence rate decreased 21.3% over the time period. There is considerable variability in the rates due to the small number of annual cases.

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate decreased 3.4% over the time period, with an estimated annual percent change of 0.5% (NS). For SEER Whites, the age-adjusted cancer incidence rate decreased 14.6% over the time period, with an estimated annual percent change of -0.2% (NS). Since 1973, the age-adjusted incidence rates for Idaho residents have been similar to the rates for White residents of SEER regions. The rates for Idahoans show considerable variability due to the small numbers of cases per year. Black residents of SEER regions have had somewhat lower incidence rates of Hodgkin's lymphoma.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

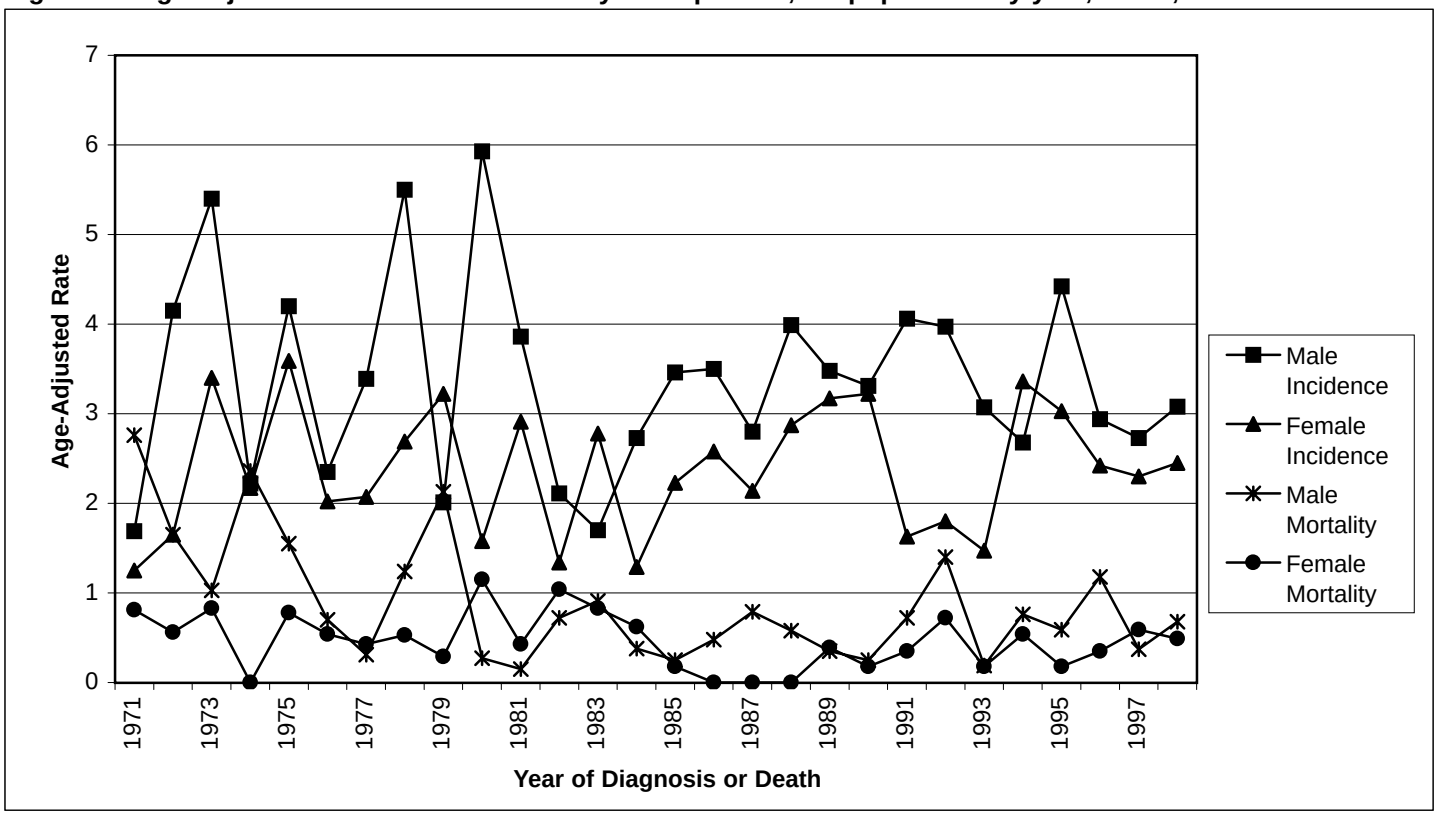


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

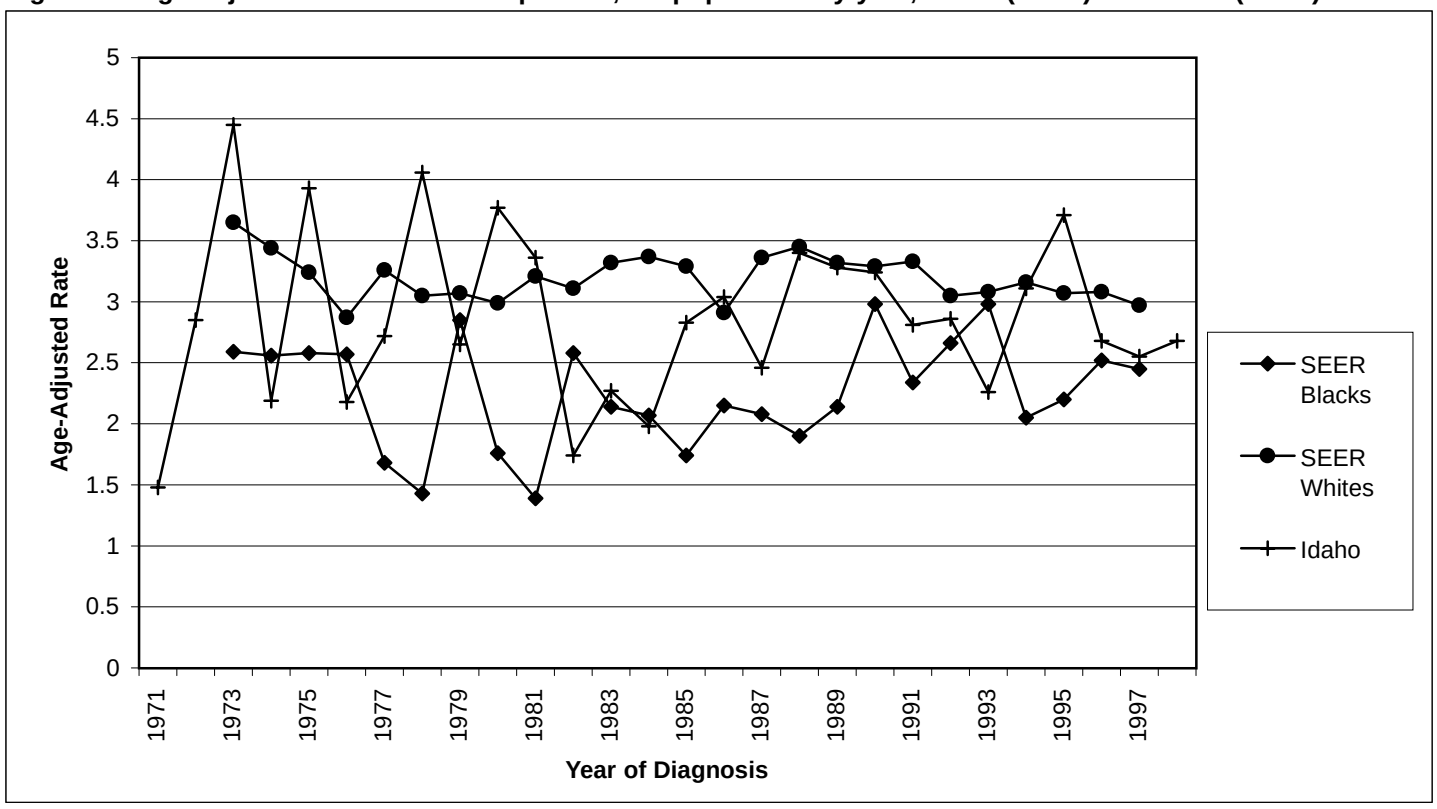


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

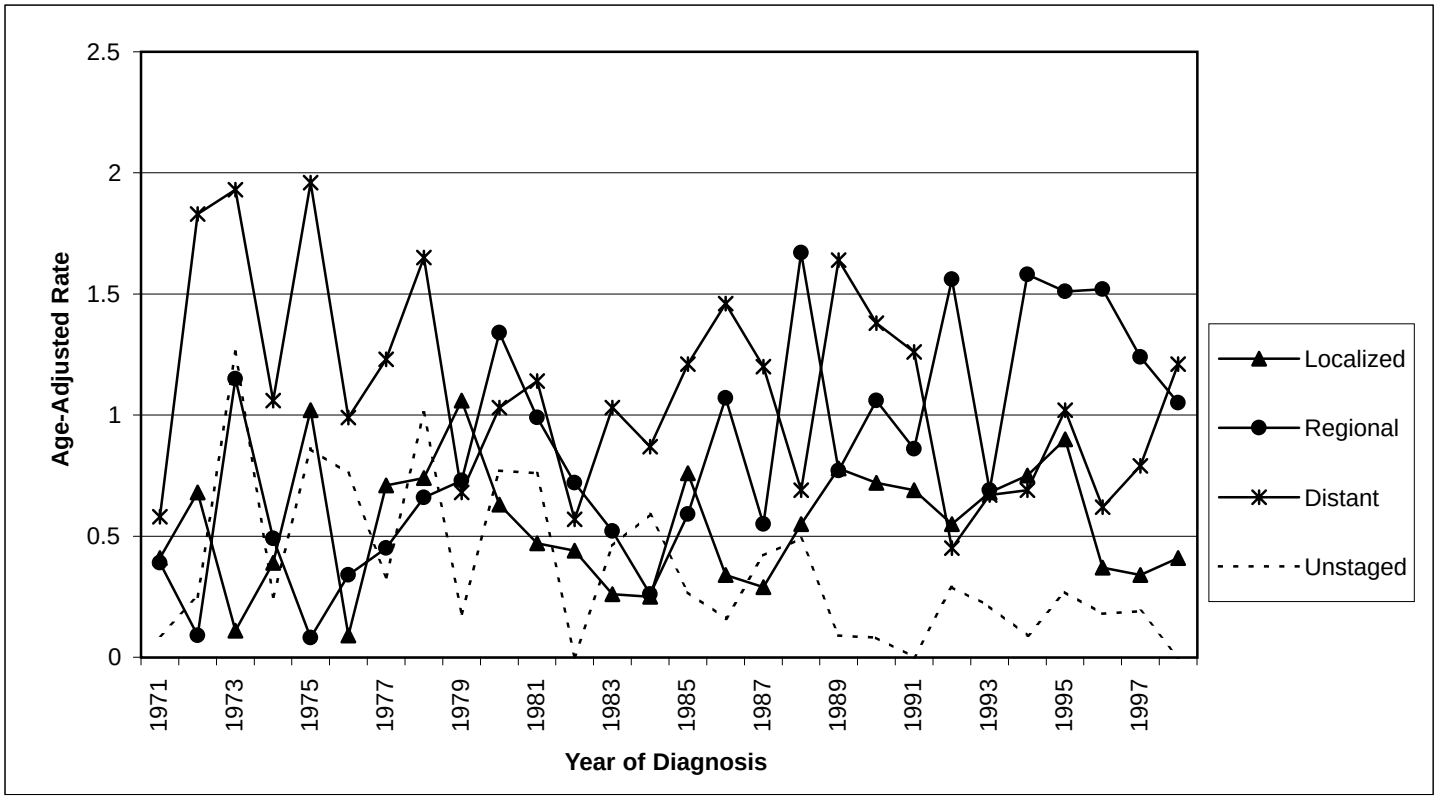
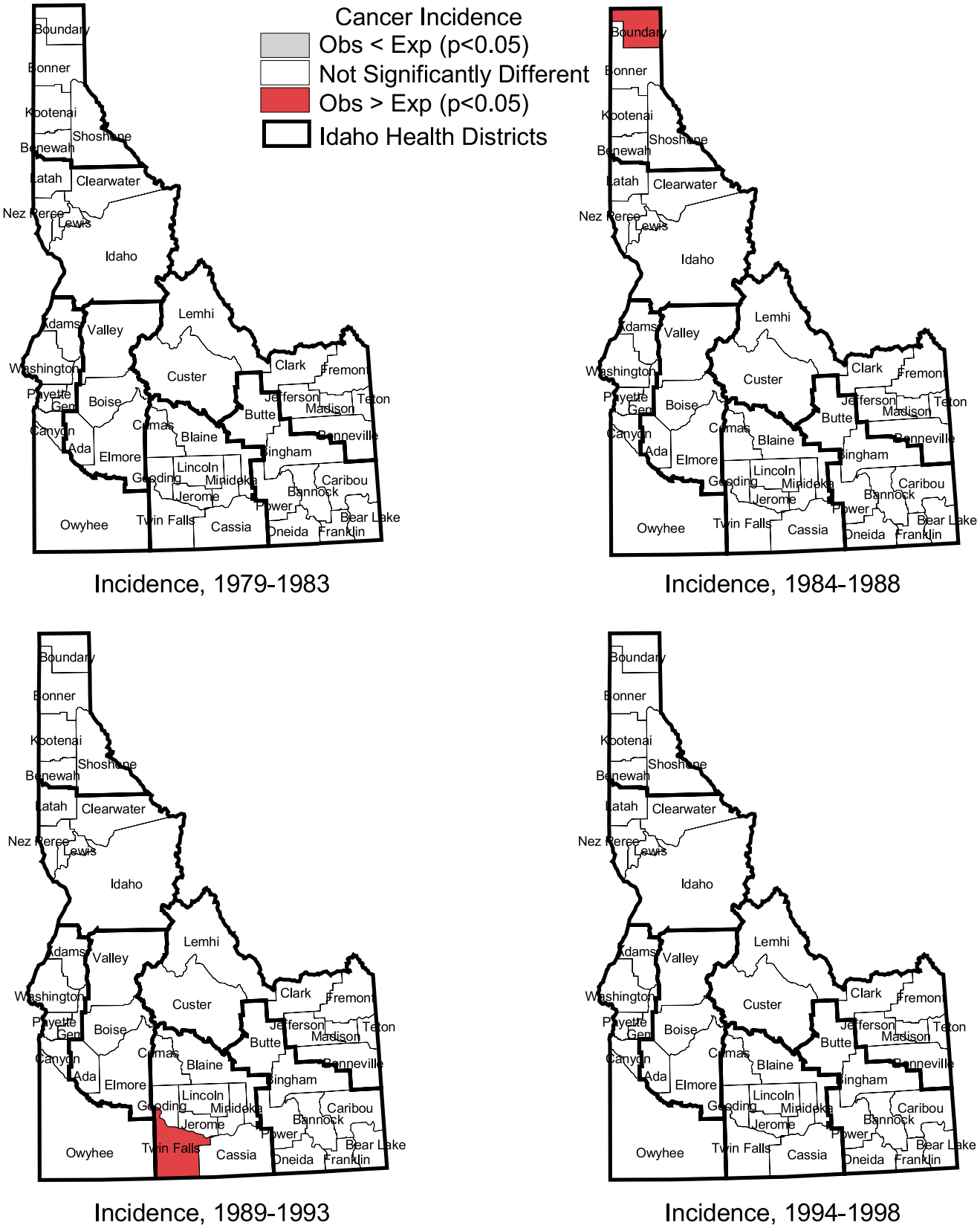


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For regional cases, the rate increased 6.1% per year from 1971-1998. For localized and distant cases, the trends have been flat, with considerable variability due to the small numbers of cases. For unstaged cases, the rate decreased 44.8% over the time period, with annual rates ranging from 0-1.3 cases per 100,000 population.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of Hodgkin's lymphoma than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. No individual counties had statistically significantly higher rates of this cancer during more than one of the four five-year time periods, and no individual counties had statistically significantly lower rates of this cancer during more than one of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



KIDNEY AND RENAL PELVIS

Primary Site Codes (ICD-0-2): *649, 659*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	129	72	57	48	26	22	11.3	13.4	9.4	4.2	5.1	3.5
1997	138	77	61	59	41	18	12.5	14.6	10.3	5.4	8.7	3.0
1996	102	65	37	51	41	10	9.4	13.1	6.3	4.7	8.2	1.7
1995	97	68	29	38	25	13	9.2	13.9	5.1	3.6	5.2	2.2
1994	86	67	19	38	28	10	8.4	13.9	3.5	3.8	6.1	1.7
1993	79	50	29	47	37	10	7.9	10.6	5.4	4.7	8.1	1.7
1992	97	59	38	33	24	9	10.1	13.0	7.3	3.4	5.5	1.6
1991	102	68	34	32	18	14	10.9	15.8	6.9	3.5	4.6	2.7
1990	74	40	34	30	17	13	7.9	9.4	6.8	3.2	4.2	2.4
1989	93	62	31	40	22	18	10.0	14.6	6.1	4.5	5.7	3.8
1988	60	33	27	35	23	12	6.9	8.2	5.9	4.1	6.1	2.4
1987	73	45	28	25	16	9	8.3	11.2	6.0	2.8	3.9	1.8
1986	73	47	26	36	22	14	8.5	11.2	5.7	4.5	5.9	3.0
1985	59	41	18	22	12	10	6.9	10.1	4.0	2.5	3.0	2.1
1984	62	34	28	36	26	10	7.6	8.7	6.8	4.8	8.0	2.3
1983	74	46	28	26	17	9	8.9	12.0	6.2	3.3	5.2	2.1
1982	68	42	26	27	18	9	8.6	11.3	6.0	3.3	4.4	2.0
1981	55	41	14	25	20	5	7.1	10.8	3.6	3.6	6.2	1.4
1980	62	40	22	30	17	13	7.9	11.6	4.9	4.1	5.9	3.0
1979	44	31	13	19	10	9	6.0	10.2	3.0	2.7	3.3	2.2
1978	49	32	17	21	13	8	6.2	8.7	4.2	2.8	3.6	2.0
1977	50	33	17	22	13	9	6.8	9.4	4.5	3.3	4.3	2.5
1976	43	25	18	20	10	10	5.8	7.4	4.5	2.9	3.0	2.8
1975	52	35	17	28	18	10	7.7	10.9	4.8	4.2	5.9	2.7
1974	45	28	17	25	13	12	6.7	9.2	4.6	3.9	4.4	3.5
1973	47	25	22	26	17	9	7.1	8.1	6.2	4.5	6.5	2.9
1972	37	27	10	18	13	5	6.1	9.8	3.0	2.7	4.0	1.5
1971	40	24	16	19	14	5	6.5	8.8	4.6	3.1	5.0	1.5

From 1971 to 1998, there were 1,990 new cases of kidney cancer and 876 kidney cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 89.3% over the time period, with an estimated annual percent change of 2.0% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 50.2% over the time period, with an estimated annual percent change of 1.7% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 159.2% over the time period, with an estimated annual percent change of 2.1% ($p<0.05$). The overall age-adjusted cancer mortality rate increased 66.1% over the time period, with an estimated annual percent change of 1.0% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 53.6% over the time period, with an estimated annual percent change of 1.5% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 115.1% over the time period, with an estimated annual percent change of 0.2% (NS).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate increased 75.2% over the time period, with an estimated annual percent change of 3.1% ($p<0.05$). For SEER Whites, the age-adjusted cancer incidence rate increased 43.3% over the time period, with an estimated annual percent change of 1.9% ($p<0.05$). Over most of the time period, the age-adjusted incidence rates for Idaho residents have been lower than the rates for White residents of SEER regions. The rates for Idahoans show considerable variability due to the relatively small numbers of cases per year. Black residents of SEER regions have had somewhat higher incidence rates of kidney cancer.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

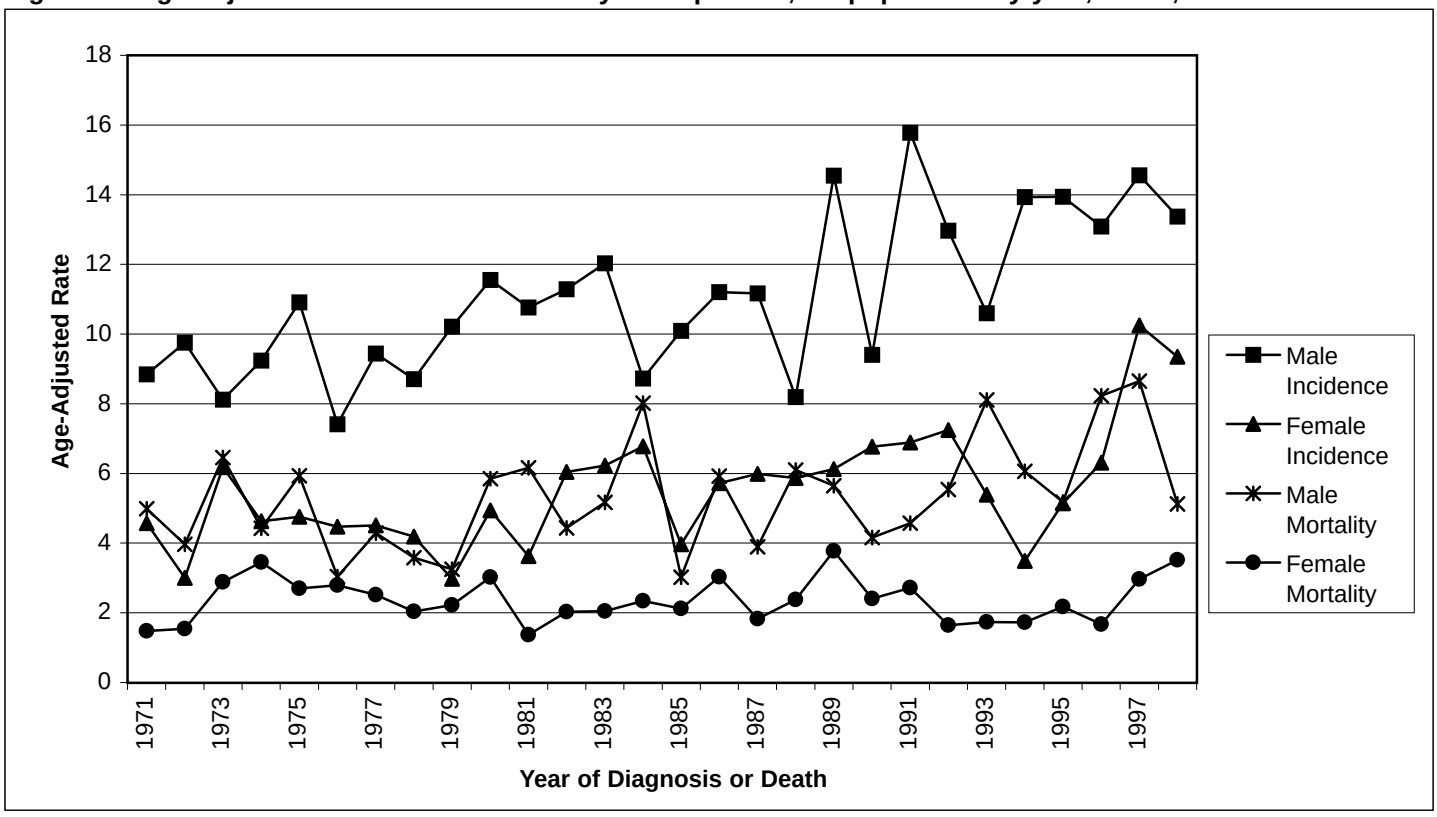


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

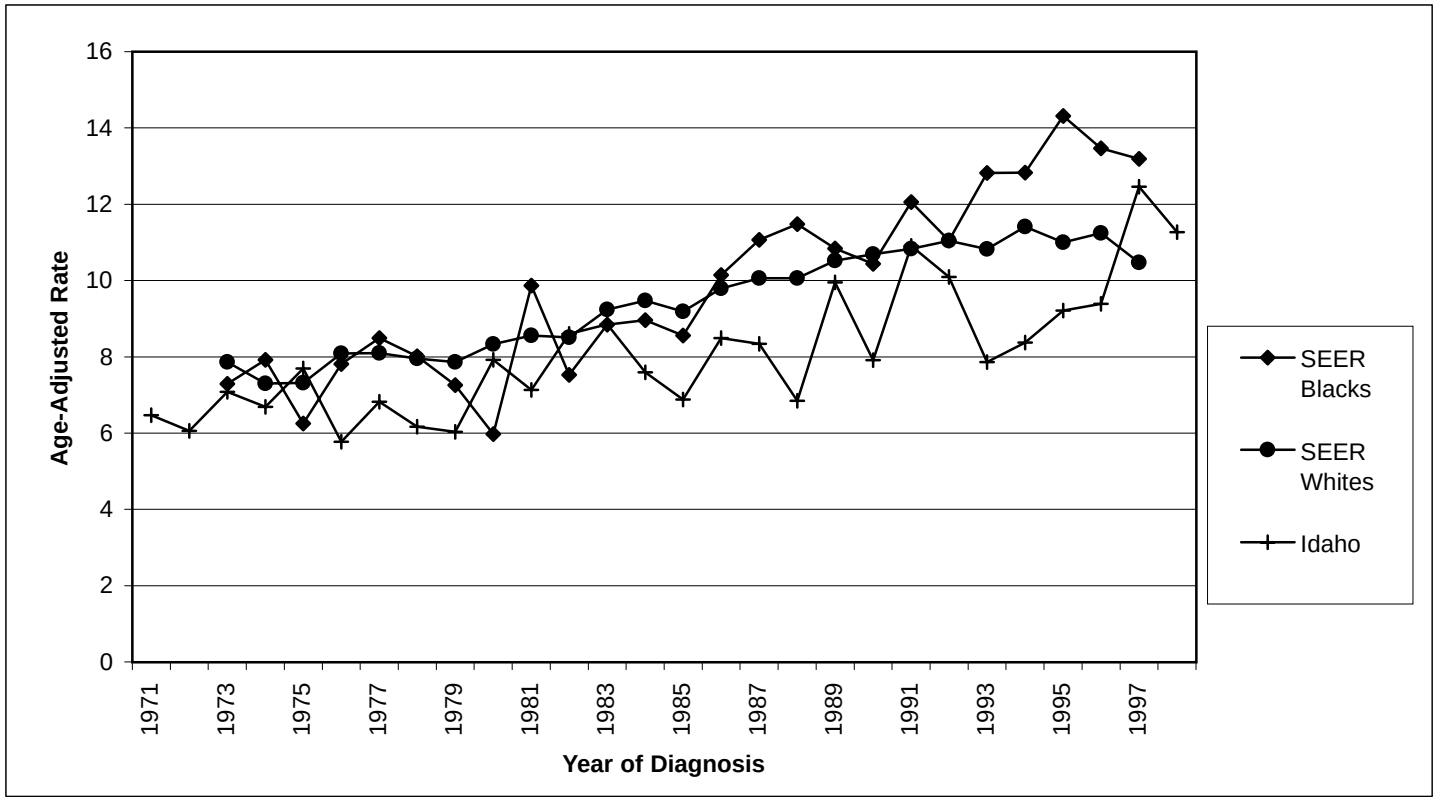


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

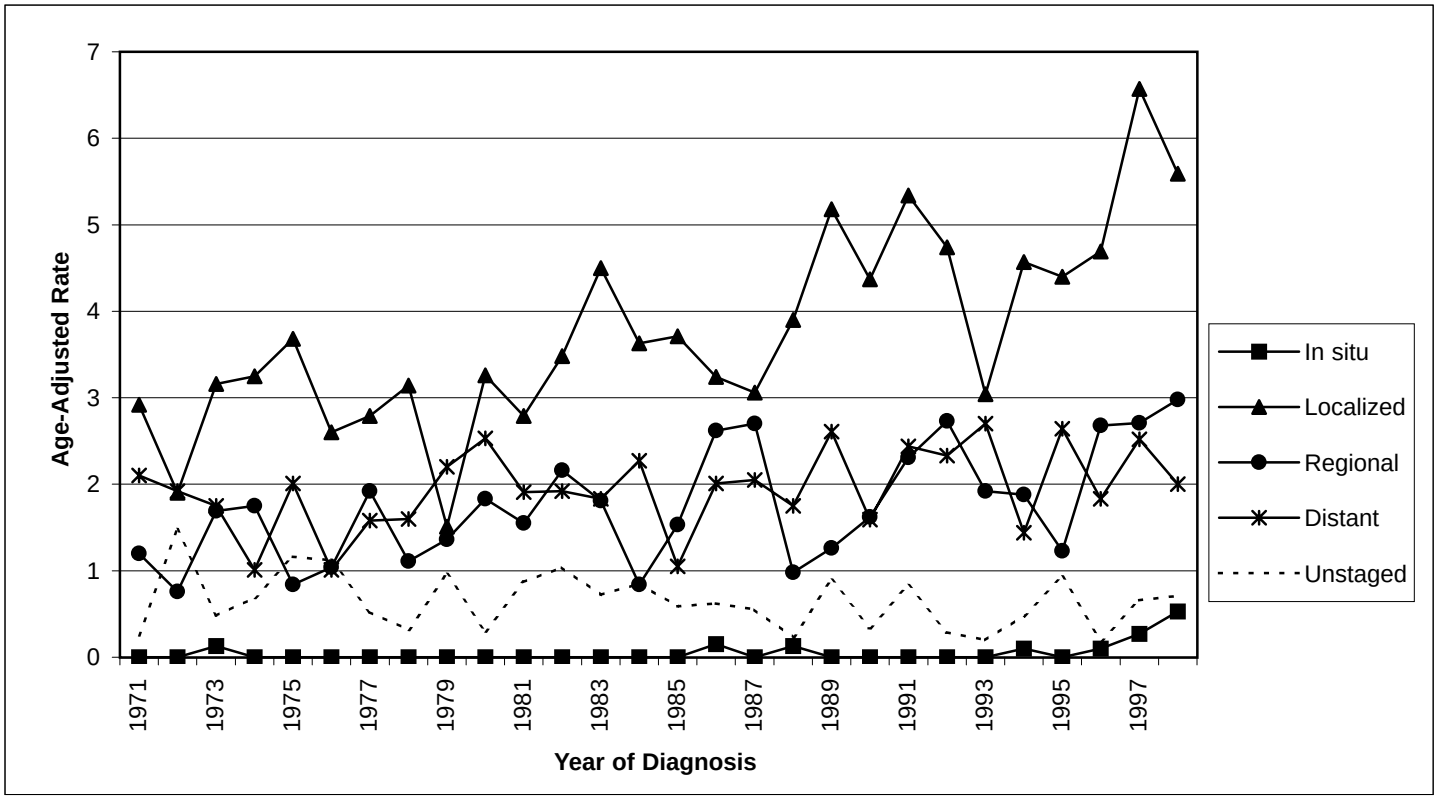
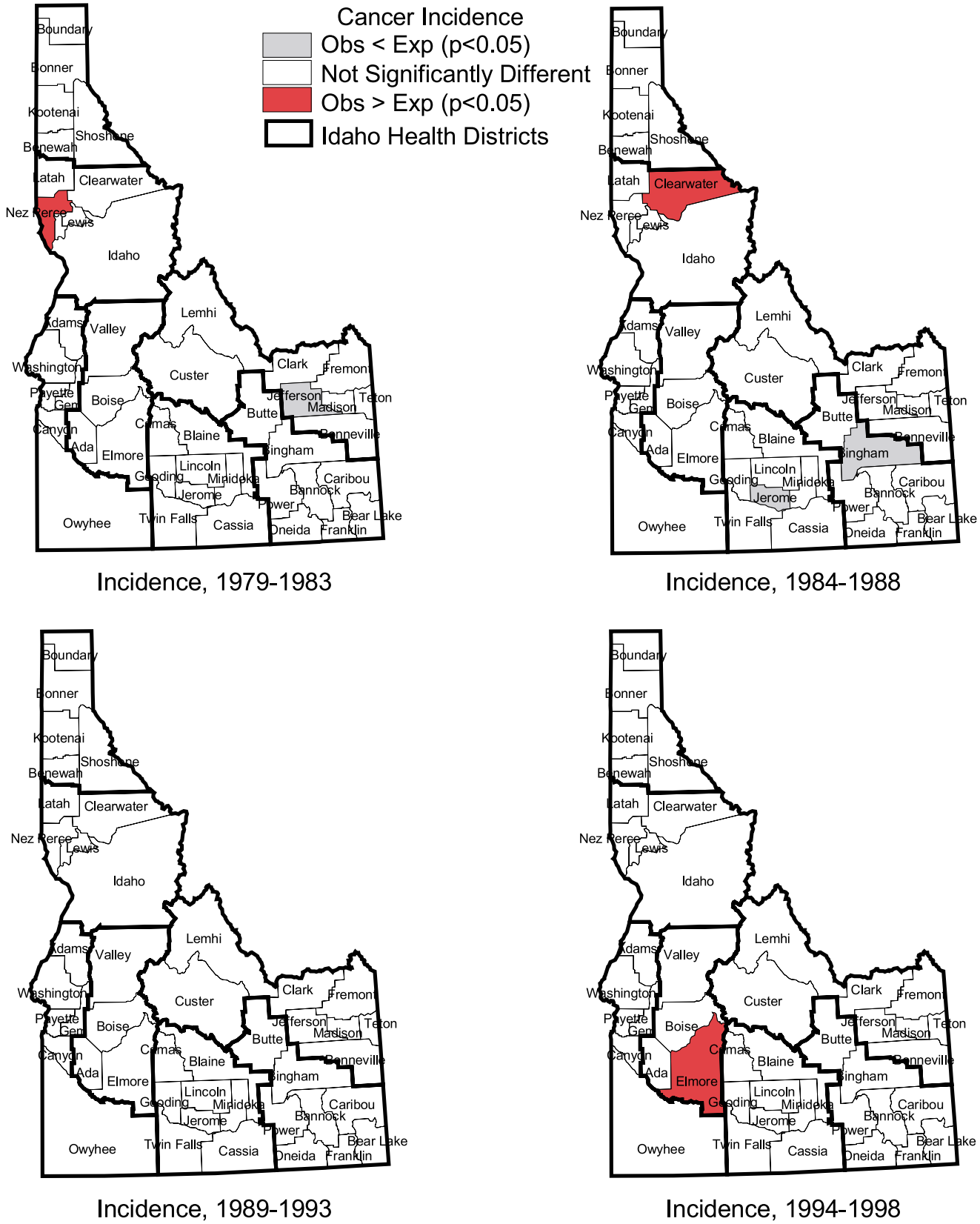


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For localized cases, the rate increased 2.8% per year from 1971-1998. For regional cases, the rate increased 2.7% per year from 1971-1998. For distant and unstaged cases, the trends have been flat. No in-situ cases were diagnosed for most years.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of kidney cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. No individual counties had statistically significantly higher rates of kidney cancer during more than one of the four five-year time periods, and no individual counties had statistically significantly lower rates of kidney cancer during more than one of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



LARYNX

Primary Site Codes (ICD-0-2): *320-329*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	30	26	4	11	9	2	2.7	5.0	0.7	1.0	1.7	0.3
1997	31	26	5	13	7	6	2.8	5.0	0.9	1.2	1.4	1.0
1996	43	36	7	12	8	4	4.0	7.1	1.3	1.1	1.5	0.7
1995	30	23	7	9	8	1	2.8	4.8	1.3	0.8	1.6	0.2
1994	38	31	7	12	7	5	3.6	6.3	1.3	1.2	1.7	0.9
1993	37	28	9	13	12	1	3.7	6.0	1.8	1.3	2.8	0.2
1992	41	32	9	7	6	1	4.3	6.9	1.8	0.7	1.4	0.2
1991	39	33	6	11	6	5	4.1	7.5	1.1	1.1	1.4	0.9
1990	44	33	11	12	10	2	4.7	7.6	2.3	1.3	2.6	0.4
1989	37	24	13	12	9	3	4.2	5.8	2.9	1.3	2.2	0.7
1988	28	23	5	9	8	1	3.1	5.4	1.2	1.0	1.8	0.3
1987	32	25	7	6	3	3	3.5	5.6	1.7	0.7	0.8	0.6
1986	41	33	8	10	7	3	4.8	7.9	2.0	1.1	1.6	0.6
1985	25	17	8	12	5	7	2.8	4.1	1.7	1.3	1.1	1.5
1984	32	27	5	4	4	0	3.7	6.7	1.2	0.6	1.3	0.0
1983	36	32	4	5	3	2	4.2	7.9	1.0	0.6	0.8	0.5
1982	25	20	5	4	3	1	3.1	5.4	1.1	0.5	0.8	0.2
1981	26	18	8	7	7	0	3.4	4.7	2.3	0.7	1.5	0.0
1980	33	28	5	8	7	1	3.9	7.1	1.0	1.1	2.2	0.2
1979	30	24	6	8	4	4	3.7	6.5	1.3	1.0	1.2	0.9
1978	22	16	6	13	12	1	3.1	5.0	1.5	2.0	4.1	0.3
1977	32	28	4	10	9	1	4.3	7.9	1.0	1.5	2.9	0.3
1976	26	22	4	9	7	2	4.0	7.2	1.3	1.4	2.4	0.6
1975	23	19	4	6	5	1	3.6	6.5	1.1	0.8	1.5	0.2
1974	33	32	1	5	4	1	4.8	9.8	0.3	0.8	1.3	0.3
1973	18	15	3	6	6	0	2.7	4.5	1.0	1.0	2.2	0.0
1972	17	13	4	8	6	2	2.5	4.1	1.1	1.1	1.7	0.5
1971	17	15	2	5	5	0	2.6	4.9	0.6	1.0	2.2	0.0

From 1971 to 1998, there were 866 new cases of laryngeal cancer and 247 laryngeal cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 5.8% over the time period, with an estimated annual percent change of 0.2% (NS). For males, the age-adjusted cancer incidence rate increased 11.1% over the time period, with an estimated annual percent change of 0.0% (NS); for females, the age-adjusted cancer incidence rate decreased 5.5% over the time period, with an estimated annual percent change of 1.6% (NS). The overall age-adjusted cancer mortality rate increased 5.0% over the time period, with an estimated annual percent change of 0.1% (NS). For males, the age-adjusted cancer incidence rate decreased 19.7% over the time period, with an estimated annual percent change of -0.7% (NS); for females, the age-adjusted cancer incidence rate increased 152.2% over the time period, with between 0-7 cases per year.

