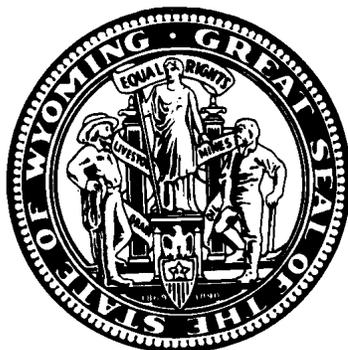


State of Wyoming



Department of Health

Annual Report on Cancer in Wyoming - 2004

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State of Wyoming Department of Health

Annual Report on Cancer in Wyoming - 2004

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Table of Contents

Executive Summary.....	7
Introduction.....	9
Methodology.....	10
CHD Map.....	13
Wyoming Incidence for 2004 Cases by Gender/Age.....	16
Wyoming Mortality for 2004 Deaths by Gender/Age.....	18
Wyoming Incidence for 2004 Cases by Race/Ethnicity.....	20
Wyoming Mortality for 2004 Cases by Race/Ethnicity.....	21
Top Incidence Cancer Sites.....	24
Top Mortality Cancer Sites.....	25
Wyoming County Incidence Cases	28
Wyoming County Mortality Counts.....	30
Summaries of All Cancer Sites Combined and the Top 15 Cancer Sites	
All Sites Combined.....	34
Bladder (Urinary).....	36
Brain/CNS.....	38
Breast (Female).....	40
Colorectal.....	42
Kidney/Renal Pelvis.....	44
Leukemia.....	46
Lung/Bronchus.....	48
Melanoma (of the skin).....	50
Non-Hodgkin Lymphoma.....	52
Oral Cavity/Pharynx.....	54
Ovary	56
Pancreas.....	58
Prostate.....	60
Thyroid.....	62
Uterine.....	64
Appendix A: References.....	67

Executive Summary

Cancer rates in Wyoming remained relatively stable from 2003 to 2004, and are still lower than comparable national rates. Incidence for all cancer sites combined for Wyoming was down slightly in 2004 to 416.9 per 100,000 population compared to the 2003 rate of 422.4 per 100,000. However, Wyoming is still below the 2003 national rate of 463.5 per 100,000 population. Mortality for all sites for Wyoming in 2004 was also down from the previous year to 173.1 per 100,000 population, which is also lower than the 2003 national rate of 188.3 per 100,000. Only the incidence rate for males and females for all cancer sites were significantly different (lower) than the national rate. No other individual cancer site was significantly higher than national rates for incidence or mortality for males, females, or total population (males+females).

By using a 3-year average instead of single year data to track changes over time, the trends for many cancers appear to level out. However, some rates including oral cavity & pharynx, cancer of the ovary, and thyroid cancer suggest a possible increase. Still others (colorectal, kidney & renal pelvis, leukemia, melanoma, cancer of the pancreas, prostate, and uterine) show the beginning of a possible decrease from previous years. One of the largest increases came in cancer of the oral cavity & pharynx for females which jumped from ten (10) cases in 2003 to 25 cases in 2004.

Four of the top five cancer sites for incidence were the same as the previous year: prostate, female breast, lung/bronchus, and colorectal. Bladder cancer replaced Non-Hodgkin lymphoma in the top five from 2003. The most common cancer for incidence by age groups were: leukemia (0-4 years), melanoma (20-24 years), testis (25-29 years), melanoma (30-34 years), cervix (35-39 years), breast (40-54 years), prostate (55-79 years), lung (80-84) and colorectal (85+ years).

The top five cancer sites for mortality were lung/bronchus, colorectal, breast, pancreas, and ill-defined. The most common cancers for mortality by age groups were: lung (40-44 years), breast (45-49 years) lung (50-85+ years).

INTRODUCTION

Cancer

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. If the spread of abnormal cells is not controlled, death can result. Many cancers are preventable and many can be cured if detected and treated early.

Causes of Cancer

Cancer is caused by both environmental and internal factors. Environmental causes include exposures to chemicals, radiation, or viruses, as well as exposures associated with life-styles (e.g., smoking, diet, and alcohol consumption). Internal causes include hormone levels, immune status, and inherited conditions. Causal factors may act together or in sequence to start or promote cancer. Ten or more years often pass between carcinogenic exposures and detectable cancer.

Prevention

Avoiding potential exposures such as tobacco use, severe sun exposure, and excessive dietary fat may prevent the onset or promotion of cancer. Also, increasing beneficial practices such as eating five servings of fruit or vegetables every day may help to prevent cancer. Early detection and treatment of cancer through established screening practices such as mammography and prostate specific antigen (PSA) improves the survival rates and decreases mortality.

Wyoming Cancer Surveillance Program

Cancer is a reportable disease in Wyoming. State statute requires that physicians, hospitals and laboratories report all cases of cancer they diagnose or treat in Wyoming to the Cancer Surveillance Program (WCSP), which serves as the state's central cancer registry. The purpose of the registry is to gather data to determine cancer incidence, mortality, treatment, and survival in Wyoming. Through special interstate agreements, information on Wyoming residents diagnosed or treated in other states is included in the program's database.

Insuring accurate data is one of the most important roles of the cancer registry. The WCSP established procedures for both automated and manual methods of checking the quality of data. The data is stored in the Rocky Mountain Cancer Data Systems software which has a built-in system to immediately check data when a new case is entered into the database. A Certified Tumor Registrar reviews each case submitted for accuracy and completeness in compliance with data collection standards from the National Program of Central Cancer Registries and the American College of Surgeons.

The data is used by a variety of medical professionals and others concerned about cancer. Within the State Department of Health, the data is used to monitor early detection, to determine year-to-year trends that develop, and to determine how Wyoming compares to the rest of the nation. The Department of Health also uses the data to plan and evaluate the effectiveness of its cancer control programs such as the Breast and Cervical Cancer Early Detection Program. Outside of the Department of Health, the data is used by physicians, hospital administrators, legislators, nonprofit organizations, and the general public. If you have a concern about cancer and would like more information about cancer in your community, please feel free to call the Wyoming Cancer Surveillance Program's Epidemiologist at 307-777-7951. Written correspondence should be addressed to 6101 Yellowstone Rd., Suite 259A, Cheyenne, WY 82002. You may also visit our web site at: <http://wdhfs.state.wy.us/cancer>.

METHODOLOGY and DEFINITIONS

Data Sources

Incidence

Definition -- Incidence is defined as the number of *new* cases diagnosed during a set time period in a defined population. Incidence is not a representation of risk. The defined time period for this report is 2003 except for the 12-year incidence trend, which used 3-year averages (e.g., 98-00 for 1999 or 00-02 for 2001). The defined population is the state of Wyoming, counties, and Cancer Health Districts (CHD) (see page 13).

Wyoming Data -- The Wyoming Cancer Surveillance Program (WCSP) gathers data on Wyoming residents diagnosed and treated for invasive and in situ tumors. The data is sent to the program's registry by every hospital in the state. Data is also collected from pathology laboratories, clinics, and physician offices throughout the state. The registry has several data exchange agreements with other state registries to enable collection of data on Wyoming residents diagnosed and/or treated outside of Wyoming. Wyoming data for this report includes 2004 cancer cases of Wyoming residents received by WCSP as of September 1, 2005.

National Data -- The National Cancer Institute (NCI) updates cancer statistics annually in a publication called the SEER Cancer Review, also available on SEER STAT, an interactive CD-ROM. NCI monitors cancer statistics to assess progress and to identify population subgroups and geographic areas where cancer control efforts need to be concentrated. Cancer incidence rates are calculated using SEER (Surveillance, Epidemiology, and End Results) software. WCSP used SEER*STAT for this report. **The national SEER rates presented in this report were calculated using 2003 data for whites.** See Appendix A for reference source.

Mortality

Definition -- Mortality is defined as the number of persons who have died during a set time period in a defined population. The time period for this report is the calendar year 2004 for Wyoming rates. The defined population is the state of Wyoming, counties, and Cancer Health Districts (see page 13).

Wyoming Data -- Mortality data is derived from death certificates filed with Wyoming Vital Records Services. By state statute, the certification of the cause of death on the death certificate is completed by the attending physician or by the coroner with the assistance of a physician. Although a number of medical conditions may be listed on the certificate, statistics presented here are based solely on the underlying cause of death. This is defined as the disease or injury that initiated the sequence of events leading directly to death or as the circumstances of the accident or violence that produced the fatal injury. The underlying cause is selected and classified based upon the regulations of the World Health Organization.

National Data -- The National Center for Health Statistics (NCHS), a division of the Centers for Disease Control and Prevention, provides statistical information including the number of cancer deaths in the United States. United States cancer mortality data is available from SEER STAT, an interactive CD-ROM. WCSP used SEER STAT for this report. **The national SEER rates presented in this report were calculated using 2003 data for whites.** See Appendix A for reference source.

Population

Wyoming Data -- Population estimates for Wyoming state and counties were obtained from SEER STAT at <http://seer.cancer.gov>. These estimates represent a modification of the annual time series of July 1 county population estimates by age, sex, race, and Hispanic origin produced by the US Census Bureau's Population Estimates Program, with support from the National Cancer Institute through an interagency agreement. Because NCI cancer rates are calculated by dividing the number of cancer cases by a census-generated denominator, rates can be heavily influenced by changes or uncertainties in census counts.

Rates

Age-Adjusted Incidence Rates

Incidence rates include 2004 invasive cases of Wyoming residents, except for bladder cancer which also includes in situ cases. Incidence rates presented are calculated for total cases and separately for males and females. The incidence rates are age-adjusted to the 2000 U.S. standard population using 5-year age groups, and are per 100,000 population. Age-adjustment allows rates to be compared over different time frames and allows rates from one geographic area to be compared with rates from another geographic area that may have differences in age distributions. Any observed differences in age-adjusted incidence rates are not due to differing age structures.

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
- basal and squamous cell skins
- cases with unknown age
- cases with unknown gender

Age-Adjusted Mortality Rates

Mortality rates presented are calculated for total cases and separately for males and females. The mortality rates are age-adjusted to the 2000 U.S. standard population using 5-year age groups, and are per 100,000 population. Age-adjustment allows rates to be compared over different time frames and allows rates from one geographic area to be compared with rates from another geographic area that may have differences in age distributions. Any observed differences in age-adjusted incidence rates are not due to differing age structures.

Age-Specific Incidence Rates

An age-specific rate is the rate of cancer found within a certain age group. Age-specific incidence rates were calculated using 5-year age groups and total population (both sexes combined). They are reported per 100,000 population.

Statistical Significance

Z-Statistic

A Z-statistic is used to compare two different rates. This is called “The Difference Between Two Population Proportions.” Statistical significance was found if the calculated Z-statistic was found to be greater than 1.65. This provides the equivalence of a 95% confidence interval (see below) and is indicated in the report as “statistically significant” or “significant.” The formula used can be found in most statistics books or by calling the WCSP Epidemiologist at (307)777-7951.

Confidence Intervals

A confidence interval is a way of telling how confident we are in the accuracy of a cancer rate. For example, we will often say that the rate of cancer in an area is 130 per 100,000 people and that the confidence interval is 120 to 140 per 100,000. This means that even though we calculated the rate at 130 per 100,000 we would feel better talking about the rate as being between 120 and 140 per 100,000.

Confidence intervals are also used as another way to test statistical significance. If the confidence intervals of two different rates overlap one another, then there is no difference between the two rates. However, if the confidence intervals do not overlap one another then there is statistical significance. This is indicated in the report as “statistically significant” or “significant.”

Staging

<u>In Situ</u>	cancer has not invaded the organ.
<u>Local Stage</u>	cancer has invaded the organ of origin.
<u>Regional Stage</u>	cancer has invaded beyond the organ of origin by direct extension to adjacent organs/ tissues and/or regional lymph nodes.
<u>Distant Stage</u>	direct extension beyond adjacent organs or tissues or metastases to distant site(s) or distant lymph nodes.
<u>Unstaged</u>	extent of disease or primary site cannot be determined.

Note: Starting in 2004 the WCSP as well as other cancer registries belonging to the National Data Standard setters adopted and began using the Collaborative Staging Method for staging cancer cases. This method uses a new type of algorithm that provides more information concerning the size and extent of the cancer as well as the number of nodes involved. Because of this change in the method of staging cancer no significance testing was done concerning increases or decreases in the percent of cancers diagnosed at each stage in 2004 with the previous year (2003). Though some increases or decreases between 2003 and 2004 were noted, no inference should be drawn as to the cause of these differences. Significance testing will resume with the 2005 staging data, which will be compared with the 2004 staging data.

Cancer Health District

Cancer Health Districts (CHD) were chosen based on geographic location, similarities in geography such as frontier vs. rural, and by total population size. Also taken into consideration were areas of the state that are routinely grouped for data requests and/or cancer cluster studies. This created seven CHDs that were similar in population size thereby eliminating some of the discrepancies in rate calculations that are caused from population size differences. CHDs are used when county data is too sparse to calculate accurate rates.

CHD 1 Laramie County

CHD 2 Albany County, Carbon County, Goshen County, Niobrara County, Platte County

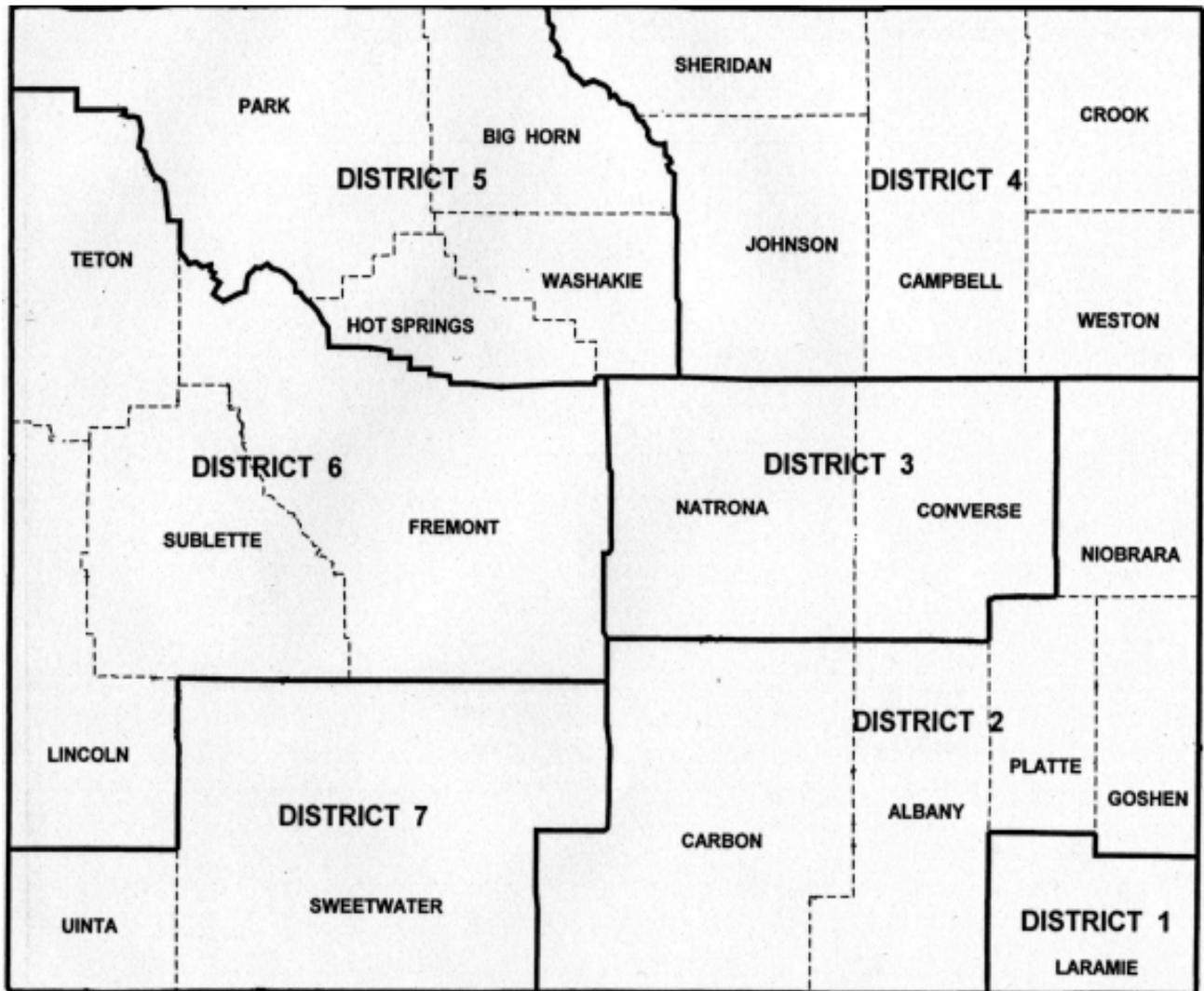
CHD 3 Converse County, Natrona County

CHD 4 Campbell County, Crook County, Johnson County, Sheridan County, Weston County

CHD 5 Big Horn County, Hot Springs County, Park County, Washakie County

CHD 6 Fremont County, Lincoln County, Sublette County, Teton County

CHD 7 Sweetwater County, Uinta County



State of Wyoming - 2004

Cancer Incidence and Mortality by Gender and Age (All Sites)
Cancer Incidence and Mortality by Race and Ethnicity (Top 15 Sites)

Wyoming Incidence¹ for 2004: Cases by Gender and Age (All Sites)

	Male	Female	Total	00-04	05-09	10-14	15-19	20-24	25-29	30-34
Anus	3	11	14	0	0	0	0	0	0	0
Bladder	80	28	108	0	0	0	0	0	1	0
Bones and Joints	1	3	4	0	0	0	1	0	0	0
Brain/CNS	22	15	37	3	1	1	0	0	1	2
Breast	2	307	309	0	0	0	0	0	1	3
Cervix	0	21	21	0	0	0	0	0	1	1
Colorectal	125	105	230	0	0	0	0	1	0	2
Esophagus	25	4	29	0	0	0	0	0	0	0
Eye	3	1	4	0	1	0	0	0	0	0
Gallbladder	4	2	6	0	0	0	0	0	0	0
Hodgkin	6	4	10	0	1	0	1	1	0	2
Ill-Defined	24	33	57	1	0	1	0	0	0	0
Kidney	37	19	56	0	1	0	0	0	0	0
Larynx	16	5	21	0	0	0	0	0	0	0
Leukemia	25	14	39	5	0	0	0	1	1	1
Liver	9	3	12	0	0	0	0	0	0	0
Lung	150	118	268	0	0	0	0	0	1	0
Melanoma	58	45	103	0	0	0	0	5	3	5
Myeloma	15	12	27	0	0	0	0	0	0	0
Nasal	2	1	3	0	0	0	0	0	0	0
Non-Hodgkin Lymphoma	53	41	94	0	1	0	0	2	1	2
Oral Cavity	33	25	58	0	0	0	0	0	0	0
Other Biliary	6	3	9	0	0	0	0	0	0	0
Other Digestive	3	4	7	0	0	0	0	0	0	0
Other Endocrine including Thymus	1	0	1	0	0	0	0	0	0	0
Other Female	0	10	10	1	0	0	0	0	0	0
Other Male	2	0	2	0	0	0	0	0	0	0
Other Skin	6	0	6	0	0	0	0	0	0	0
Other Respiratory	0	1	1	0	0	0	0	0	0	0
Other Urinary	1	0	1	0	0	0	0	0	0	0
Ovary	0	41	41	0	0	0	0	0	0	2
Pancreas	21	21	42	0	0	0	0	0	0	0
Prostate	388	0	388	0	0	0	0	0	0	0
Small Intestine	3	3	6	0	0	0	0	0	0	0
Soft Tissue including Heart	5	3	8	0	0	0	0	0	0	0
Stomach	19	11	30	0	0	0	0	0	0	0
Testis	12	0	12	0	0	0	0	1	4	3
Thyroid	12	54	66	0	0	1	0	2	2	4
Uterine	0	45	45	0	0	0	0	0	0	1
Mesothelioma	12	1	13	0	0	0	0	0	0	0
All sites	1,184	1,014	2,198	10	5	3	2	13	16	28

¹See page 10 for a definition of incidence.

	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Anus	0	0	1	4	0	2	2	3	2	0	0
Bladder	1	0	3	6	14	12	11	17	17	18	8
Bones and Joints	1	0	0	0	0	1	0	0	1	0	0
Brain/CNS	1	2	3	5	3	5	0	3	5	2	0
Breast	3	19	32	45	32	40	34	33	26	28	13
Cervix	8	4	1	3	2	0	0	0	0	1	0
Colorectal	1	11	9	15	19	40	36	28	23	21	24
Esophagus	0	0	2	3	4	2	6	6	1	3	2
Eye	0	1	0	0	0	1	0	0	0	1	0
Gallbladder	0	0	0	0	0	3	0	1	0	1	1
Hodgkin	0	2	0	0	0	0	1	0	1	1	0
Ill-Defined	1	1	4	2	6	7	11	3	9	5	6
Kidney	0	0	6	4	12	8	4	8	7	5	1
Larynx	0	0	0	5	1	5	4	1	2	1	2
Leukemia	2	0	2	1	5	4	3	4	4	2	4
Liver	0	0	1	0	2	3	1	1	2	2	0
Lung	0	5	10	16	21	32	51	44	47	34	7
Melanoma	4	4	8	8	10	9	15	17	4	5	6
Myeloma	0	0	2	1	1	5	4	6	7	1	0
Nasal	0	0	0	2	0	1	0	0	0	0	0
Non-Hodgkin Lymphoma	0	1	9	5	10	12	9	12	10	13	7
Oral Cavity	0	0	5	3	1	8	12	4	12	8	5
Other Biliary	0	1	0	0	1	1	3	1	1	1	0
Other Digestive	0	0	1	0	1	1	1	2	0	0	1
Other Endocrine including Thymus	0	0	0	1	0	0	0	0	0	0	0
Other Female	0	1	1	1	0	2	1	1	0	2	0
Other Male	0	0	0	0	0	0	1	0	1	0	0
Other Skin	0	1	0	0	1	0	2	1	0	1	0
Other Respiratory	0	0	0	0	1	0	0	0	0	0	0
Other Urinary	0	0	0	0	1	0	0	0	0	0	0
Ovary	1	1	3	3	3	8	5	1	2	10	2
Pancreas	0	1	1	2	1	8	6	8	6	4	5
Prostate	0	1	6	23	63	55	78	57	68	28	9
Small Intestine	1	0	0	0	2	1	0	0	1	1	0
Soft Tissue including Heart	0	1	0	1	2	0	1	1	2	0	0
Stomach	0	1	1	3	4	3	3	1	3	6	5
Testis	3	1	0	0	0	0	0	0	0	0	0
Thyroid	5	4	9	11	9	3	3	7	3	2	1
Uterine	0	0	0	8	14	6	2	6	6	1	1
Mesothelioma	0	0	0	0	3	1	2	1	4	2	0
All sites	32	63	120	181	249	289	312	278	277	210	110

Wyoming Mortality¹ for 2004: Deaths by Gender and Age (All Sites)

	Male	Female	Total	00-04	05-09	10-14	15-19	20-24	25-29	30-34
Anus	0	0	0	0	0	0	0	0	0	0
Bladder	16	7	23	0	0	0	0	0	0	0
Bones and Joints	1	1	2	0	0	0	0	1	0	1
Brain/CNS	16	13	29	1	0	0	0	0	0	1
Breast	0	70	70	0	0	0	0	0	0	0
Cervix	0	3	3	0	0	0	0	0	0	0
Colorectal	50	37	87	0	0	0	0	0	1	0
Esophagus	26	8	34	0	0	0	0	0	0	1
Eye	1	0	1	0	0	0	0	0	0	0
Gallbladder	1	1	2	0	0	0	0	0	0	0
Hodgkin	0	1	1	0	0	0	0	0	0	0
Ill-Defined	29	26	55	0	0	0	1	0	0	0
Kidney	16	4	20	0	0	0	0	0	0	0
Larynx	5	0	5	0	0	0	0	0	0	0
Leukemia	20	15	35	0	0	1	0	0	0	0
Liver	9	4	13	0	0	0	0	0	0	0
Lung	123	89	212	0	0	0	0	0	0	0
Melanoma	10	11	21	0	0	0	0	0	1	0
Myeloma	5	10	15	0	0	0	0	0	0	0
Nasal	3	0	3	0	0	0	0	0	0	0
Non-Hodgkin Lymphoma	16	22	38	0	0	1	0	2	0	1
Oral Cavity	7	8	15	0	0	0	0	0	0	0
Other Biliary	2	4	6	0	0	0	0	0	0	0
Other Digestive	0	3	3	0	0	0	0	0	0	0
Other Endocrine including Thymus	0	0	0	0	0	0	0	0	0	0
Other Female	0	1	1	0	0	0	0	0	0	0
Other Male	0	0	0	0	0	0	0	0	0	0
Other Skin	2	1	3	0	0	0	0	0	0	0
Other Respiratory	0	1	1	0	0	0	0	0	0	0
Other Urinary	0	0	0	0	0	0	0	0	0	0
Ovary	0	32	32	0	0	0	0	0	0	0
Pancreas	25	31	56	0	0	0	0	0	0	0
Prostate	52	0	52	0	0	0	0	0	0	0
Small Intestine	1	1	2	0	0	0	0	0	0	0
Soft Tissue including Heart	2	6	8	0	0	0	0	0	0	1
Stomach	6	7	13	0	0	0	0	0	0	0
Testis	0	0	0	0	0	0	0	0	0	0
Thyroid	1	0	1	0	0	0	0	0	0	0
Uterine	0	8	8	0	0	0	0	0	0	0
Mesothelioma	13	1	14	0	0	0	0	0	0	0
All sites	458	426	884	1	0	2	1	3	2	5

¹See page 10 for definition of mortality.