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate decreased 6.4% over the time period, with an estimated annual percent change of -0.1% (NS). For SEER Whites, the age-adjusted cancer incidence rate decreased 17.5% over the time period, with an estimated annual percent change of -0.8% ($p<0.05$). Over the time period, the age-adjusted incidence rates for Idaho residents have been slightly lower than the rates for White residents of SEER regions. Black residents of SEER regions have had significantly higher incidence rates of laryngeal cancer.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

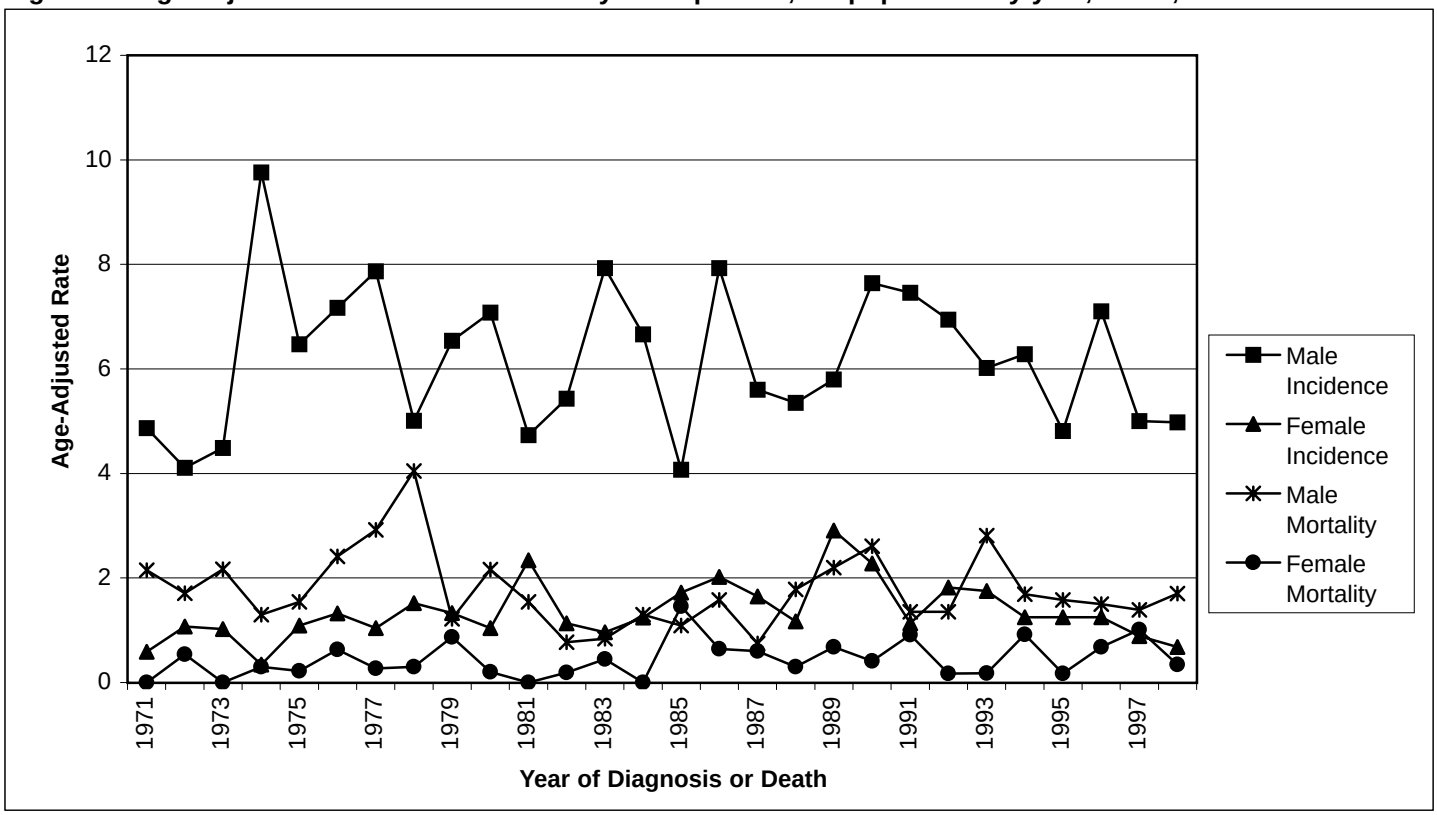


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

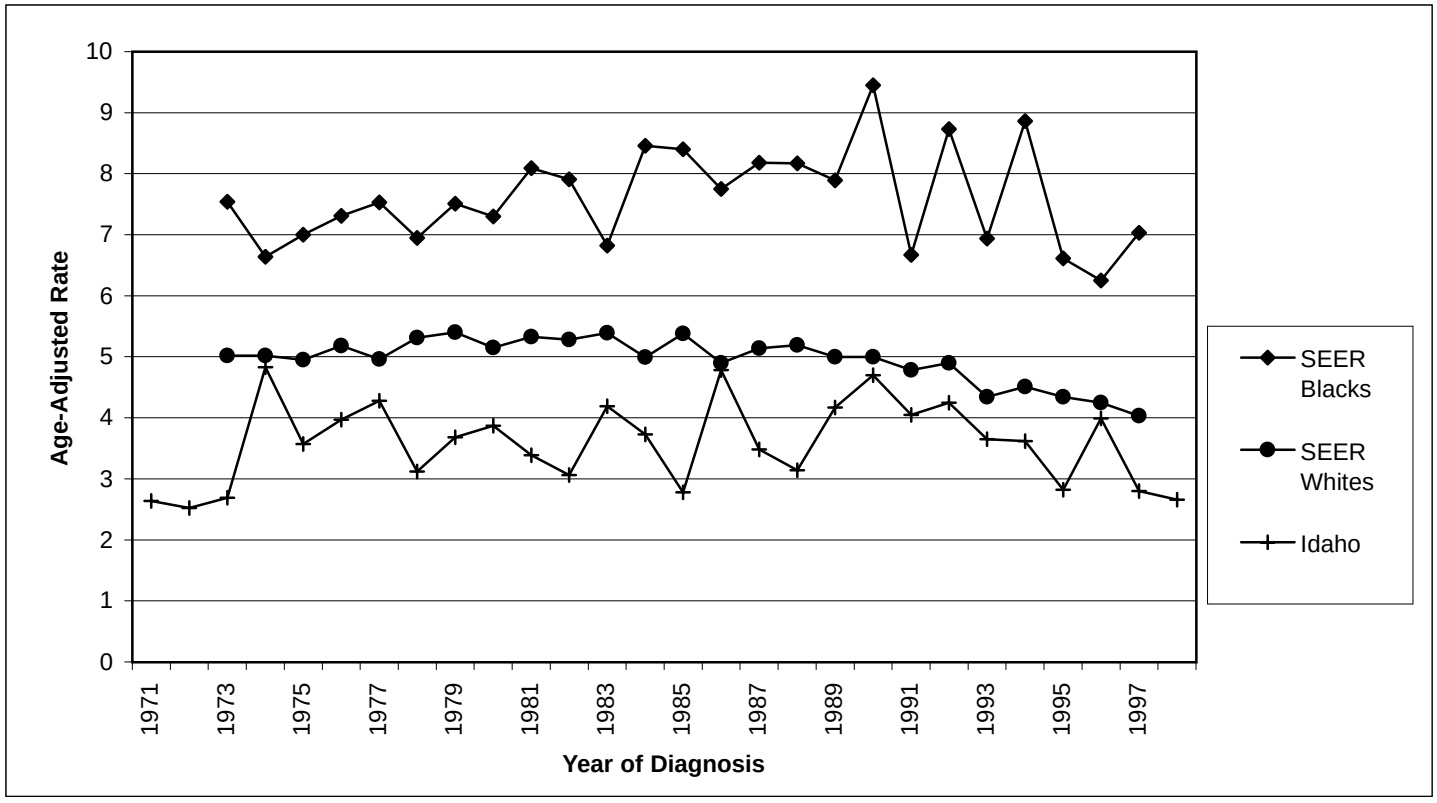


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

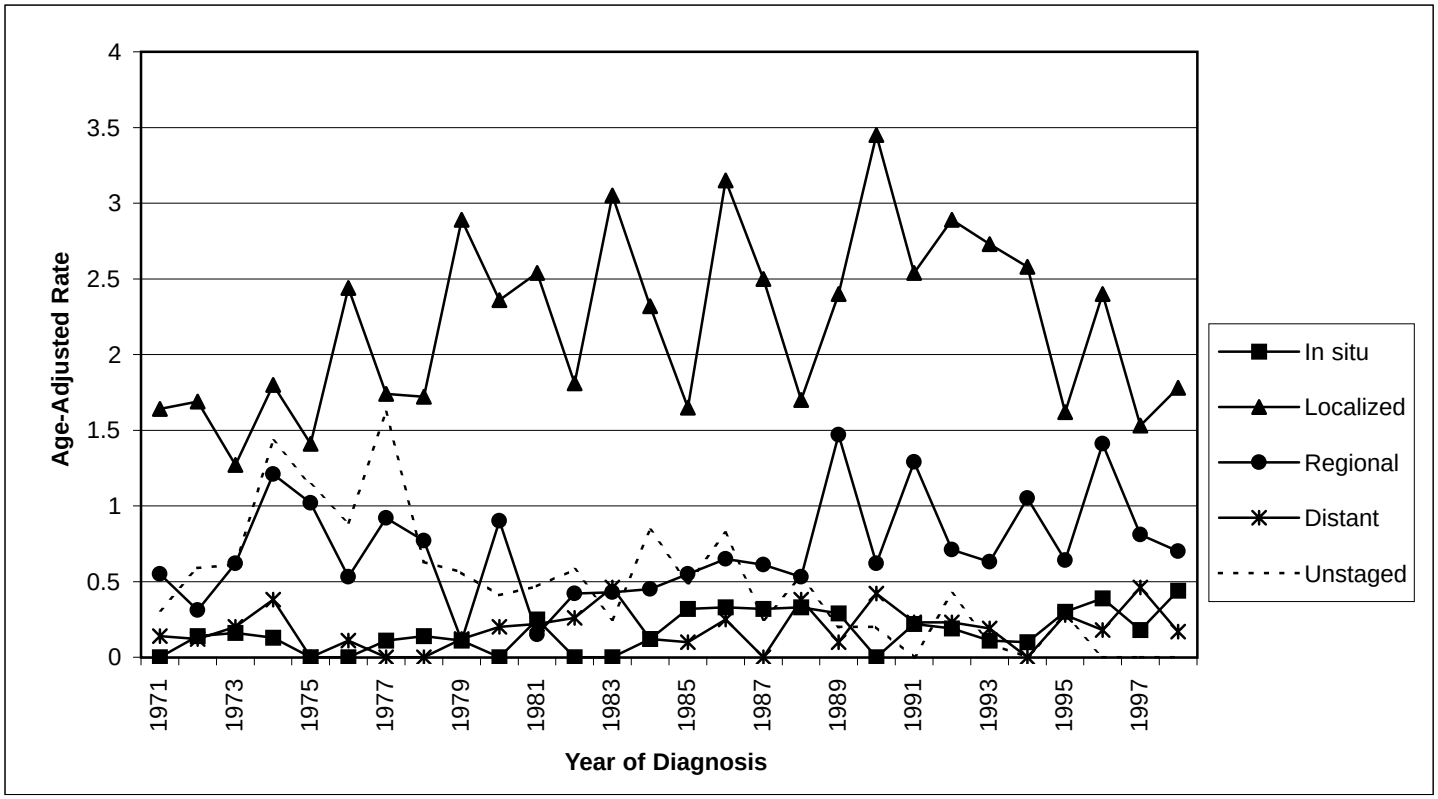
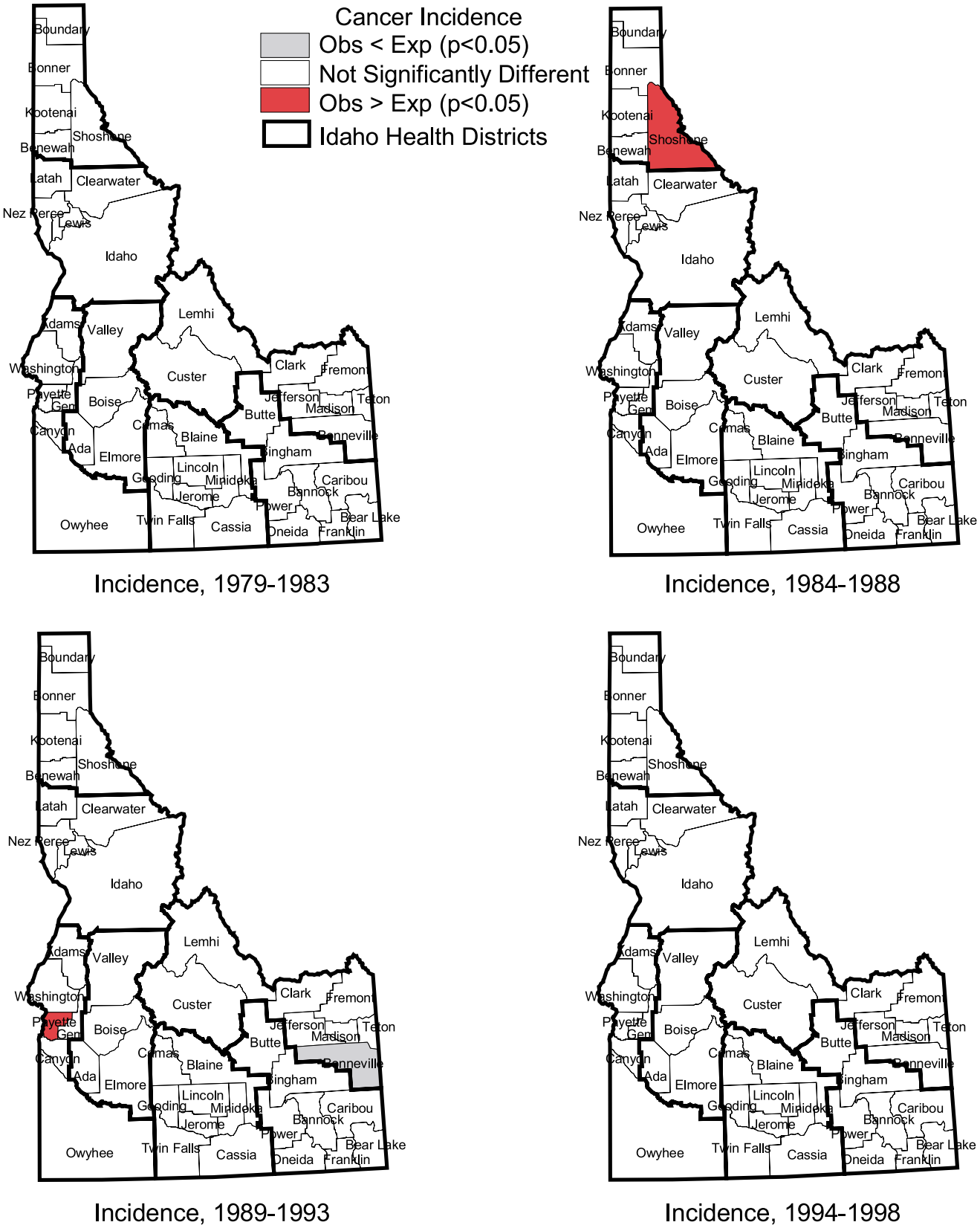


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For in situ cases, the rate increased 354.5% over the entire time period, from 0.0 (1971) to 0.4 (1998) cases per 100,000 population. For localized cases, the rate increased 2.6% per year from 1971-1992 and decreased 9.1% per year from 1992-1998. For regional and distant cases, the trends have been flat. For unstaged cases, the rates decreased from an average of 0.5 cases per 100,000 population in 1971-1973 to no cases in 1996-1998. The stage-specific rates have considerable variability due to small numbers of cases.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of laryngeal cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. No individual counties had statistically significantly higher rates of laryngeal cancer during more than one of the four five-year time periods, and no individual counties had statistically significantly lower rates of laryngeal cancer during more than one of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



LEUKEMIA

Primary Site Codes (ICD-0-2): *421*
Histologic Types: *9800-9949*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	151	94	57	103	60	43	13.0	17.5	9.1	9.1	12.2	6.8
1997	129	69	60	77	48	29	11.4	13.2	9.9	7.0	9.8	4.7
1996	145	88	57	79	50	29	13.0	17.1	9.6	7.4	10.5	4.8
1995	135	78	57	92	50	42	12.6	16.0	9.7	8.7	10.9	7.1
1994	132	75	57	80	47	33	12.4	15.3	9.9	7.7	9.8	5.7
1993	120	73	47	91	52	39	11.7	16.1	8.5	9.0	11.8	7.0
1992	110	51	59	82	45	37	11.0	11.3	10.7	8.4	10.8	6.9
1991	110	58	52	75	41	34	11.6	13.7	10.1	8.0	10.2	6.4
1990	118	66	51	74	48	26	12.6	16.1	9.7	8.0	11.6	5.0
1989	128	87	41	83	52	31	13.9	20.8	8.3	9.0	12.1	6.2
1988	117	73	44	79	35	44	12.9	18.4	8.7	9.3	9.0	9.5
1987	112	70	42	70	40	30	12.8	17.7	8.8	8.0	10.1	6.4
1986	110	61	49	60	29	31	12.6	14.4	10.9	7.2	7.4	7.1
1985	102	52	50	62	35	27	11.5	12.2	10.8	7.6	9.4	6.2
1984	100	56	44	74	43	31	11.8	14.2	9.5	9.3	12.0	6.9
1983	117	67	50	82	52	30	14.5	19.3	11.2	10.6	15.9	6.9
1982	135	77	58	70	27	43	16.5	20.5	13.3	8.9	7.3	10.1
1981	99	65	34	74	48	26	12.7	18.5	8.1	9.7	14.9	6.1
1980	99	61	38	65	39	26	12.5	17.0	8.8	8.6	11.2	6.5
1979	94	54	40	57	33	24	12.4	16.2	9.7	7.8	10.3	5.9
1978	92	54	38	60	38	22	12.9	16.9	9.5	8.6	13.2	5.3
1977	89	54	35	60	34	26	12.9	17.7	9.2	8.9	11.1	7.2
1976	107	59	48	57	30	27	15.1	17.6	13.0	8.9	10.4	7.8
1975	78	43	35	52	34	18	11.9	14.6	9.9	8.1	11.5	5.4
1974	75	53	22	53	34	19	11.6	17.8	6.6	8.1	11.6	5.2
1973	82	43	39	55	34	21	13.0	15.2	11.5	8.7	12.1	6.3
1972	67	38	29	41	26	15	10.2	11.4	8.8	6.5	8.5	4.6
1971	66	39	27	56	32	24	10.6	13.1	8.3	9.5	11.1	8.0

From 1971 to 1998, there were 3,019 new cases of leukemia and 1,963 leukemia deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 17.5% over the time period, with an estimated annual percent change of 0.1% (NS). For males, the age-adjusted cancer incidence rate increased 25.0% over the time period, with an estimated annual percent change of 0.1% (NS); for females, the age-adjusted cancer incidence rate increased 11.5% over the time period, with an estimated annual percent change of 0.1% (NS). The overall age-adjusted cancer mortality rate increased 1.1% over the time period, with an estimated annual percent change of -0.2% (NS). For males, the age-adjusted cancer incidence rate increased 12.7% over the time period, with an estimated annual percent change of -0.1% (NS); for females, the age-adjusted cancer incidence rate decreased 8.6% over the time period, with an estimated annual percent change of -0.1% (NS).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Whites, the age-adjusted cancer incidence rate decreased 8.8% over the time period, with an estimated annual percent change of -0.2% ($p<0.05$). For SEER Blacks, the age-adjusted cancer incidence rate decreased 19.9% over the time period, with an estimated annual percent change of -0.7% ($p<0.05$). The age-adjusted incidence rates for Idaho residents have been similar to the rates for White residents of SEER regions. The rates for Idahoans show considerable variability due to the relatively small numbers of cases per year. Black residents of SEER regions have had somewhat lower incidence rates of leukemia.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

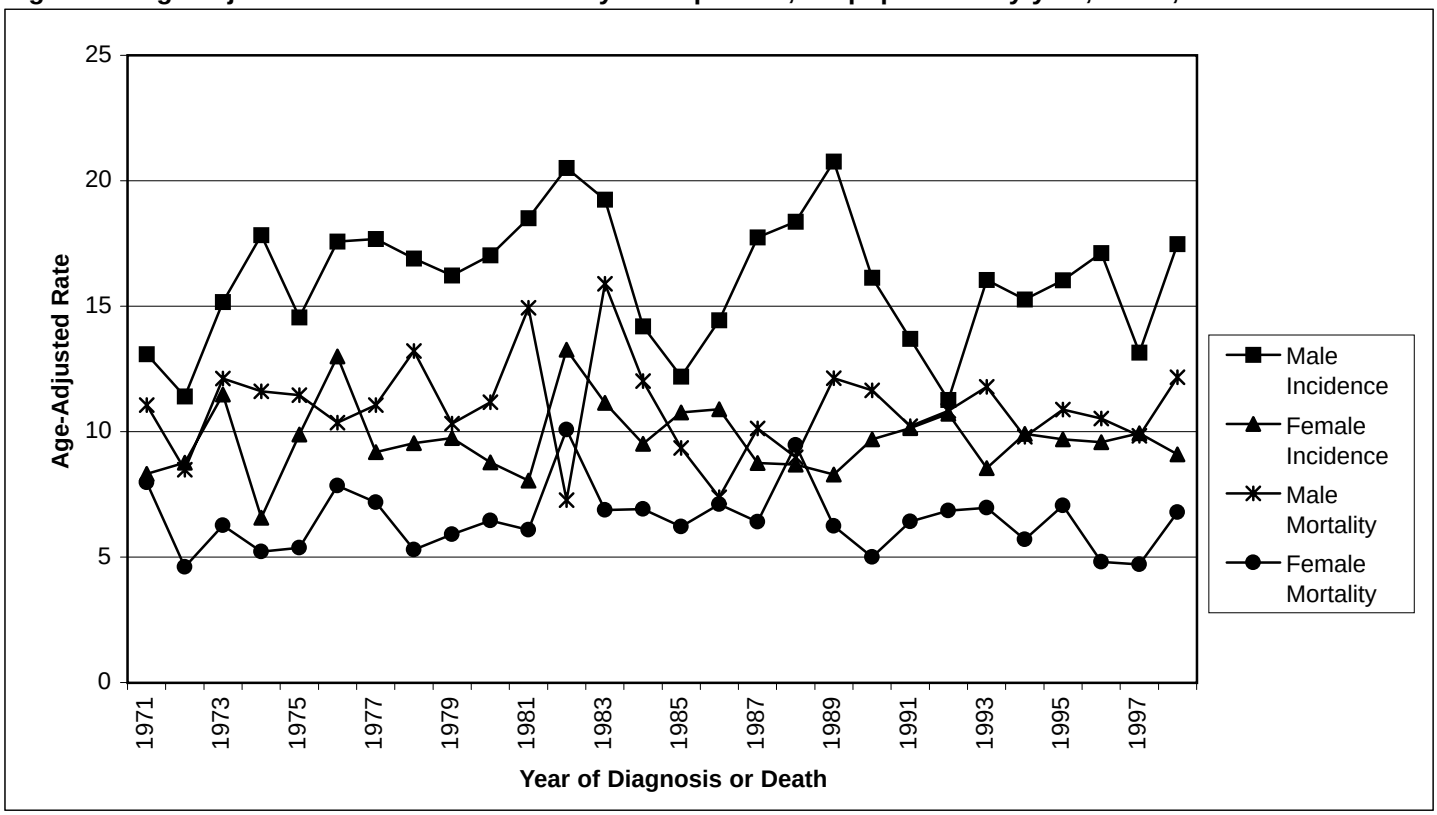
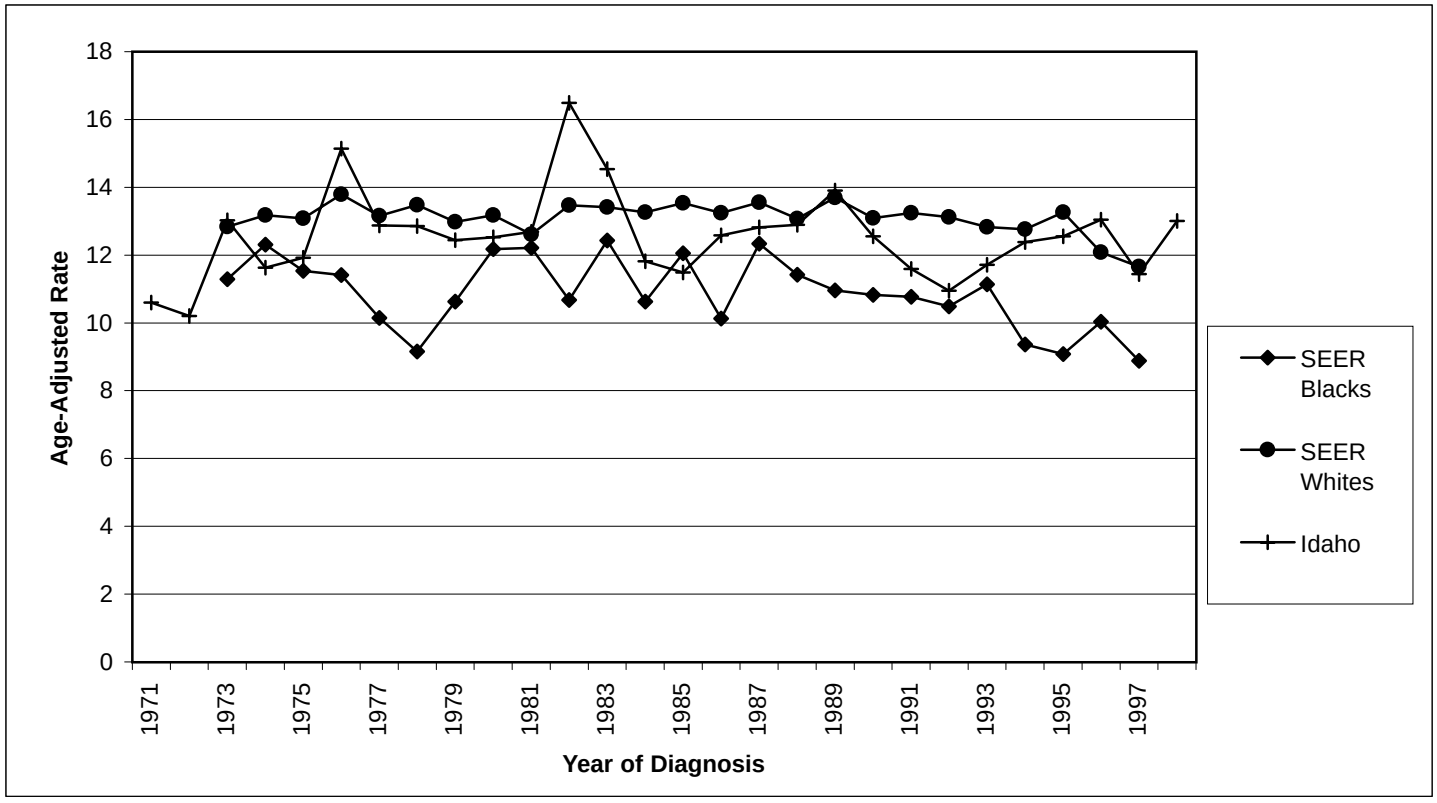


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).



LEUKEMIA

Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

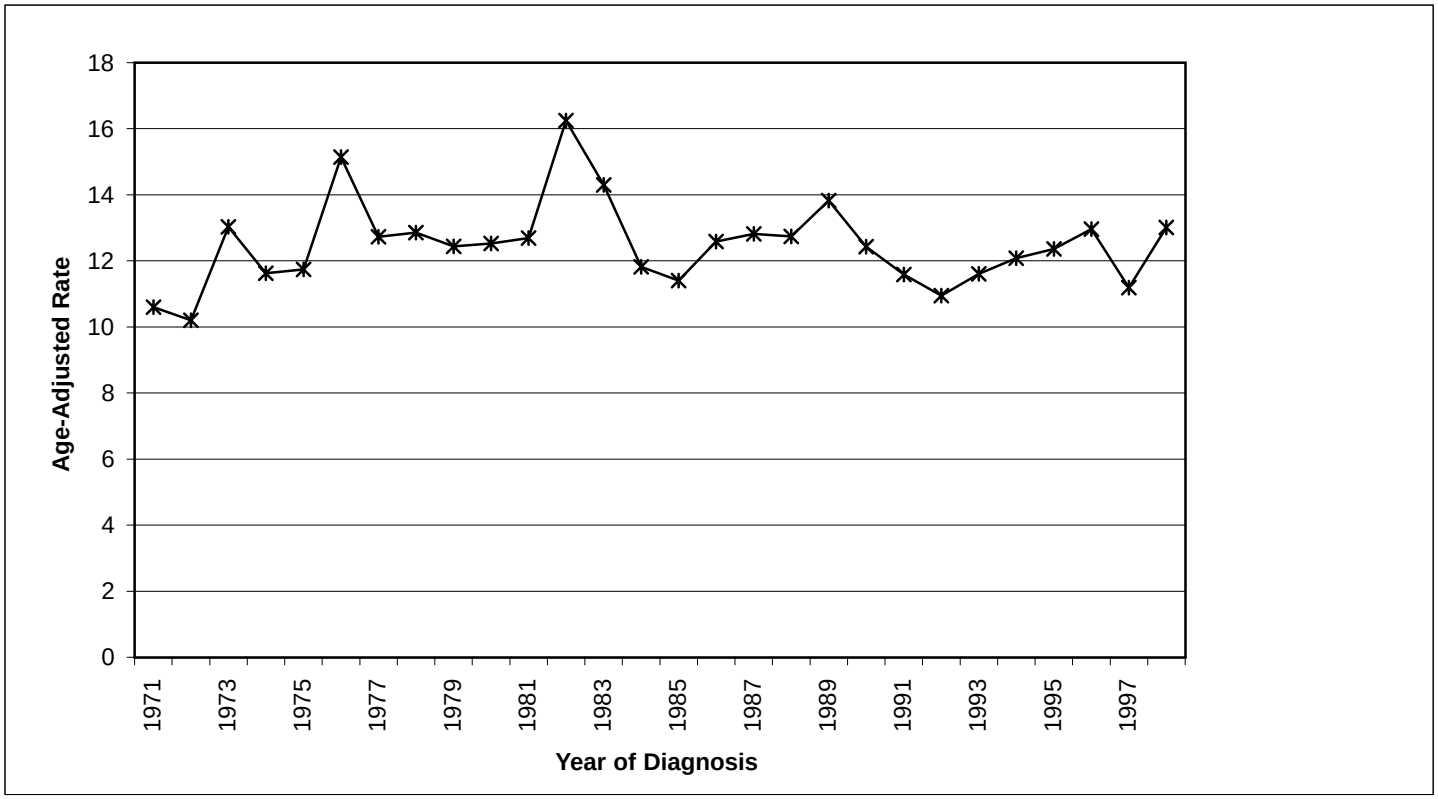
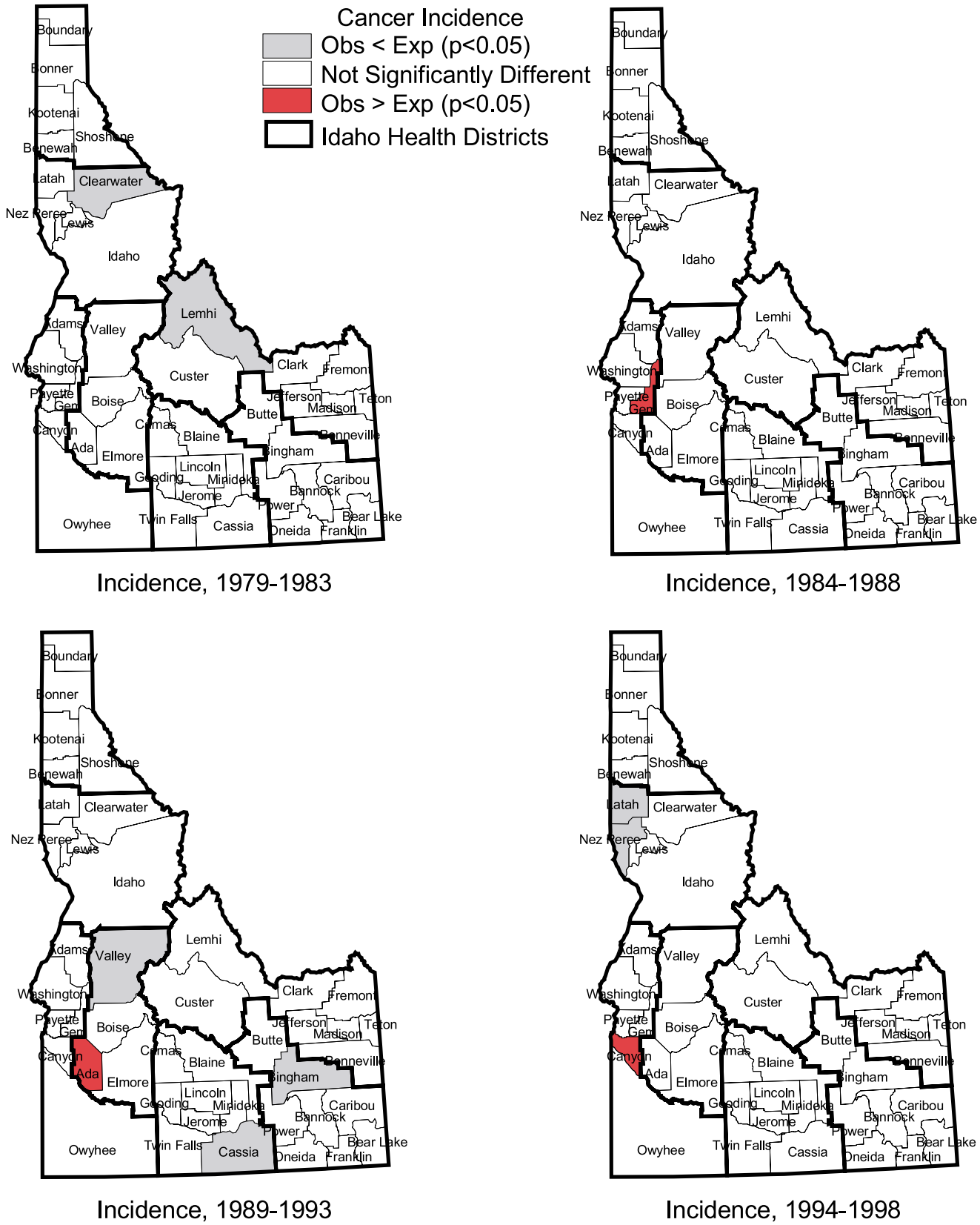


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. All cases of leukemia are distant stage. There was no statistically significant trend.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of leukemia than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. No individual counties had statistically significantly higher rates of leukemia during more than one of the four five-year time periods, and no individual counties had statistically significantly lower rates of leukemia during more than one of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



LIVER & BILE DUCT

Primary Site Codes (ICD-0-2): *220-221*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	41	25	16	33	18	15	3.7	4.9	2.6	2.9	3.5	2.4
1997	24	14	10	27	16	11	2.2	3.0	1.6	2.5	3.3	1.8
1996	23	11	12	33	21	12	2.1	2.3	2.0	3.1	4.4	2.0
1995	32	21	11	24	12	12	3.1	4.6	1.9	2.3	2.4	2.0
1994	24	18	6	28	14	14	2.3	3.6	1.1	2.7	2.9	2.6
1993	19	11	8	26	15	11	1.9	2.4	1.4	2.7	3.5	2.0
1992	31	16	15	33	19	14	3.2	3.4	2.8	3.4	4.3	2.6
1991	17	13	4	24	16	8	1.8	3.2	0.7	2.6	3.8	1.5
1990	18	8	10	24	10	14	2.1	2.0	1.9	2.6	2.4	2.7
1989	26	11	15	32	17	15	3.0	2.9	2.9	3.7	4.5	3.0
1988	18	11	7	18	9	9	2.1	3.0	1.5	2.1	2.4	2.0
1987	12	5	7	14	10	4	1.4	1.3	1.5	1.6	2.6	0.8
1986	13	7	6	16	9	7	1.5	1.7	1.2	1.9	2.3	1.4
1985	12	7	5	20	10	10	1.6	2.0	1.3	2.5	2.7	2.3
1984	14	9	5	23	14	9	1.7	2.4	1.2	2.8	3.8	2.1
1983	13	9	4	24	11	13	1.7	2.8	1.0	2.9	2.9	3.0
1982	16	10	6	16	10	6	2.1	2.7	1.4	2.0	2.7	1.4
1981	12	6	6	18	10	8	1.6	1.4	1.6	2.5	2.8	2.2
1980	13	6	7	14	7	7	1.7	1.7	1.7	1.9	2.0	1.8
1979	9	6	3	18	9	9	1.2	1.9	0.7	2.7	2.7	2.5
1978	10	6	4	13	6	7	1.6	1.9	1.2	2.0	2.0	1.9
1977	7	4	3	17	9	8	1.1	1.2	0.9	2.4	2.6	2.1
1976	3	1	2	9	5	4	0.4	0.2	0.5	1.2	1.4	1.0
1975	8	5	3	13	9	4	1.1	1.7	0.7	2.0	3.1	1.1
1974	6	5	1	8	4	4	0.9	1.7	0.3	1.2	1.3	1.2
1973	4	3	1	8	5	3	0.6	0.9	0.3	1.4	1.6	1.0
1972	2	2	0	7	4	3	0.3	0.7	0.0	1.2	1.6	0.9
1971	3	0	3	6	3	3	0.5	0.0	1.0	1.2	1.6	1.0

From 1971 to 1998, there were 430 new cases of liver cancer and 546 liver cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 573.6% over the time period, with an estimated annual percent change of 6.4% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 964.9% over the time period, from an average of 0.5 (1971-1973) to 3.4 (1996-1998) cases per 100,000. For females, the age-adjusted cancer incidence rate increased 324.2% over the time period, from an average of 0.4 (1971-1973) to 2.0 (1996-1998) cases per 100,000. The overall age-adjusted cancer mortality rate increased 124.4% over the time period, with an estimated annual percent change of 2.9% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 112.4% over the time period, with an estimated annual percent change of 3.0% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 116.9% over the time period, with an estimated annual percent change of 2.6% ($p<0.05$).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate increased 56.8% over the time period, with an estimated annual percent change of 2.3% ($p<0.05$). For SEER Whites, the age-adjusted cancer incidence rate increased 80.1% over the time period, with an estimated annual percent change of 2.7% ($p<0.05$). The age-adjusted incidence rates for Idaho residents have been somewhat lower than the rates for White residents of SEER regions. The rates for Idahoans show considerable variability due to the relatively small numbers of cases per year. Black residents of SEER regions have had significantly higher incidence rates of liver cancer.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

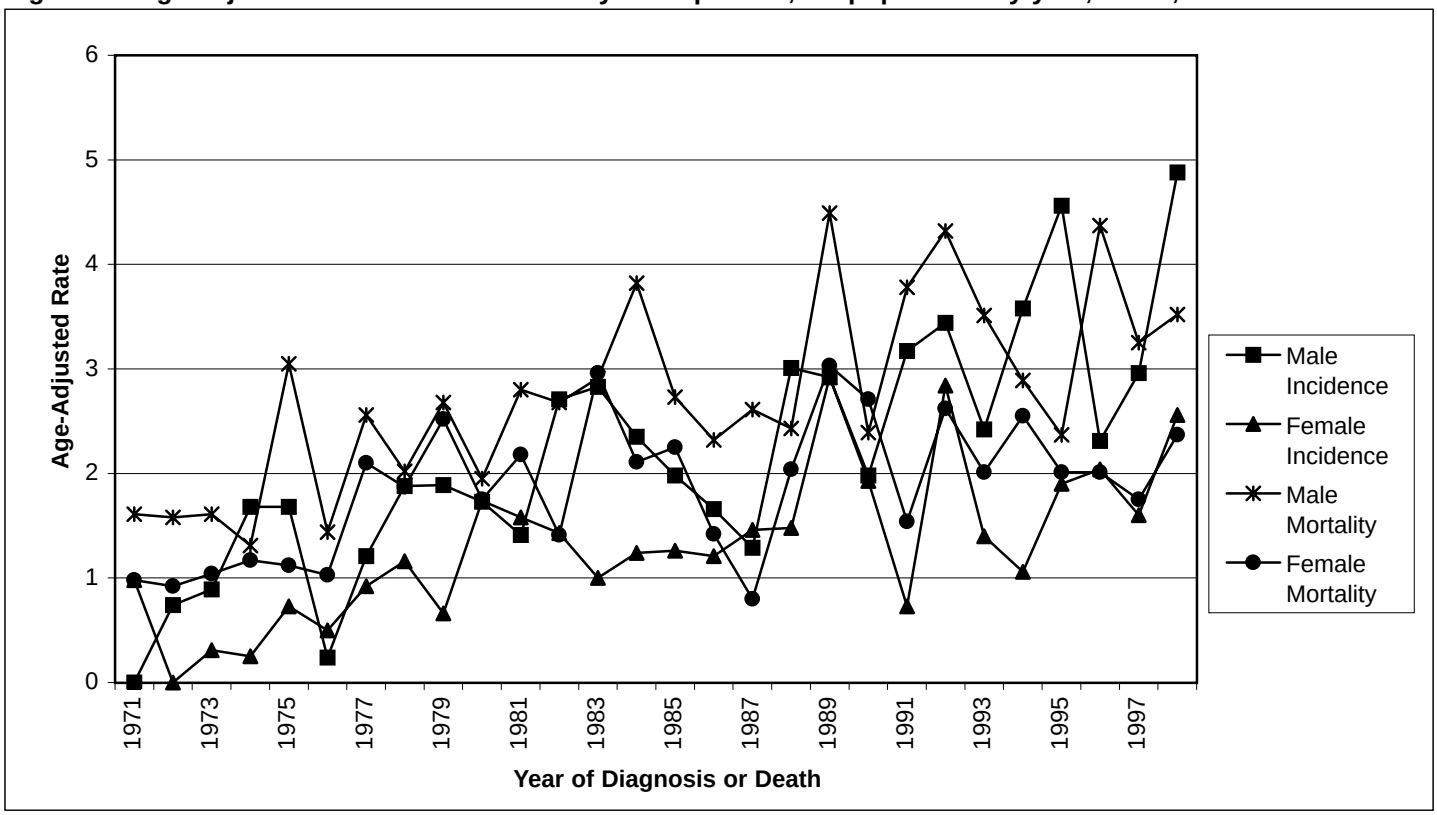


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

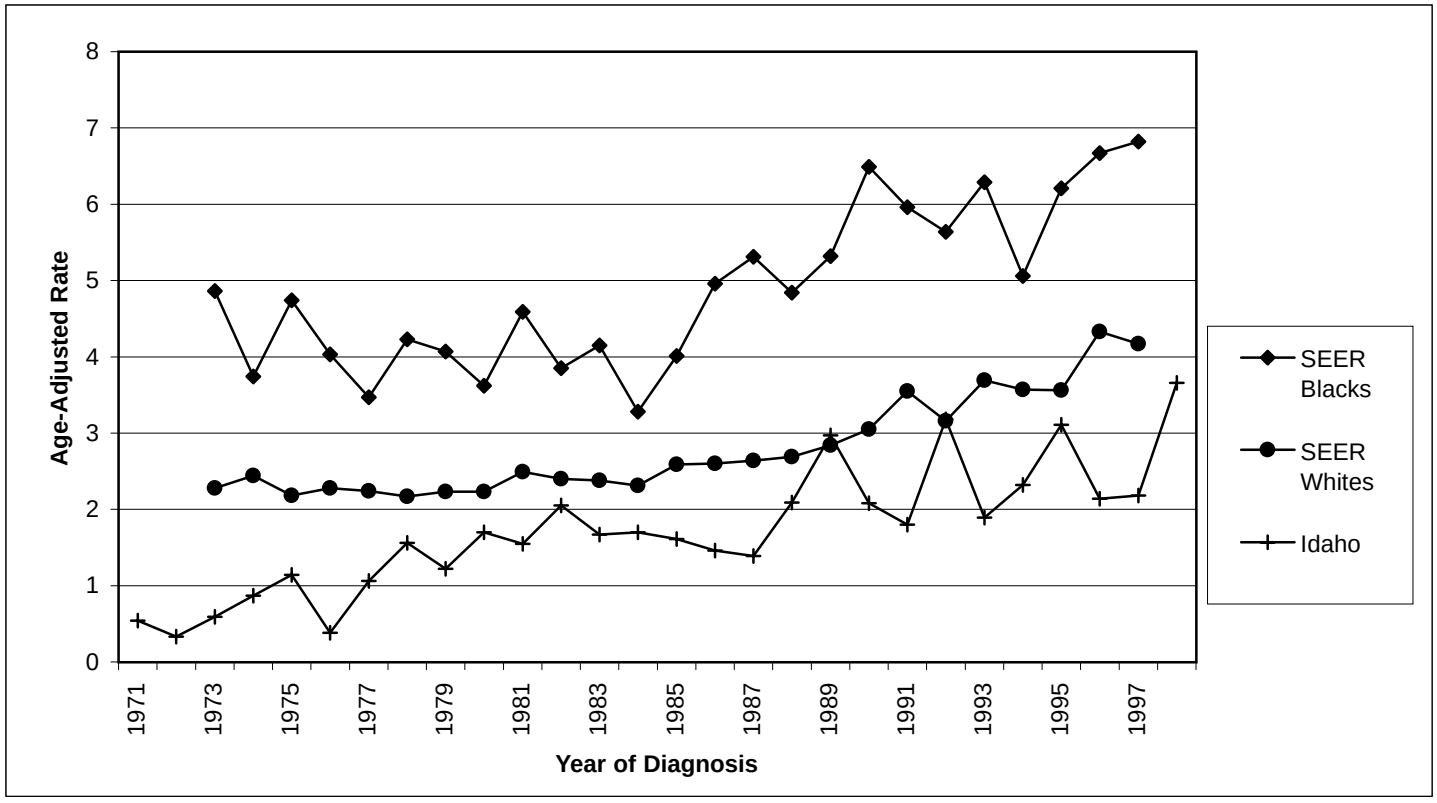


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

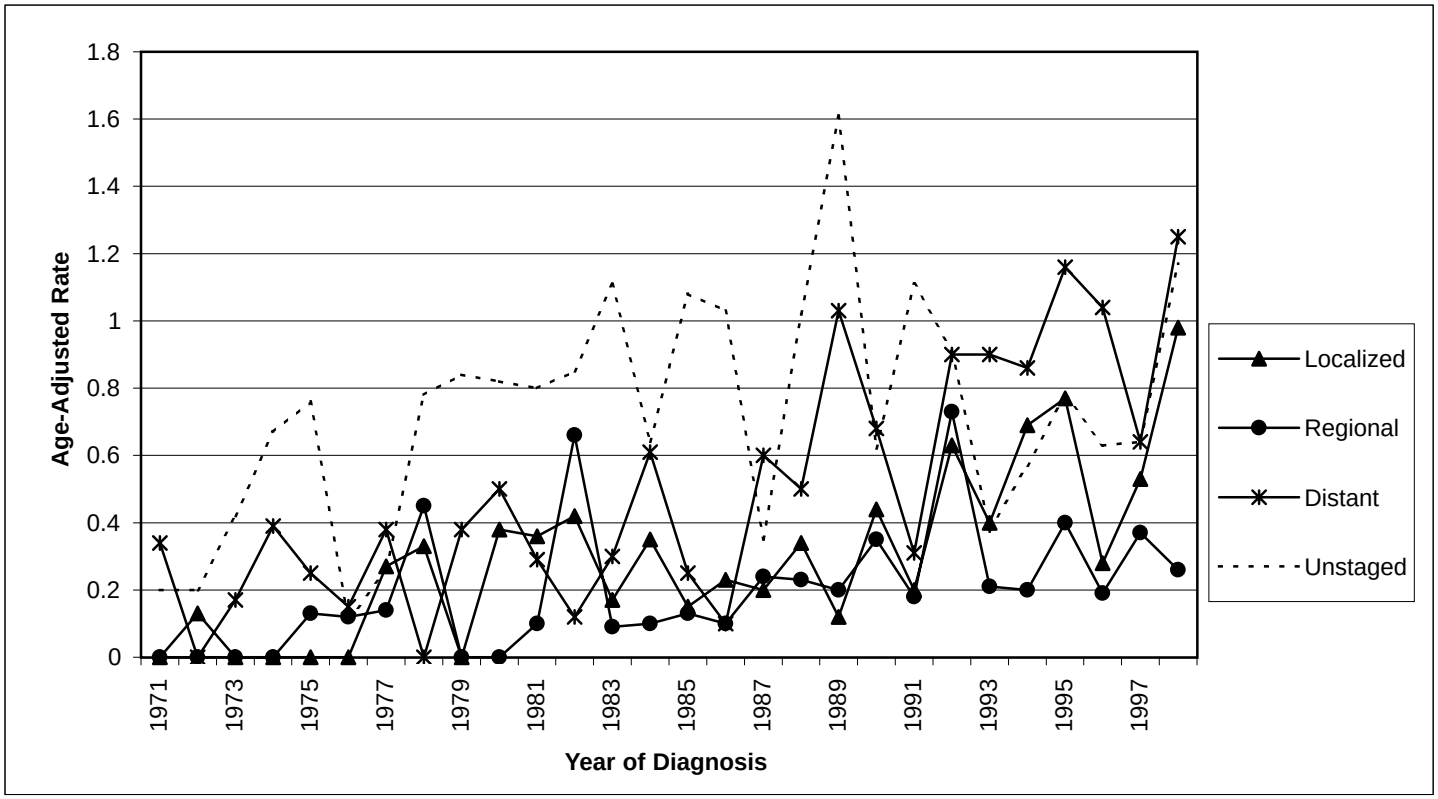
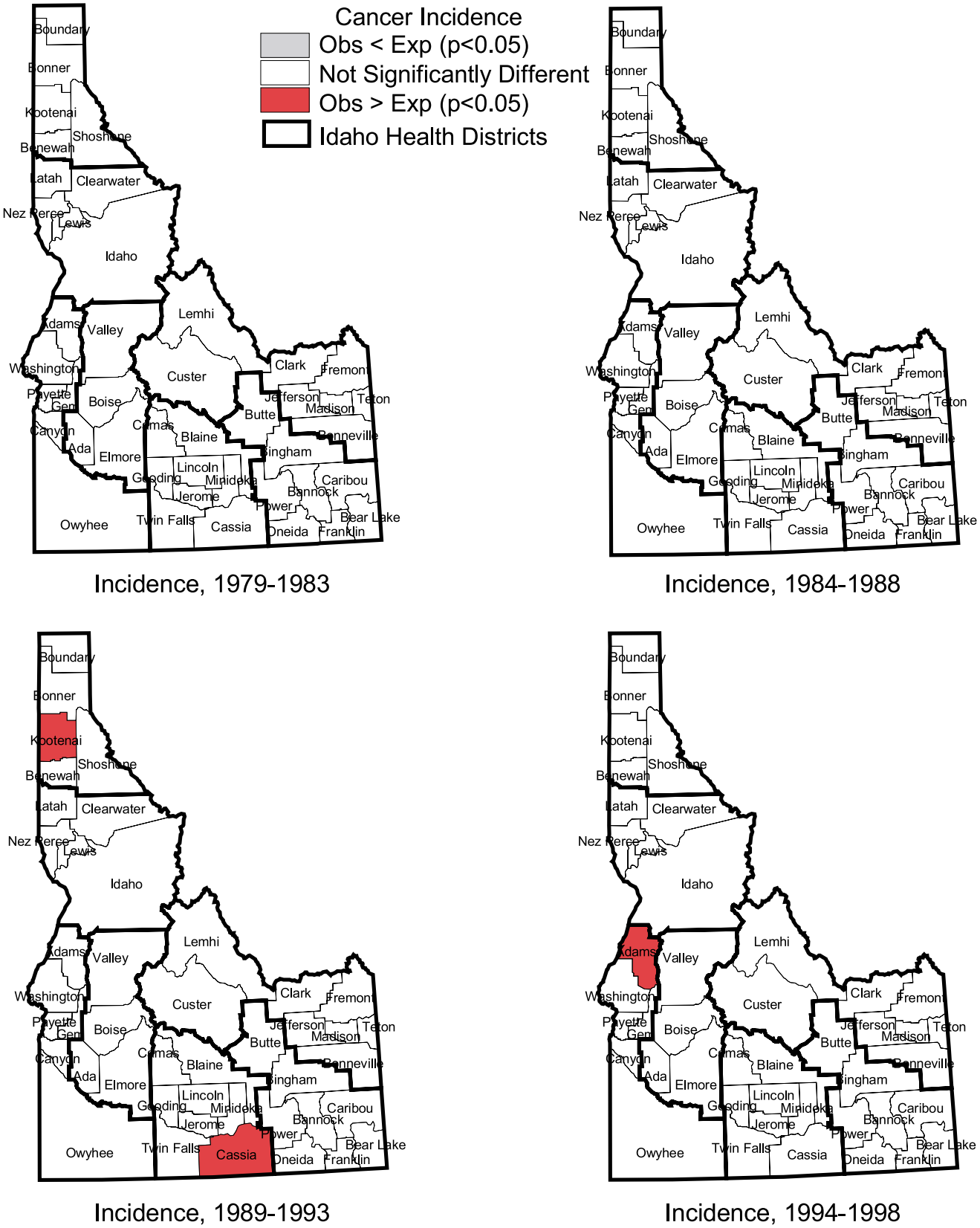


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For localized cases, the rates ranged from 0 to 1.0 cases per 100,000. For regional cases, the rates ranged from 0 to 0.7 cases per 100,000. For distant cases, the rates ranged from 0 to 1.3 cases per 100,000. For unstaged cases, the rate increased 3.6% per year from 1971-1998 ($p<0.05$).

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of liver cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. No individual counties had statistically significantly higher rates of liver cancer during more than one of the four five-year time periods and no individual counties had statistically significantly lower rates of liver cancer during more than one of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



LUNG AND BRONCHUS

Primary Site Codes (ICD-0-2): *340-349*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	655	375	280	543	334	209	58.4	73.8	46.0	48.5	66.5	34.3
1997	616	355	261	530	334	196	55.9	71.2	44.3	48.2	67.7	32.9
1996	591	345	246	494	296	198	54.6	69.9	42.3	46.0	61.2	33.8
1995	580	341	239	493	298	195	55.1	71.8	42.0	46.9	63.5	33.8
1994	597	380	217	477	286	191	57.8	81.3	38.7	46.2	61.4	34.0
1993	556	351	205	480	296	184	55.1	77.9	38.3	47.7	65.5	34.3
1992	566	341	225	464	285	179	57.4	76.7	42.2	47.6	65.8	33.6
1991	525	333	192	410	254	156	55.1	77.6	37.3	42.5	59.4	29.4
1990	491	306	185	415	252	163	52.4	73.4	36.1	44.8	61.4	32.4
1989	533	332	201	428	284	144	58.2	80.2	41.4	46.8	68.2	29.7
1988	445	277	168	411	272	139	49.3	66.6	35.7	45.5	65.8	29.5
1987	465	303	162	364	235	129	51.6	73.6	34.7	41.4	59.3	27.7
1986	432	297	135	387	259	128	49.5	76.2	28.8	44.8	67.8	27.2
1985	451	293	158	318	228	90	52.0	76.6	33.7	37.4	61.5	19.1
1984	426	307	119	341	252	89	50.3	80.7	26.4	40.2	66.8	19.7
1983	390	283	107	303	224	79	47.0	75.1	24.4	36.8	60.8	17.5
1982	431	306	125	326	230	96	52.9	84.5	28.1	40.6	64.0	21.9
1981	419	301	118	305	224	81	51.4	80.0	27.8	37.6	59.0	19.5
1980	386	278	108	278	209	69	49.7	77.6	26.1	36.3	59.5	16.8
1979	358	273	85	247	194	53	47.3	79.0	21.0	33.4	59.4	12.9
1978	288	215	73	226	167	59	38.7	63.6	18.3	30.9	50.2	15.0
1977	281	204	77	242	190	52	39.7	61.8	21.0	33.9	58.3	13.7
1976	285	228	57	256	205	51	40.9	71.2	15.4	36.7	64.1	13.7
1975	246	188	58	208	160	48	35.8	58.4	16.0	31.4	52.5	13.3
1974	215	172	43	192	161	31	32.3	55.4	12.3	29.6	53.0	9.3
1973	212	177	35	182	156	26	32.2	56.5	10.5	28.4	52.1	7.9
1972	172	138	34	186	152	34	27.5	46.4	11.0	29.5	50.1	10.8
1971	183	157	26	168	138	30	29.3	52.4	8.3	26.5	45.1	9.5

From 1971 to 1998, there were 11,795 new cases of lung cancer and 9,674 lung cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 101.2% over the time period, with an estimated annual percent change of 2.4% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 46.9% over the time period, with an estimated annual percent change of 1.1% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 368.9% over the time period, with an estimated annual percent change of 5.8% ($p<0.05$). The overall age-adjusted cancer mortality rate increased 72.7% over the time period, with an estimated annual percent change of 2.2% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 41.0% over the time period, with an estimated annual percent change of 1.0% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 231.2% over the time period, with an estimated annual percent change of 5.6% ($p<0.05$).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate increased 21.2% over the time period, with an estimated annual percent change of 1.1% ($p<0.05$). For SEER Whites, the age-adjusted cancer incidence rate increased 33.2% over the time period, with an estimated annual percent change of 1.3% ($p<0.05$). Prior to 1980, Idaho's age-adjusted cancer incidence rate for this site increased approximately 6.6% per year. From 1980-1998, the rate increased 0.9% per year. The age-adjusted incidence rates for Idaho residents have been statistically significantly lower than the rates for White residents of SEER regions, which have been statistically significantly lower than the rates for Black residents of SEER regions. While the rates for both Black and White residents of SEER regions have fallen since the early 1990s, the rates for Idahoans have continued to rise.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

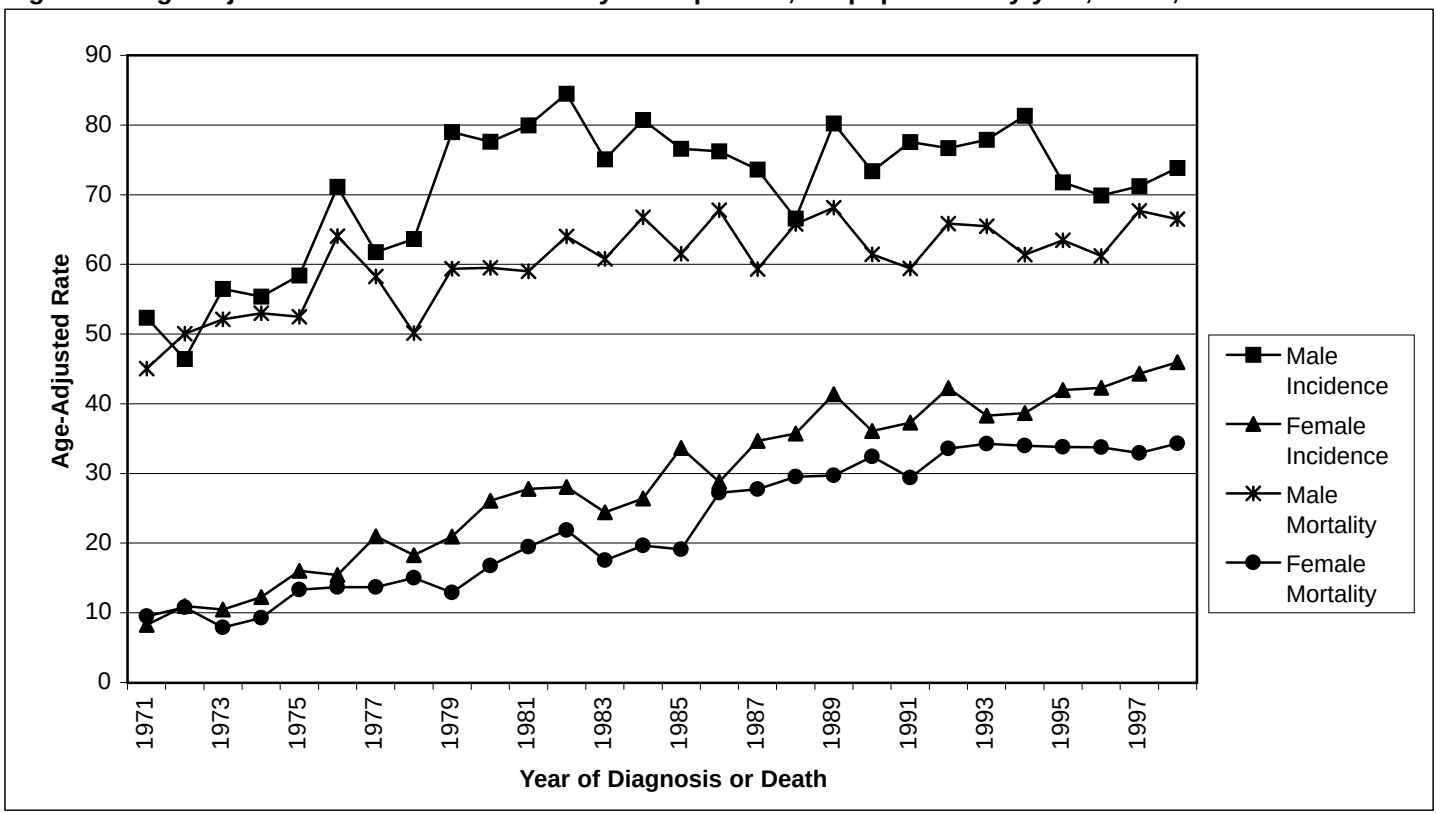


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

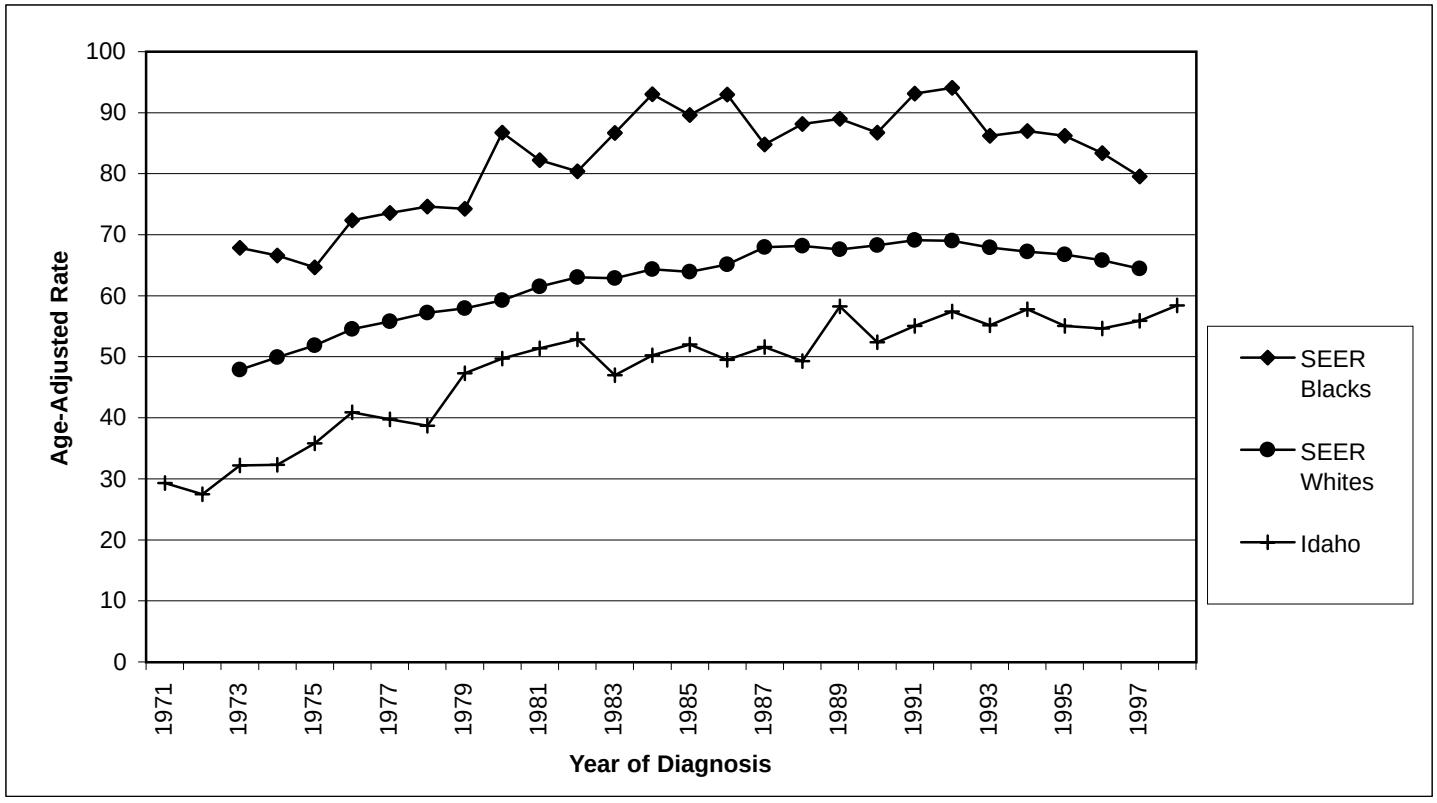


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

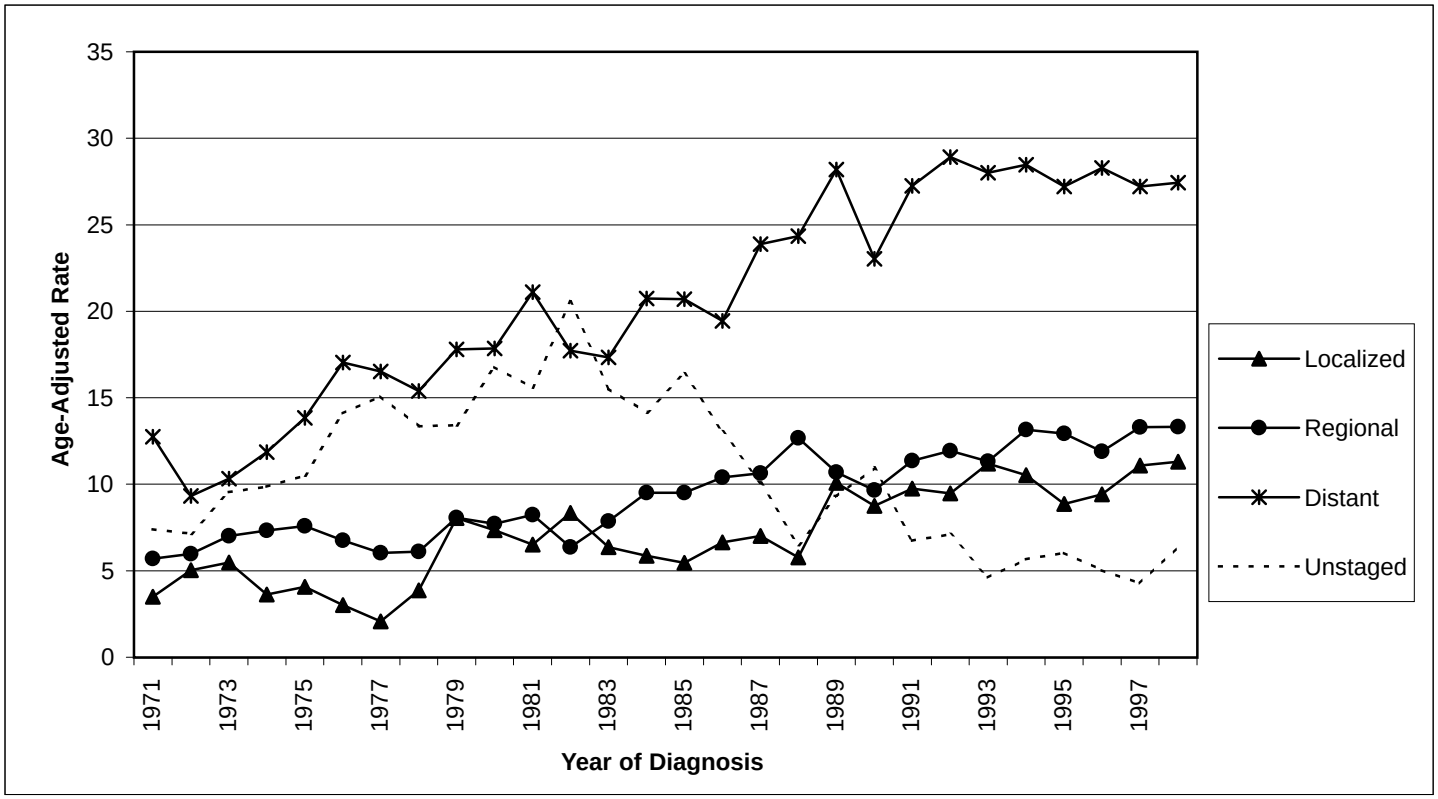
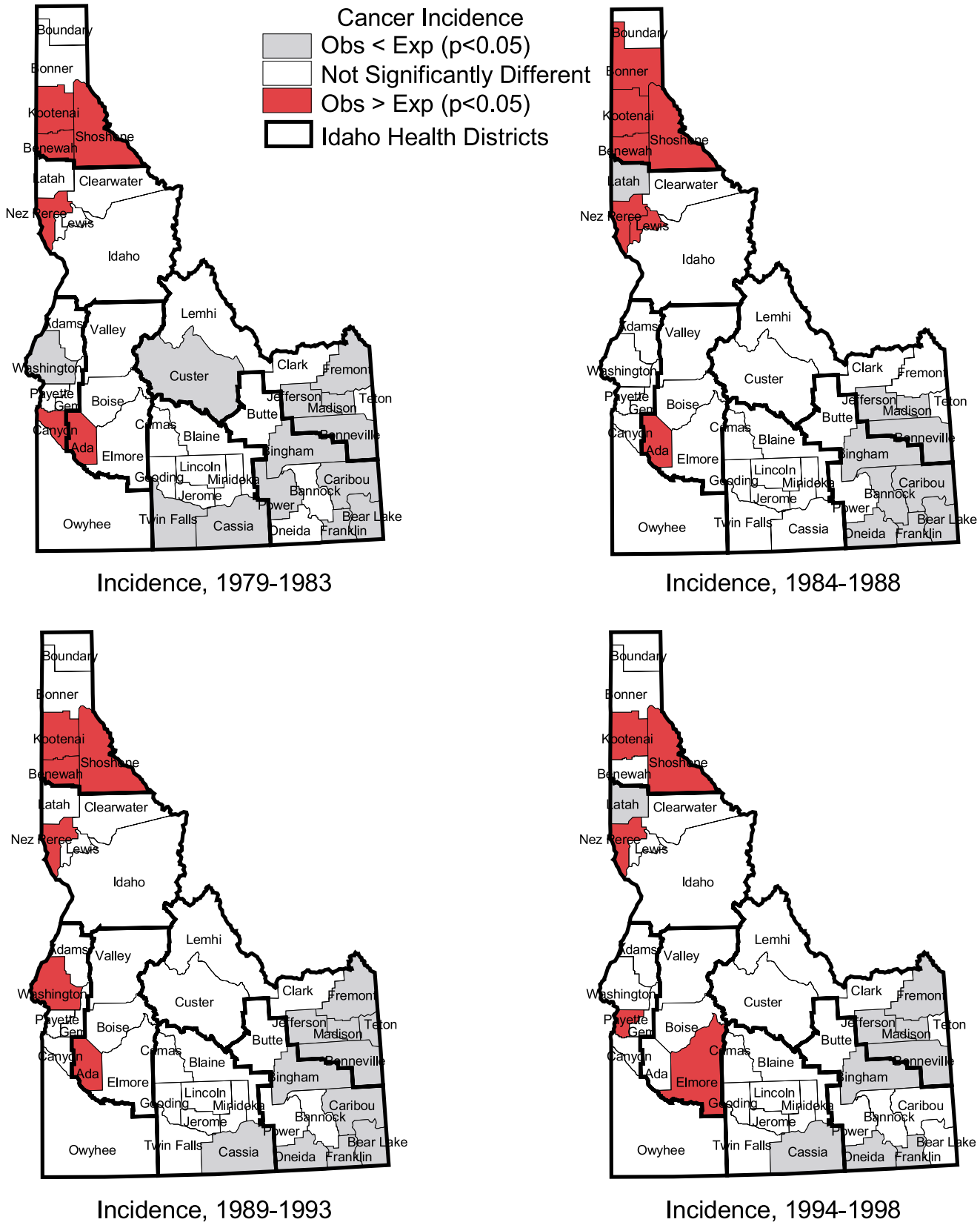


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For localized cases, the rate increased 4.5% per year from 1971-1998. For regional cases, the rate increased 3.2% per year from 1971-1998. For distant cases, the rate increased 4.3% per year from 1971-1992; the trend was flat from 1992-1998. For unstaged cases, the rate increased 7.5% per year from 1971-1982 and decreased 8.6% per year from 1982-1998.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of lung cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. Kootenai, Nez Perce, and Shoshone Counties had statistically significantly higher rates of lung cancer during all four of the five-year time periods. Ada and Benewah Counties had statistically significantly higher rates of lung cancer during three of the four five-year time periods. Bingham, Bonneville, Franklin, Jefferson, and Madison Counties had statistically significantly lower rates of lung cancer during all four of the five-year time periods. Bear Lake, Caribou, Cassia, Fremont, and Oneida Counties had statistically significantly lower rates of lung cancer during three of the four five-year time periods. Latah County had statistically significantly lower rates of lung cancer during two of the four five-year time periods. Counties in eastern Idaho consistently had lower rates of lung cancer, and counties in northern Idaho consistently had higher rates of lung cancer.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



MELANOMA OF THE SKIN

Primary Site Codes (ICD-0-2): *440-449*
Histologic Types: *8720-8790*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	183	93	90	33	23	10	15.9	17.3	15.0	2.9	4.5	1.5
1997	246	139	107	35	23	12	22.0	26.8	18.0	3.1	4.4	2.0
1996	192	107	85	28	17	11	17.6	20.8	15.0	2.6	3.6	2.0
1995	226	132	94	39	24	15	21.2	25.8	17.1	3.7	4.8	2.7
1994	169	90	79	29	22	7	16.1	18.7	14.4	2.9	4.8	1.3
1993	147	83	64	30	24	6	14.6	17.8	11.9	3.1	5.4	1.1
1992	158	77	81	31	21	10	16.5	17.3	16.3	3.2	4.7	1.9
1991	139	67	71	25	14	11	15.1	15.5	14.9	2.6	3.0	2.2
1990	118	65	53	25	18	7	12.9	15.4	10.9	2.9	4.9	1.4
1989	106	60	46	31	19	12	11.7	14.6	9.5	3.4	4.4	2.3
1988	92	48	44	20	10	10	10.3	11.4	9.3	2.4	2.5	2.1
1987	112	65	47	25	14	11	12.8	15.4	9.9	3.0	3.9	2.4
1986	113	54	59	26	16	10	13.2	13.3	13.5	3.0	4.1	2.2
1985	108	58	50	25	15	10	12.8	14.6	11.4	3.0	4.3	2.2
1984	102	53	49	29	17	12	11.7	13.3	10.8	3.8	4.8	3.0
1983	85	53	32	24	15	9	9.8	13.4	6.9	3.1	3.8	2.3
1982	98	55	43	24	15	9	12.1	14.9	10.1	3.1	4.1	2.0
1981	94	48	46	20	10	10	11.7	13.0	10.8	2.6	2.7	2.4
1980	84	45	39	20	9	11	10.6	11.7	9.6	2.7	2.3	2.8
1979	81	38	43	22	14	8	10.4	10.2	10.7	3.1	3.9	2.1
1978	66	26	40	12	8	4	9.0	7.5	10.4	1.7	2.1	1.2
1977	82	39	43	19	7	12	11.5	11.3	11.6	2.6	2.1	3.2
1976	51	20	31	14	6	8	7.6	5.6	9.1	2.1	1.7	2.3
1975	51	29	22	15	9	6	7.5	8.8	6.2	2.4	3.0	1.8
1974	44	22	22	8	3	5	6.6	6.8	6.4	1.3	0.8	1.7
1973	52	22	30	22	10	12	7.5	6.4	8.7	3.7	3.2	4.1
1972	45	17	28	12	4	8	7.1	5.5	8.9	2.1	1.4	2.6
1971	39	21	18	7	4	3	6.2	6.4	5.9	1.1	1.3	0.9

From 1971 to 1998, there were 3,083 new cases of melanoma and 650 melanoma deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 185.5% over the time period, with an estimated annual percent change of 3.9% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 270.1% over the time period, with an estimated annual percent change of 5.0% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 123.7% over the time period, with an estimated annual percent change of 3.0% ($p<0.05$). The overall age-adjusted cancer mortality rate increased 91.3% over the time period, with an estimated annual percent change of 2.0% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 224.1% over the time period, with an estimated annual percent change of 4.3% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 2.4% over the time period, with an estimated annual percent change of -0.7% (NS).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate increased 29.7% over the time period, with an estimated annual percent change of 0.4% (NS). For SEER Whites, the age-adjusted cancer incidence rate increased 152.8% over the time period, with an estimated annual percent change of 3.9% ($p<0.05$). The age-adjusted incidence rates for Idaho residents have been similar to the rates for White residents of SEER regions. The rates for Idahoans show more variability due to the relatively smaller numbers of cases per year. Black residents of SEER regions have had significantly lower incidence rates of melanoma, and the rates have not increased over time.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