	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Anus	0	0	0	0	0	0	0	0	0	0	0
Bladder	0	0	1	2	2	3	0	2	7	2	4
Bones and Joints	0	0	0	0	0	0	0	0	0	0	0
Brain/CNS	1	1	3	0	2	3	2	4	7	3	1
Breast	0	1	4	6	10	6	3	11	9	8	12
Cervix	0	0	0	1	0	1	1	0	0	0	0
Colorectal	0	1	2	3	6	10	12	11	11	15	15
Esophagus	1	0	2	5	2	5	5	5	3	3	2
Eye	0	0	0	0	0	0	0	0	0	0	1
Gallbladder	0	0	0	0	0	1	0	0	0	1	0
Hodgkin	0	1	0	0	0	0	0	0	0	0	0
Ill-Defined	0	0	1	6	4	5	3	11	11	7	6
Kidney	0	1	0	3	2	3	1	3	3	3	1
Larynx	0	0	0	1	0	0	2	2	0	0	0
Leukemia	1	0	0	0	4	3	6	3	5	7	5
Liver	0	0	1	1	2	2	1	2	2	2	0
Lung	0	4	3	11	18	25	25	36	42	30	18
Melanoma	1	1	2	1	1	3	1	2	2	3	3
Myeloma	0	0	0	0	1	2	1	2	5	3	1
Nasal	0	0	0	0	1	0	0	0	2	0	0
Non-Hodgkin Lymphoma	0	0	0	0	1	4	2	5	6	8	8
Oral Cavity	0	0	0	3	1	0	1	4	2	1	3
Other Biliary	0	0	0	0	2	0	1	0	0	2	1
Other Digestive	0	0	0	0	0	0	1	0	1	1	0
Other Endocrine including Thymus	0	0	0	0	0	0	0	0	0	0	0
Other Female	0	0	0	0	0	0	0	1	0	0	0
Other Male	0	0	0	0	0	0	0	0	0	0	0
Other Skin	0	0	0	0	1	0	1	1	0	0	0
Other Respiratory	0	0	0	0	0	0	1	0	0	0	0
Other Urinary	0	0	0	0	0	0	0	0	0	0	0
Ovary	1	2	1	0	6	3	5	3	4	3	4
Pancreas	0	0	3	4	7	7	8	7	8	6	6
Prostate	0	0	0	0	1	1	6	9	9	11	15
Small Intestine	0	0	0	0	1	0	0	0	1	0	0
Soft Tissue including Heart	0	0	0	0	1	0	3	1	0	2	0
Stomach	0	0	0	0	1	3	3	1	1	2	2
Testis	0	0	0	0	0	0	0	0	0	0	0
Thyroid	0	0	0	0	0	0	0	1	0	0	0
Uterine	0	0	0	1	1	1	1	1	2	1	0
Mesothelioma	0	0	0	1	0	1	2	3	4	3	0
All sites	5	12	23	49	78	92	98	131	147	127	108

Wyoming Incidence for 2004: Cases by Race and Ethnicity (Top 15 Sites Only)

	Total	White	African American	Native American	Asian	Other	Ethnicity: Hispanic
All Sites Combined	2,199	2,078	6	25	4	85	80
Bladder (Urinary)	108	106	0	0	0	2	2
Brain/CNS	37	32	1	0	1	3	1
Breast (Female)	309	290	2	4	0	13	8
Colorectal	230	208	0	5	1	16	9
Kidney	56	53	0	2	0	1	4
Leukemia	39	35	0	1	0	3	1
Lung and Bronchus	268	262	0	2	1	3	7
Melanoma	103	100	0	0	0	3	1
Non-Hodgkin Lymphoma	94	88	0	2	0	4	1
Oral Cavity	58	56	0	1	0	1	2
Ovary	41	40	0	1	0	0	1
Pancreas	42	40	0	0	0	2	1
Prostate	388	371	0	3	1	13	22
Thyroid	66	58	2	1	0	4	5
Uterine	45	43	0	0	0	2	4

Wyoming Mortality for 2004: Cases by Race and Ethnicity (Top 15 Sites Only)

	Total	White	African American	Native American	Asian	Other	Ethnicity: Hispanic
All Sites Combined	884	867	1	10	6	0	29
Bladder (Urinary)	23	23	0	0	0	0	1
Brain/CNS	29	29	0	0	0	0	0
Breast (Female)	70	69	0	1	0	0	3
Colorectal	87	86	0	1	0	0	1
Kidney	20	20	0	0	0	0	0
Leukemia	35	35	0	0	0	0	1
Lung and Bronchus	212	208	0	3	1	0	6
Melanoma	21	21	0	0	0	0	0
Non-Hodgkin Lymphoma	38	35	0	3	0	0	1
Oral Cavity	15	14	0	0	1	0	0
Ovary	32	31	0	0	1	0	1
Pancreas	56	53	0	1	2	0	3
Prostate	52	51	1	0	0	0	0
Thyroid	1	0	0	0	1	0	0
Uterine	8	8	0	0	0	0	1

State of Wyoming - 2004

Top Cancer Sites by Gender and Age - Incidence and Mortality

Top Incidence Cancer Sites by Gender - 2004

Total		Male		Female	
Prostate	388	Prostate	388	Breast	307
Breast	307	Lung	150	Lung	118
Lung	268	Colorectal	125	Colorectal	105
Colorectal	230	Bladder	80	Thyroid	54
Bladder	108	Melanoma	58	Uterine	45

Top Incidence Sites by Age (Case count included only if more than 1 case per cancer)

0-4		5-9		10-14		15-19		20-24	
Leukemia	5	All Cancers have 1 or less count		All Cancers have 1 or less count		All Cancers have 1 or less count		Melanoma	5
Brain/CNS	3							Non-Hodgkin	2
25-29		30-34		35-39		40-44		45-49	
Testis	4	Melanoma	5	Cervix	8	Breast	19	Breast	31
Melanoma	3	Thyroid	4	Thyroid	5	Colorectal	11	Lung	10
Thyroid	2	Breast	3	Melanoma	4	Lung	5	Colorectal	9
		Testis	3	Breast	3	Melanoma	4	Non-Hodgkin	9
				Testis	3	Thyroid	4	Thyroid	9
50-54		55-59		60-64		65-69		70-74	
Breast	45	Prostate	63	Prostate	55	Prostate	78	Prostate	57
Prostate	23	Breast	32	Breast	40	Lung	51	Lung	44
Lung	16	Lung	21	Colorectal	40	Colorectal	36	Breast	33
Breast	15	Colorectal	19	Lung	32	Breast	34	Colorectal	28
Thyroid	11					Melanoma	15		
75-79		80-84		85+					
Prostate	68	Lung	34	Colorectal	24				
Lung	47	Breast	28	Breast	13				
Breast	26	Prostate	28	Prostate	9				
Colorectal	23	Colorectal	21	Bladder	8				
Bladder	17	Bladder	18						

Top Mortality Cancer Sites by Gender - 2004

Total		Male		Female	
Lung	212	Lung	123	Lung	89
Colorectal	87	Prostate	52	Breast	70
Breast	70	Colorectal	50	Colorectal	37
Pancreas	56	Ill-Defined	29	Ovary	32
Ill-Defined	55	Esophagus	26	Pancreas	31

Top Mortality Sites by Age (Mortality count included only if more than 1 case per cancer)

0-4		5-9		10-14		15-19		20-24	
All Cancers Have 1 or Less Count		All Cancers Have 1 or Less Count		All Cancers Have 1 or Less Count		All Cancers Have 1 or Less Count		Non-Hodgkin	2
25-29		30-34		35-39		40-44		45-49	
All Cancers Have 1 or Less Count		All Cancers Have 1 or Less Count		All Cancers Have 1 or Less Count		Lung	4	Breast	4
						Ovary	2	Brain/CNS	3
								Lung	3
								Pancreas	3
50-54		55-59		60-64		65-69		70-74	
Lung	11	Lung	18	Lung	25	Lung	25	Lung	36
Breast	6	Breast	10	Colorectal	10	Colorectal	12	Breast	11
Ill-Defined	6	Colorectal	7	Pancreas	7	Pancreas	8	Colorectal	11
Esophagus	5	Pancreas	6	Breast	6	Leukemia	6	Ill-Defined	11
Pancreas	4	Ovary	6			Prostate	6	Prostate	9
75-79		80-84		85+					
Lung	49	Lung	30	Lung	18				
Colorectal	11	Colorectal	15	Colorectal	15				
Ill-Defined	11	Prostate	11	Prostate	15				
Breast	9	Breast	8	Breast	12				
Prostate	9	Non-Hodgkin	8	Non-Hodgkin	8				

Wyoming Counties - 2004

Incidence and Mortality (All Sites)

Wyoming County Incidence Cases -- 2004 (All Sites)

	Albany	Big Horn	Campbell	Carbon	Converse	Crook	Fremont	Goshen	Hot Springs	Johnson	Laramie	Lincoln
Anus	0	1	2	1	0	0	1	0	0	0	1	0
Bladder	7	3	3	2	0	2	5	4	2	1	20	5
Bones and Joints	0	0	1	1	1	0	0	0	0	0	0	0
Brain/CNS	1	0	4	0	0	0	1	1	1	2	8	1
Breast	18	0	18	10	6	5	21	10	5	5	61	13
Cervix	0	0	4	1	1	0	0	0	1	0	3	0
Colorectal	11	6	6	9	9	4	20	10	6	5	41	4
Esophagus	1	0	1	1	0	0	2	0	0	1	10	0
Eye	0	0	0	0	0	0	0	0	0	0	1	0
Gallbladder	0	0	0	0	0	0	0	0	0	0	3	0
Hodgkin	0	1	1	0	0	0	0	0	0	0	2	1
Ill-Defined	4	5	1	1	1	2	3	2	0	1	10	1
Kidney	6	1	2	3	0	0	4	1	0	2	10	3
Larynx	0	0	1	0	0	0	2	1	0	0	5	1
Leukemia	1	3	1	1	2	0	5	1	0	0	11	0
Liver	0	0	1	1	0	0	0	1	0	0	1	0
Lung	4	5	8	7	13	5	17	9	3	5	54	7
Melanoma	7	1	5	6	0	0	6	3	1	0	19	4
Myeloma	1	0	1	0	0	0	1	1	0	1	8	1
Nose	0	0	0	0	0	0	0	0	1	0	0	0
NHL	3	4	6	8	2	2	10	3	0	1	17	7
Oral Cavity	1	3	1	3	3	1	7	3	1	1	8	0
Other Biliary	1	0	0	3	0	0	1	0	0	0	1	0
Other Digestive	0	0	0	2	0	0	0	0	0	0	1	0
Other Endocrine including Thymus	0	0	0	0	0	0	0	0	0	0	0	0
Other Female	1	1	2	0	1	0	1	1	0	0	1	0
Other Male	0	0	0	0	0	0	0	0	1	0	0	0
Other Skin	0	0	0	1	0	0	0	0	0	0	1	0
Other Respiratory	0	0	0	0	0	0	0	0	0	0	0	0
Other Urinary	0	0	0	0	0	0	0	0	0	0	0	0
Ovary	1	1	0	0	3	1	4	1	0	4	8	1
Pancreas	1	0	1	0	0	0	7	1	0	0	6	1
Prostate	30	8	19	8	9	9	28	12	3	5	69	19
Small Intestine	0	1	0	0	1	0	1	0	0	0	1	1
Soft Tissue including Heart	1	0	1	0	0	1	1	0	0	0	0	0
Stomach	1	2	0	0	1	0	3	1	0	3	5	0
Testis	0	0	1	0	0	0	0	1	1	0	0	1
Thyroid	4	0	6	1	1	0	2	2	2	1	23	0
Uterine	6	3	3	2	0	1	6	3	0	0	6	1
Mesothelioma	0	0	1	0	0	0	0	1	0	0	3	0
All Sites	111	49	101	72	54	33	159	73	28	38	419	72

	Natrona	Niobrara	Park	Platte	Sheridan	Sublette	Sweet water	Teton	Uinta	Washakie	Weston
Anus	4	0	1	0	0	0	2	1	0	0	0
Bladder	19	0	8	5	6	2	4	3	3	0	4
Bones and Joints	0	0	0	0	1	0	0	0	0	0	0
Brain/CNS	9	1	1	3	2	0	2	0	0	0	0
Breast	50	4	17	8	19	1	16	9	4	4	4
Cervix	4	0	1	1	0	1	4	0	0	0	0
Colorectal	34	1	21	3	12	4	9	4	5	3	3
Esophagus	6	0	0	0	1	0	3	0	1	0	2
Eye	0	1	0	1	0	0	1	0	0	0	0
Gallbladder	0	0	0	0	0	0	1	2	0	0	0
Hodgkin	2	0	0	0	0	0	0	1	1	1	0
Ill-Defined	6	0	2	3	5	0	2	2	3	1	2
Kidney	12	1	2	0	3	0	3	1	2	0	0
Larynx	5	0	0	0	2	0	1	2	0	0	1
Leukemia	2	1	2	1	3	1	2	1	0	1	0
Liver	4	1	0	1	0	0	2	0	0	0	0
Lung	45	1	13	6	23	5	18	7	9	3	1
Melanoma	19	0	8	1	9	3	7	0	2	0	2
Myeloma	5	0	3	2	1	0	0	0	0	1	1
Nose	0	0	0	0	0	0	0	0	0	2	0
NHL	11	0	6	1	8	1	2	1	1	0	0
Oral Cavity	7	0	2	0	4	2	8	1	1	1	0
Other Biliary	0	0	0	0	2	0	0	0	1	0	0
Other Digestive	3	0	0	0	0	0	0	0	1	0	0
Other Endocrine including Thymus	0	0	0	1	0	0	0	0	0	0	0
Other Female	1	0	0	0	0	0	1	0	0	0	0
Other Male	0	0	1	0	0	0	0	0	0	0	0
Other Skin	2	0	0	0	1	0	1	0	0	0	0
Other Respiratory	0	0	0	0	1	0	0	0	0	0	0
Other Urinary	0	0	0	1	0	0	0	0	0	0	0
Ovary	10	1	0	1	2	1	2	0	0	0	0
Pancreas	6	1	5	1	4	0	4	1	2	1	0
Prostate	35	0	33	5	37	10	21	13	3	8	4
Small Intestine	1	0	0	0	0	0	0	0	0	0	0
Soft Tissue including Heart	0	0	0	0	2	0	0	2	0	0	0
Stomach	5	0	1	1	3	0	0	0	1	2	1
Testis	0	0	1	0	3	0	1	1	1	0	1
Thyroid	8	0	0	3	3	1	3	4	0	1	1
Uterine	4	1	1	0	4	0	3	1	0	0	0
Mesothelioma	4	0	0	0	0	0	2	1	0	1	0
All Sites	323	14	129	49	161	32	125	58	41	30	27

Wyoming County Mortality Counts -- 2004 (All Sites)