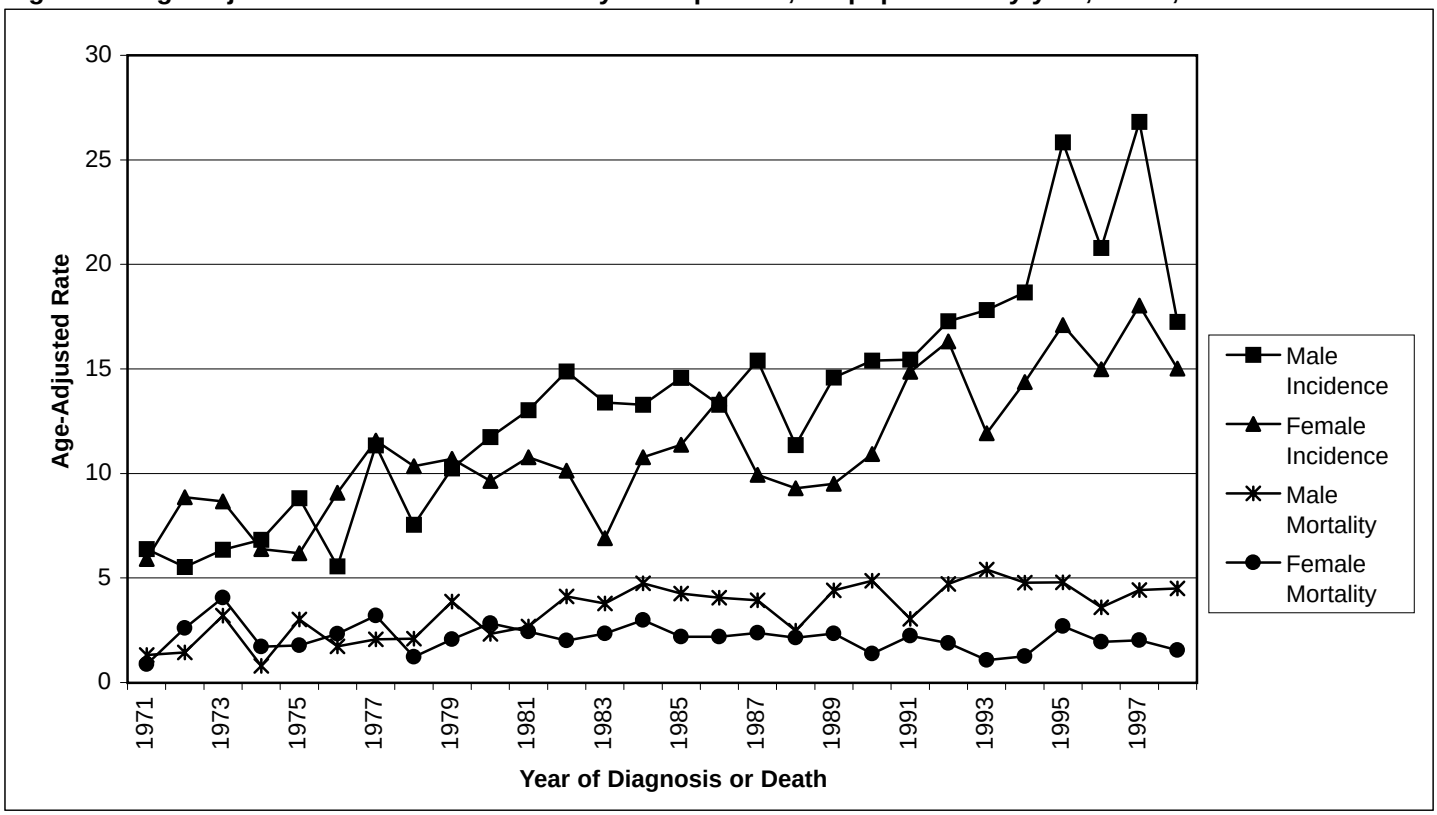


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

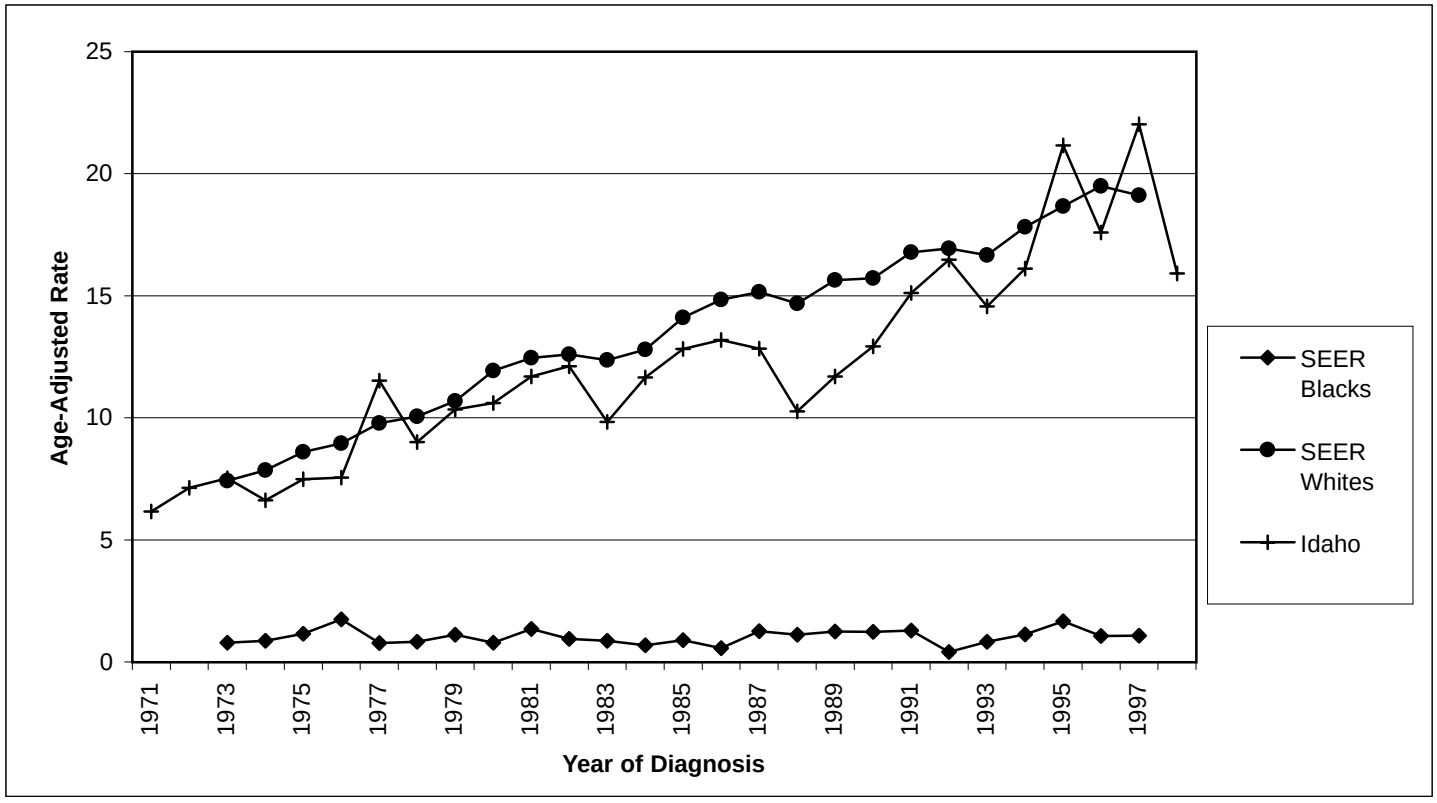


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

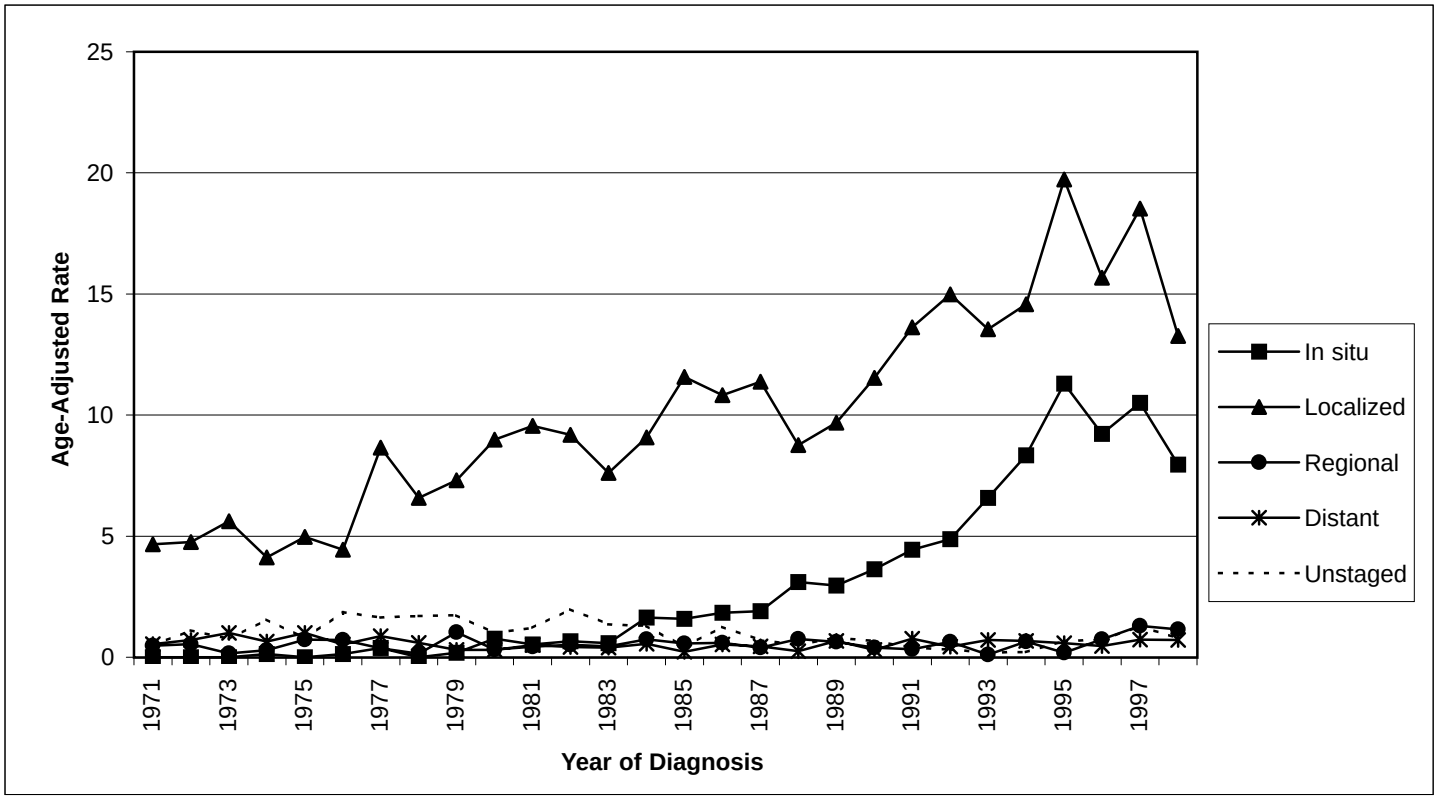
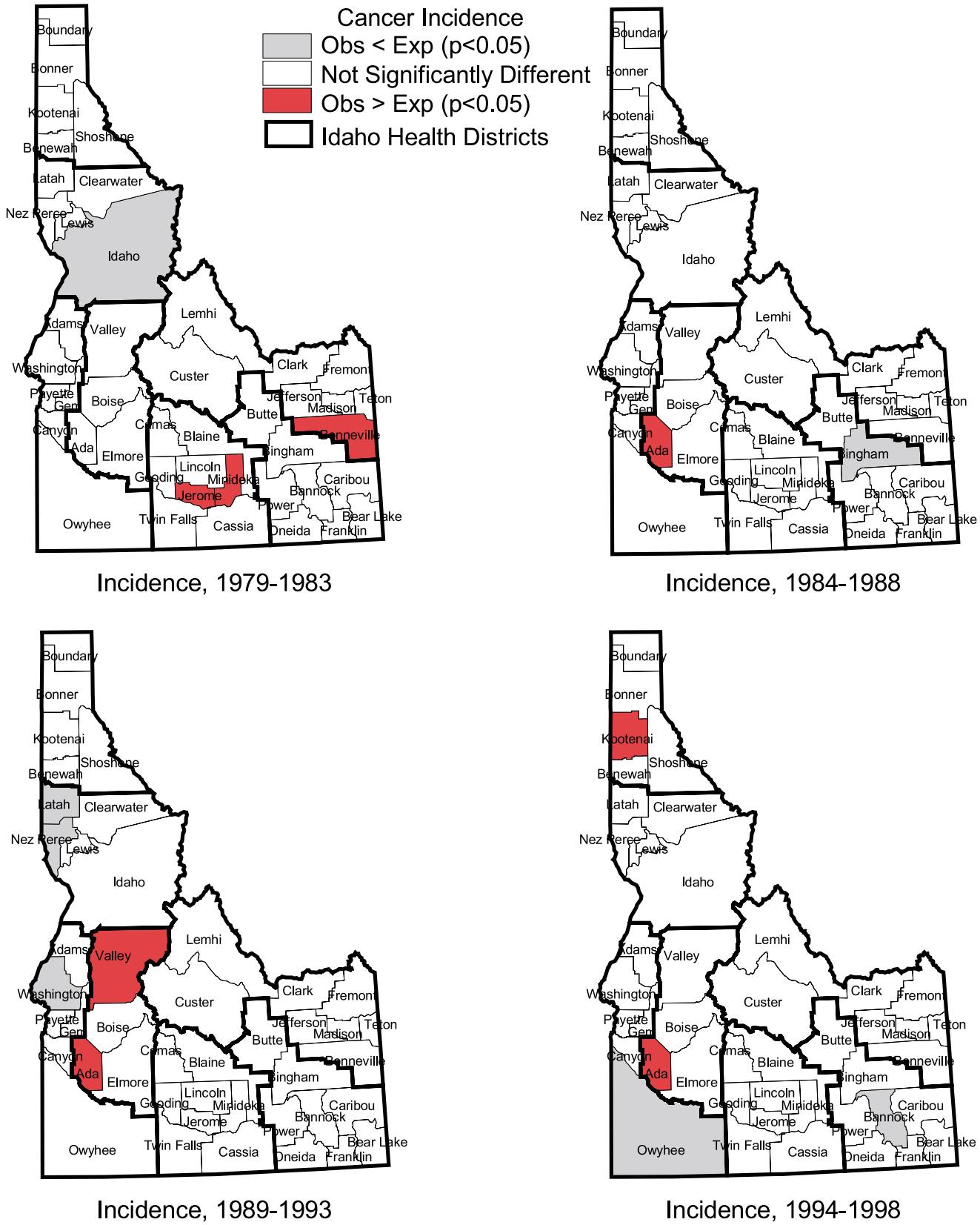


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For localized cases, the rate increased 5.2% per year from 1971-1998. For regional cases, the trend was flat over the time period. For distant cases, the rate decreased 6.4% per year from 1971-1983 and increased 3.6% per year from 1983-1998. For unstaged cases, the trend was flat from 1971-1982, decreased 14.0% per year from 1982-1993, and increased 29.6% per year from 1993-1998.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of melanoma than elsewhere in Idaho, and counties in grey had significantly lower rates than elsewhere in Idaho. Ada County had statistically significantly higher rates of melanoma during three of the four five-year time periods. No individual counties had statistically significantly lower rates of melanoma during more than one of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



PLASMA CELL TUMORS

Primary Site Codes (ICD-0-2): *400-419, 421*
Histologic Types: *9730-9739*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	56	37	19	29	15	14	5.0	7.3	3.1	2.6	3.1	2.2
1997	43	21	21	37	21	16	3.9	4.1	3.6	3.4	4.1	2.6
1996	52	33	19	52	29	23	4.8	6.9	3.2	4.9	6.4	3.9
1995	55	27	28	57	26	31	5.3	5.8	4.8	5.6	5.9	5.4
1994	54	30	24	39	20	19	5.3	6.8	4.1	3.9	4.7	3.3
1993	57	31	26	36	20	16	5.8	7.1	4.9	3.6	4.7	2.9
1992	42	17	25	35	18	17	4.3	3.9	4.6	3.7	4.4	3.1
1991	50	27	23	29	20	9	5.3	6.6	4.4	3.1	5.1	1.8
1990	48	32	16	57	32	25	5.4	8.2	3.2	6.1	7.6	4.9
1989	47	23	24	36	19	17	5.2	5.7	5.0	4.1	4.9	3.4
1988	54	30	24	36	16	20	6.2	7.6	5.1	4.1	4.2	4.0
1987	40	24	16	31	15	16	4.7	6.1	3.6	3.7	4.0	3.4
1986	42	22	20	29	16	13	5.1	5.4	4.5	3.6	4.2	2.9
1985	44	16	28	30	13	17	5.1	4.2	6.0	3.6	3.1	3.9
1984	44	25	19	37	22	15	5.4	6.8	4.4	4.8	7.0	3.5
1983	42	19	23	15	6	9	5.3	5.5	5.1	1.9	1.6	2.0
1982	39	26	13	20	9	11	4.9	6.6	3.3	2.6	2.7	2.6
1981	22	12	10	17	11	6	2.8	3.2	2.5	2.1	3.0	1.5
1980	35	18	17	14	8	6	4.7	4.9	4.4	2.0	2.6	1.6
1979	29	17	12	27	17	10	4.0	5.5	2.9	3.9	6.1	2.4
1978	33	16	17	26	14	12	4.9	5.4	4.7	3.8	4.2	3.3
1977	32	17	15	23	12	11	4.6	5.5	3.9	3.4	4.7	2.7
1976	28	13	15	25	16	9	4.1	4.2	4.0	3.8	5.8	2.3
1975	29	16	13	17	9	8	4.4	5.0	3.9	2.7	3.2	2.3
1974	28	18	10	26	14	12	4.4	6.2	2.9	4.1	4.6	3.6
1973	38	23	15	19	11	8	6.3	8.2	4.6	3.2	4.2	2.5
1972	19	7	12	15	12	3	3.2	2.8	3.7	2.7	4.7	1.0
1971	25	15	10	15	10	5	4.0	5.0	3.1	2.4	3.3	1.6

From 1971 to 1998, there were 1,127 new cases of plasma cell tumors and 829 plasma cell tumor deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 23.0% over the time period, with an estimated annual percent change of 0.7% (NS). For males, the age-adjusted cancer incidence rate increased 45.1% over the time period, with an estimated annual percent change of 1.0% (NS); for females, the age-adjusted cancer incidence rate decreased 0.1% over the time period, with an estimated annual percent change of 0.4% (NS). The overall age-adjusted cancer mortality rate increased 17.5% over the time period, with an estimated annual percent change of 1.3% ($p<0.05$). For males, the age-adjusted cancer incidence rate decreased 9.8% over the time period, with an estimated annual percent change of 0.8% (NS); for females, the age-adjusted cancer incidence rate increased 82.8% over the time period, with an estimated annual percent change of 2.3% ($p<0.05$).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate increased 1.4% over the time period, with an estimated annual percent change of 0.7% ($p<0.05$). For SEER Whites, the age-adjusted cancer incidence rate increased 18.4% over the time period, with an estimated annual percent change of 0.8% ($p<0.05$). The age-adjusted incidence rates for Idaho residents have been nearly identical to the rates for White residents of SEER regions. The rates for Idahoans show more variability due to the relatively small numbers of cases per year. Black residents of SEER regions have had significantly higher incidence rates of plasma cell tumors.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

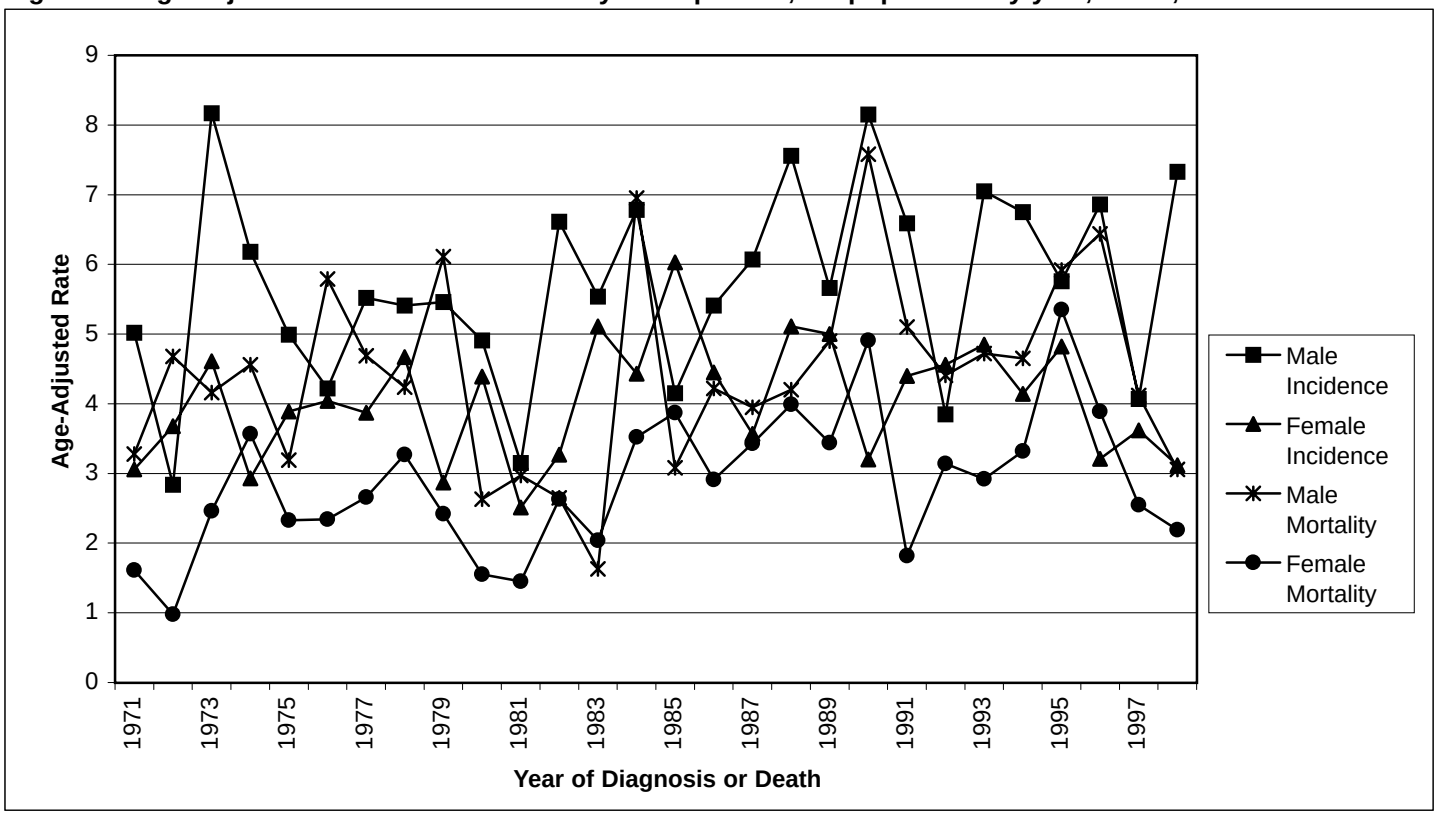
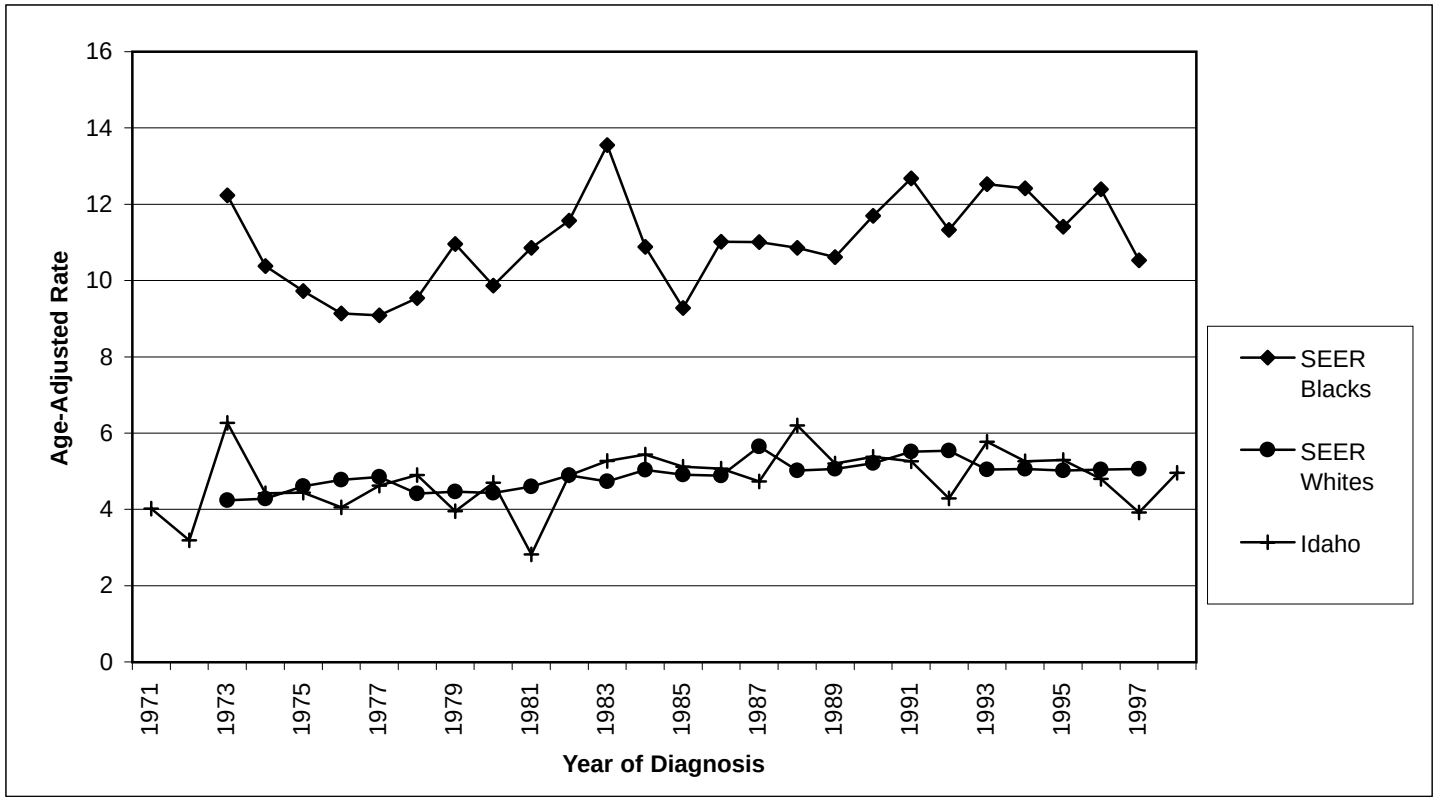


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).



PLASMA CELL TUMORS

Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

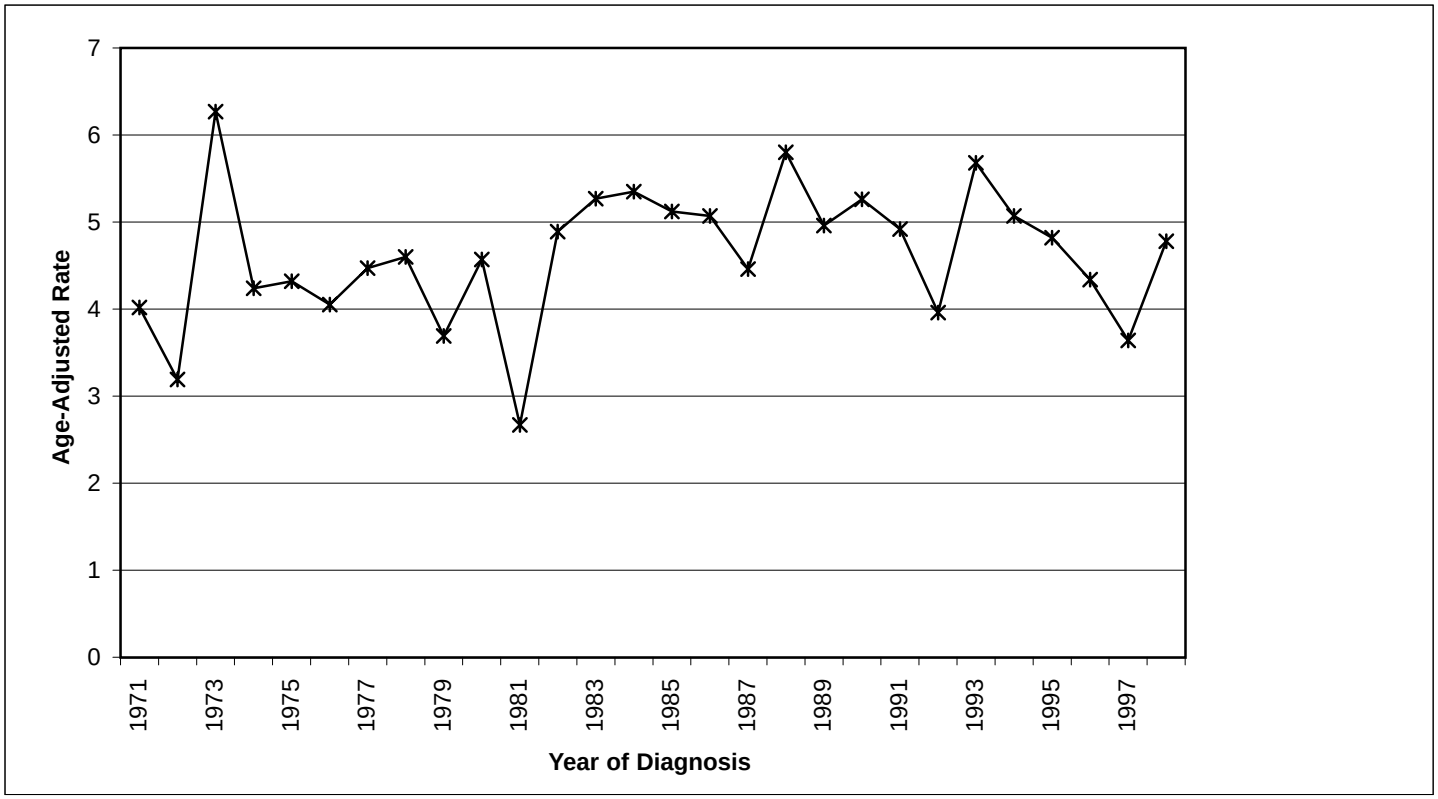
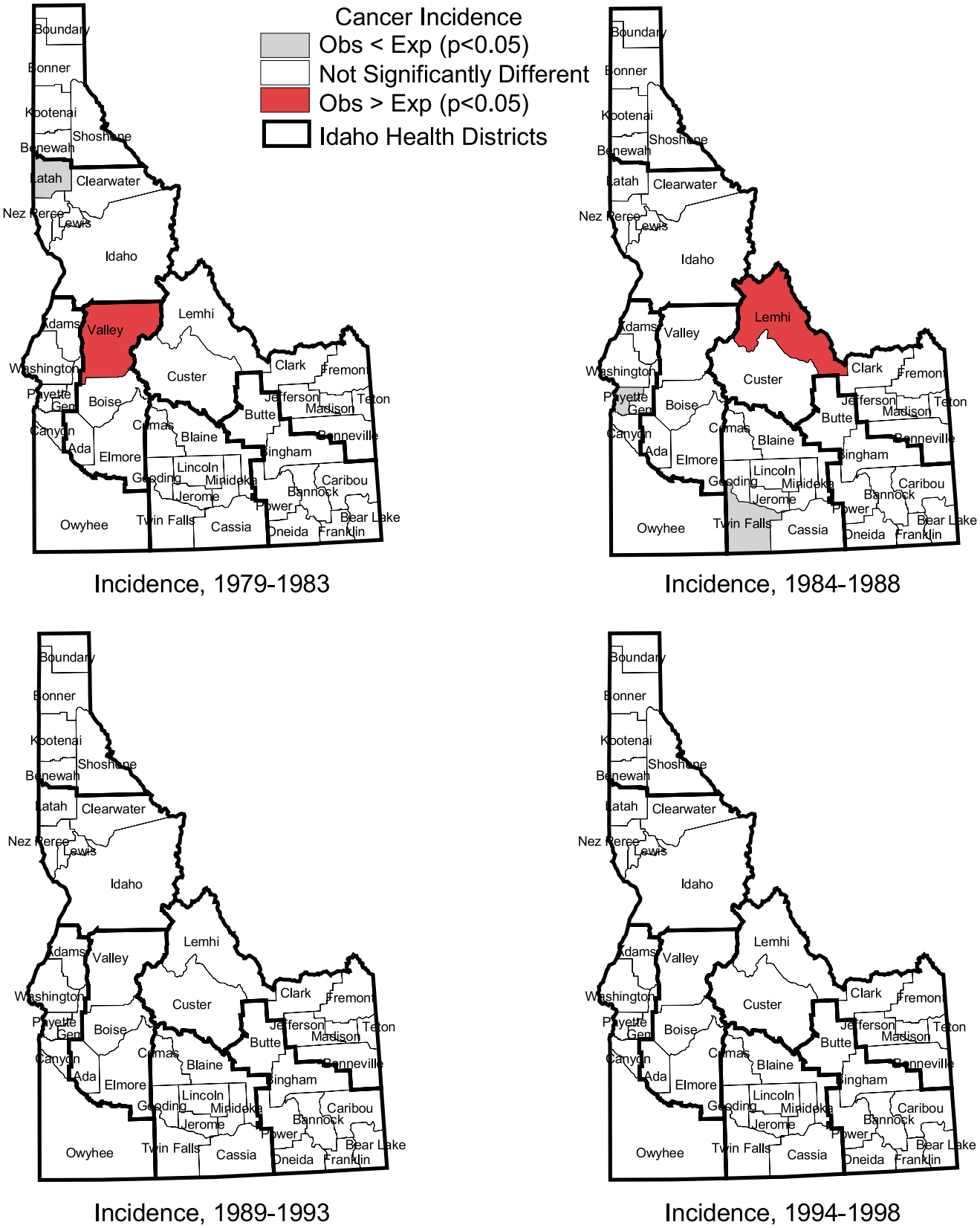


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. Only multiple myeloma (distant stage) rates are shown. There was no statistically significant trend.

In the U.S., the annual age-adjusted incidence and mortality rates for multiple myeloma rose sharply from the 1950s to the 1980s and then leveled off, with rates 2-fold higher among Blacks than Whites. The causes of multiple myeloma, the reasons for the rise and stabilization of incidence rates, and the reasons for the racial disparity are unclear. Elevated risks of multiple myeloma have been shown to be associated with lower occupation-based SES, education, and income among both Blacks and Whites. The specific SES-related exposures that contribute to higher incidence of multiple myeloma are unclear, but suspicion has centered on possible infectious agents and immunologic mechanisms.[12]

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of plasma cell tumors than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. No individual counties had statistically significantly higher or lower rates of this cancer during more than one of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



NON-HODGKIN'S LYMPHOMA

Primary Site Codes (ICD-0-2): *All sites*
Histologic Types: *9590-9595, 9670-9715*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	198	104	94	99	46	53	17.4	19.4	15.4	8.8	9.0	8.4
1997	215	107	108	95	61	34	19.3	20.8	18.0	8.7	12.5	5.6
1996	204	117	87	94	57	37	18.8	23.6	14.8	8.7	12.1	6.1
1995	191	104	87	99	53	46	17.9	21.0	15.2	9.5	11.6	8.0
1994	188	96	92	84	35	49	18.2	20.2	16.7	8.4	8.0	8.8
1993	161	83	78	83	47	36	16.0	17.8	14.3	8.3	10.3	6.6
1992	151	82	69	81	41	40	15.2	18.3	12.9	8.4	9.7	7.4
1991	157	92	65	84	39	45	16.6	20.9	12.8	8.9	9.5	8.7
1990	130	70	60	60	41	19	14.2	16.6	12.2	6.6	10.3	3.6
1989	132	73	59	77	43	34	14.7	17.7	12.1	8.7	11.3	6.9
1988	128	71	57	79	42	37	14.3	17.6	11.9	9.1	10.4	7.9
1987	116	63	53	72	38	34	13.8	16.2	11.5	8.4	9.9	7.1
1986	135	70	65	72	38	34	16.0	18.1	14.6	8.4	10.0	7.3
1985	137	68	69	48	30	18	16.2	16.9	15.3	5.6	7.9	3.7
1984	92	46	46	54	24	30	10.7	11.5	10.0	6.8	6.9	6.7
1983	110	58	52	52	29	23	13.3	15.6	11.7	6.2	7.6	4.9
1982	115	64	50	47	25	22	14.3	17.3	11.4	6.2	7.3	5.2
1981	82	47	35	45	25	20	9.9	12.8	7.8	6.1	7.2	4.9
1980	73	44	29	46	30	16	9.2	11.3	7.1	5.8	8.0	3.9
1979	79	40	39	42	23	19	10.2	10.4	9.6	5.6	6.6	4.7
1978	89	49	40	38	23	15	12.1	13.8	10.7	5.5	7.4	3.9
1977	66	42	24	37	19	18	9.3	12.3	6.6	5.3	6.0	4.8
1976	72	43	29	36	18	18	10.8	14.1	7.8	5.4	5.4	5.0
1975	65	39	26	35	19	16	9.8	12.5	7.6	5.5	6.4	4.7
1974	62	29	33	29	14	15	9.4	8.9	9.6	4.4	4.3	4.3
1973	59	35	24	31	18	13	9.2	10.8	7.6	5.0	5.8	4.2
1972	53	27	26	27	17	10	8.5	9.0	8.1	4.2	5.6	3.0
1971	52	26	26	35	18	17	8.9	9.7	8.3	6.4	7.2	5.7

From 1971 to 1998, there were 3,312 new cases of non-Hodgkin's lymphoma and 1,681 non-Hodgkin's lymphoma deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 111.0% over the time period, with an estimated annual percent change of 3.1% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 114.3% over the time period, with an estimated annual percent change of 3.1% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 104.6% over the time period, with an estimated annual percent change of 3.1% ($p<0.05$). The overall age-adjusted cancer mortality rate increased 63.2% over the time period, with an estimated annual percent change of 2.6% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 68.0% over the time period, with an estimated annual percent change of 2.8% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 60.5% over the time period, with an estimated annual percent change of 2.5% ($p<0.05$).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate increased 100.1% over the time period, with an estimated annual percent change of 4.0% ($p<0.05$). For SEER Whites, the age-adjusted cancer incidence rate increased 84.2% over the time period, with an estimated annual percent change of 3.0% ($p<0.05$). The age-adjusted incidence rates for Idaho residents were mid-way between the rates for White residents of SEER regions (highest rates) and Black residents of SEER regions (lowest rates). The rates for Idahoans show more variability due to the relatively smaller numbers of cases per year.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