	Albany	Big Horn	Campbell	Carbon	Converse	Crook	Fremont	Goshen	Hot Springs	Johnson	Laramie	Lincoln
Anus	0	0	0	0	0	0	0	0	0	0	0	0
Bladder	2	0	1	1	0	0	2	0	0	0	3	0
Bones and Joints	0	0	2	0	0	0	0	0	0	0	0	0
Brain/CNS	0	1	2	0	0	0	1	2	0	1	3	1
Breast	0	0	0	3	4	1	8	1	1	0	9	3
Cervix	0	0	0	0	0	0	0	0	0	0	1	0
Colorectal	7	2	1	4	4	1	4	1	0	0	14	1
Esophagus	1	0	1	0	0	0	3	2	0	0	7	0
Eye	0	0	0	0	0	0	0	0	0	0	0	0
Gallbladder	0	0	0	0	0	0	0	0	0	0	2	0
Hodgkin	0	0	0	0	0	0	0	0	0	0	0	0
Ill-Defined	4	2	1	0	0	0	1	1	1	1	11	1
Kidney	1	1	2	0	0	0	2	1	0	0	3	1
Larynx	0	0	0	0	0	0	1	0	0	0	0	0
Leukemia	1	0	2	0	0	0	2	0	0	0	9	0
Liver	0	3	0	2	0	0	0	0	0	0	1	0
Lung	7	7	11	7	7	4	9	8	2	3	33	5
Melanoma	0	0	2	0	1	0	1	0	1	0	4	1
Myeloma	3	1	0	0	0	0	1	0	0	0	1	1
Nasal	0	0	1	0	0	0	0	0	1	0	0	0
Non-Hodgkin Lymphoma	3	0	0	1	0	0	5	2	2	1	8	1
Oral Cavity	0	0	0	0	0	0	1	0	0	0	3	0
Other Biliary	0	0	0	1	0	0	1	0	0	0	1	0
Other Digestive	0	0	0	0	0	0	1	0	0	0	0	0
Other Endocrine including Thymus	0	0	0	0	0	0	0	0	0	0	0	0
Other Female	0	0	0	0	0	0	0	0	0	0	0	0
Other Male	0	0	0	0	0	0	0	0	0	0	0	0
Other Skin	0	0	0	0	0	0	0	0	0	0	2	0
Other Respiratory	0	0	0	0	0	0	0	0	0	0	0	0
Other Urinary	0	0	0	0	0	0	0	0	0	0	0	0
Ovary	2	1	0	0	0	0	2	1	0	2	8	0
Pancreas	1	0	1	3	0	1	3	0	0	1	11	1
Prostate	2	1	1	1	2	1	3	2	1	1	12	1
Small Intestine	0	0	0	0	1	0	0	0	0	0	0	0
Soft Tissue including Heart	1	0	0	0	0	0	0	0	0	0	1	0
Stomach	0	0	0	1	0	0	2	0	0	1	1	0
Testis	0	0	0	0	0	0	0	0	0	0	0	0
Thyroid	0	0	0	0	0	0	0	0	0	0	0	0
Uterine	1	0	0	2	0	0	2	0	0	0	0	0
Mesothelioma	0	0	0	0	0	0	1	1	0	1	3	0
All Sites	36	19	28	26	19	8	56	22	9	12	151	17

	Natrona	Niobrara	Park	Platte	Sheridan	Sublette	Sweet water	Teton	Uinta	Washakie	Weston
Anus	0	0	0	0	0	0	0	0	0	0	0
Bladder	8	0	1	0	3	0	1	0	1	0	0
Bones and Joints	0	0	0	0	0	0	0	0	0	0	0
Brain/CNS	7	0	1	2	1	0	3	0	0	0	0
Breast	13	0	5	0	5	1	5	2	2	1	1
Cervix	0	0	0	0	0	0	1	0	1	0	0
Colorectal	13	0	7	1	4	2	6	0	3	3	2
Esophagus	5	0	5	0	1	0	4	0	1	0	0
Eye	0	0	1	0	0	0	0	0	0	0	0
Gallbladder	0	0	0	0	0	0	0	0	0	0	0
Hodgkin	1	0	0	0	0	0	0	0	0	0	0
Ill-Defined	9	0	3	1	6	1	5	1	0	2	1
Kidney	3	0	0	0	1	0	0	1	1	0	1
Larynx	1	0	1	0	0	0	1	0	1	0	0
Leukemia	3	0	2	1	1	1	0	0	1	0	0
Liver	4	0	1	0	1	0	0	0	1	0	0
Lung	24	0	9	5	29	3	5	4	6	3	5
Melanoma	5	0	1	0	0	0	0	2	0	0	0
Myeloma	1	0	3	1	1	0	0	0	0	0	0
Nasal	0	0	0	0	0	0	1	0	0	0	0
Non-Hodgkin Lymphoma	2	0	0	0	4	0	0	1	1	0	1
Oral Cavity	1	0	3	0	2	1	2	0	0	0	0
Other Biliary	0	0	1	0	1	0	0	0	0	0	0
Other Digestive	2	0	0	0	0	0	0	0	0	0	0
Other Endocrine including Thymus	0	0	0	0	0	0	0	0	0	0	0
Other Female	1	0	0	0	0	0	0	0	0	0	0
Other Male	0	0	0	0	0	0	0	0	0	0	0
Other Skin	0	0	0	0	0	0	0	0	0	0	0
Other Respiratory	0	0	0	0	0	0	1	0	0	0	0
Other Urinary	0	0	0	0	0	0	0	0	0	0	0
Ovary	4	0	3	2	2	0	1	2	0	0	0
Pancreas	11	0	7	1	3	1	3	2	3	0	0
Prostate	7	0	1	2	2	2	0	0	2	1	2
Small Intestine	0	0	0	0	0	0	0	0	0	0	0
Soft Tissue including Heart	2	0	1	0	1	0	1	1	0	0	0
Stomach	3	0	1	0	1	0	1	0	1	0	0
Testis	0	0	0	0	0	0	0	0	0	0	0
Thyroid	0	0	0	0	0	0	0	0	0	0	0
Uterine	1	0	0	0	1	0	0	0	0	0	0
Mesothelioma	5	0	0	0	0	0	2	0	0	1	0
All Sites	136	0	57	16	70	12	43	16	25	11	13

**Summary of
All Cancer Sites Combined
and
Top 15 Sites**

2004 Wyoming Incidence and Mortality Rates

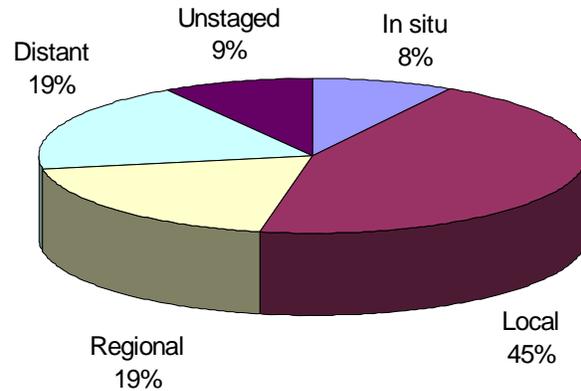
All Sites Combined

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	1,155	1,000	2,155
# In situ Cases	71	134	205
Wyo Incidence	481.6*	366.8*	416.9
US Incidence	537.9	412.9	463.5
# Cancer Deaths	458	426	884
Wyo Mortality	202.7	153.1	173.1
US Mortality	230.7	159.7	188.3

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



The incidence rates in Wyoming males and females for all cancer sites was significantly lower than the United States rate. The rate for total population was also lower than the national rate, but not significantly lower. The mortality rates in Wyoming were also lower than the national rates, but were not significant.

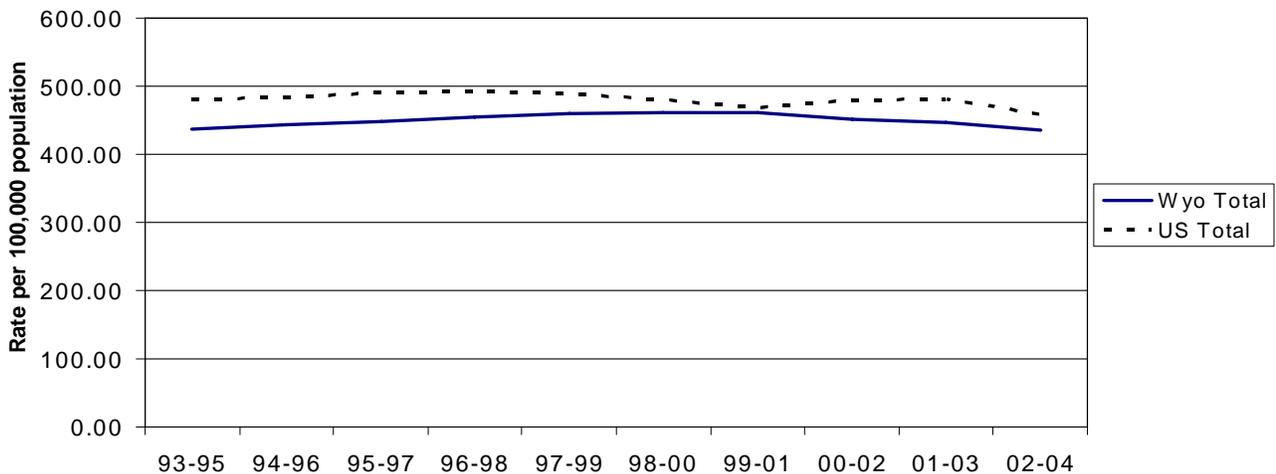
The 12-year incidence trend shows that all-site cancer incidence may be decreasing a little since 01-03. The U.S rate also appears to be decreasing slightly since 01-03.

The stages of diagnosis were virtually unchanged from 2003 (*see note on page 12 about significance testing*).

The incidence rate for Cancer Health District (CHD) 7 (376.70) was significantly lower than the state rate (444.10) from 2000-2004. While the rate for CHD 1 was significantly higher (500.50) than the state rate for all sites. There were no significant differences in the CHD mortality rates.

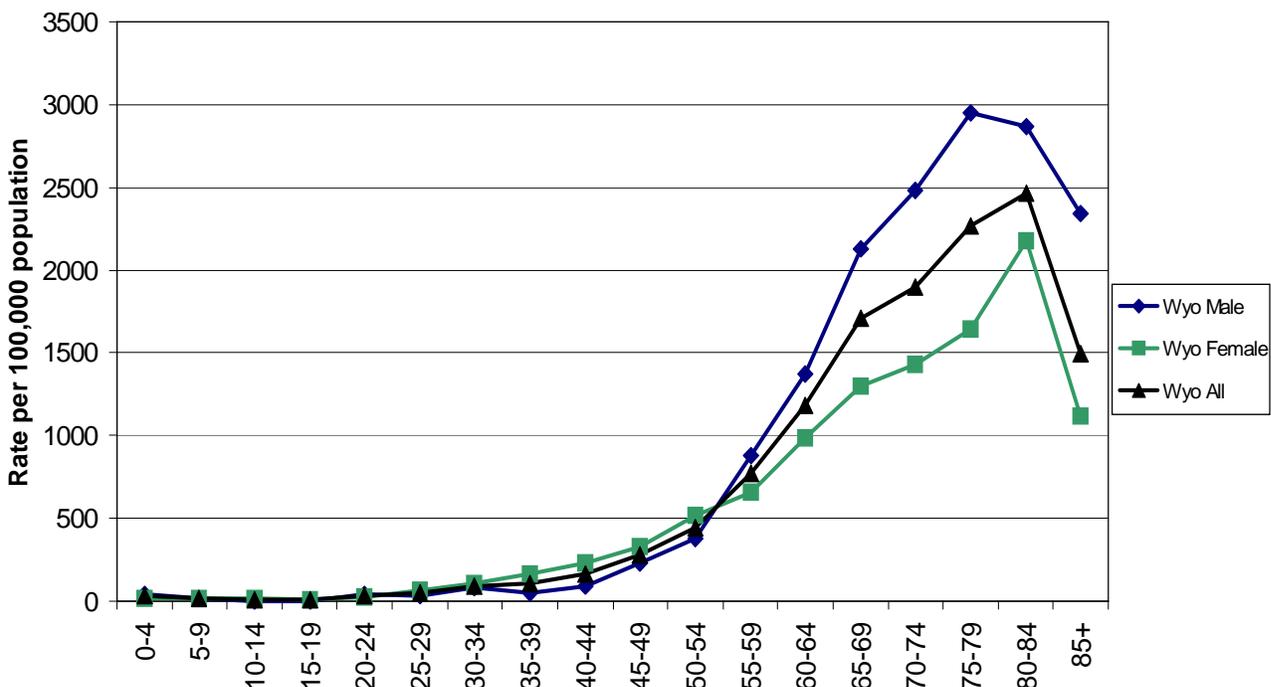
12-Year Incidence Trend

All Cancer Sites Combined



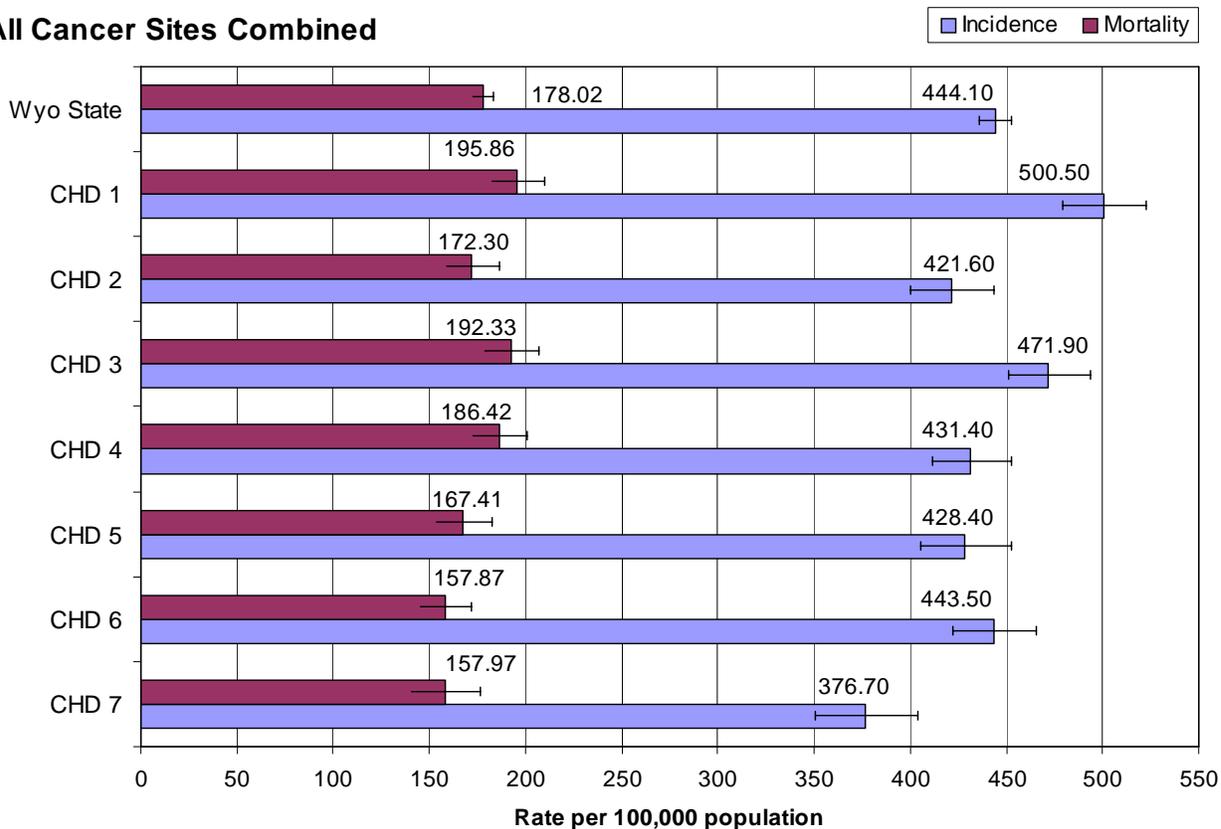
Age-Specific Incidence Rates - 2004

All Cancer Sites Combined



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

All Cancer Sites Combined



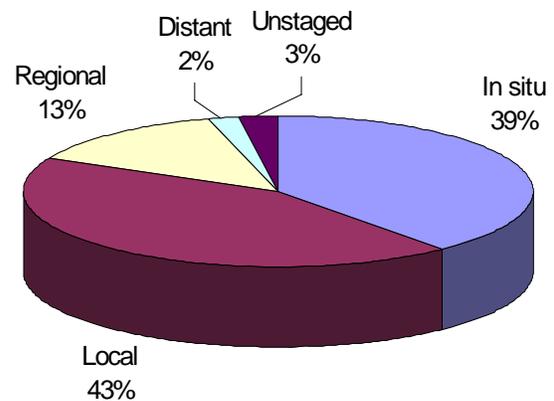
Bladder (Urinary)

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	50	14	64
# In situ Cases	30	14	44
Wyo Incidence	35.2	9.9	20.9
US Incidence	39.4	9.7	22.4
# Cancer Deaths	16	7	23
Wyo Mortality	6.5	4.9	5.8
US Mortality	7.7	2.2	4.3

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



The incidence rates in Wyoming for bladder cancer in males and total population were lower than the national rates. The female rate was slightly higher than the national rate, though none of these differences were statistically significant. The mortality rates in Wyoming for males was all lower than the national rates, but the female and total population rates were both higher than the national rates, again none of these differences were significant.

The 12-year incidence trend for bladder cancer in Wyoming and the US seems to have plateaued since 99-01.

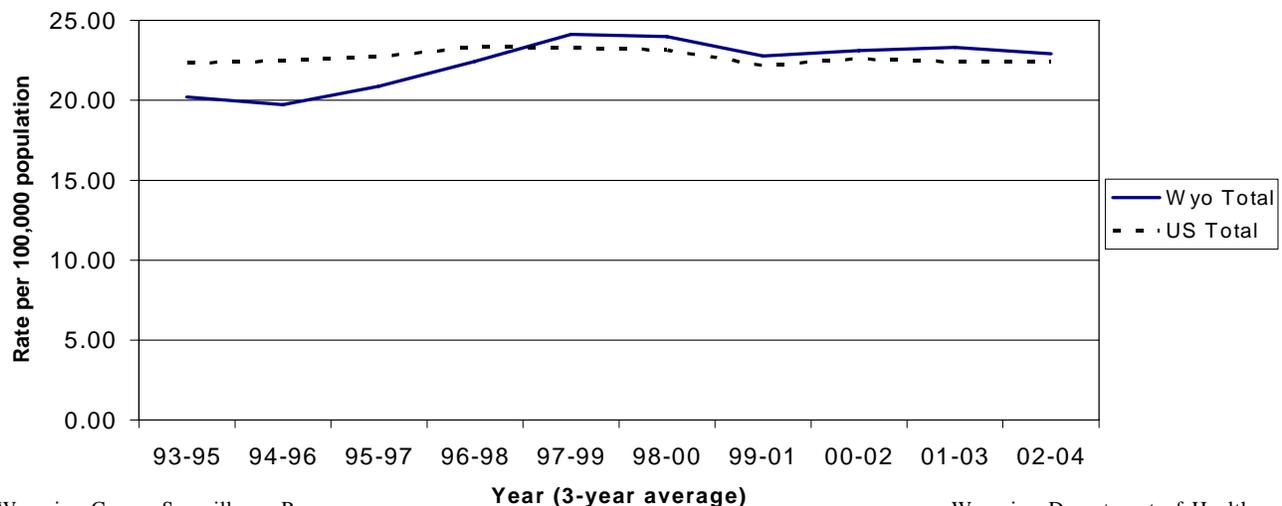
There were basically no changes in the percent of bladder cancers diagnosed by stage from 2003 to 2004.

No statistically significant differences were found between CHD's and state rate for incidence or mortality.

(Note: Rates for Bladder Cancer includes in situ cases.)

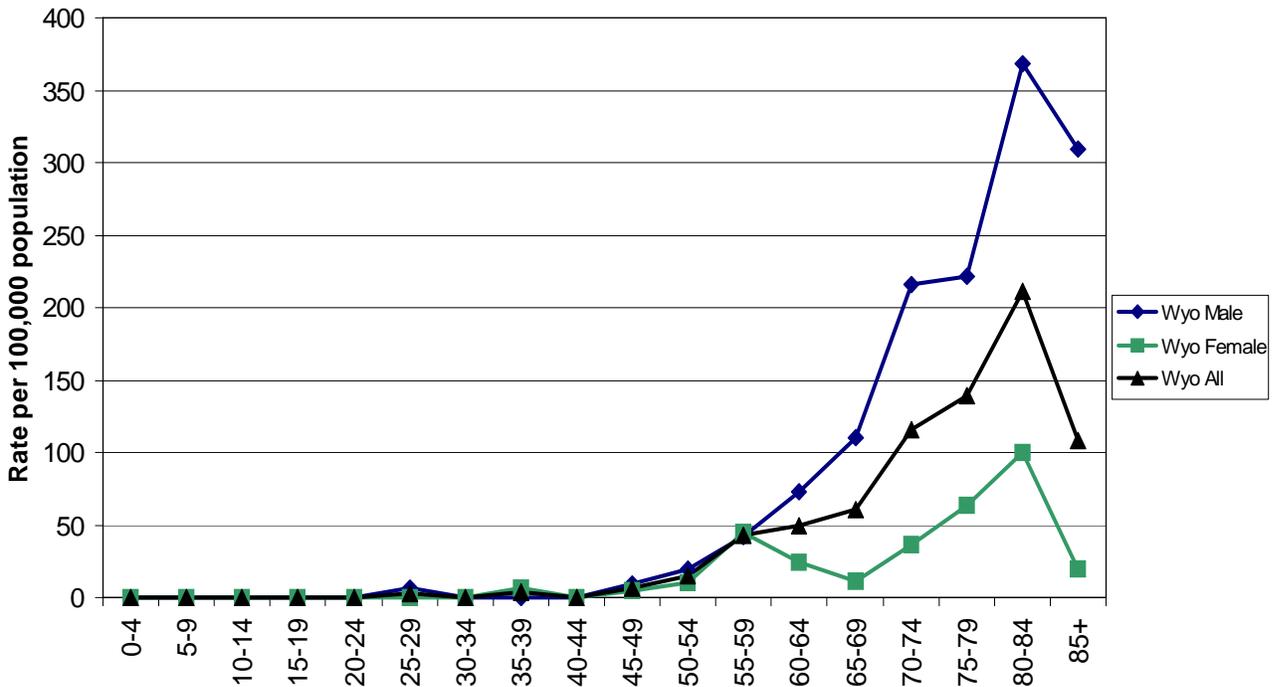
12-Year Incidence Trend

Urinary Bladder



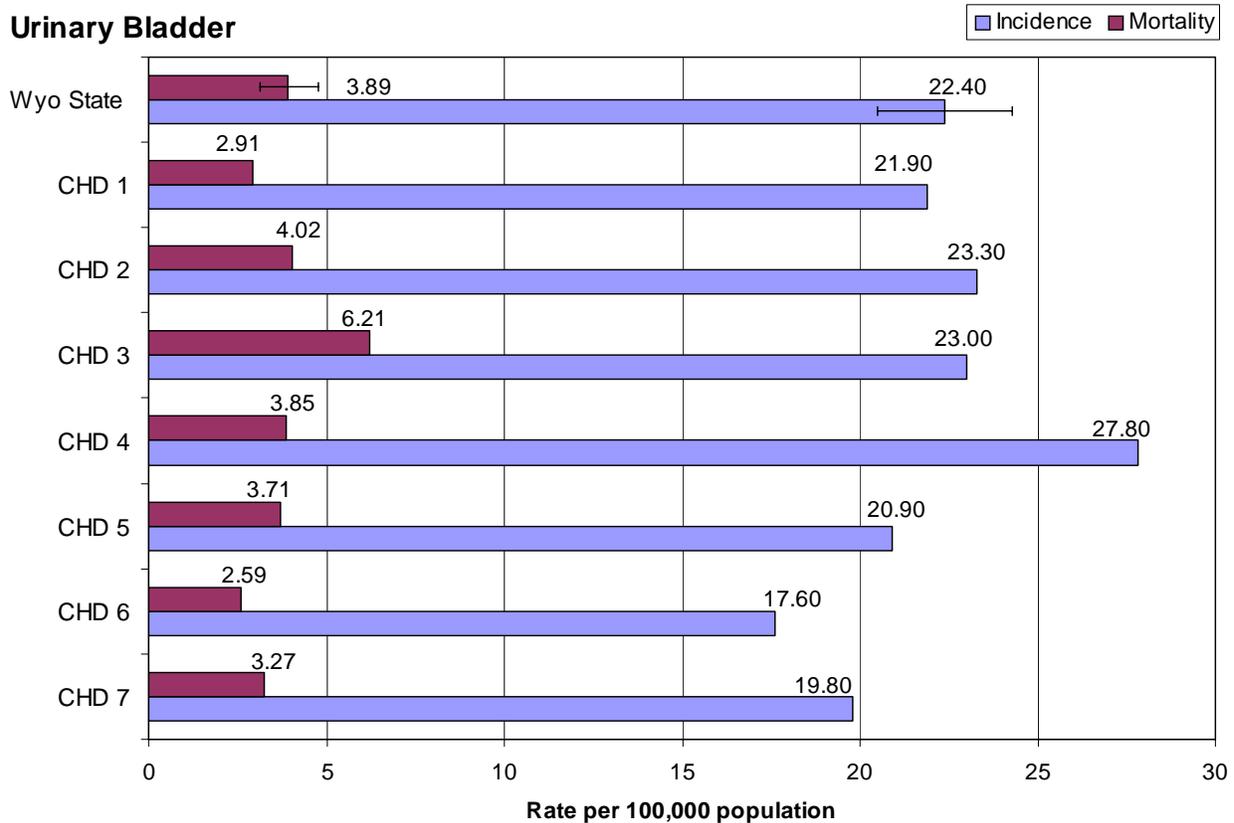
Age-Specific Incidence Rates - 2004

Bladder (Urinary)



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

Urinary Bladder



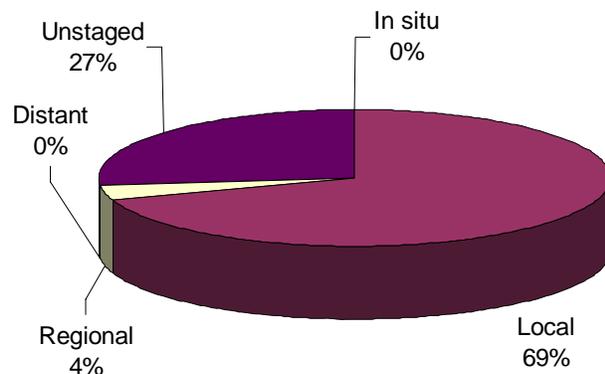
Brain/CNS

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	22	15	37
Wyo Incidence	8.6	5.6	7.2
US Incidence	8.2	5.9	7.0
# Cancer Deaths	16	13	29
Wyo Mortality	6.5	4.9	5.8
US Mortality	5.7	3.9	4.7

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



The incidence rate of brain/CNS cancer for males and total population were slightly higher than the national rate, while the incidence rate for females was slightly lower than the national rate. The mortality rate for males, females and total population were all a little higher than the national rate. None of these differences were significant.

The 12-year trend continues to show a leveling-off of the incidence of brain/CNS cancer since 99-01.