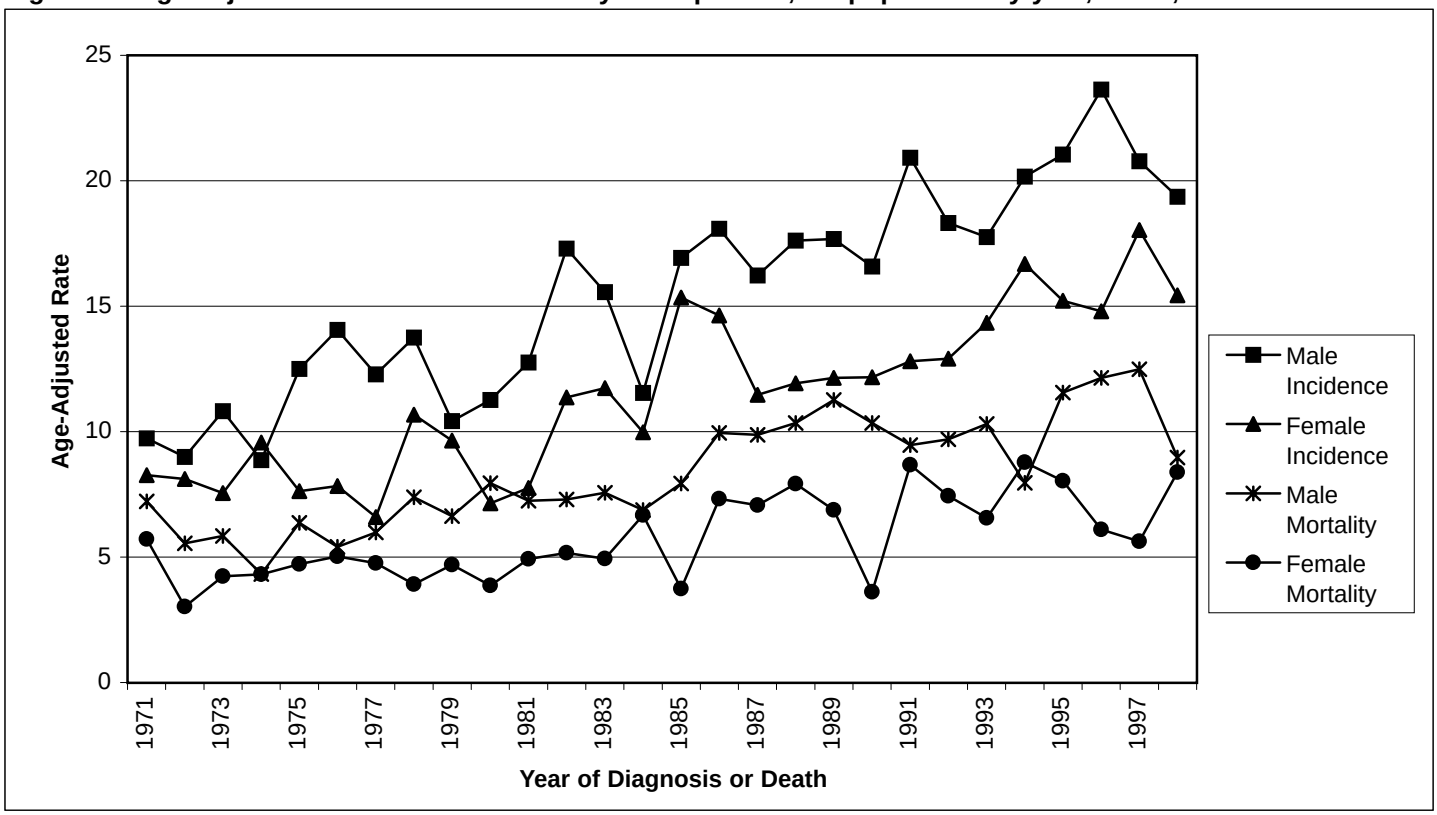


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

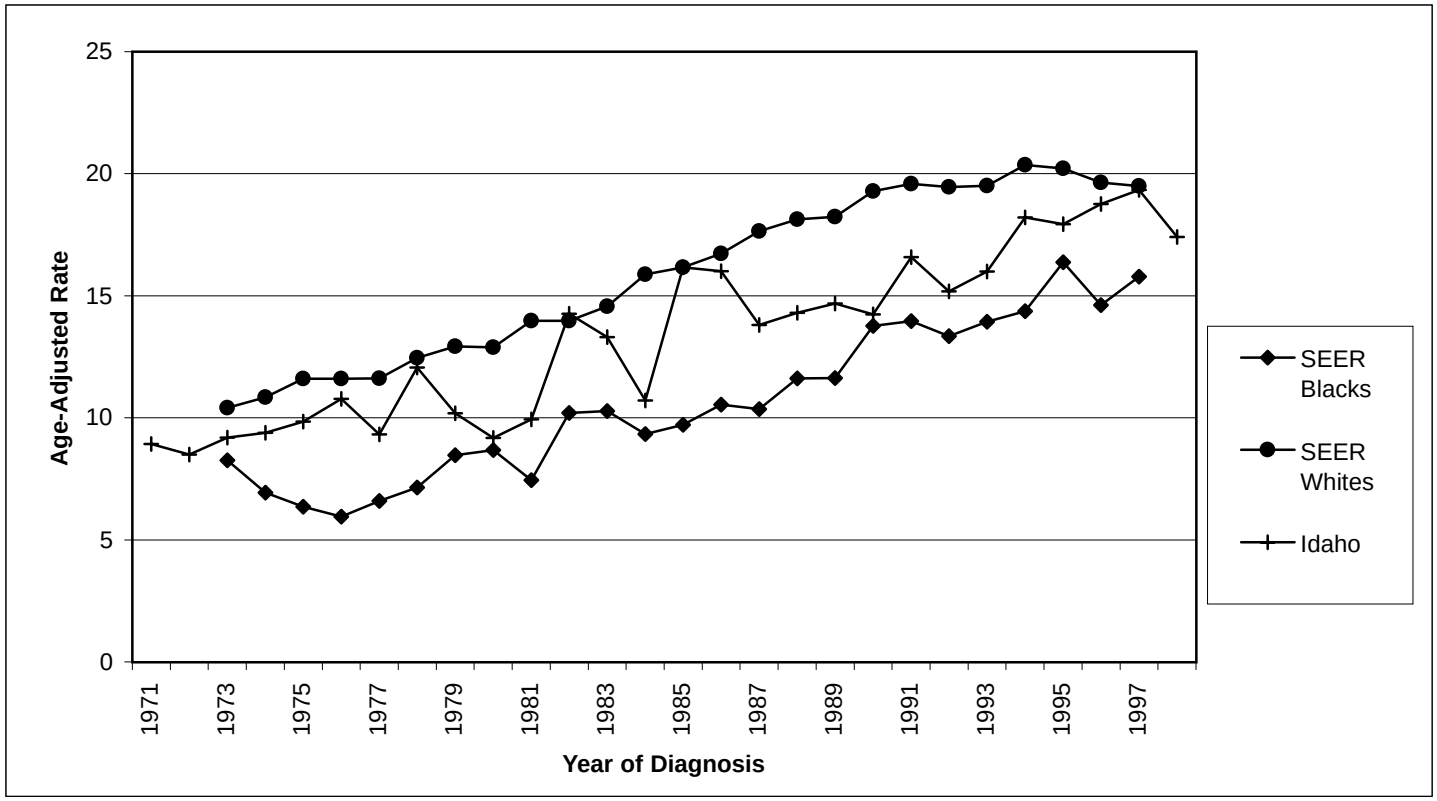


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

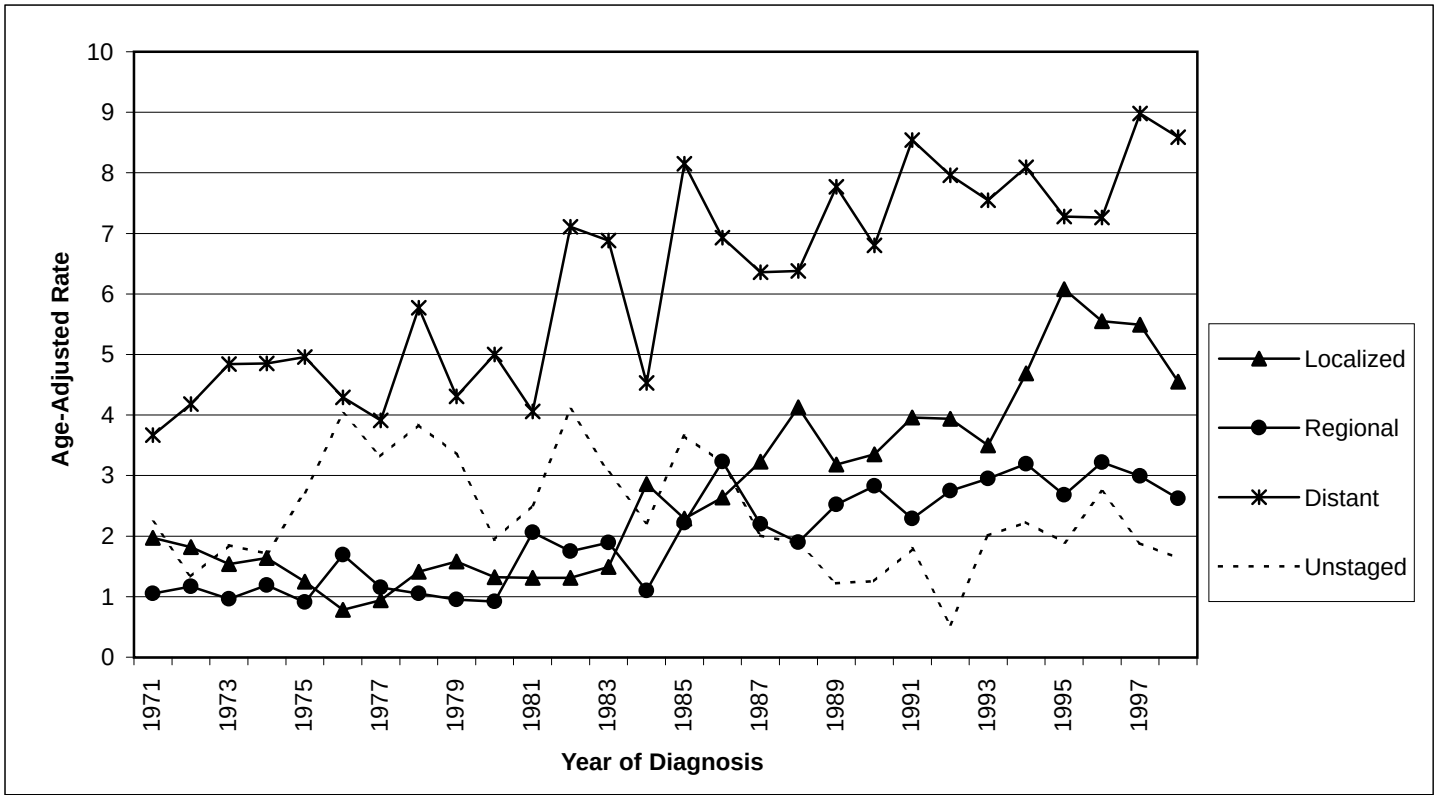
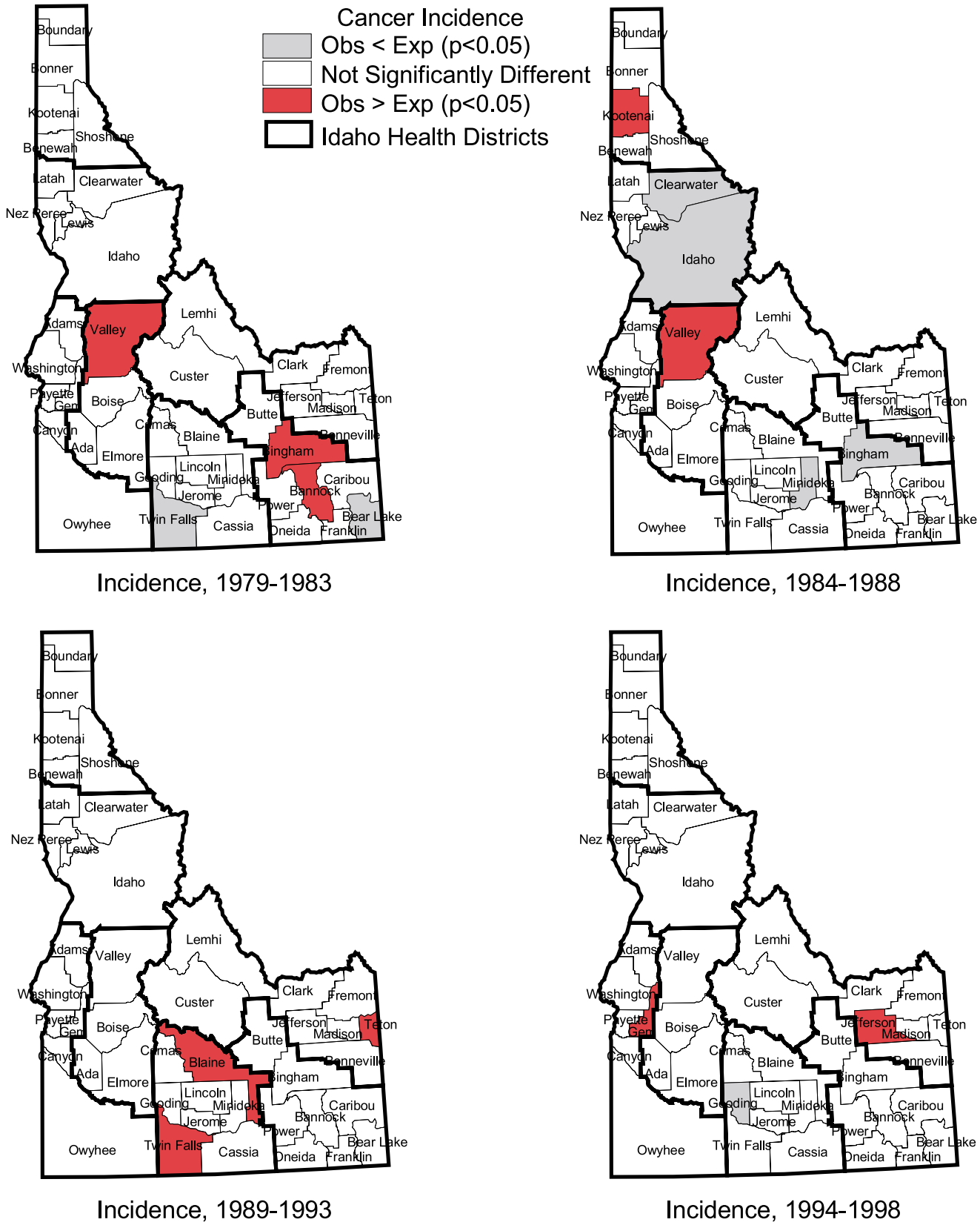


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For localized cases, the trend was flat from 1971-1976 and the rate increased 7.7% per year from 1976-1998. For regional cases, the rate increased 4.9% per year from 1971-1998. For distant cases, the rate increased 3.0% per year from 1971-1998. For unstaged cases, the trend was flat.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of non-Hodgkin's lymphoma than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. Valley County had statistically significantly higher rates of this cancer during two of the four five-year time periods. No individual counties had statistically significantly lower rates of this cancer during more than one of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



ORAL CAVITY & PHARYNX

Primary Site Codes (ICD-0-2): *000-149*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	127	89	38	27	17	10	11.2	16.7	6.2	2.4	3.3	1.6
1997	132	97	35	22	17	5	11.9	18.6	5.9	2.0	3.4	0.8
1996	143	103	40	39	25	14	13.4	21.0	7.0	3.6	5.1	2.4
1995	128	94	34	23	16	7	12.2	19.4	6.0	2.2	3.4	1.2
1994	118	86	32	24	15	9	11.5	18.1	5.9	2.3	3.3	1.6
1993	106	76	30	32	17	15	10.5	16.4	5.6	3.1	3.5	2.6
1992	122	82	40	26	15	11	12.4	18.2	7.6	2.8	3.5	2.1
1991	112	76	36	23	19	4	11.8	17.5	7.0	2.4	4.4	0.8
1990	110	88	22	32	15	17	12.1	21.1	4.4	3.6	3.5	3.5
1989	111	83	27	23	16	7	12.0	19.6	5.4	2.4	3.7	1.5
1988	96	66	30	22	10	12	11.0	17.1	6.3	2.4	2.4	2.5
1987	107	74	33	16	10	6	12.5	18.9	7.1	1.9	2.7	1.4
1986	89	73	16	26	15	11	10.6	18.4	3.8	2.9	3.7	2.2
1985	95	68	27	17	9	8	11.3	17.9	5.7	2.0	2.3	1.8
1984	114	82	32	21	13	8	13.8	22.0	7.0	2.4	3.3	1.7
1983	85	67	18	15	8	7	10.4	18.4	3.8	1.9	2.3	1.5
1982	107	74	33	15	9	6	13.6	20.9	7.6	2.0	2.7	1.5
1981	86	60	26	18	13	5	10.8	16.6	5.7	2.2	3.4	1.1
1980	86	61	25	13	11	2	11.5	18.5	6.1	1.6	3.0	0.4
1979	92	69	23	19	14	5	12.1	19.3	6.1	2.5	3.7	1.3
1978	95	72	23	19	12	7	12.5	20.1	5.7	2.8	3.6	1.9
1977	104	78	26	22	12	10	14.8	24.3	6.8	2.9	3.2	2.6
1976	91	67	24	23	15	8	13.1	20.4	6.6	3.2	4.8	1.9
1975	85	66	19	20	17	3	13.1	21.8	5.8	3.2	6.1	0.9
1974	77	63	14	17	8	9	11.5	19.4	4.2	2.4	2.1	2.6
1973	79	58	21	21	10	11	11.8	18.3	5.9	3.2	3.3	3.2
1972	89	65	24	18	15	3	14.4	22.7	7.1	2.7	4.9	0.8
1971	80	61	19	17	10	7	13.2	20.9	6.0	2.6	3.1	2.1

From 1971 to 1998, there were 2,866 new cases of oral cavity/pharyngeal cancer and 610 oral cavity/pharyngeal cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate decreased 16.3% over the time period, with an estimated annual percent change of -0.4% (NS). For males, the age-adjusted cancer incidence rate decreased 19.1% over the time period, with an estimated annual percent change of -0.6% ($p<0.05$); for females, the age-adjusted cancer incidence rate decreased 7.9% over the time period, with an estimated annual percent change of 0.1% (NS). The overall age-adjusted cancer mortality rate decreased 16.3% over the time period, with an estimated annual percent change of -0.2% (NS). For males, the age-adjusted cancer incidence rate decreased 17.6% over the time period, with an estimated annual percent change of -0.1% (NS); for females, the age-adjusted cancer incidence rate decreased 15.8% over the time period, with an estimated annual percent change of 0.0% (NS).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate increased 7.8% over the time period, with an estimated annual percent change of 0.1% (NS). For SEER Whites, the age-adjusted cancer incidence rate decreased 13.6% over the time period, with an estimated annual percent change of -0.6% ($p<0.05$). The age-adjusted incidence rates for Idaho residents have been similar to the rates for White residents of SEER regions. The rates for Idahoans show considerable variability due to the relatively small numbers of cases per year. Black residents of SEER regions have had somewhat higher incidence rates of oral cavity/pharyngeal cancer.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

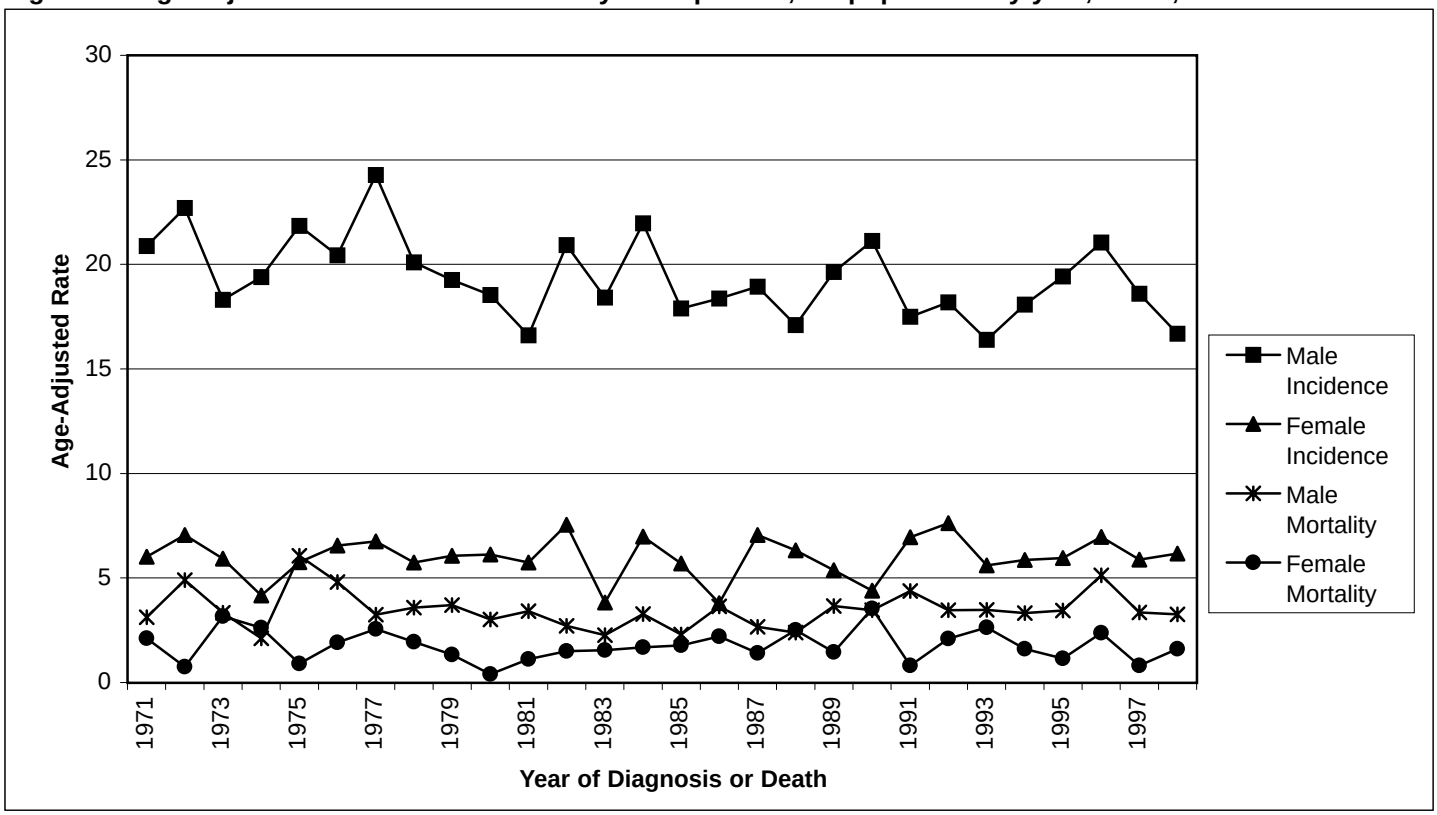


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

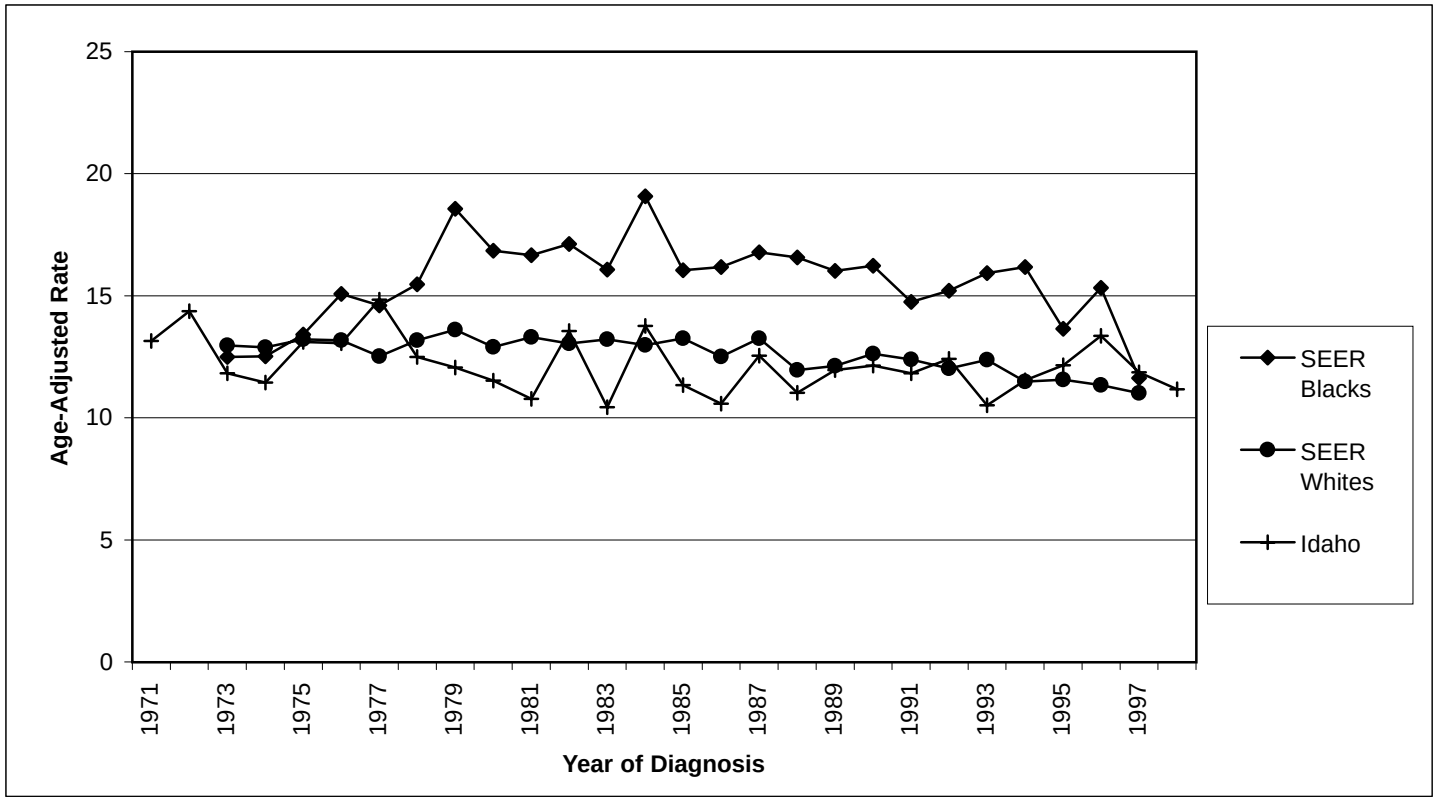


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

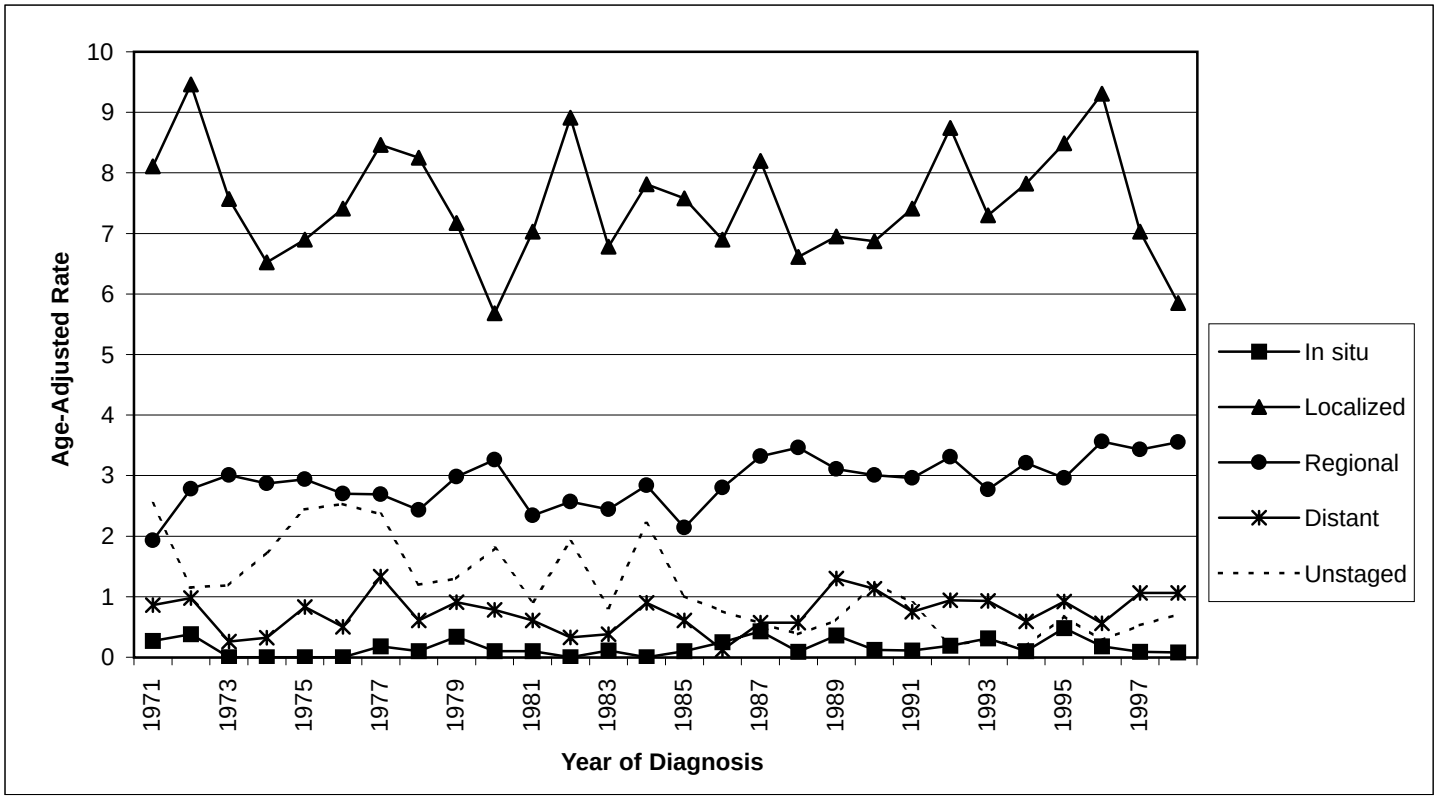
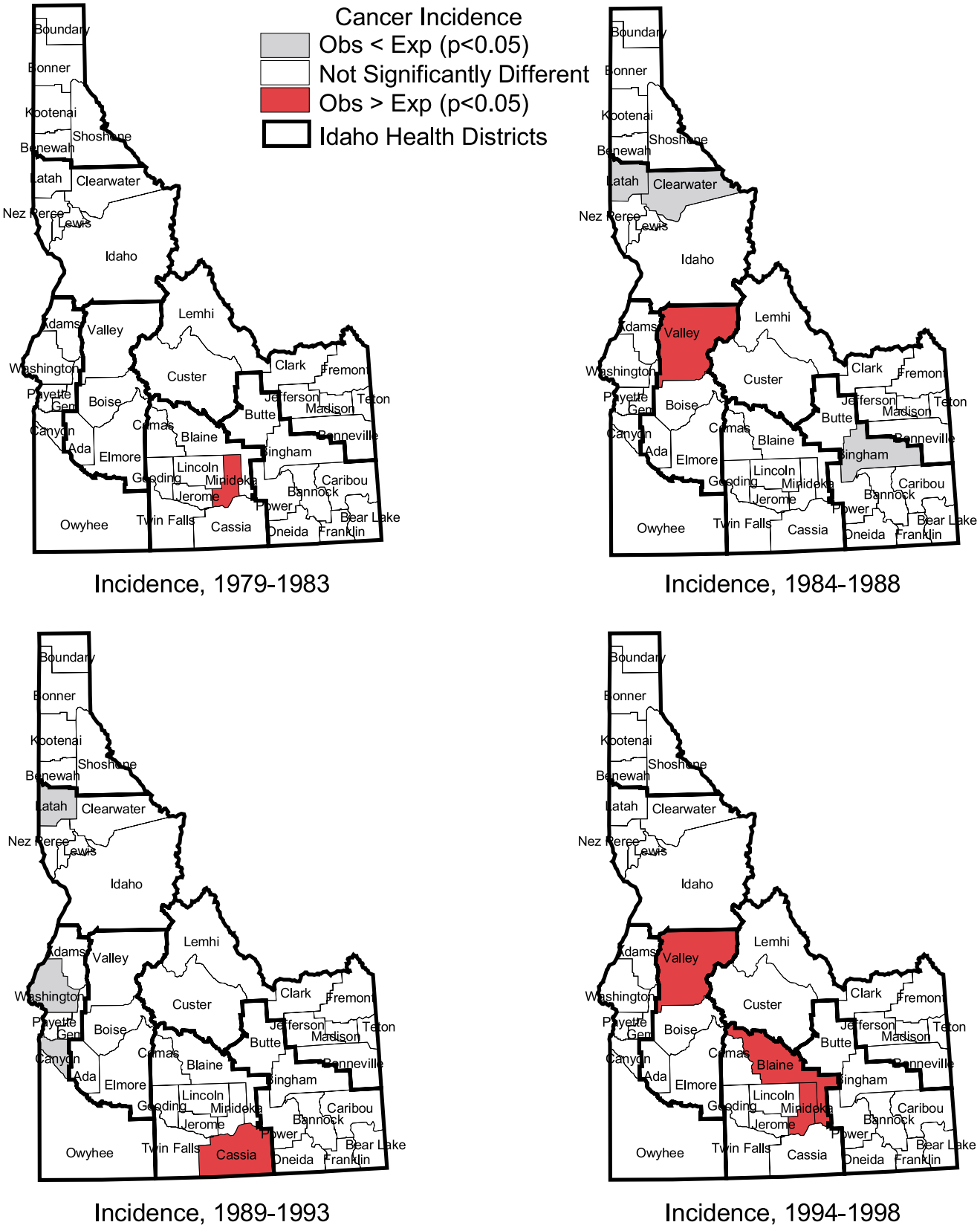


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For in situ cases, the rate decreased 73.0% over the entire time period, from 0.2 cases per 100,000 (1971-1973) to 0.1 cases per 100,000 (1996-1998). For localized cases, the trend was flat. For regional cases, the rate increased 1.0% per year from 1971-1998. For distant cases, the trend was flat. For unstaged cases, the rate decreased 6.8% per year from 1971-1998.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of oral cavity/pharyngeal cancers than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. Minidoka and Valley Counties had statistically significantly higher rates of this cancer during two of the four five-year time periods. Latah County had statistically significantly lower rates of this cancer during two of the four five-year time periods. Counties in Health District 5 consistently had higher rates of oral cavity/pharyngeal cancers than elsewhere in Idaho.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



OVARY

Primary Site Codes (ICD-0-2): *569*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	-	-	108	-	-	66	-	-	17.9	-	-	10.7
1997	-	-	97	-	-	49	-	-	16.6	-	-	8.2
1996	-	-	95	-	-	57	-	-	16.5	-	-	9.6
1995	-	-	110	-	-	73	-	-	19.3	-	-	12.6
1994	-	-	84	-	-	53	-	-	15.2	-	-	9.7
1993	-	-	89	-	-	61	-	-	16.8	-	-	11.0
1992	-	-	92	-	-	55	-	-	17.9	-	-	10.4
1991	-	-	80	-	-	55	-	-	15.9	-	-	10.4
1990	-	-	86	-	-	50	-	-	17.0	-	-	10.0
1989	-	-	77	-	-	42	-	-	16.9	-	-	8.6
1988	-	-	67	-	-	37	-	-	14.6	-	-	7.9
1987	-	-	71	-	-	50	-	-	15.4	-	-	10.7
1986	-	-	74	-	-	49	-	-	16.5	-	-	10.5
1985	-	-	73	-	-	32	-	-	16.1	-	-	7.2
1984	-	-	75	-	-	38	-	-	17.0	-	-	8.4
1983	-	-	67	-	-	40	-	-	15.9	-	-	9.4
1982	-	-	88	-	-	43	-	-	21.1	-	-	10.3
1981	-	-	66	-	-	32	-	-	15.9	-	-	7.5
1980	-	-	67	-	-	36	-	-	16.7	-	-	9.1
1979	-	-	66	-	-	41	-	-	16.5	-	-	9.9
1978	-	-	70	-	-	40	-	-	18.9	-	-	10.1
1977	-	-	67	-	-	38	-	-	17.5	-	-	9.9
1976	-	-	53	-	-	35	-	-	14.8	-	-	9.7
1975	-	-	58	-	-	34	-	-	15.8	-	-	9.4
1974	-	-	51	-	-	31	-	-	14.4	-	-	9.2
1973	-	-	56	-	-	21	-	-	16.8	-	-	6.2
1972	-	-	43	-	-	27	-	-	13.7	-	-	8.0
1971	-	-	43	-	-	23	-	-	13.5	-	-	7.2

From 1971 to 1998, there were 2,074 new cases of ovarian cancer and 1,208 ovarian cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year of diagnosis. Figure B shows trends in age-adjusted incidence and mortality rates. The overall age-adjusted cancer incidence rate increased 26.8% over the time period, with an estimated annual percent change of 0.4% (NS). The overall age-adjusted cancer mortality rate increased 24.6% over the time period, with an estimated annual percent change of 0.9% ($p<0.05$).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate decreased 9.8% over the time period, with an estimated annual percent change of 0.2% (NS). For SEER Whites, the age-adjusted cancer incidence rate increased 2.7% over the time period, with an estimated annual percent change of 0.5% ($p<0.05$). Since 1973, the age-adjusted incidence rates for Idaho residents have been similar to the rates for White residents of SEER regions. The rates for Idahoans show considerable variability due to the relatively small numbers of cases per year. Black residents of SEER regions have had significantly lower incidence rates of ovarian cancer.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

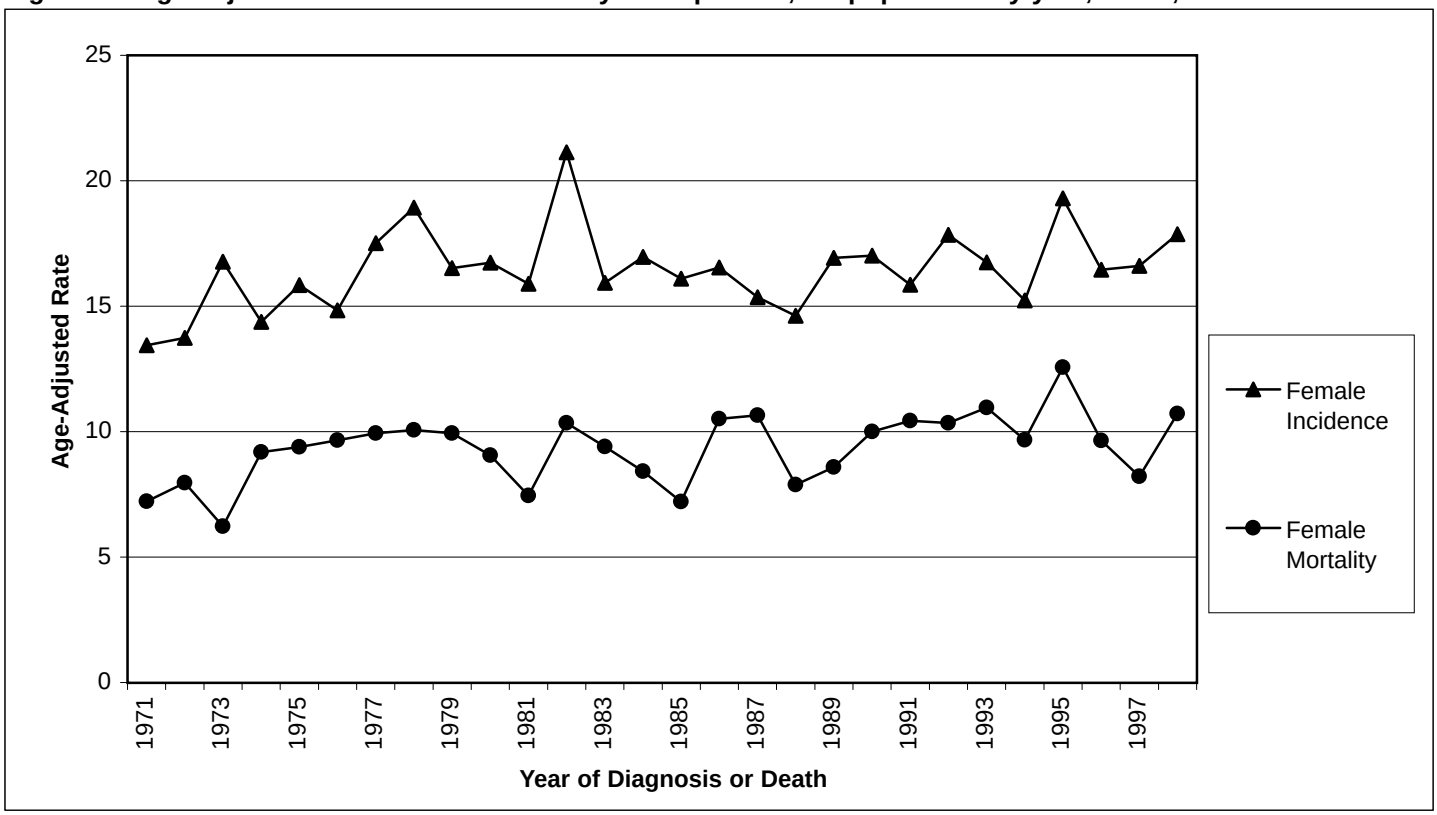


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

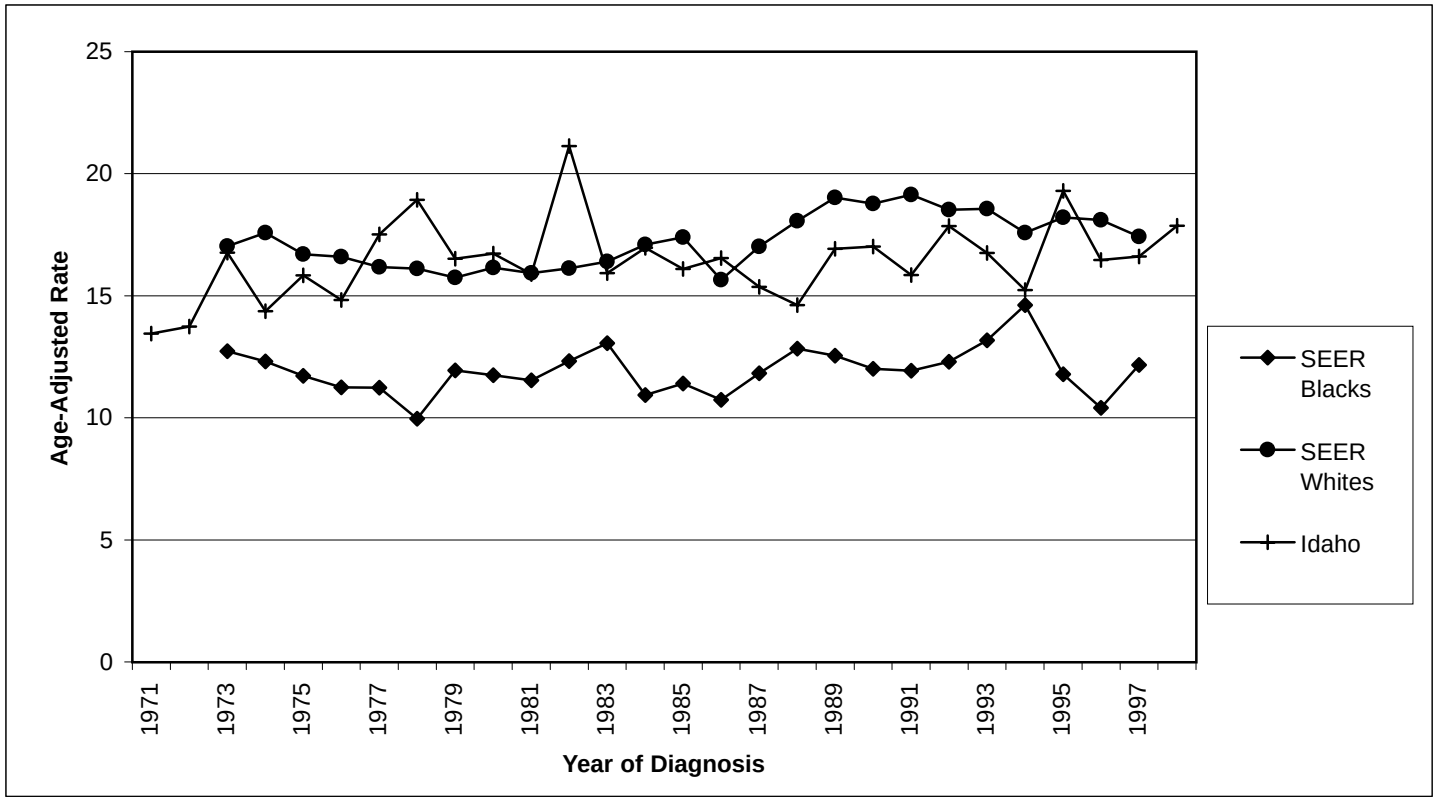


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

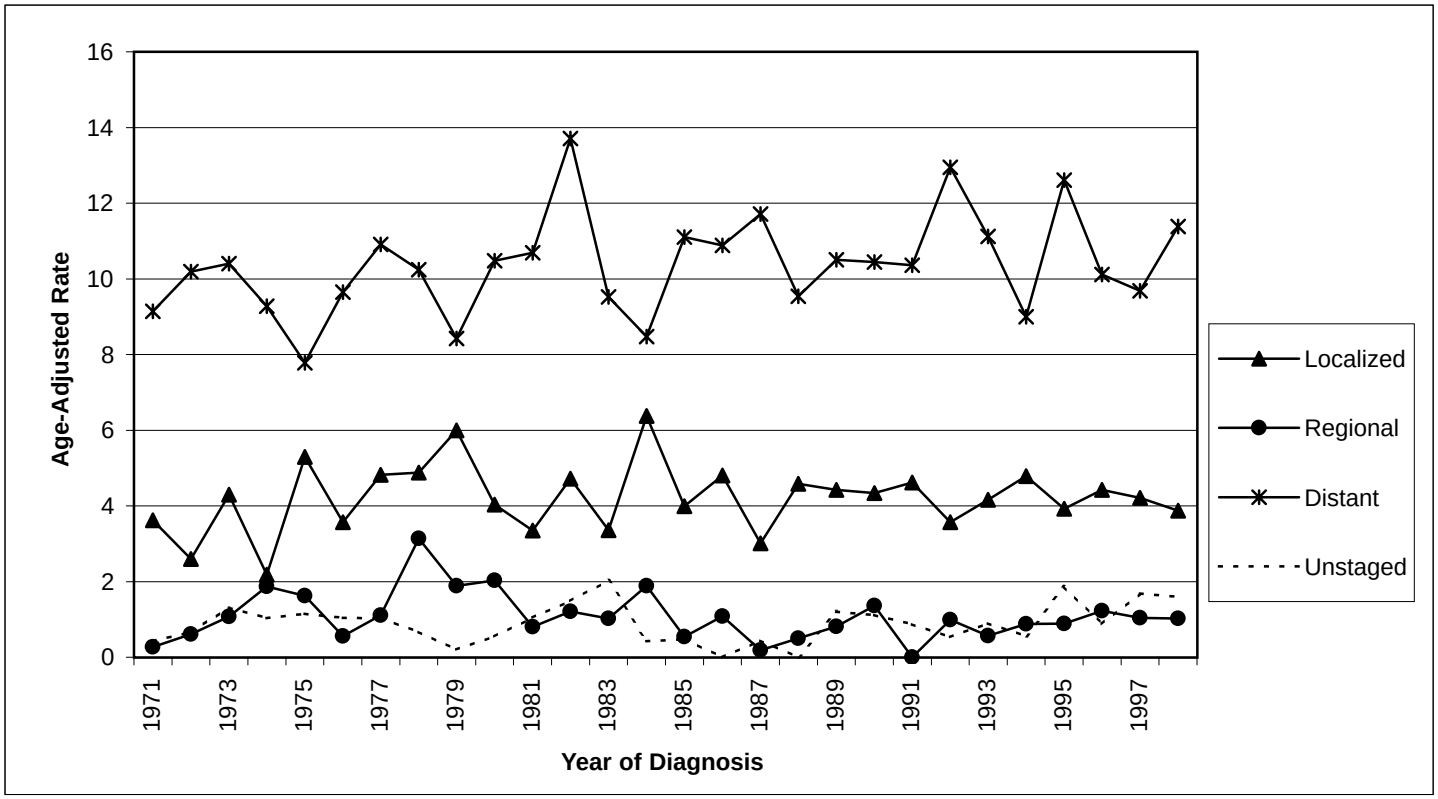
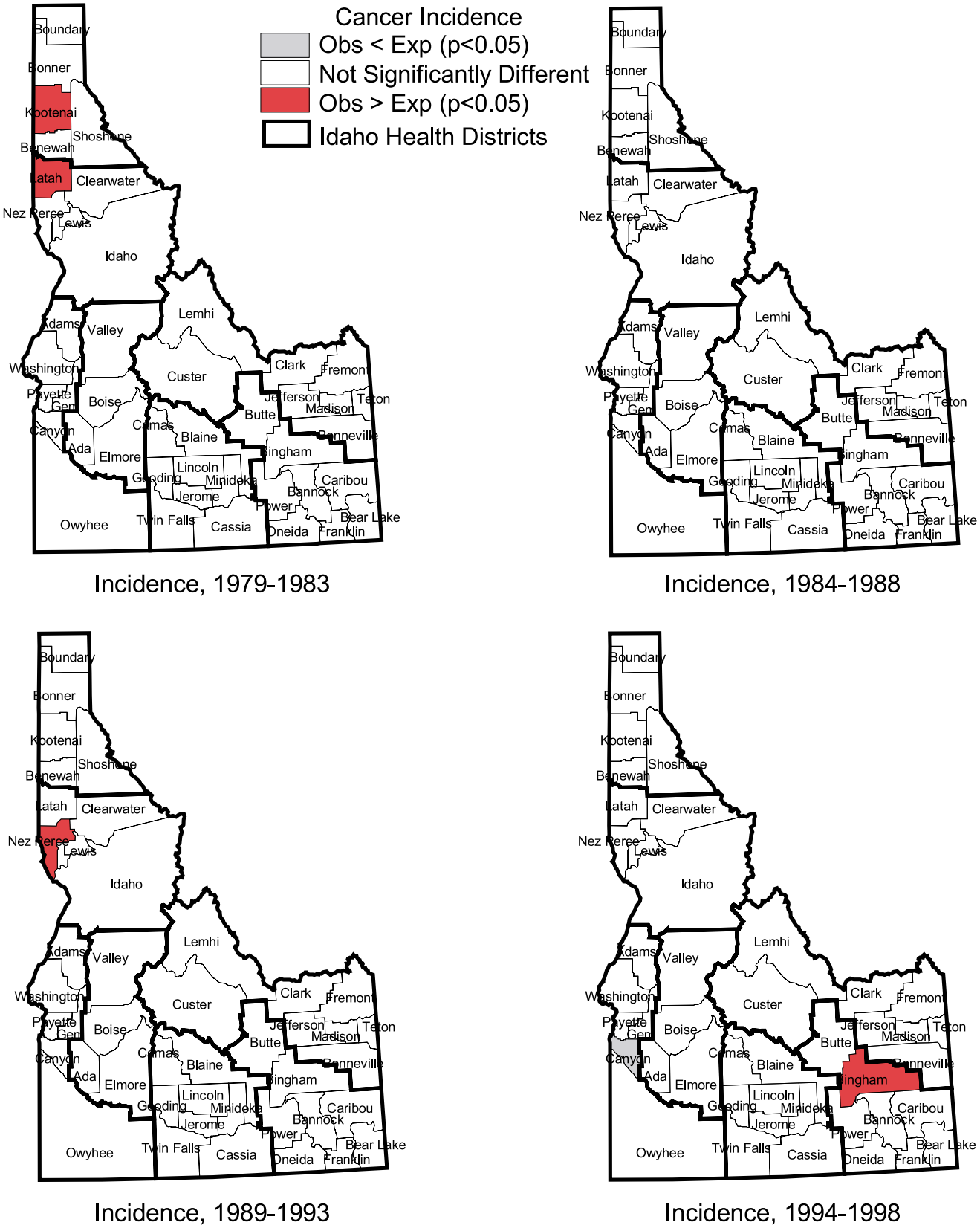