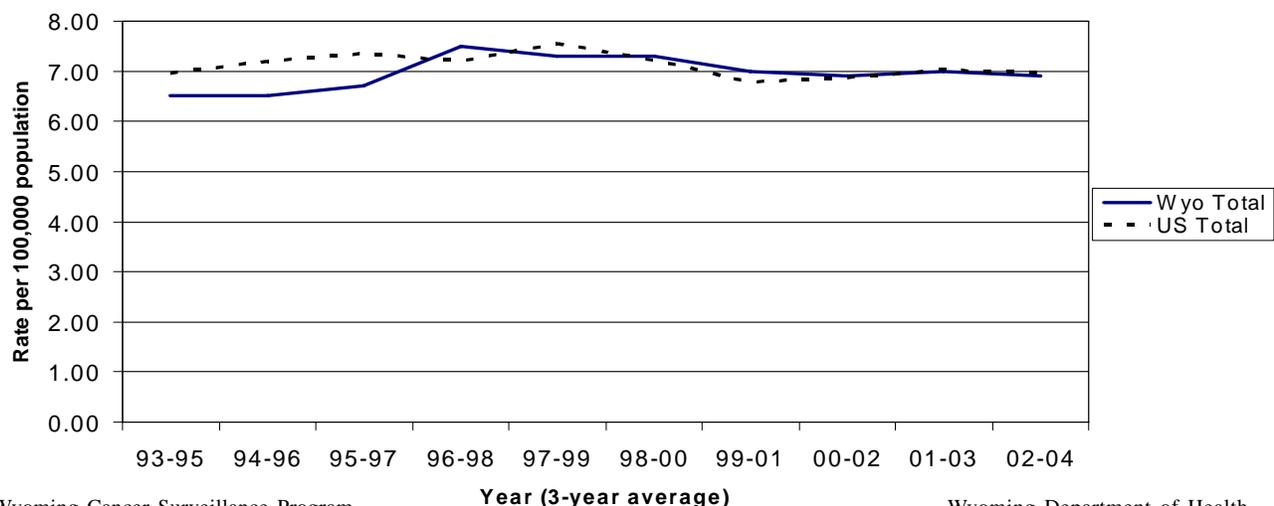
A larger percentage of brain/CNS cancers were diagnosed as unstaged in 2004 (27%) than in 2003 (12%).

No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

(CNS=Central Nervous System)

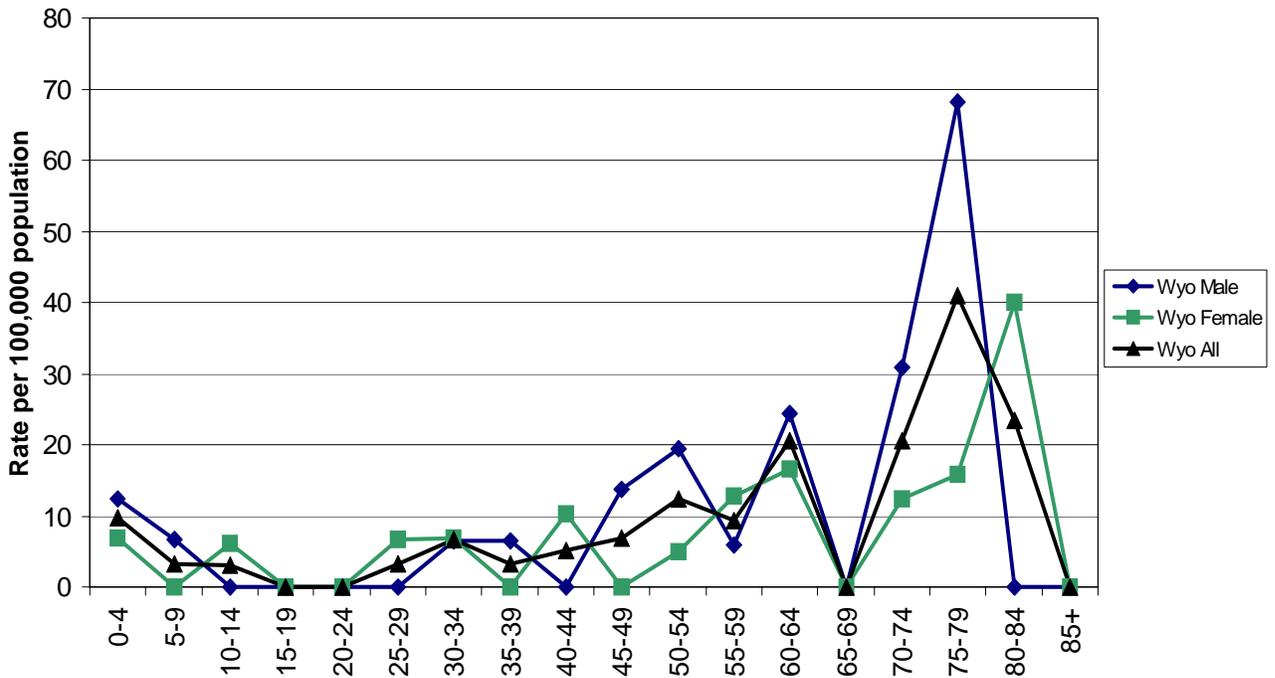
12-Year Incidence Trend

Brain/CNS



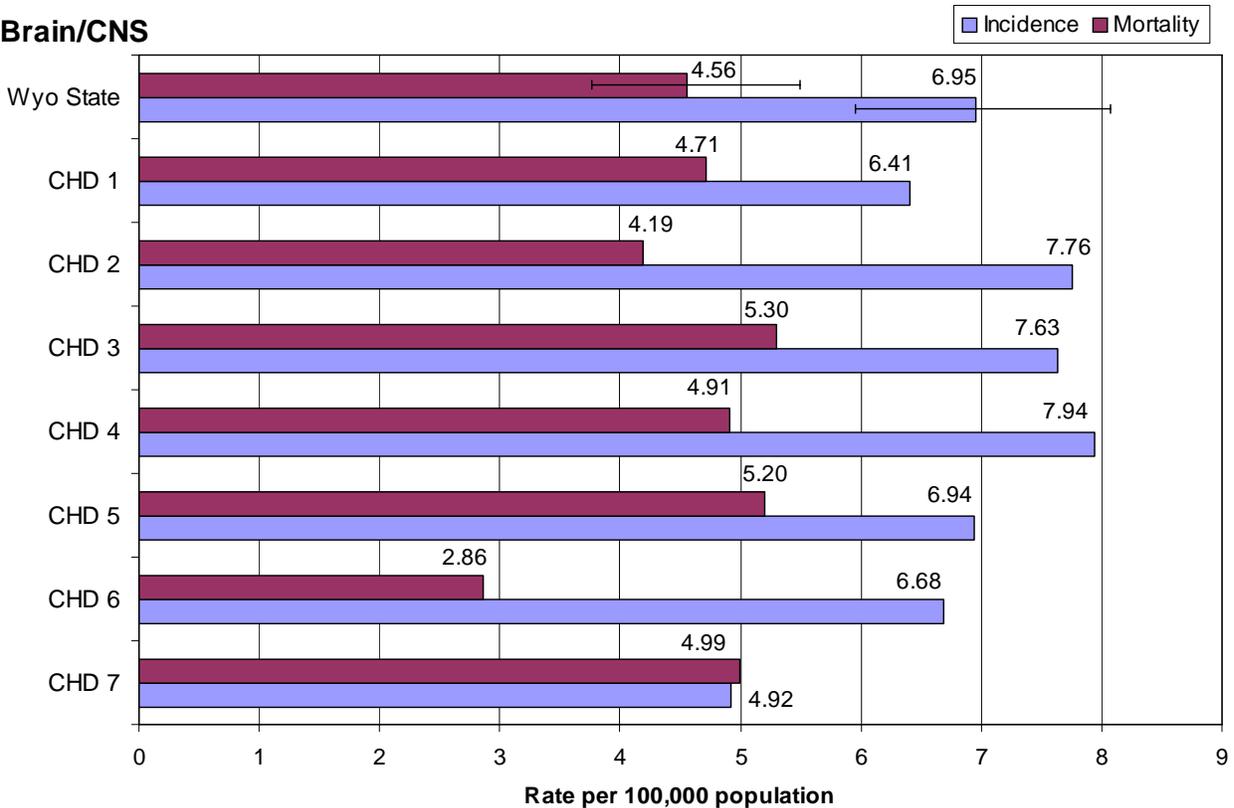
Age-Specific Incidence Rates - 2004

Brain/CNS



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

Brain/CNS



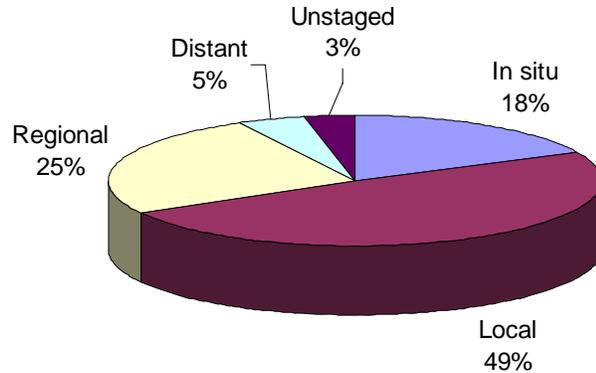
Breast (Female Only)

Incidence and Mortality Summary

	Female
# Invasive Cases	307
# In situ Cases	72
Wyo Incidence	108.6
US Incidence	125.0
# Cancer Deaths	70
Wyo Mortality	24.4
US Mortality	24.6

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



The incidence and mortality rates of female breast cancer in Wyoming were both lower than the United States rates. However, these differences were not statistically significant.

The 12-year incidence trend shows a level rate since 01-03, while the national rates appear to be experiencing a slight decrease since 00-02.

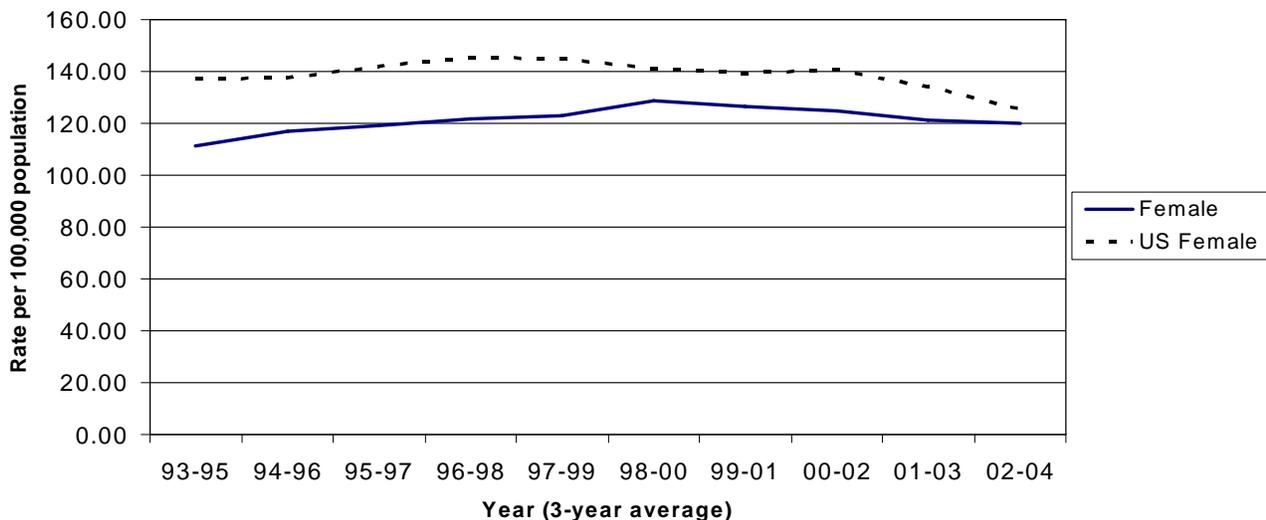
The percent of breast cancers diagnosed at each stage in 2004 is virtually unchanged from 2003.

No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

There were 2 cases of male breast cancer reported in Wyoming in 2004.

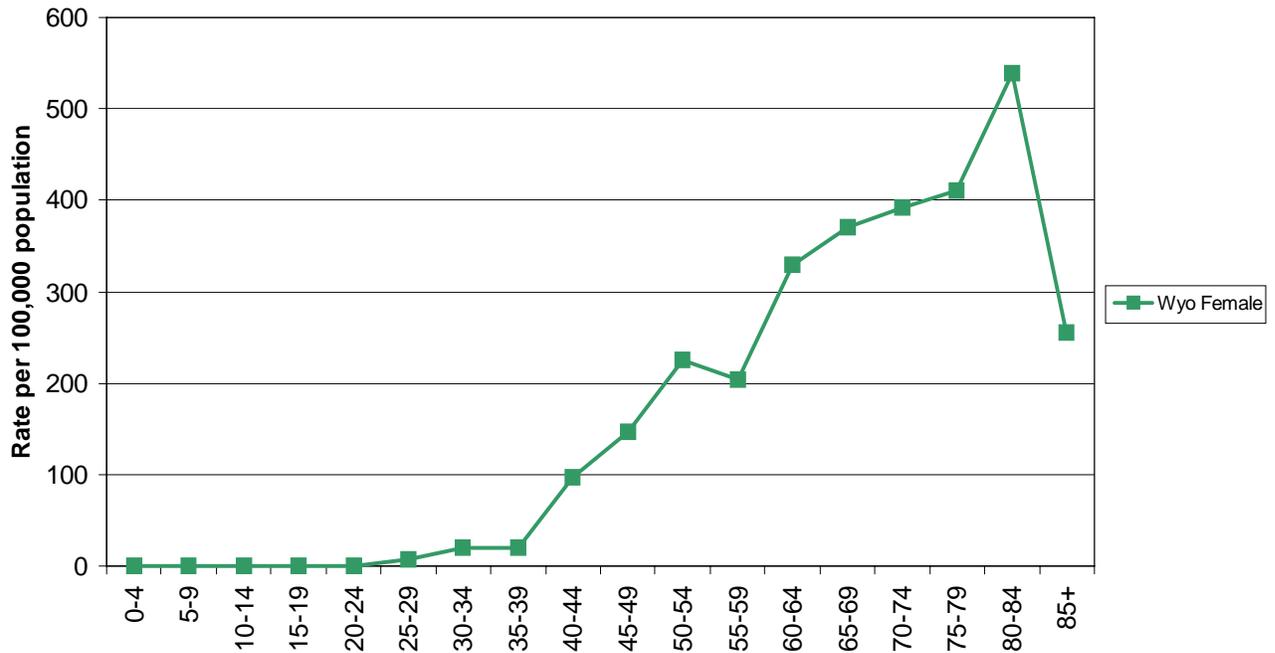
12-Year Incidence Trend

Breast-Female



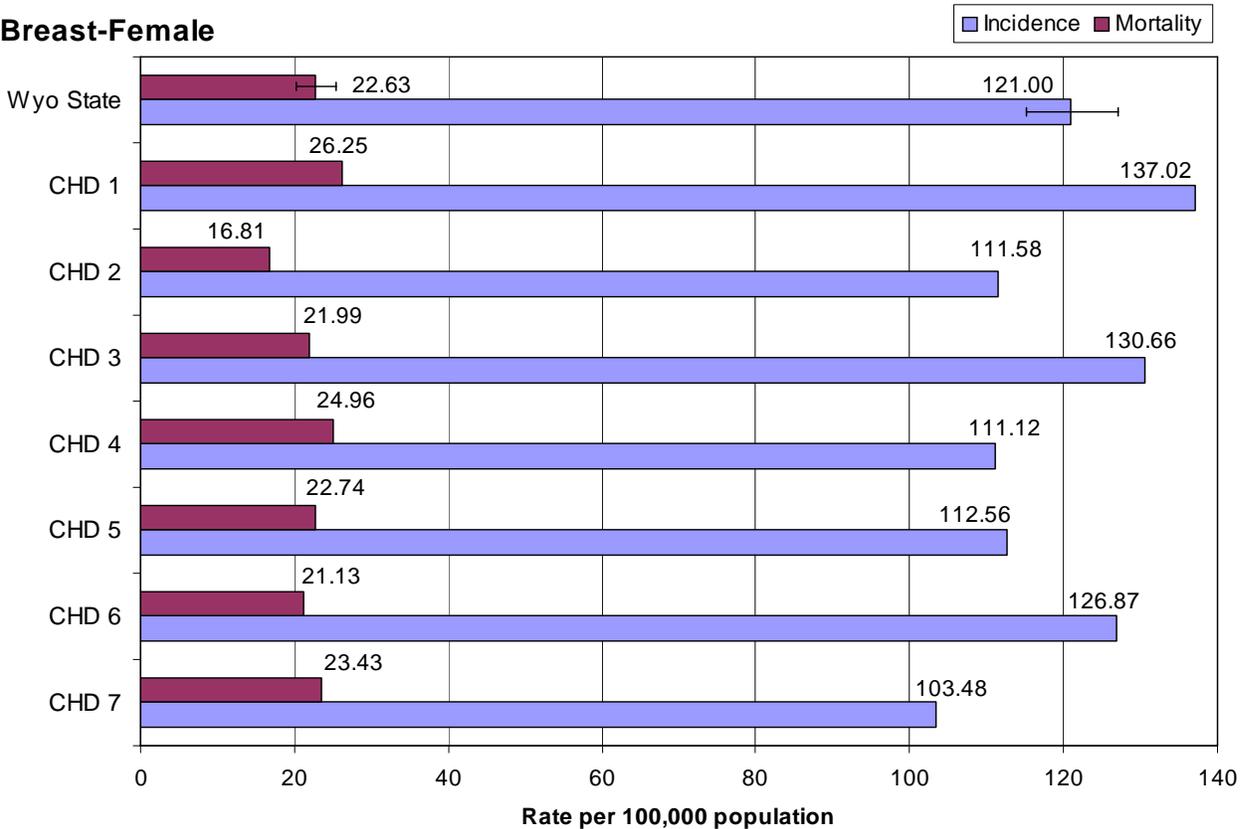
Age-Specific Incidence Rates, 2004

Breast-Female



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

Breast-Female



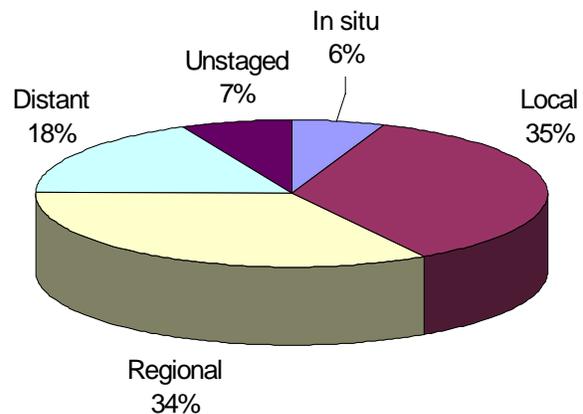
Colorectal

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	125	105	230
# In situ Cases	7	9	16
Wyo Incidence	50.7	38.0	43.6
US Incidence	58.2	42.7	49.6
# Cancer Deaths	50	37	87
Wyo Mortality	22.5	13.2	17.1
US Mortality	22.4	15.5	18.5

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



The Wyoming incidence rates for males, females, and total population were all lower than the national rates. The mortality rate for males was barely higher than the national rate, while the rates for females and total population were both lower than the national rates. None of these differences were significant.

The incidence rates for Wyoming appear to have basically plateaued after a small decrease that started in 98-00. Nationally the rates also seem to be leveling off since 99-01.

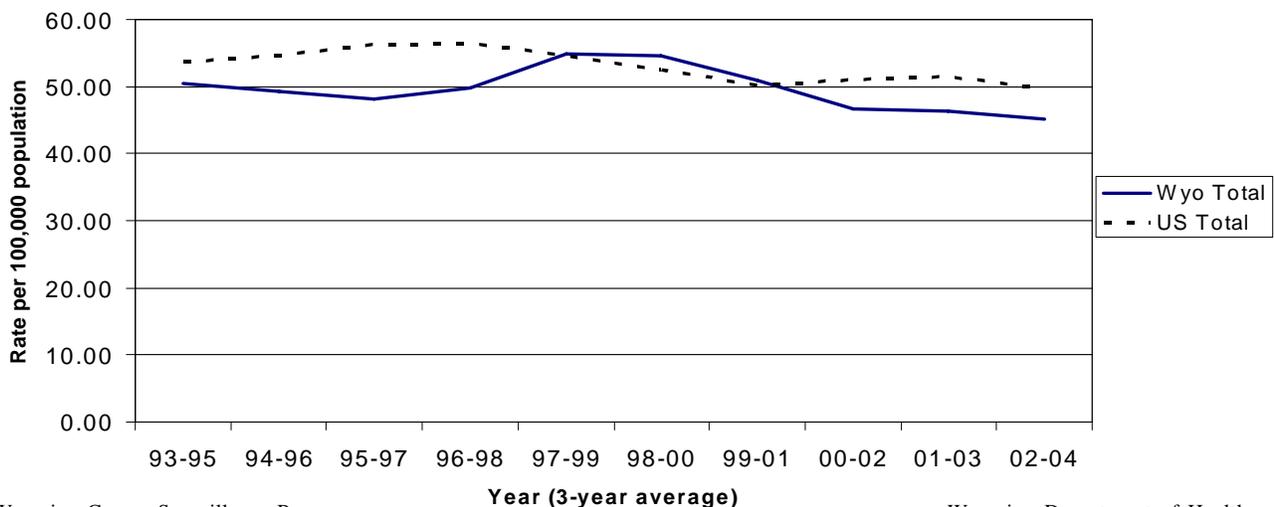
There was a small decrease in the percent of cases diagnosed as unstaged since 2003 (12%).

No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

(Colorectal = Colon and rectum combined.)

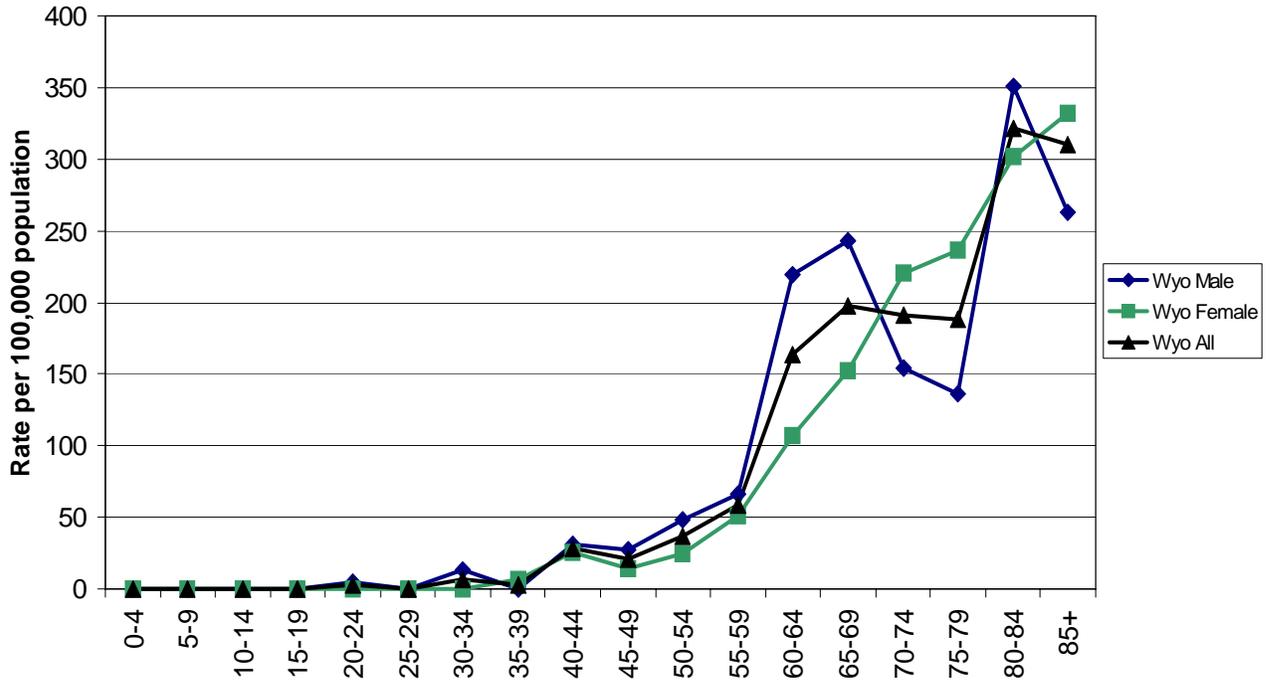
12-Year Incidence Trend

Colorectal



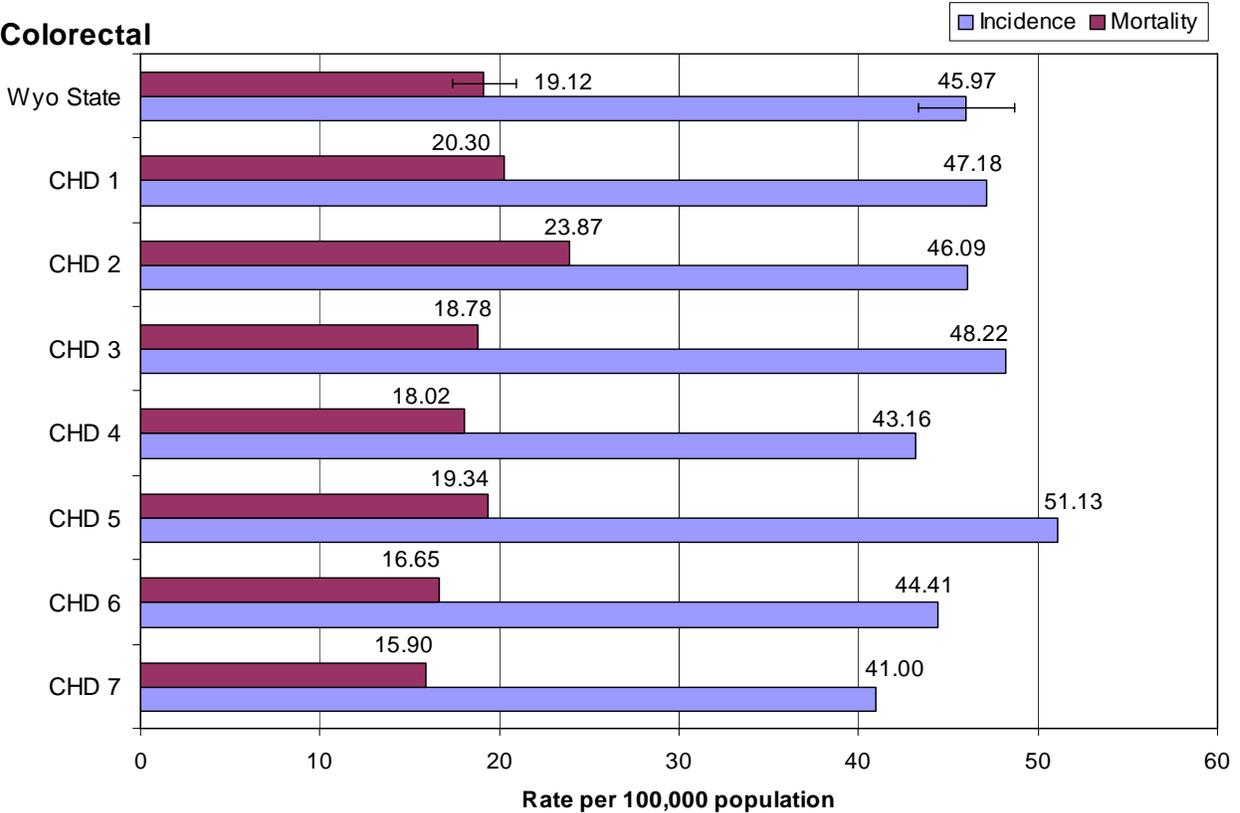
Age-Specific Incidence Rates - 2004

Colorectal



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

Colorectal



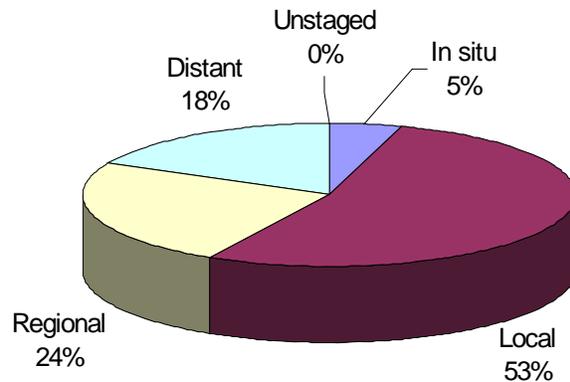
Kidney/Renal Pelvis

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	37	19	56
Wyo Incidence	13.4	6.8	10.2
US Incidence	13.5	9.6	12.2
# Cancer Deaths	16	4	20
Wyo Mortality	6.3	1.3	3.8
US Mortality	6.2	2.8	4.4

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



The incidence rates for kidney/renal pelvis cancer were lower in Wyoming males, females, and total population. The mortality rates for females and total population were lower than the national rates, while the male mortality rate was just a tenth higher than the national rate. None of these differences were statistically significant.