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For each individual SEER summary stage (localized, regional, distant, and unstaged), there was no significant trend with respect to year of diagnosis.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of ovarian cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. No individual counties had statistically significantly higher or lower rates of this cancer during more than one of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



PANCREAS

Primary Site Codes (ICD-0-2): *250-259*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	101	55	46	93	47	46	8.9	10.6	7.5	8.3	9.3	7.3
1997	79	41	38	95	51	44	7.2	8.0	6.3	8.7	10.5	7.2
1996	97	58	39	96	59	37	9.0	12.1	6.6	9.0	12.6	6.2
1995	94	57	37	99	59	40	9.1	12.4	6.4	9.5	12.6	6.9
1994	122	56	66	108	51	57	12.0	12.4	11.7	10.5	11.3	9.9
1993	82	41	41	76	38	38	8.1	8.8	7.3	7.7	8.7	6.8
1992	89	47	42	85	48	37	9.2	11.2	7.7	8.8	11.3	6.8
1991	107	58	49	104	55	49	11.3	14.7	9.5	11.0	13.8	9.1
1990	88	47	41	100	50	50	9.5	11.3	7.7	10.9	12.0	9.8
1989	89	44	45	89	52	37	9.9	10.7	9.1	10.1	13.2	7.5
1988	86	46	40	99	47	52	9.8	11.7	8.1	11.5	12.6	10.6
1987	95	57	38	94	55	39	11.3	15.1	8.2	11.0	14.8	8.2
1986	74	37	37	78	42	36	8.7	9.6	8.0	9.2	10.9	7.8
1985	79	48	31	76	48	28	9.4	13.6	6.5	9.0	13.1	5.9
1984	94	48	46	101	45	56	11.7	13.1	10.4	12.8	12.6	12.7
1983	87	39	48	69	35	34	11.0	11.4	10.8	8.6	9.9	7.5
1982	76	49	27	62	39	23	9.9	13.8	6.5	8.5	12.3	5.5
1981	69	39	30	72	42	30	9.2	11.3	7.3	9.8	12.6	7.3
1980	56	33	23	53	33	20	8.2	11.7	6.0	7.5	11.0	4.9
1979	81	54	27	75	46	29	11.0	15.7	7.2	10.3	13.9	7.6
1978	78	45	33	71	37	34	11.1	14.0	8.8	10.4	12.5	9.0
1977	64	30	34	60	36	24	9.3	10.4	8.8	9.0	12.2	6.7
1976	70	43	27	70	41	29	10.7	14.0	7.6	11.0	14.1	8.4
1975	66	49	17	77	47	30	10.6	16.7	5.4	11.9	15.2	9.0
1974	60	31	29	53	27	26	9.8	11.1	8.7	8.8	9.7	8.0
1973	52	28	24	72	35	37	8.6	10.0	7.3	12.4	13.1	11.6
1972	55	32	23	54	36	18	9.4	12.3	7.2	9.2	13.5	5.7
1971	46	26	20	50	26	24	8.2	9.6	6.8	8.6	9.0	8.0

From 1971 to 1998, there were 2,236 new cases of pancreatic cancer and 2,231 pancreatic cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate decreased 8.8% over the time period, with an estimated annual percent change of -0.2% (NS). For males, the age-adjusted cancer incidence rate decreased 15.6% over the time period, with an estimated annual percent change of -0.5% (NS); for females, the age-adjusted cancer incidence rate decreased 1.5% over the time period, with an estimated annual percent change of 0.3% (NS). The overall age-adjusted cancer mortality rate decreased 4.4% over the time period, with an estimated annual percent change of -0.3% (NS). For males, the age-adjusted cancer incidence rate decreased 12.0% over the time period, with an estimated annual percent change of -0.4% (NS); for females, the age-adjusted cancer incidence rate increased 6.6% over the time period, with an estimated annual percent change of -0.1% (NS).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate decreased 0.8% over the time period, with an estimated annual percent change of 0.1% (NS). For SEER Whites, the age-adjusted cancer incidence rate decreased 9.8% over the time period, with an estimated annual percent change of -0.4% ($p<0.05$). The age-adjusted incidence rates for Idaho residents have been similar to the rates for White residents of SEER regions. The rates for Idahoans show considerable variability due to the relatively small numbers of cases per year. Black residents of SEER regions have had significantly higher incidence rates of pancreatic cancer.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

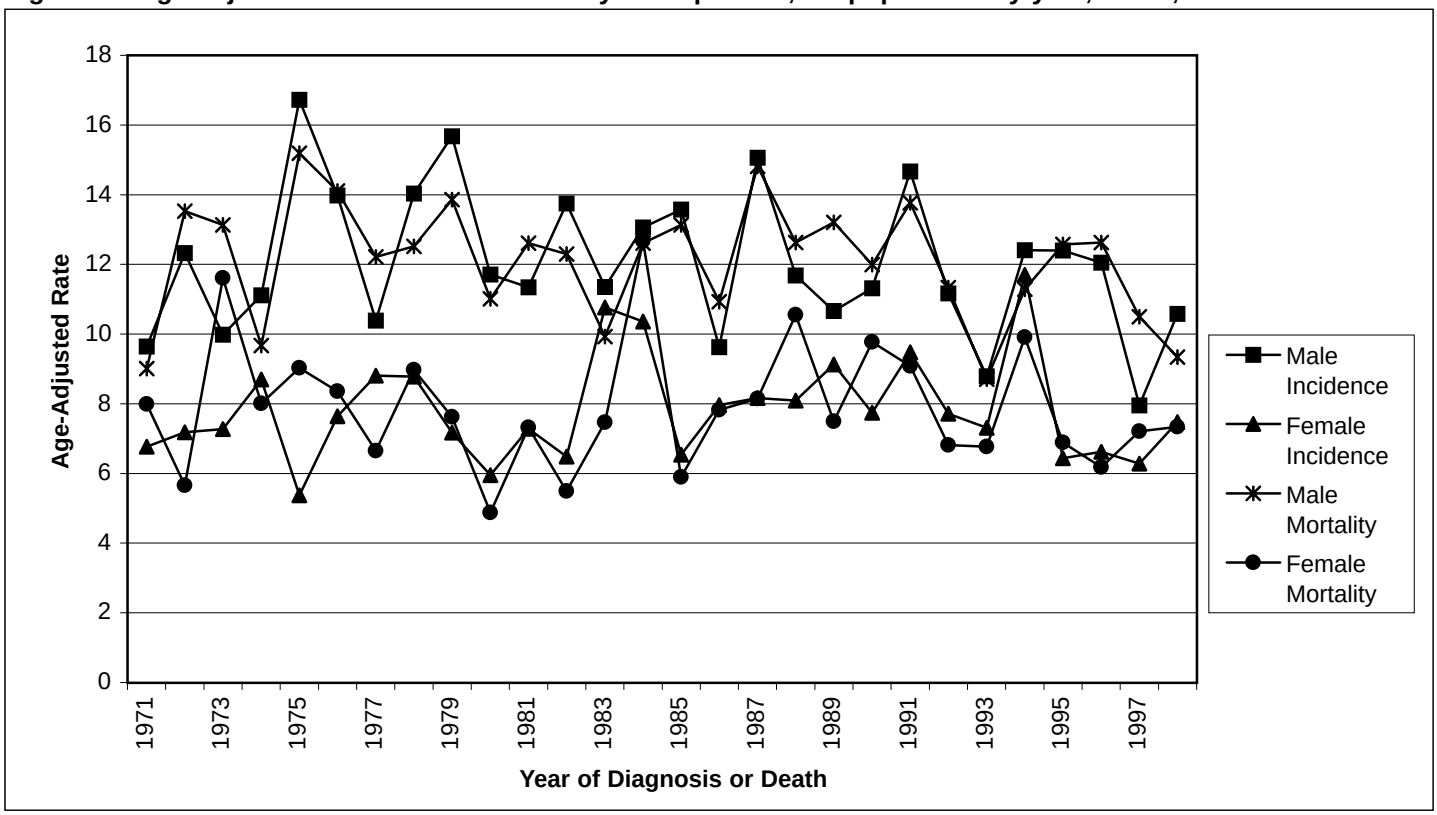


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

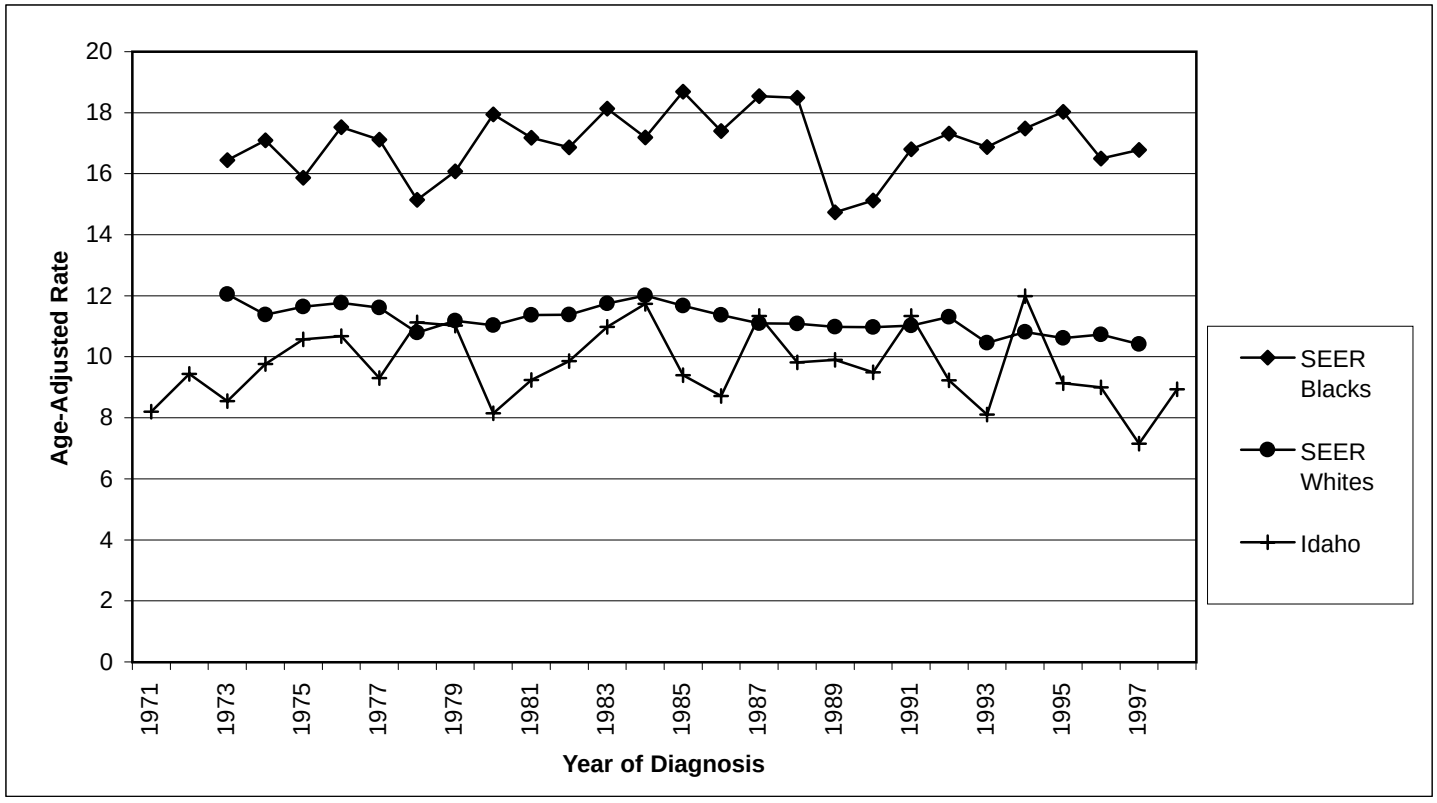


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

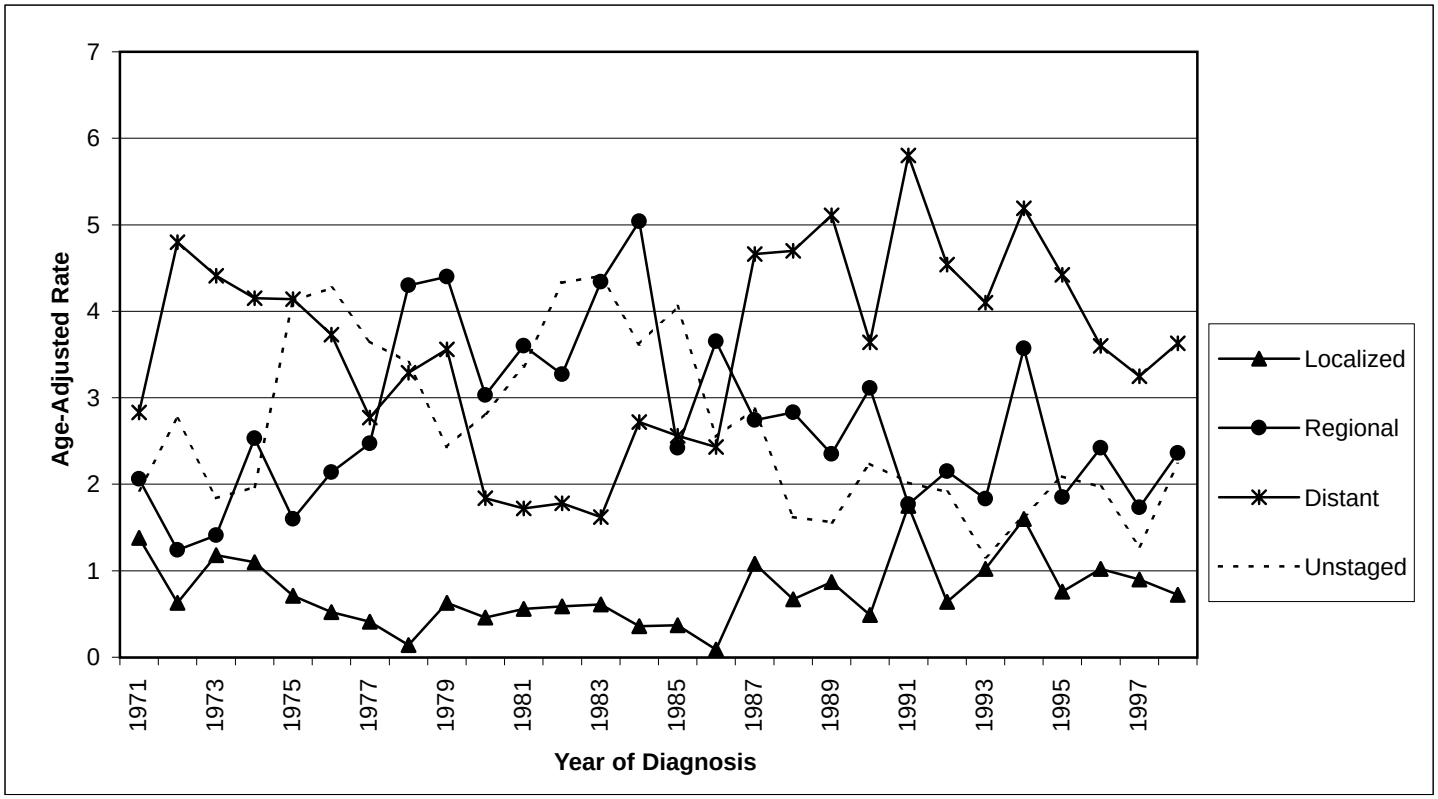
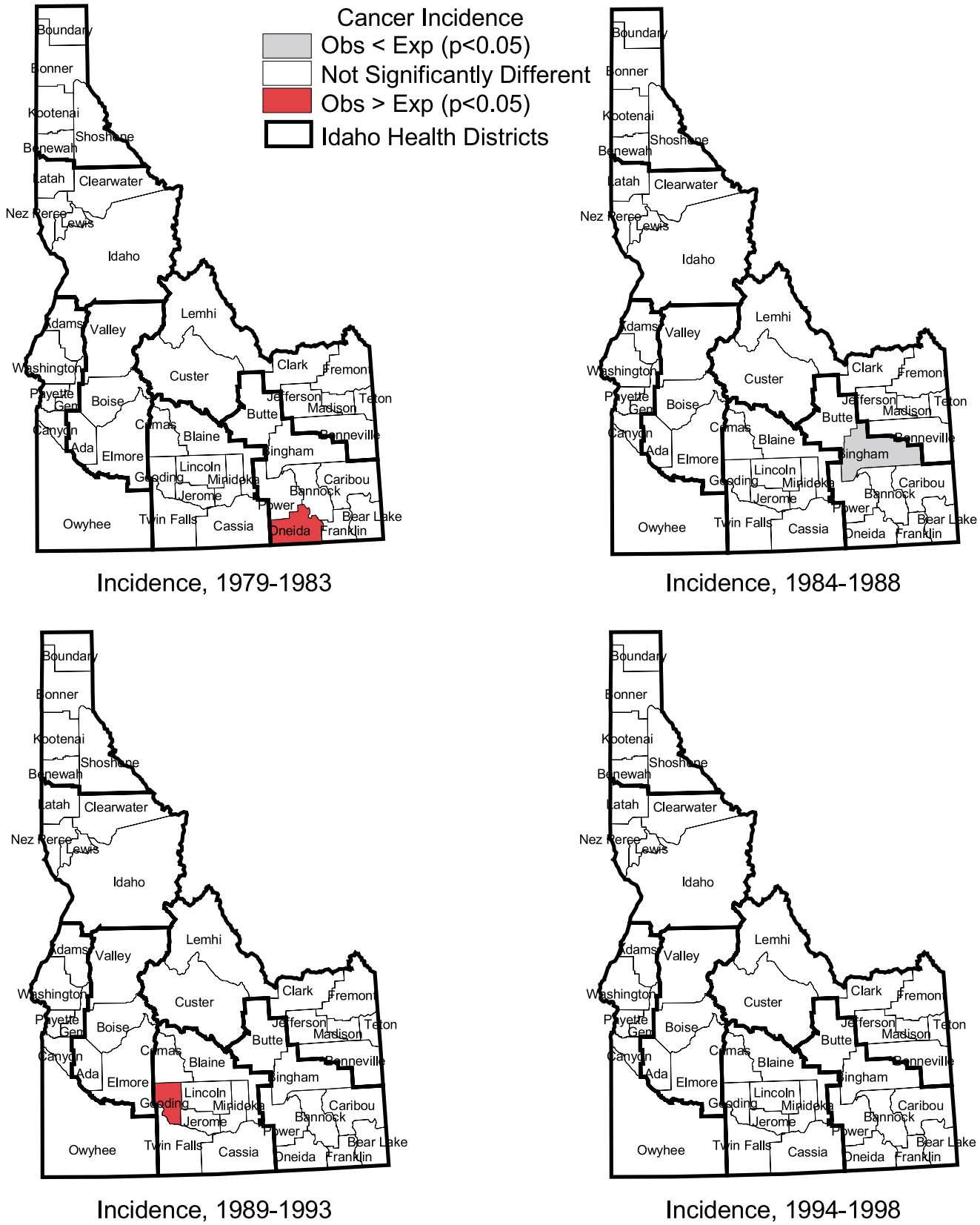


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For localized cases, the trend was flat. For regional cases, the rate increased 14.6% per year from 1971-1979 and decreased 3.5% per year from 1979-1998. For distant cases, the rate decreased 7.3% per year from 1971-1983, increased 18.2% per year from 1983-1989, and decreased 4.3% from 1989-1998. For unstaged cases, the trend was flat from 1971-1982 and the rate decreased 5.8% per year from 1982-1998.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of pancreatic cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. No individual counties had statistically significantly higher or lower rates of pancreatic cancer during more than one of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



PROSTATE

Primary Site Codes (ICD-0-2): *619*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	-	782	-	-	155	-	-	152.4	-	-	34.2	-
1997	-	795	-	-	136	-	-	157.0	-	-	31.9	-
1996	-	704	-	-	157	-	-	143.7	-	-	37.2	-
1995	-	700	-	-	180	-	-	146.6	-	-	43.2	-
1994	-	756	-	-	165	-	-	162.9	-	-	41.1	-
1993	-	883	-	-	151	-	-	194.7	-	-	39.2	-
1992	-	936	-	-	166	-	-	214.8	-	-	45.1	-
1991	-	924	-	-	136	-	-	218.7	-	-	37.5	-
1990	-	704	-	-	158	-	-	172.2	-	-	45.2	-
1989	-	582	-	-	134	-	-	146.1	-	-	38.4	-
1988	-	526	-	-	121	-	-	139.8	-	-	36.4	-
1987	-	491	-	-	116	-	-	128.4	-	-	35.9	-
1986	-	438	-	-	121	-	-	115.4	-	-	36.6	-
1985	-	451	-	-	120	-	-	123.8	-	-	38.6	-
1984	-	424	-	-	95	-	-	119.2	-	-	31.5	-
1983	-	443	-	-	112	-	-	127.4	-	-	39.6	-
1982	-	394	-	-	91	-	-	114.4	-	-	31.9	-
1981	-	375	-	-	99	-	-	116.3	-	-	35.1	-
1980	-	389	-	-	73	-	-	123.6	-	-	26.8	-
1979	-	357	-	-	81	-	-	117.0	-	-	30.6	-
1978	-	326	-	-	86	-	-	109.9	-	-	33.2	-
1977	-	275	-	-	85	-	-	95.1	-	-	32.2	-
1976	-	259	-	-	77	-	-	89.4	-	-	31.7	-
1975	-	261	-	-	83	-	-	94.8	-	-	33.7	-
1974	-	217	-	-	82	-	-	81.5	-	-	33.3	-
1973	-	214	-	-	79	-	-	81.0	-	-	34.1	-
1972	-	193	-	-	80	-	-	73.2	-	-	35.3	-
1971	-	192	-	-	85	-	-	77.1	-	-	39.4	-

From 1971 to 1998, there were 13,991 new cases of prostate cancer and 3,224 prostate cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year of diagnosis. Figure B shows trends in age-adjusted incidence and mortality rates. The overall age-adjusted cancer incidence rate increased 105.9% over the time period, with an estimated annual percent change of 3.2% ($p<0.05$). The overall age-adjusted cancer mortality rate decreased 11.5% over the time period, with an estimated annual percent change of 0.7% ($p<0.05$).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate increased 93.2% over the time period, with an estimated annual percent change of 3.6% ($p<0.05$). For SEER Whites, the age-adjusted cancer incidence rate increased 83.0% over the time period, with an estimated annual percent change of 3.6% ($p<0.05$). Prior to 1980, Idaho's age-adjusted prostate cancer incidence rate increased approximately 5.7% per year. From 1980-1987, the trend was nearly flat. From 1987-1992, the period corresponding to increased use of the PSA test, the rate increased 13.6% per year. From 1992-1995, the rate decreased 12.3% per year. Since 1995, the trend has been relatively flat. Since 1973, the age-adjusted incidence rates for Idaho residents have been similar to the rates for White residents of SEER regions. Black residents of SEER regions have had significantly higher incidence rates of prostate cancer.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

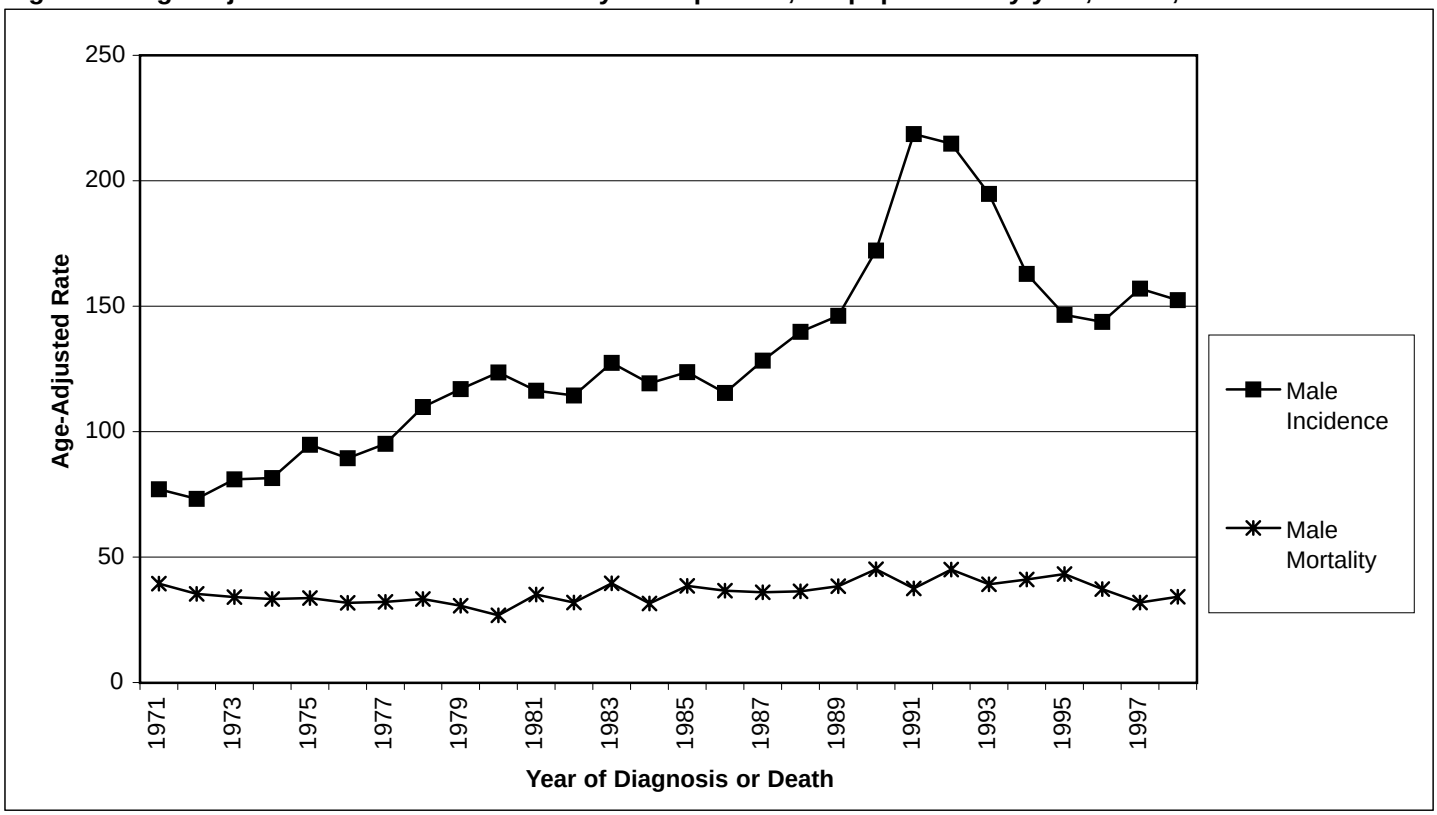


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

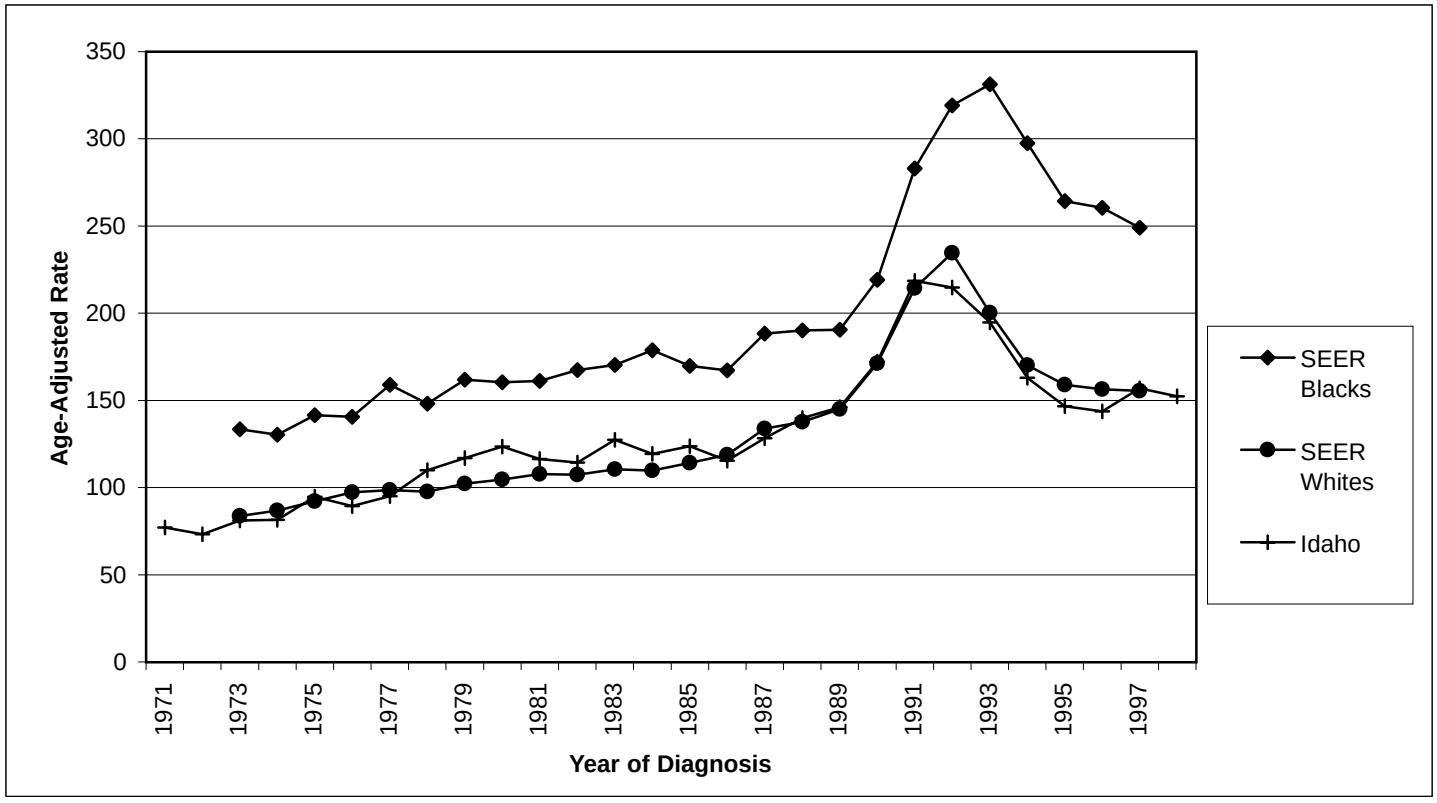


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

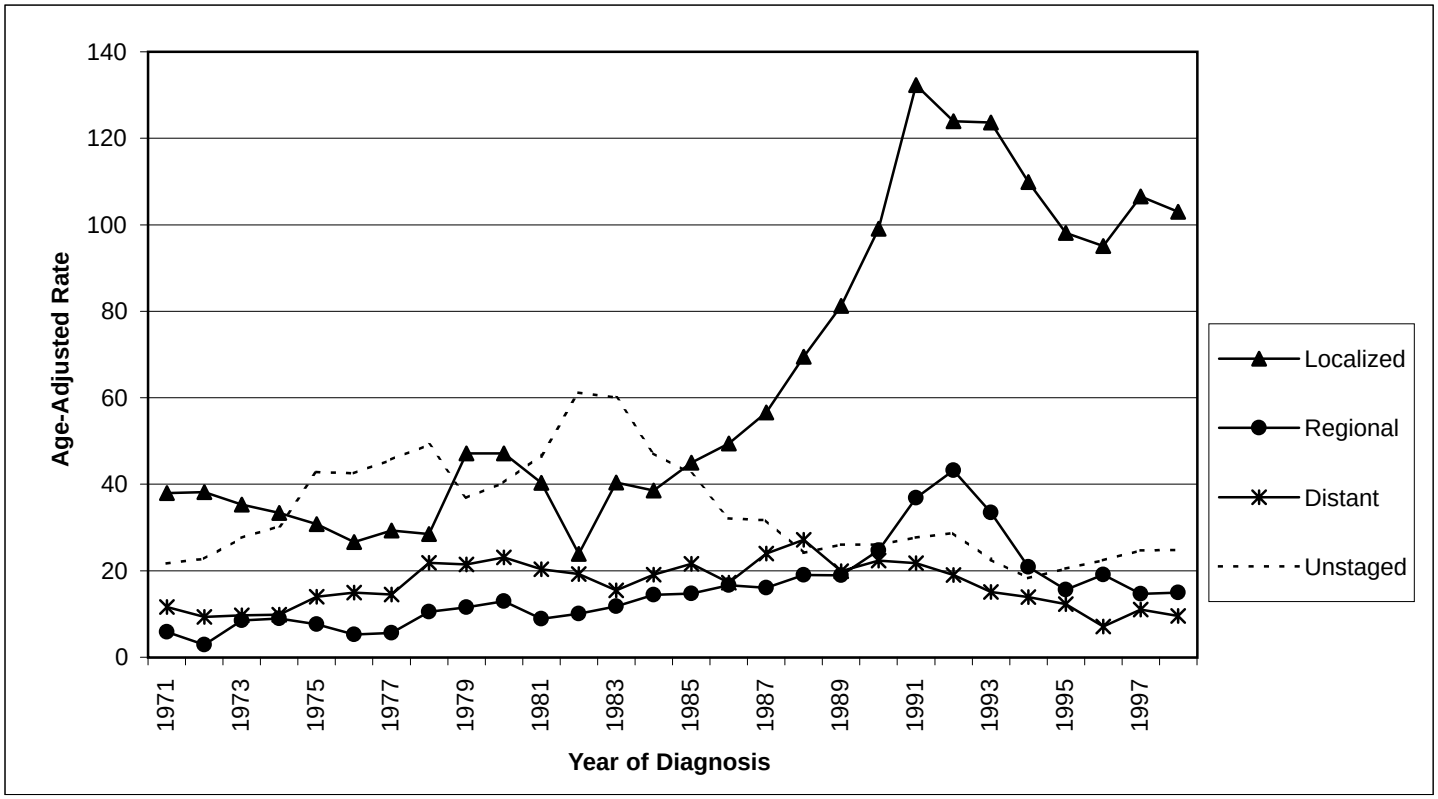
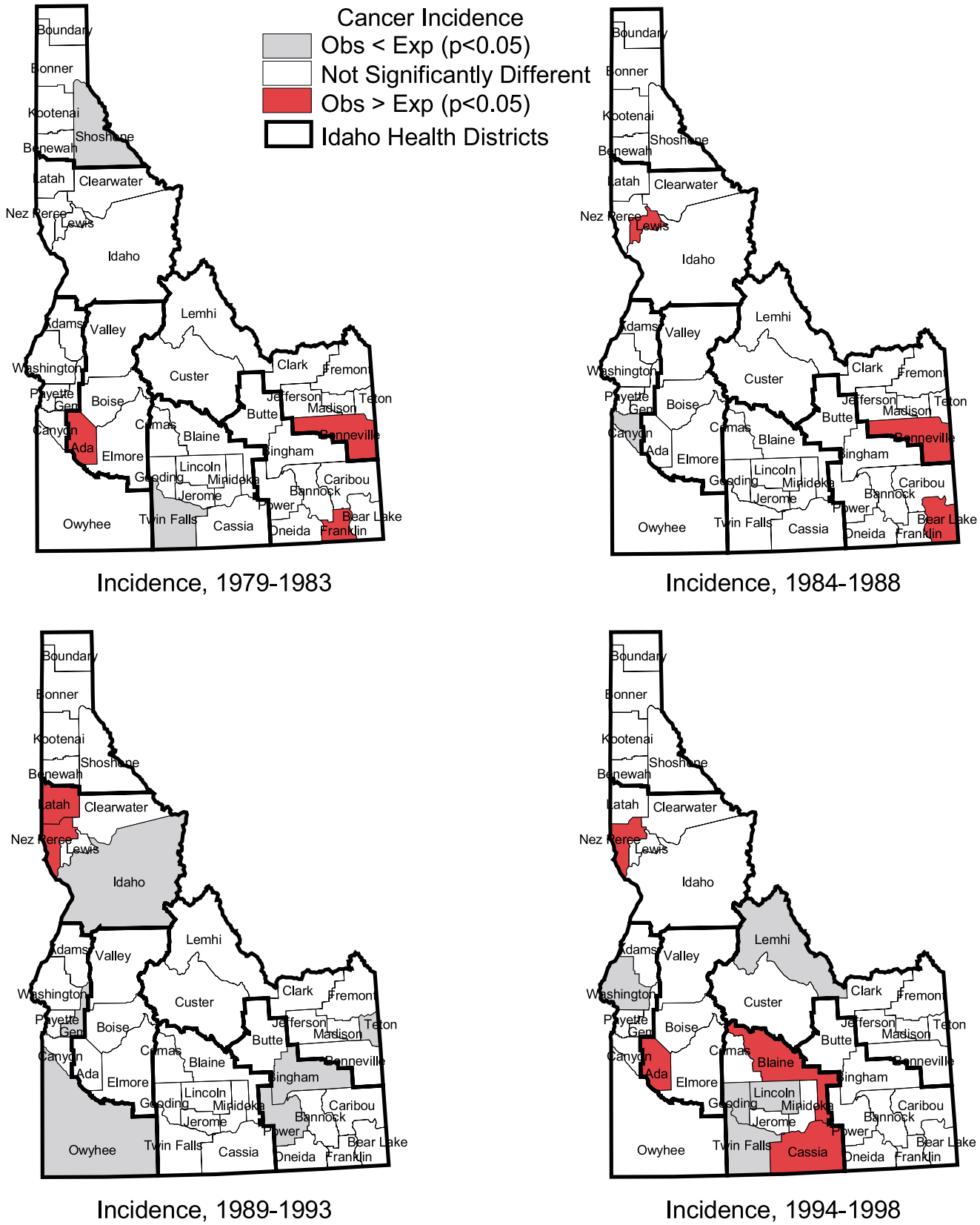


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For localized cases, the rate increased 1.2% per year from 1971-1985 and 21.1% per year from 1985-1991, and decreased 3.5% per year from 1991-1998. For regional cases, the rate increased 7.2% per year from 1971-1989 and 32.2% per year from 1989-1992, decreased 28.4% per year from 1992-1995, and the trend has been flat since 1995. For distant cases, the rate increased 11.7% per year from 1971-1978, the trend was flat from 1978-1990, and the rate decreased 11.4% per year from 1990-1998. For unstaged cases, the rate increased 7.1% per year from 1971-1983, decreased 15.6% per year from 1983-1988, and the trend has been flat since 1988.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of prostate cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. Ada, Bonneville, and Nez Perce Counties had statistically significantly higher rates of prostate cancer during two of the four five-year time periods. Twin Falls County had statistically significantly lower rates of prostate cancer during two of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



RECTUM

Primary Site Codes (ICD-0-2): *209*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	155	85	70	42	29	13	13.8	16.9	11.5	3.7	6.2	2.0
1997	150	88	62	44	22	22	13.7	18.2	10.3	4.1	4.9	3.5
1996	144	80	64	34	22	12	13.5	16.5	10.9	3.2	4.9	2.0
1995	134	79	55	31	16	15	12.7	16.7	9.7	3.0	3.5	2.6
1994	135	88	47	23	10	13	13.2	19.0	8.4	2.3	2.3	2.3
1993	136	83	53	21	10	11	13.8	19.3	9.6	2.2	2.4	2.0
1992	140	82	58	33	17	16	14.5	18.2	11.3	3.5	3.8	2.9
1991	130	69	61	26	10	16	13.9	16.1	11.9	2.9	2.7	3.0
1990	119	61	58	23	14	9	13.4	15.9	12.0	2.6	3.8	1.7
1989	116	71	44	21	11	10	12.8	17.1	8.9	2.3	2.8	1.9
1988	133	93	40	24	14	10	15.4	24.0	8.3	2.8	3.6	2.1
1987	113	61	52	23	12	11	13.3	15.9	10.8	2.9	3.5	2.4
1986	126	71	55	29	15	14	14.5	17.9	11.5	3.4	3.9	2.9
1985	138	77	61	22	12	10	16.2	20.6	13.0	2.9	4.0	2.2
1984	103	60	43	19	11	8	12.7	16.4	9.5	2.4	3.6	1.8
1983	90	56	34	18	6	12	11.4	15.9	8.0	2.3	1.8	2.7
1982	110	68	42	27	20	7	13.9	18.5	9.8	3.4	5.6	1.6
1981	114	74	40	23	9	14	15.2	21.0	10.1	3.3	3.2	3.6
1980	112	63	49	38	26	12	14.8	19.1	11.7	5.5	8.3	3.3
1979	117	69	48	22	15	7	16.1	20.8	12.2	3.2	5.0	1.9
1978	95	53	42	31	22	9	13.8	17.3	11.4	4.3	6.6	2.3
1977	105	59	46	18	11	7	15.1	19.5	11.9	2.8	4.4	1.8
1976	91	54	37	22	14	8	13.4	16.9	10.3	3.4	4.4	2.4
1975	75	50	25	20	12	8	11.4	15.4	7.6	3.2	3.9	2.5
1974	75	42	33	26	17	9	11.7	13.9	9.7	4.5	6.8	2.8
1973	78	46	32	32	15	17	13.2	16.2	10.2	5.4	5.1	5.5
1972	71	42	29	23	14	9	12.3	16.0	9.4	3.9	5.5	2.7
1971	80	49	31	20	9	11	13.9	18.0	10.3	3.3	2.7	3.7

From 1971 to 1998, there were 3,185 new cases of rectal cancer and 735 rectal cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 5.1% over the time period, with an estimated annual percent change of 0.1% (NS). For males, the age-adjusted cancer incidence rate increased 3.3% over the time period, with an estimated annual percent change of 0.2% (NS); for females, the age-adjusted cancer incidence rate increased 11.0% over the time period, with an estimated annual percent change of 0.1% (NS). The overall age-adjusted cancer mortality rate increased 7.5% over the time period, with an estimated annual percent change of -1.2% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 34.3% over the time period, with an estimated annual percent change of -1.2% (NS); for females, the age-adjusted cancer incidence rate decreased 14.0% over the time period, with an estimated annual percent change of -1.0% (NS).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate increased 5.0% over the time period, with an estimated annual percent change of 0.1% (NS). For SEER Whites, the age-adjusted cancer incidence rate decreased 17.4% over the time period, with an estimated annual percent change of -1.0% ($p<0.05$). The age-adjusted incidence rates for Idaho residents have been similar to the rates for Black residents of SEER regions. The rates for Idahoans show more variability due to the relatively small numbers of cases per year. White residents of SEER regions have had somewhat higher incidence rates of rectal cancer.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

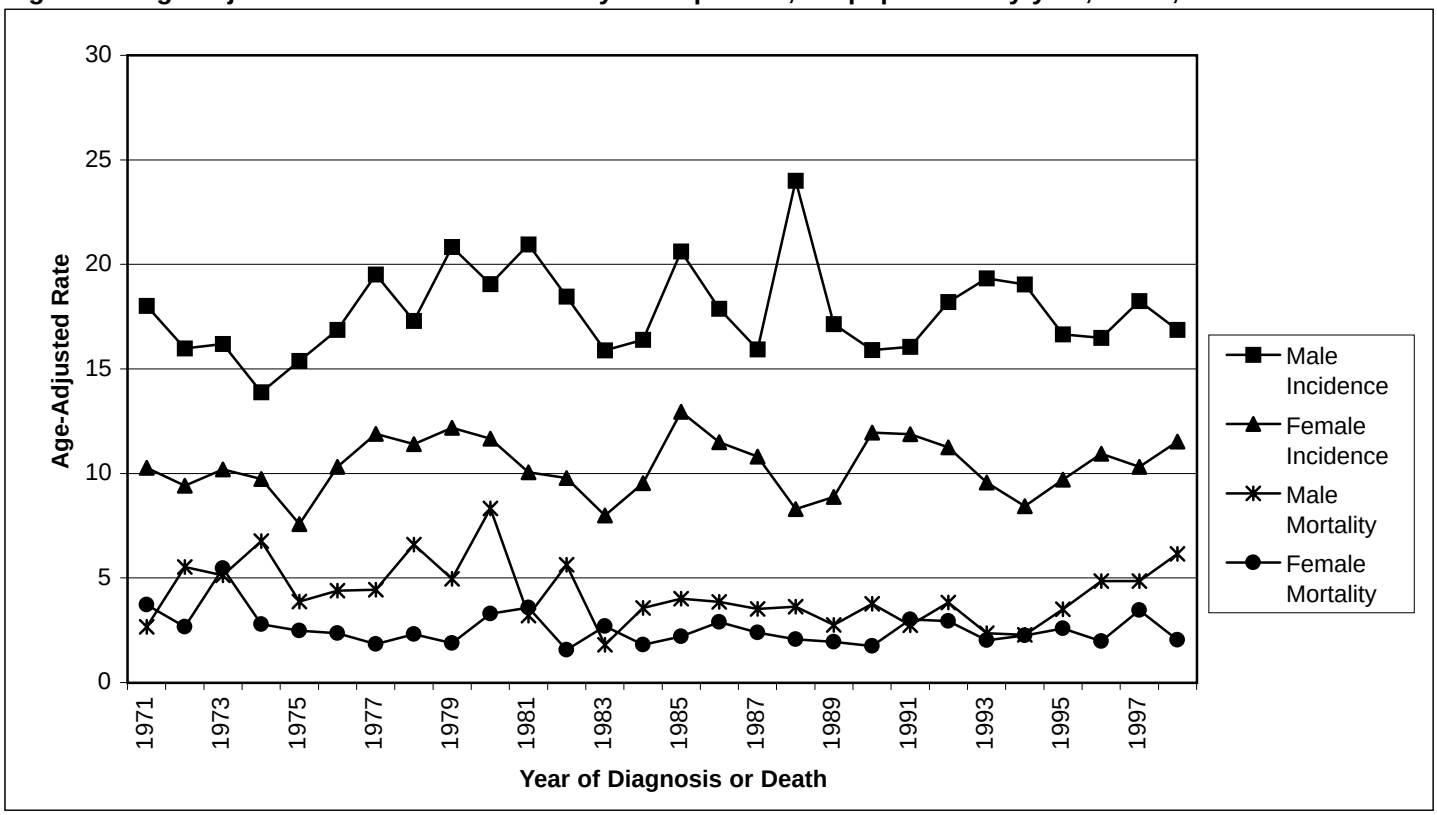


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

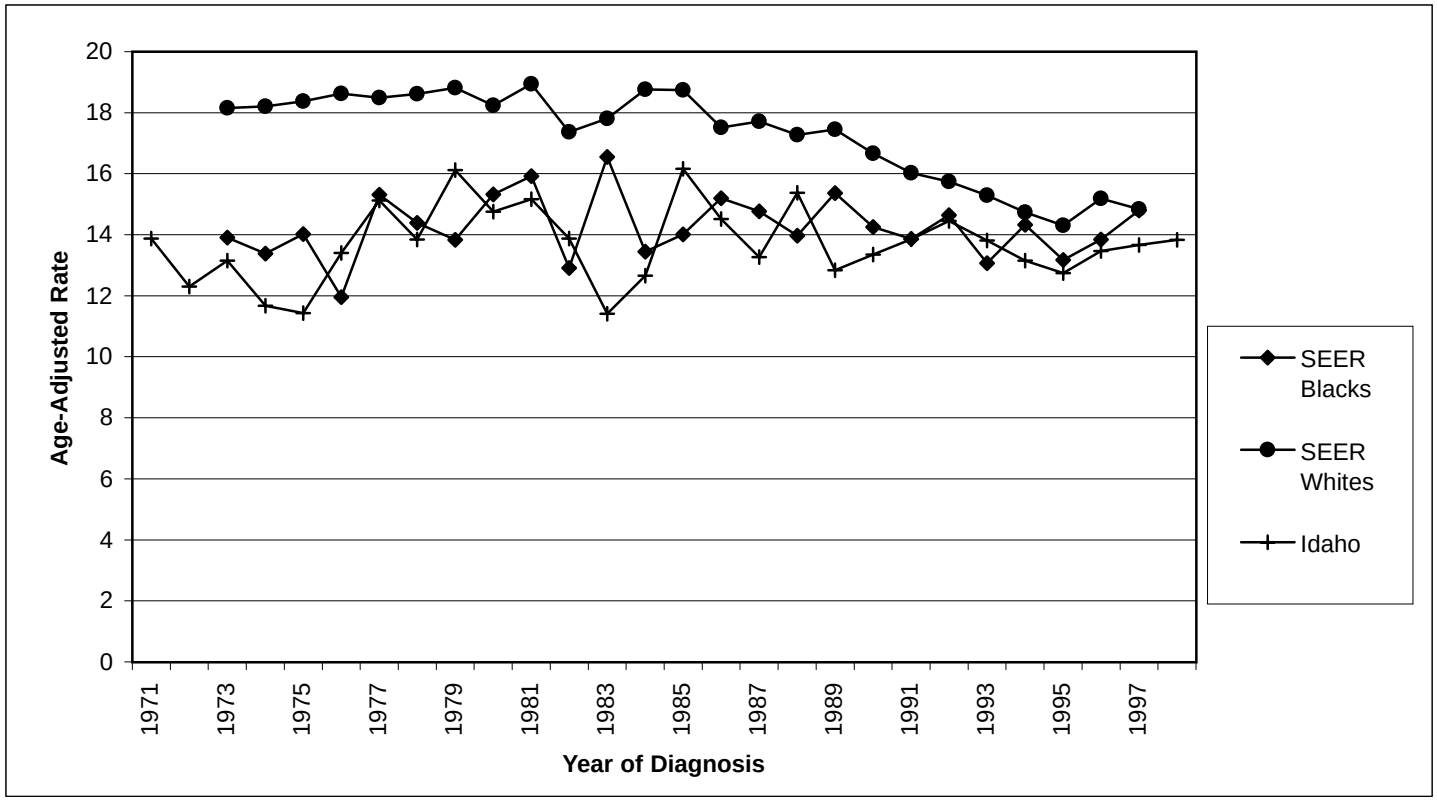


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

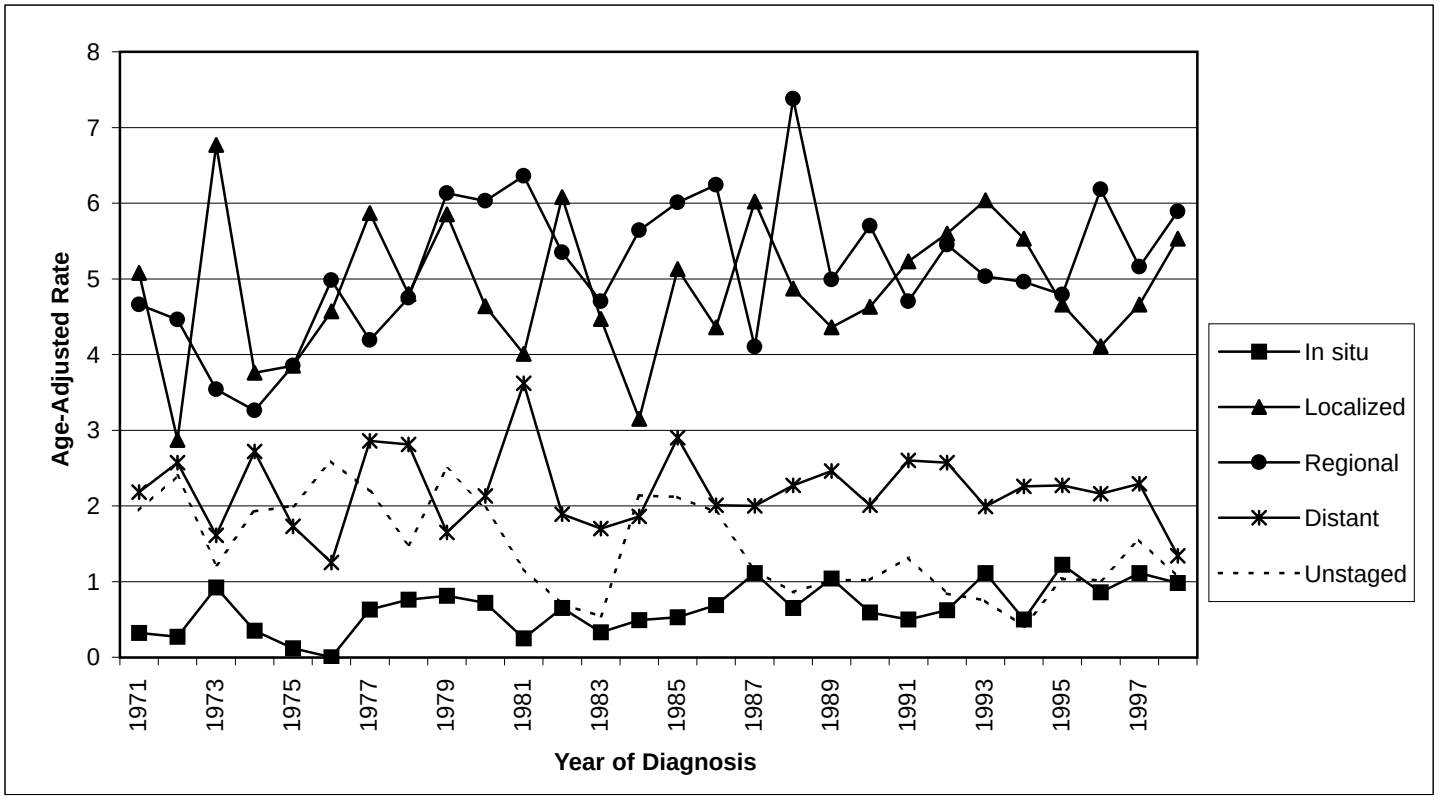
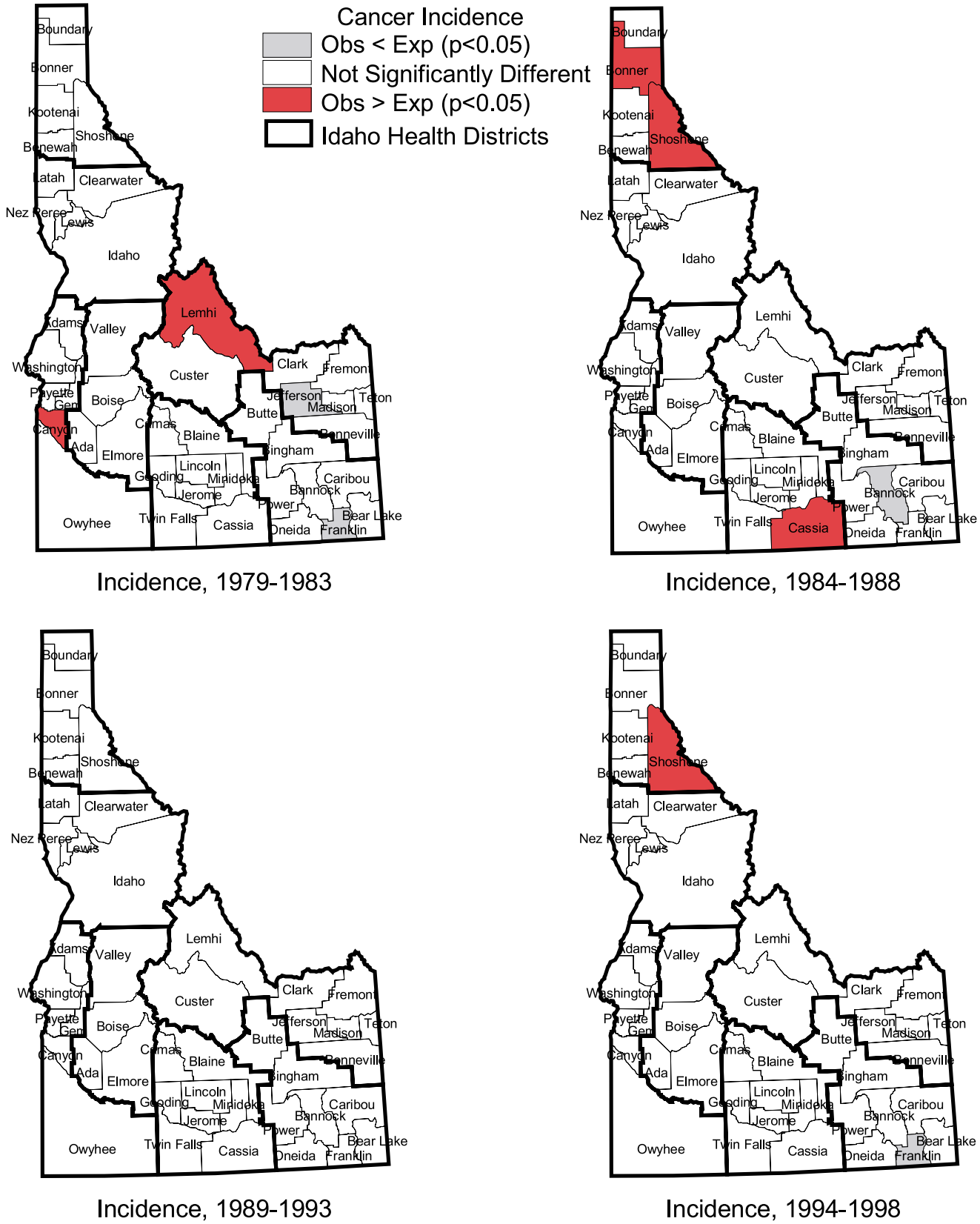


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For in-situ cases, the rate increased 256.1% over the entire time period, from 0.5 (1971-1973) to 1.0 (1996-1998) cases per 100,000 population. For localized cases, the trend was flat. For regional cases, the rate increased 1.0% per year from 1971-1998. For distant cases, the trend was flat. For unstaged cases, the rate decreased 3.3% per year from 1971-1998.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of rectal cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. Shoshone County had statistically significantly higher rates of rectal cancer during two of the four five-year time periods. Franklin County had statistically significantly lower rates of rectal cancer during two of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



STOMACH

Primary Site Codes (ICD-0-2): *160-169*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	68	43	25	43	26	17	6.0	8.5	4.1	3.8	5.3	2.8
1997	57	39	18	32	18	14	5.2	8.2	3.0	2.9	3.5	2.3
1996	73	56	17	44	28	16	6.8	11.7	2.9	4.2	6.2	2.7
1995	65	43	22	53	27	26	6.1	8.8	3.8	5.1	5.8	4.5
1994	71	40	31	31	22	9	7.1	9.0	5.5	3.1	5.0	1.6
1993	63	35	28	36	22	14	6.4	7.8	5.2	3.6	4.9	2.6
1992	59	37	22	39	22	17	6.2	9.1	4.2	4.1	5.7	3.1
1991	64	46	18	54	35	19	7.0	11.5	3.5	5.9	8.4	3.7
1990	44	25	19	36	20	16	4.8	5.9	3.8	4.1	5.1	3.3
1989	69	41	28	33	15	18	8.1	10.8	5.7	3.9	3.9	3.7
1988	36	27	9	39	25	14	4.0	6.8	1.8	4.3	6.4	2.8
1987	58	33	25	44	29	15	7.0	9.2	5.4	5.1	7.4	3.2
1986	79	53	26	48	32	16	9.4	14.5	5.7	5.9	9.7	3.5
1985	60	33	27	31	20	11	7.3	9.1	6.0	3.6	5.3	2.4
1984	54	33	21	40	27	13	6.8	9.4	4.8	5.1	7.7	2.9
1983	76	42	34	54	34	20	9.8	12.3	8.0	6.8	10.0	4.6
1982	48	29	19	42	22	20	5.9	8.3	4.1	5.3	6.7	4.5
1981	65	39	26	41	25	16	8.6	11.6	6.3	5.4	7.4	3.9
1980	50	29	21	44	27	17	6.7	8.0	5.2	6.2	8.2	4.3
1979	56	37	19	53	33	20	7.7	11.6	4.7	7.0	9.4	5.0
1978	55	38	17	36	27	9	8.1	12.8	4.5	5.3	8.6	2.5
1977	51	35	16	33	22	11	7.7	11.6	4.5	5.3	7.7	3.2
1976	54	28	26	43	26	17	8.6	9.2	7.8	7.0	9.6	4.9
1975	52	35	17	58	37	21	8.5	13.4	4.9	9.7	14.4	6.2
1974	60	38	22	52	35	17	9.8	12.8	6.8	9.0	13.7	5.4
1973	52	35	17	38	31	7	8.7	13.1	5.2	6.3	11.4	2.3
1972	51	30	21	56	38	18	8.8	11.3	6.8	10.4	16.1	6.0
1971	54	38	16	46	34	12	9.7	14.4	5.6	8.1	12.7	4.2

From 1971 to 1998, there were 1,644 new cases of stomach cancer and 1,199 stomach cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate decreased 39.1% over the time period, with an estimated annual percent change of -1.7% ($p<0.05$). For males, the age-adjusted cancer incidence rate decreased 34.7% over the time period, with an estimated annual percent change of -1.5% ($p<0.05$); for females, the age-adjusted cancer incidence rate decreased 42.7% over the time period, with an estimated annual percent change of -2.0% ($p<0.05$). The overall age-adjusted cancer mortality rate decreased 63.7% over the time period, with an estimated annual percent change of -3.3% ($p<0.05$). For males, the age-adjusted cancer incidence rate decreased 69.6% over the time period, with an estimated annual percent change of -3.9% ($p<0.05$); for females, the age-adjusted cancer incidence rate decreased 50.8% over the time period, with an estimated annual percent change of -2.2% ($p<0.05$).

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate decreased 25.6% over the time period, with an estimated annual percent change of -1.1% ($p<0.05$). For SEER Whites, the age-adjusted cancer incidence rate decreased 40.3% over the time period, with an estimated annual percent change of -2.1% ($p<0.05$). The age-adjusted incidence rates for Idaho residents have been slightly lower than the rates for White residents of SEER regions. The rates for Idahoans show more variability due to the relatively small numbers of cases per year. Black residents of SEER regions have had significantly higher incidence rates of stomach cancer.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

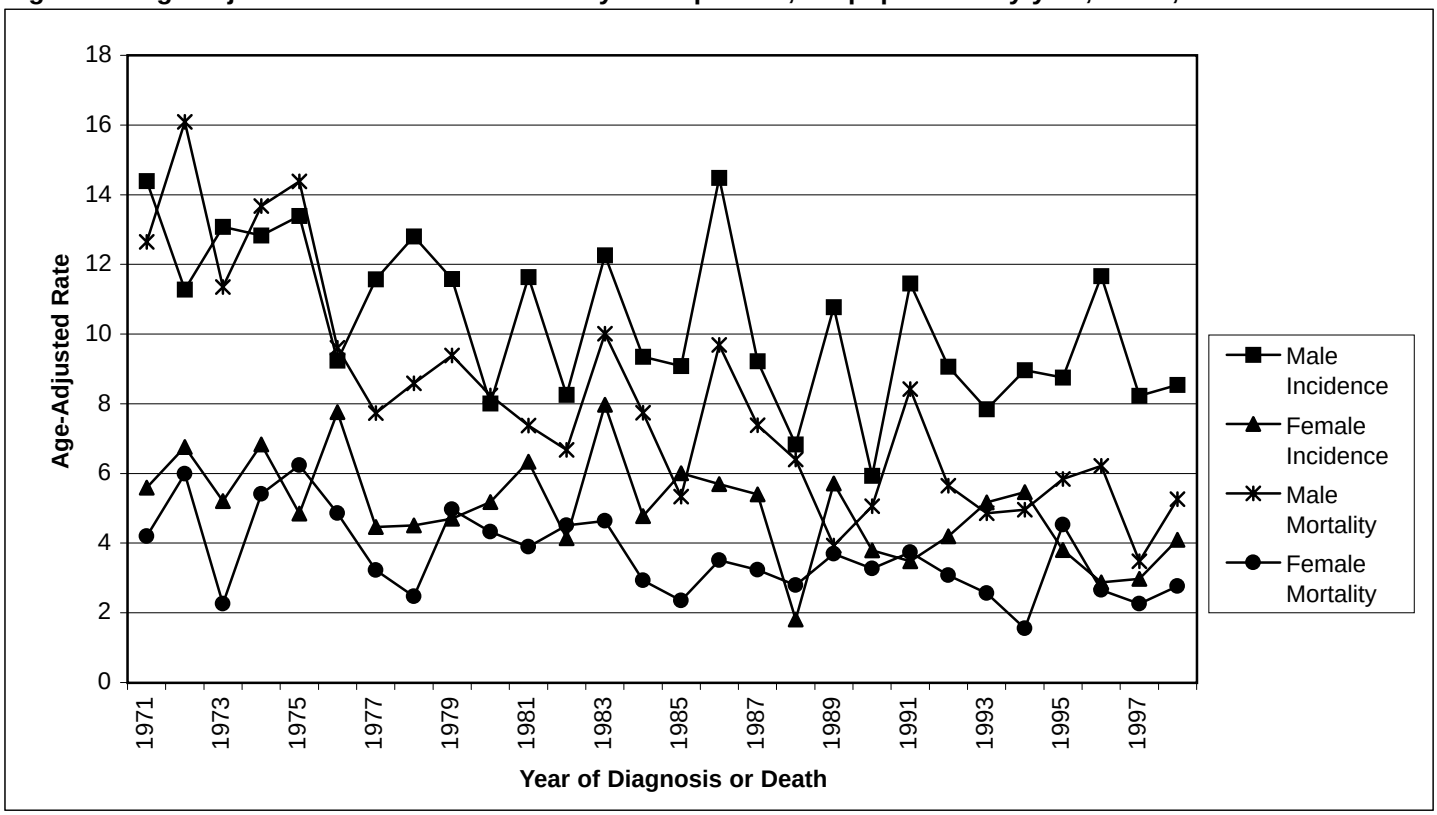


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

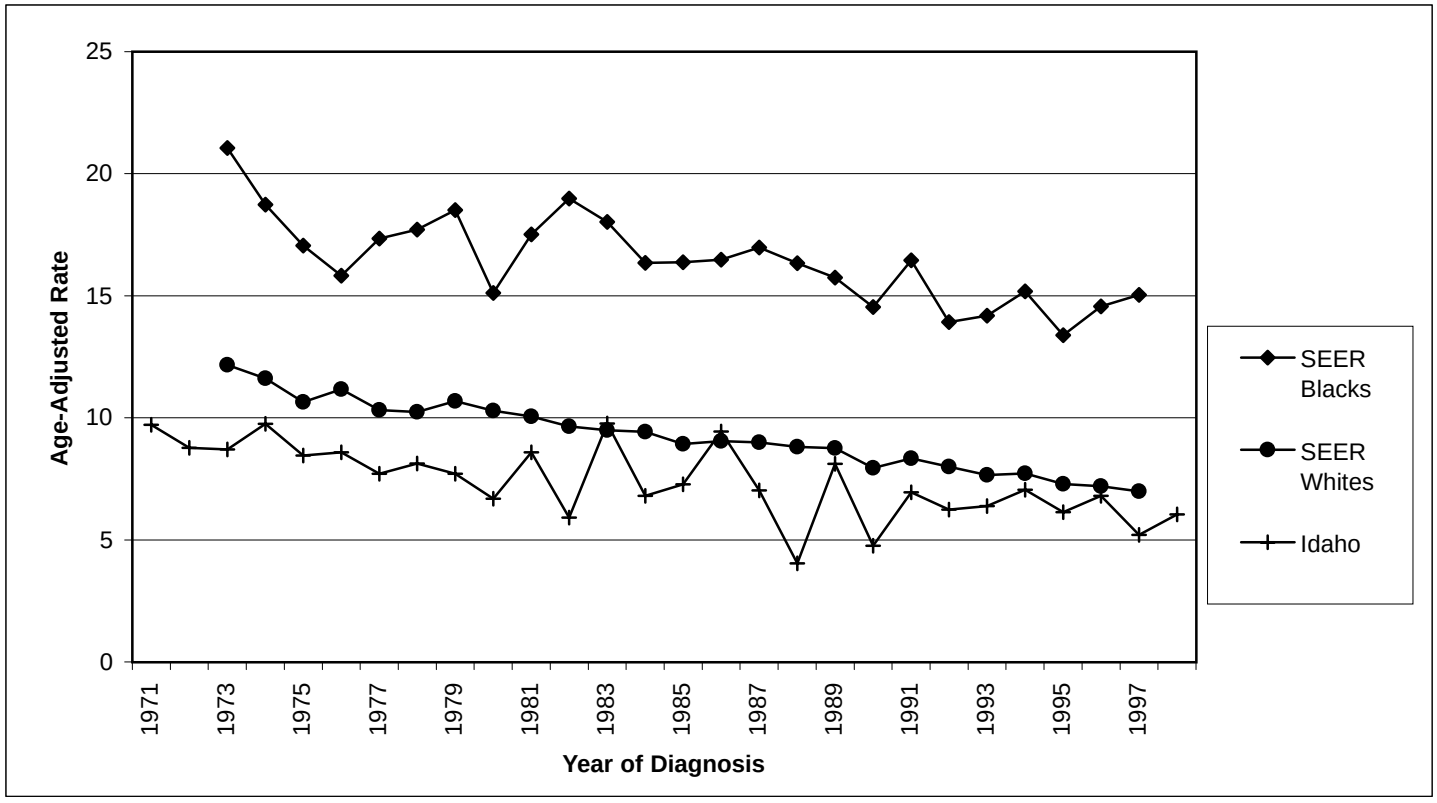


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

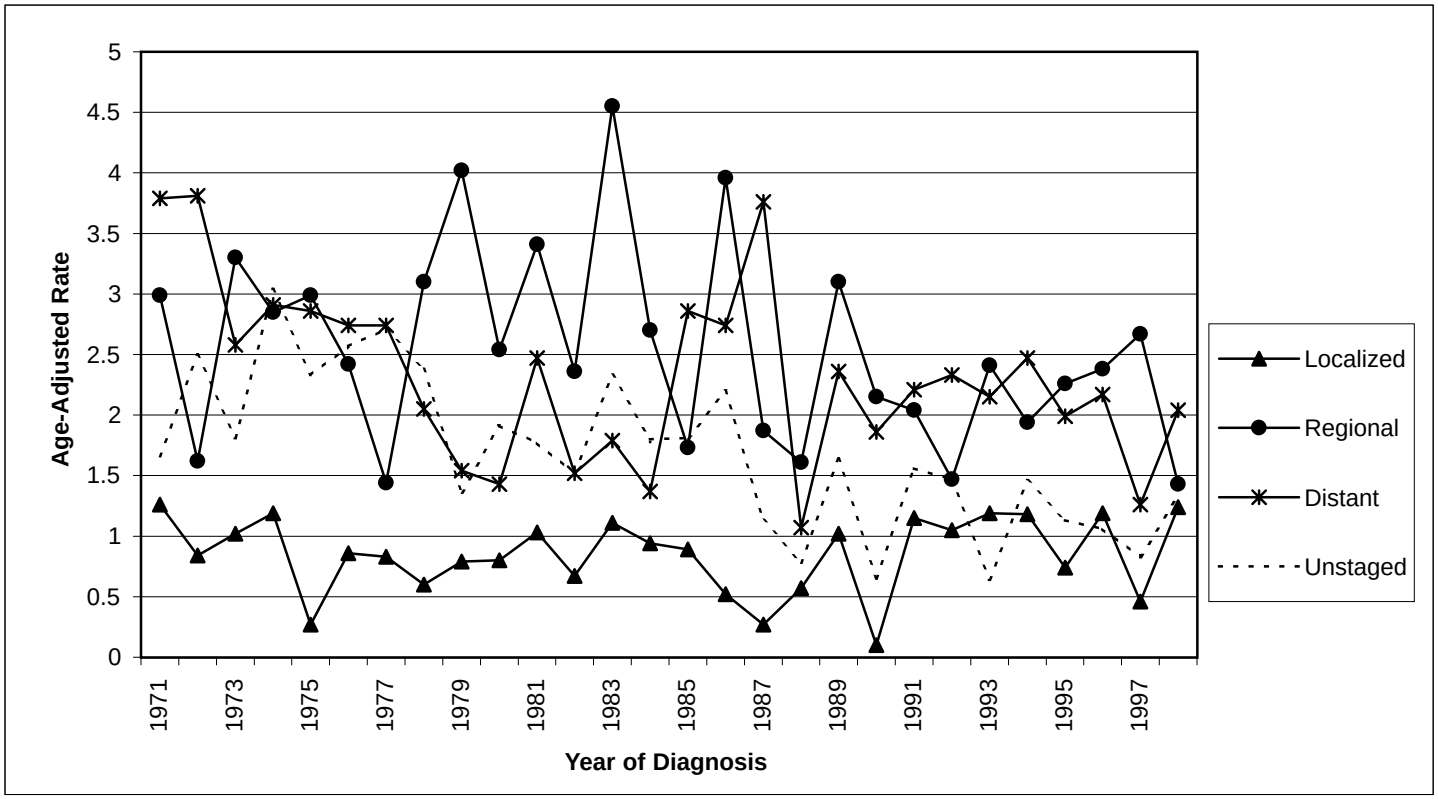
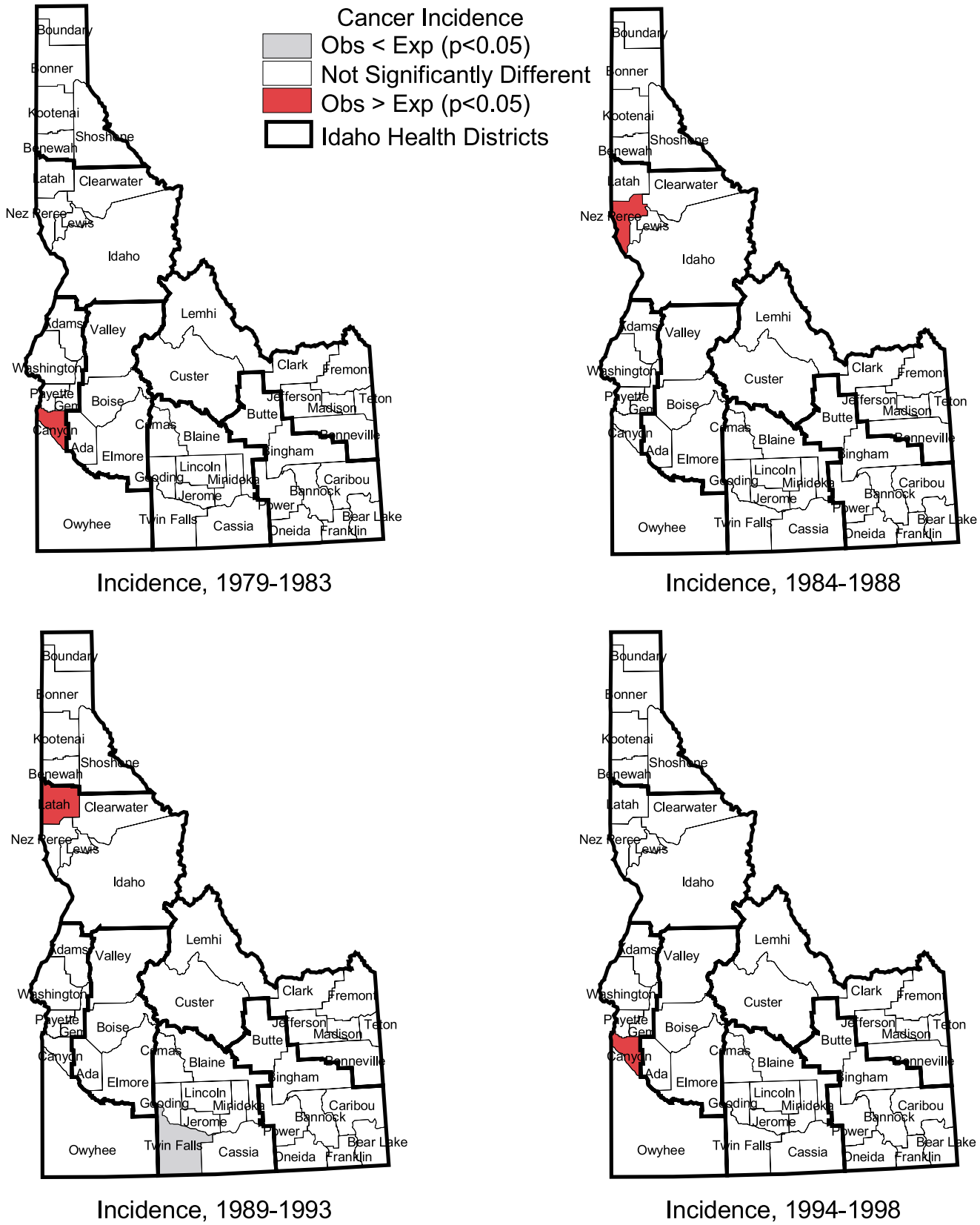


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For localized cases, the trend was flat. For regional cases, the trend was flat. For distant cases, the rate decreased 1.6% per year from 1971-1998. For unstaged cases, the rate decreased 3.5% per year from 1971-1998. There was considerable variability in the stage-specific rates due to the small numbers of cases per year.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of stomach cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. Canyon County had statistically significantly higher rates of stomach cancer during two of the four five-year time periods. No individual counties had statistically significantly lower rates of stomach cancer during more than one of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



TESTIS

Primary Site Codes (ICD-0-2): *620-629*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	-	38	-	-	2	-	-	6.5	-	-	0.3	-
1997	-	44	-	-	0	-	-	7.4	-	-	0.0	-
1996	-	25	-	-	3	-	-	4.4	-	-	0.5	-
1995	-	32	-	-	1	-	-	5.6	-	-	0.1	-
1994	-	31	-	-	2	-	-	5.6	-	-	0.4	-
1993	-	31	-	-	2	-	-	5.6	-	-	0.4	-
1992	-	34	-	-	0	-	-	6.8	-	-	0.0	-
1991	-	30	-	-	3	-	-	6.1	-	-	0.7	-
1990	-	32	-	-	3	-	-	6.4	-	-	0.7	-
1989	-	30	-	-	2	-	-	6.1	-	-	0.4	-
1988	-	26	-	-	2	-	-	5.2	-	-	0.4	-
1987	-	25	-	-	2	-	-	5.3	-	-	0.5	-
1986	-	30	-	-	3	-	-	6.1	-	-	0.6	-
1985	-	22	-	-	1	-	-	3.9	-	-	0.2	-
1984	-	24	-	-	1	-	-	5.3	-	-	0.2	-
1983	-	24	-	-	1	-	-	4.7	-	-	0.2	-
1982	-	26	-	-	2	-	-	5.4	-	-	0.4	-
1981	-	26	-	-	2	-	-	4.8	-	-	0.5	-
1980	-	20	-	-	2	-	-	4.3	-	-	0.5	-
1979	-	16	-	-	4	-	-	3.6	-	-	0.7	-
1978	-	21	-	-	4	-	-	4.4	-	-	0.6	-
1977	-	23	-	-	2	-	-	5.6	-	-	0.6	-
1976	-	16	-	-	2	-	-	3.4	-	-	0.5	-
1975	-	18	-	-	3	-	-	5.0	-	-	0.7	-
1974	-	22	-	-	5	-	-	5.7	-	-	1.3	-
1973	-	11	-	-	2	-	-	3.1	-	-	0.6	-
1972	-	7	-	-	2	-	-	2.2	-	-	0.7	-
1971	-	12	-	-	5	-	-	3.5	-	-	1.5	-

From 1971 to 1998, there were 697 new cases of testicular cancer and 63 testicular cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year of diagnosis. Figure B shows trends in age-adjusted incidence and mortality rates. The overall age-adjusted cancer incidence rate increased 141.5% over the time period, with an estimated annual percent change of 2.3% ($p<0.05$). The overall age-adjusted cancer mortality rate decreased 85.1% over the time period, with a range of 0-5 testicular cancer deaths per year.

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho resident males. For SEER Blacks, the age-adjusted cancer incidence rate decreased 1.6% over the time period, with an estimated annual percent change of 0.9% (NS). For SEER Whites, the age-adjusted cancer incidence rate increased 69.0% over the time period, with an estimated annual percent change of 2.2% ($p<0.05$). Since 1973, the age-adjusted incidence rates for Idaho residents have been similar to the rates for White residents of SEER regions. The rates for Idahoans show considerable variability due to the relatively small numbers of cases per year. Black residents of SEER regions have had significantly lower incidence rates of testicular cancer.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

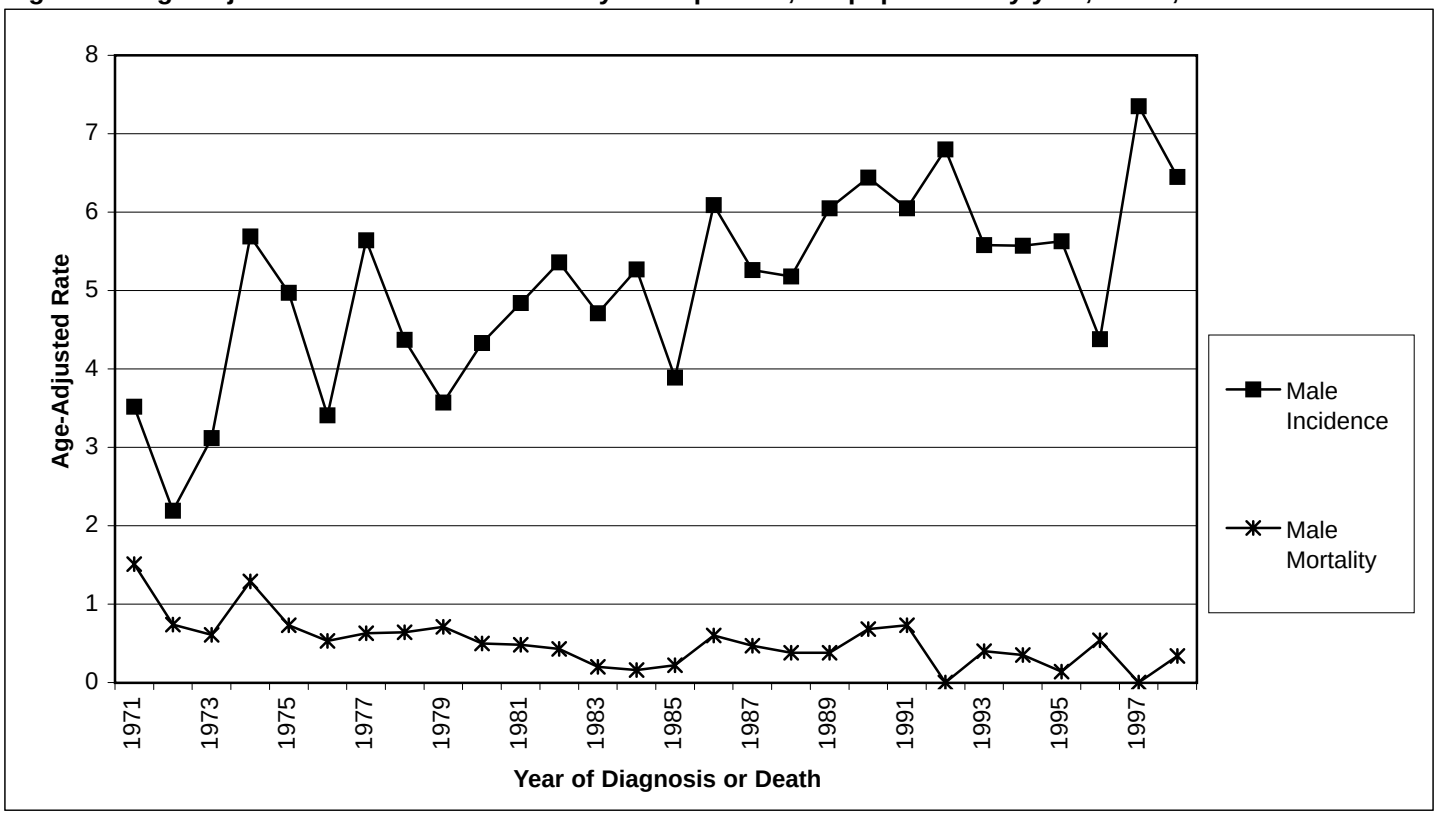
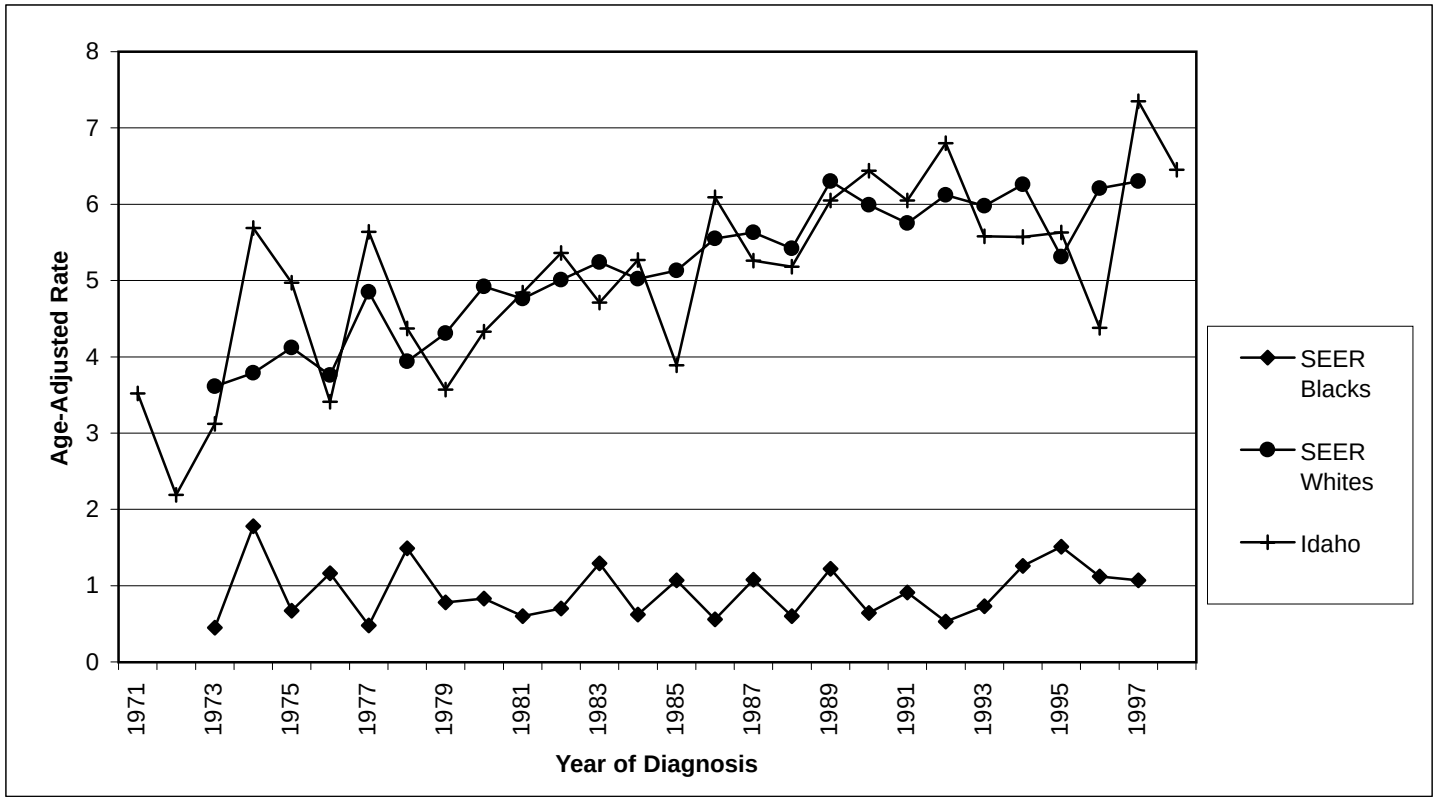


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).



TESTIS

Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

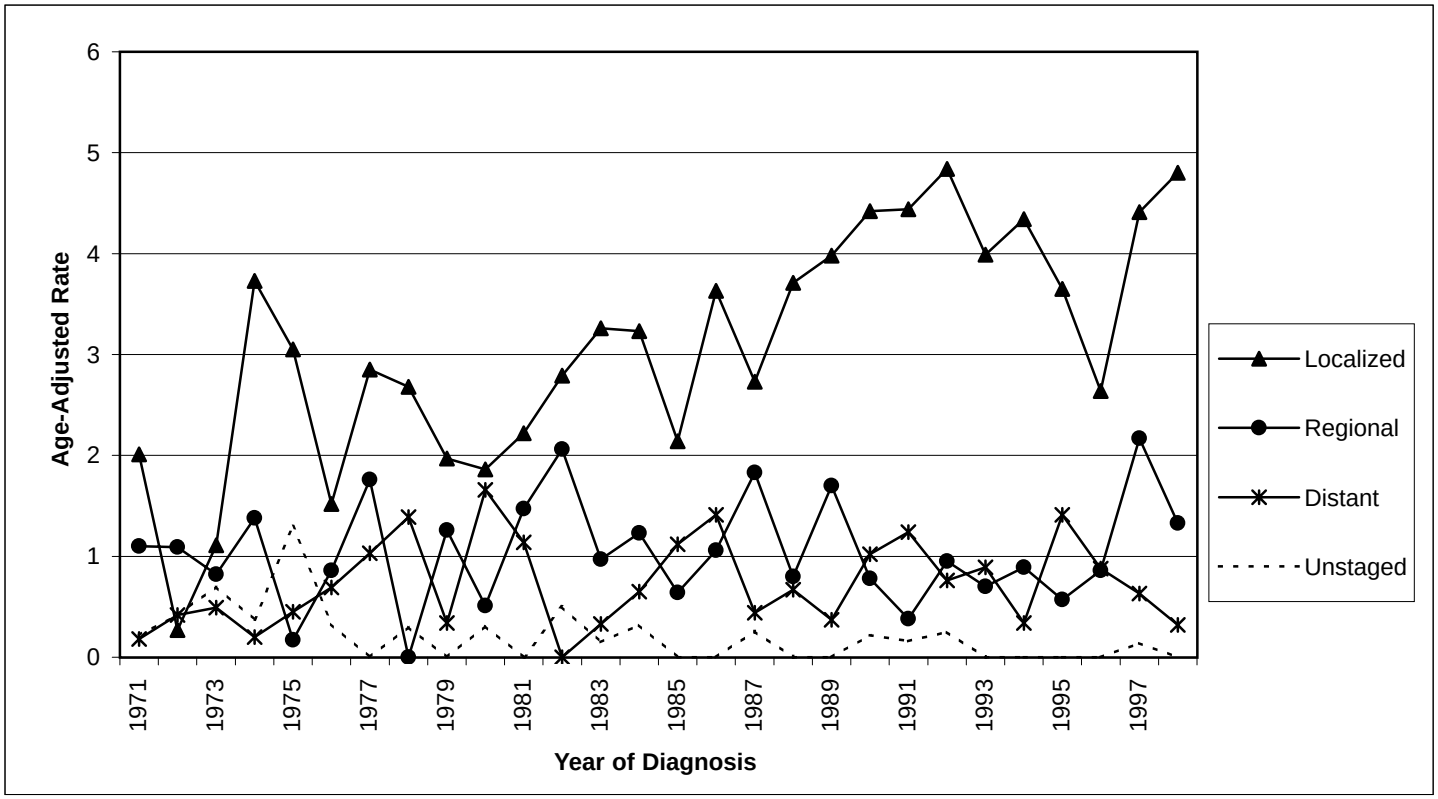
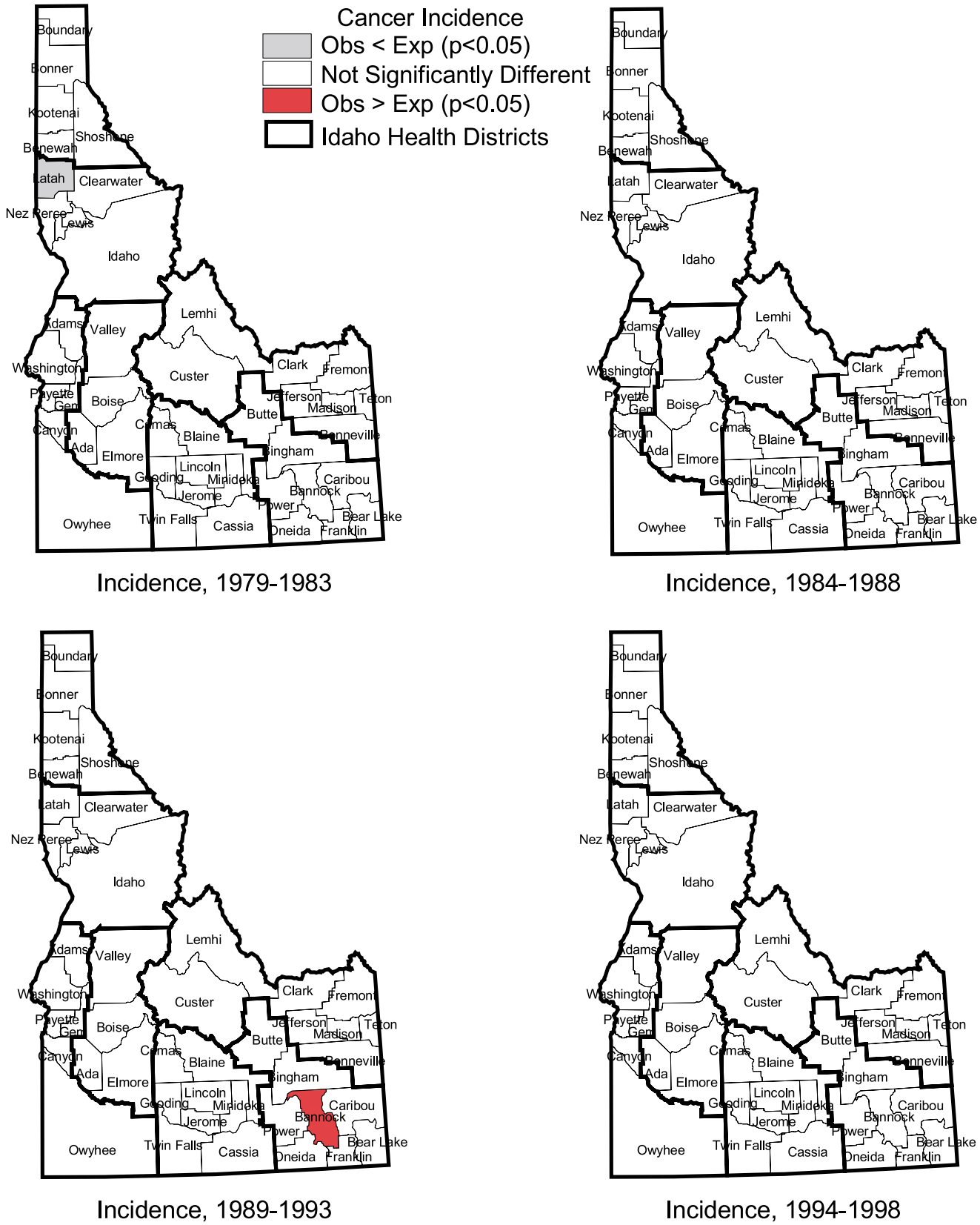


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For localized cases, the rate increased 4.8% per year from 1971-1998. For regional, distant, and unstaged cases, the trends have been flat.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of testicular cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. No individual counties had statistically significantly higher or lower rates of testicular cancer during more than one of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



THYROID

Primary Site Codes (ICD-0-2): *739*
Histologic Types: *Excludes 9590-9989*

Figure A. Numbers of cancer cases, deaths, and age-adjusted incidence and mortality rates by year and sex.

Year of Diagnosis or Death	New Cases			Deaths			Annual Age-Adjusted Rate (2000 U.S.) per 100,000					
							Incidence			Mortality		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
1998	87	22	65	5	1	4	7.5	3.9	11.1	0.4	0.2	0.7
1997	88	16	72	3	1	2	7.7	2.8	12.6	0.3	0.2	0.3
1996	70	14	56	7	1	6	6.3	2.6	10.1	0.7	0.2	1.0
1995	48	11	37	2	0	2	4.4	2.2	6.7	0.2	0.0	0.3
1994	58	15	43	4	2	2	5.5	3.0	8.0	0.4	0.6	0.4
1993	67	23	44	4	2	2	6.5	4.6	8.5	0.4	0.5	0.4
1992	56	15	41	2	1	1	5.5	3.2	7.7	0.2	0.3	0.2
1991	45	14	31	1	0	1	4.6	3.0	6.3	0.1	0.0	0.2
1990	53	12	41	3	1	2	5.7	2.8	8.6	0.3	0.2	0.4
1989	44	12	32	2	1	1	4.9	2.8	7.0	0.2	0.2	0.2
1988	47	7	40	0	0	0	5.2	1.6	8.8	0.0	0.0	0.0
1987	47	8	39	8	6	2	5.4	1.9	9.0	1.0	1.6	0.4
1986	54	15	39	6	2	4	6.4	3.6	9.2	0.6	0.4	0.8
1985	30	3	27	4	1	3	3.1	0.5	5.6	0.5	0.3	0.6
1984	44	10	34	4	1	3	5.0	2.7	7.4	0.5	0.2	0.8
1983	48	10	38	3	0	3	5.1	2.1	7.8	0.4	0.0	0.7
1982	42	5	37	6	2	4	5.1	1.2	8.9	0.7	0.5	0.9
1981	45	14	31	2	0	2	5.8	4.0	7.5	0.3	0.0	0.6
1980	34	6	28	1	0	1	3.8	1.6	6.0	0.1	0.0	0.2
1979	40	8	32	2	1	1	4.9	2.6	7.3	0.3	0.5	0.2
1978	39	6	33	2	0	2	5.1	1.4	8.8	0.3	0.0	0.5
1977	40	9	31	4	3	1	5.1	2.3	7.9	0.5	0.8	0.2
1976	39	7	32	1	1	0	5.7	2.3	8.8	0.2	0.4	0.0
1975	30	8	22	2	1	1	4.5	2.5	6.3	0.4	0.3	0.3
1974	31	8	23	3	3	0	4.1	1.9	6.3	0.4	0.9	0.0
1973	24	5	19	0	0	0	3.7	1.7	5.7	0.0	0.0	0.0
1972	13	3	10	0	0	0	2.1	0.9	3.3	0.0	0.0	0.0
1971	18	6	12	6	2	4	2.6	2.1	3.3	1.1	0.7	1.3

From 1971 to 1998, there were 1,281 new cases of thyroid cancer and 87 thyroid cancer deaths in Idaho. Figure A shows the numbers of new cancer cases, deaths, and age-adjusted incidence rates by year and sex. Figure B shows trends in age-adjusted incidence and mortality rates for males and females. The overall age-adjusted cancer incidence rate increased 220.4% over the time period, with an estimated annual percent change of 2.3% ($p<0.05$). For males, the age-adjusted cancer incidence rate increased 127.0% over the time period, with an estimated annual percent change of 2.4% ($p<0.05$); for females, the age-adjusted cancer incidence rate increased 260.5% over the time period, with an estimated annual percent change of 2.4% ($p<0.05$). The overall age-adjusted cancer mortality rate decreased 32.3% over the time period (trend not significant), with a range of 0-8 deaths per year.

Figure C shows trends in age-adjusted incidence rates for SEER Blacks, SEER Whites, and Idaho residents. For SEER Blacks, the age-adjusted cancer incidence rate increased 21.2% over the time period, with an estimated annual percent change of 0.7% (NS). For SEER Whites, the age-adjusted cancer incidence rate increased 58.8% over the time period, with an estimated annual percent change of 1.7% ($p<0.05$). The age-adjusted incidence rates for Idaho residents have been similar to the rates for White residents of SEER regions. The rates for Idahoans show considerable variability due to the relatively small numbers of cases per year. Black residents of SEER regions have had significantly lower incidence rates of thyroid cancer.

Figure B. Age-adjusted incidence and mortality rates per 100,000 population by year, Idaho, 1971-1998.

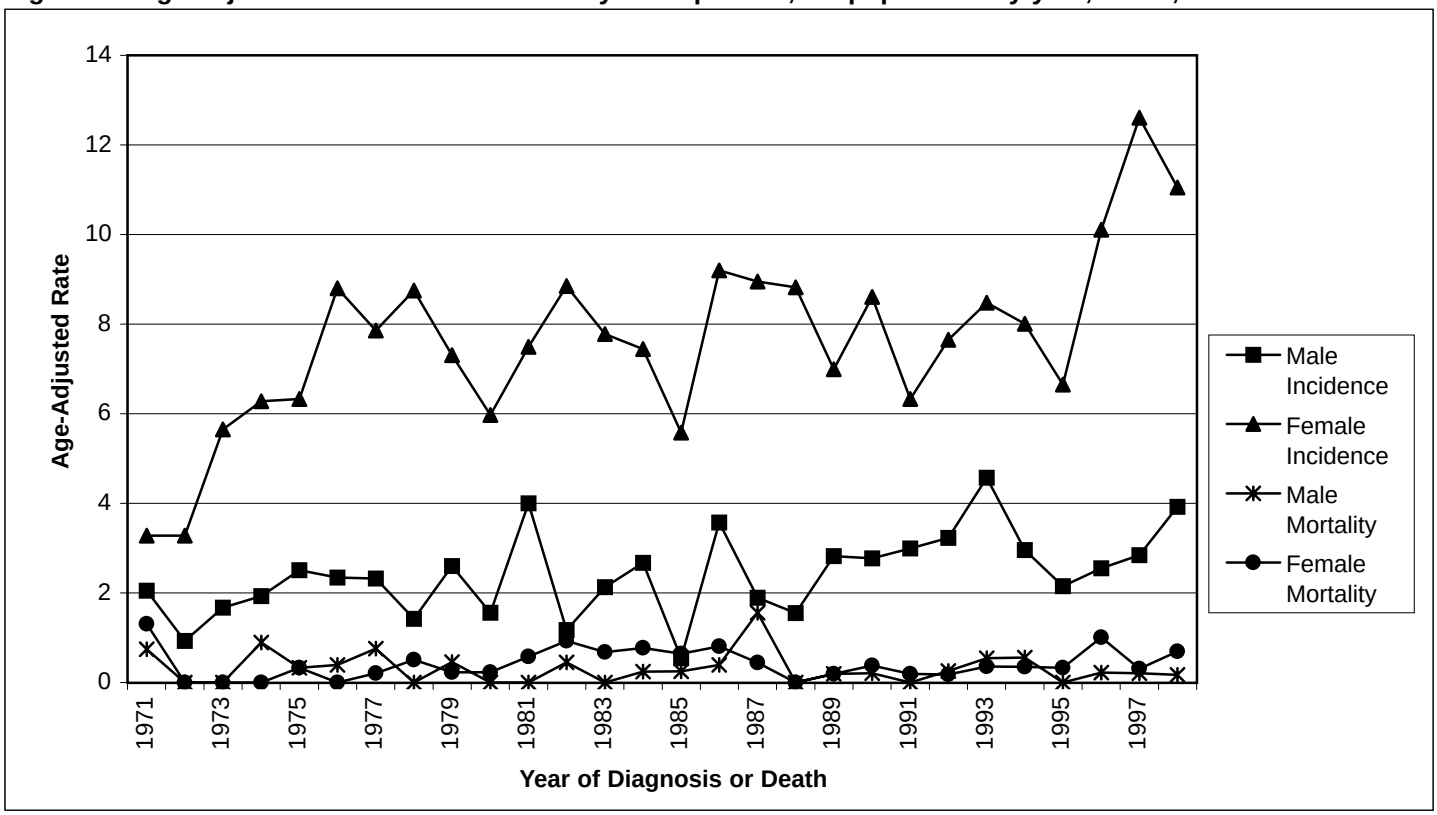


Figure C. Age-adjusted incidence rates per 100,000 population by year, SEER (73-97) and Idaho (71-98).

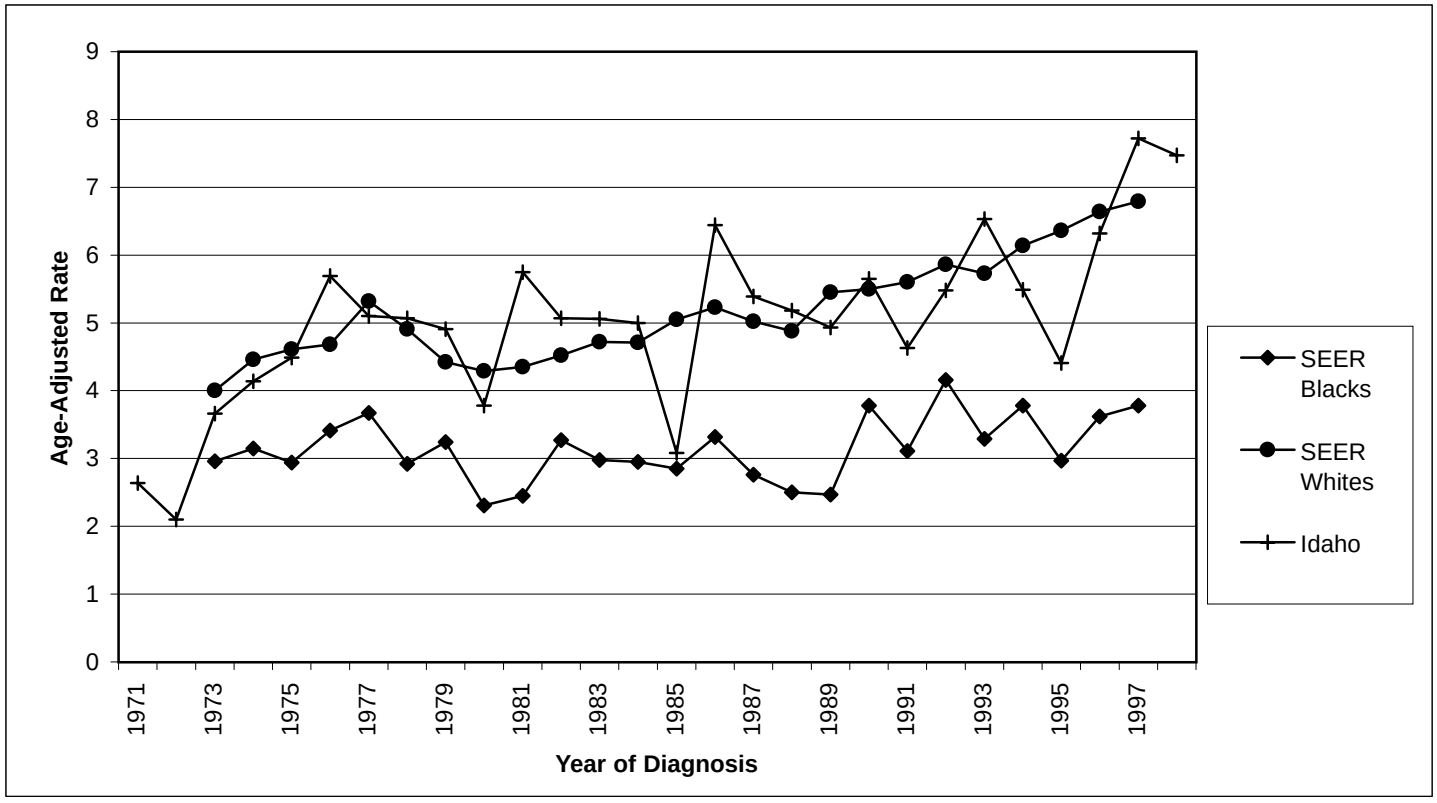


Figure D. Stage-specific age-adjusted incidence rate trends, 1971-1998.

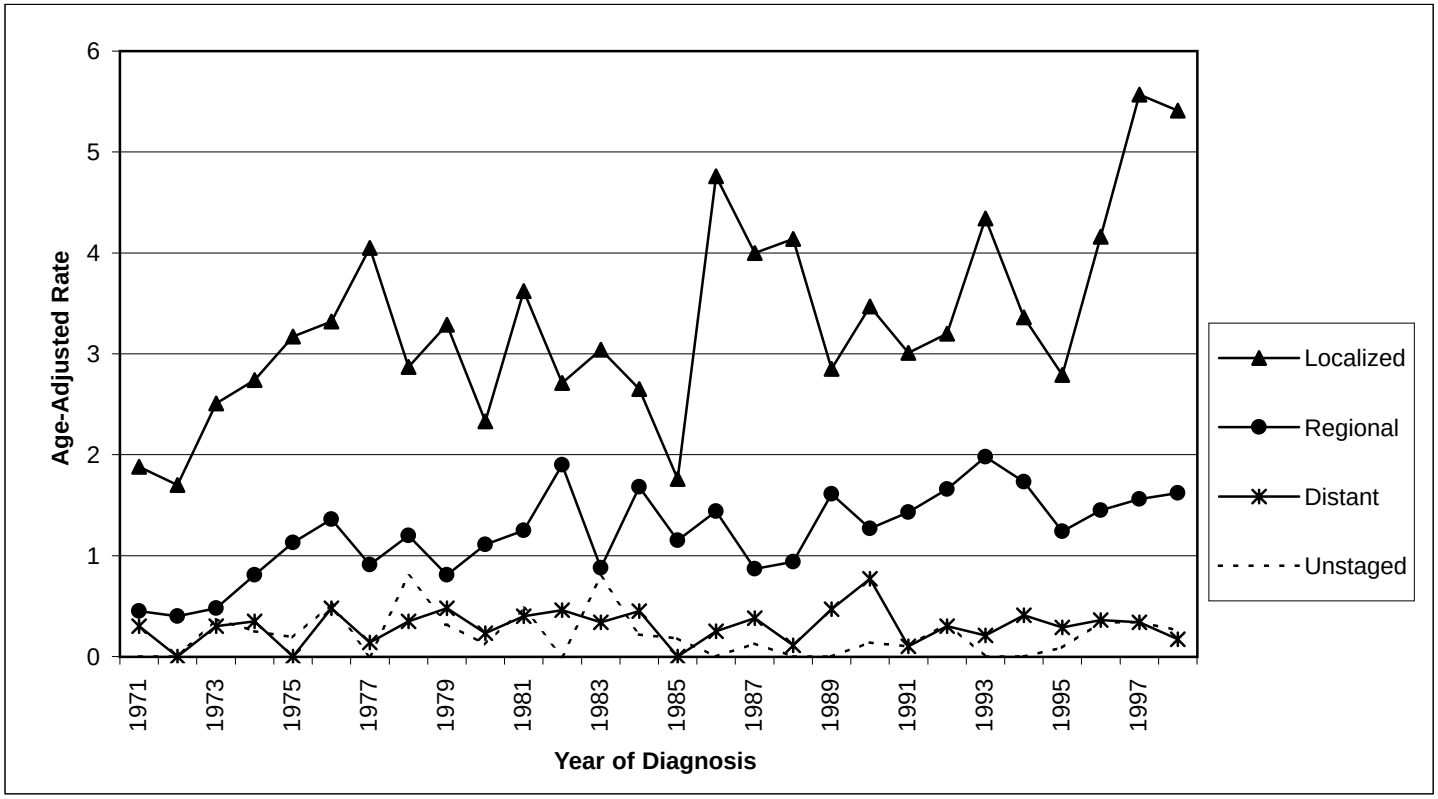
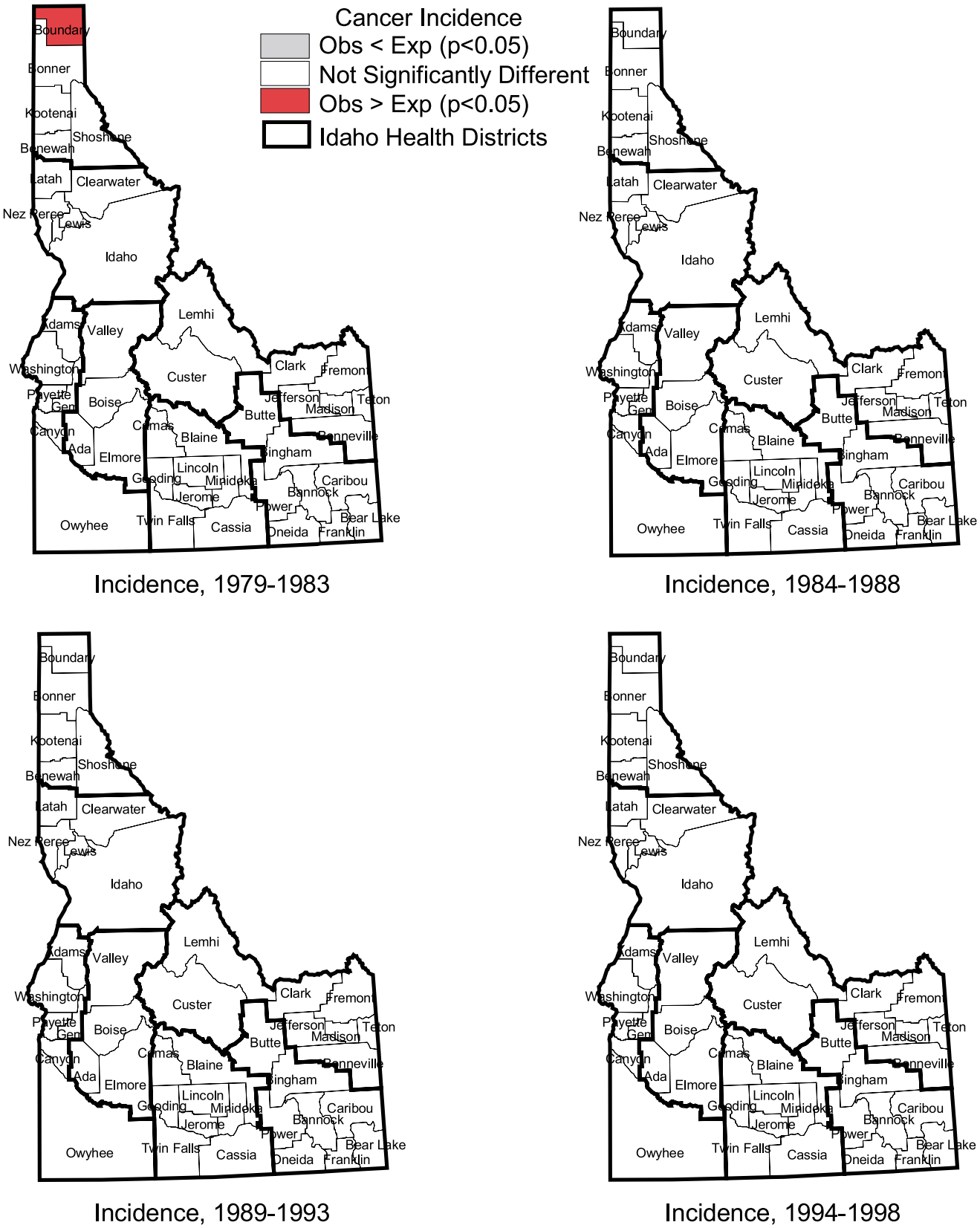


Figure D shows trends in age-adjusted incidence rates for Idaho residents by SEER summary stage at diagnosis. For localized cases, the rate increased 2.2% per year from 1971-1998. For regional cases, the rate increased 3.7% per year from 1971-1998. For distant and unstaged cases, the trends were flat.

Figure E includes four maps depicting trends in five-year average cancer incidence by county. Counties in red had significantly higher rates of thyroid cancer than elsewhere in Idaho; counties in grey had significantly lower rates than elsewhere in Idaho. No individual counties had statistically significantly higher or lower rates of thyroid cancer during more than one of the four five-year time periods.

Figure E. Trends in five-year average cancer incidence by county, Idaho, 1979-1998.



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