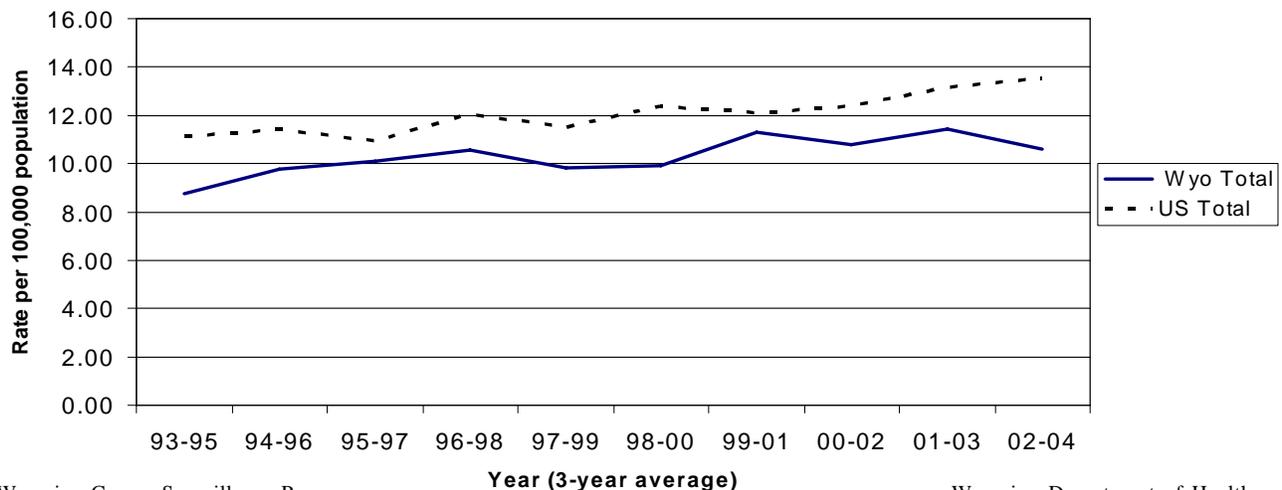
The 12-year trend shows a very slight increase since 01-03. The national rate seems to be on the increase since 00-02.

The percent of kidney/renal pelvis cases diagnosed at the local stage decreased from 59% in 2003 to 53% in 2004.

No statistically significant differences were found between CHD's and the state rate for incidence or mortality.

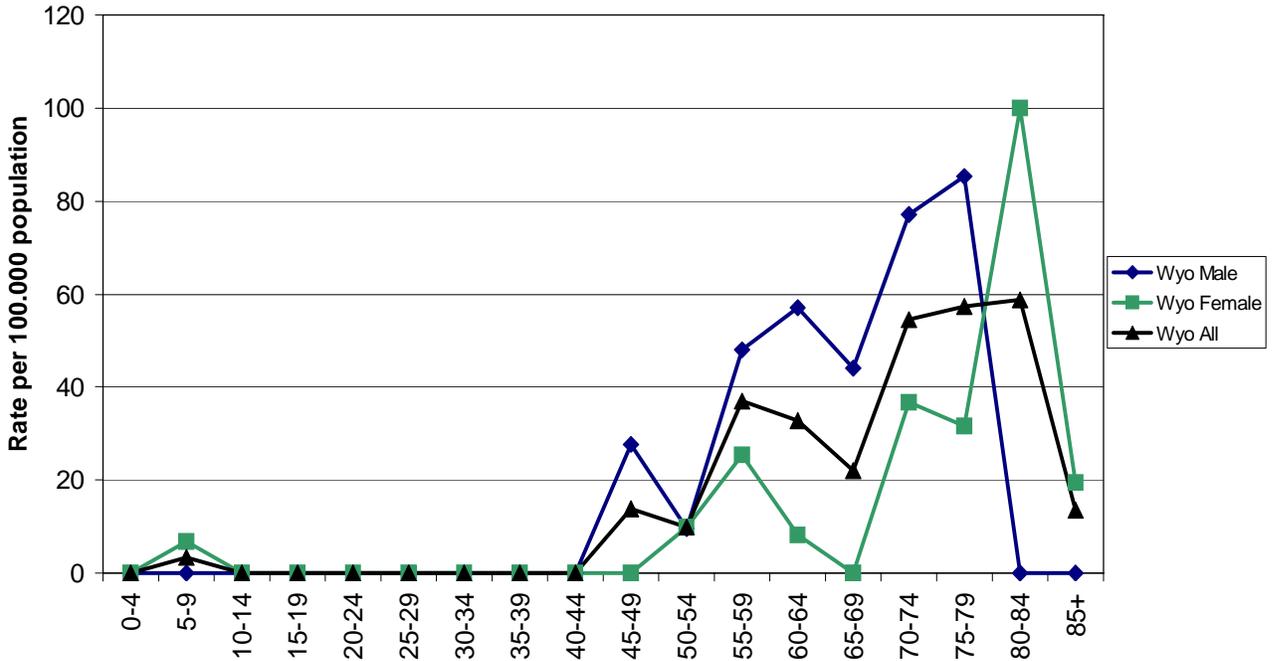
12-Year Incidence Trend

Kidney/Renal Pelvis



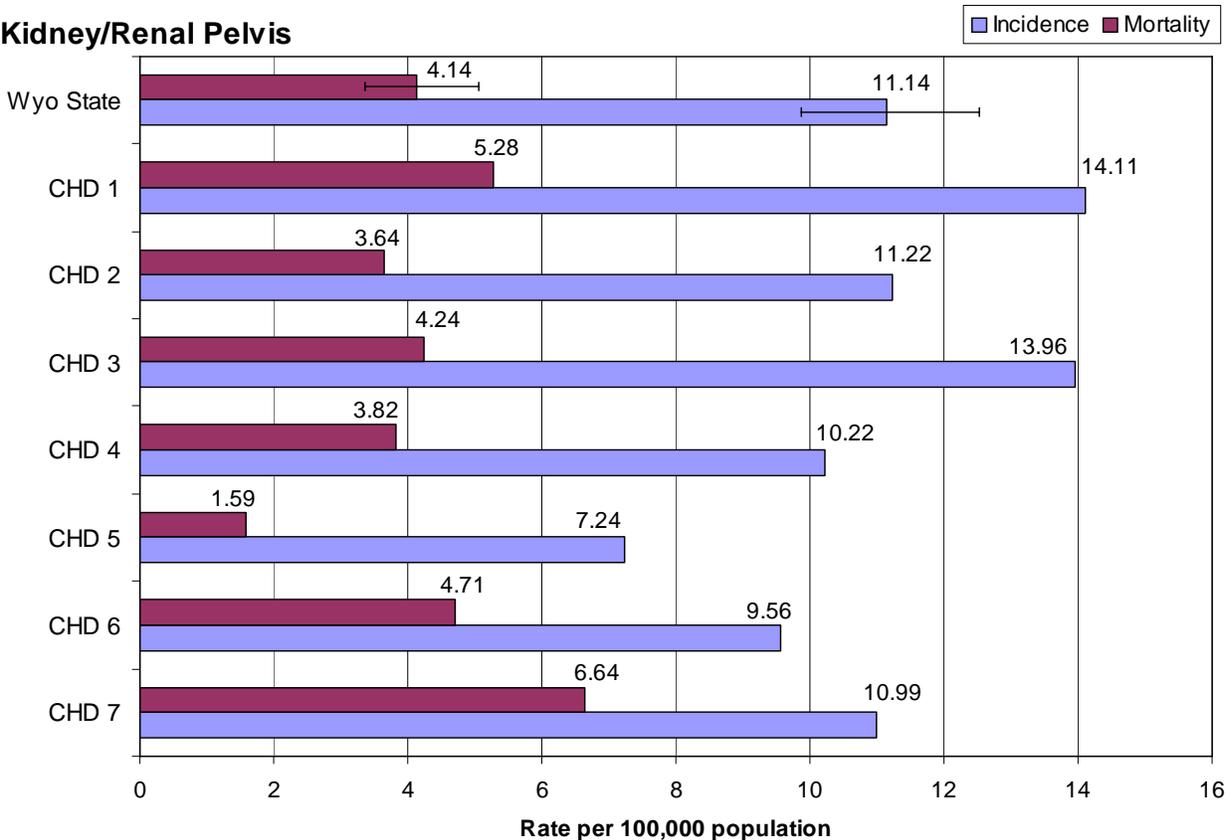
Age-Specific Incidence Rates - 2004

Kidney/Renal Pelvis



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

Kidney/Renal Pelvis



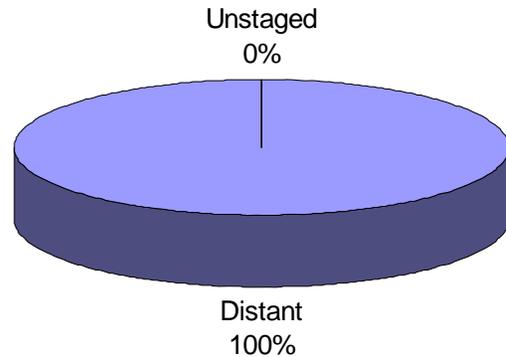
Leukemia

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	25	14	39
Wyo Incidence	10.6	5.1	7.7
US Incidence	15.5	9.3	12.0
# Cancer Deaths	20	15	35
Wyo Mortality	9.6	5.3	7.0
US Mortality	10.3	5.7	7.6

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



Note: Leukemia is systemic and therefore only diagnosed at the distant stage.

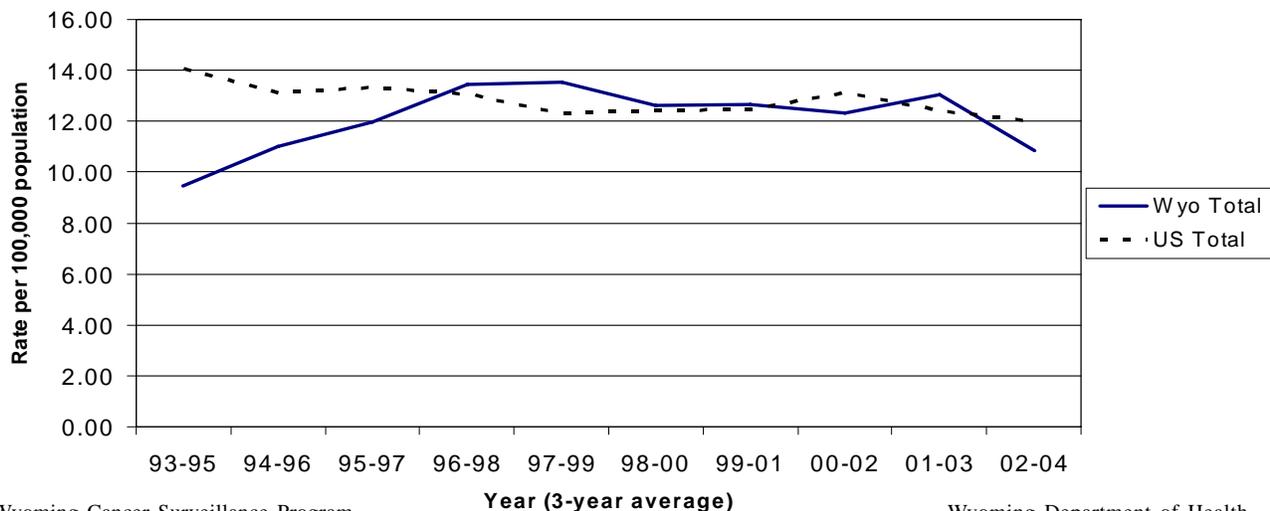
Both incidence and mortality rates in Wyoming for leukemia were lower than the national rates for males, females, and total population. None of these differences were statistically significant.

The incidence trend for Wyoming appears to be decreasing since 01-03. The national trend also appears to be decreasing a little as well since 00-02.

The mortality rate for CHD 7 was significantly lower than the state rate. There were no differences between the CHD's and state rate for incidence.

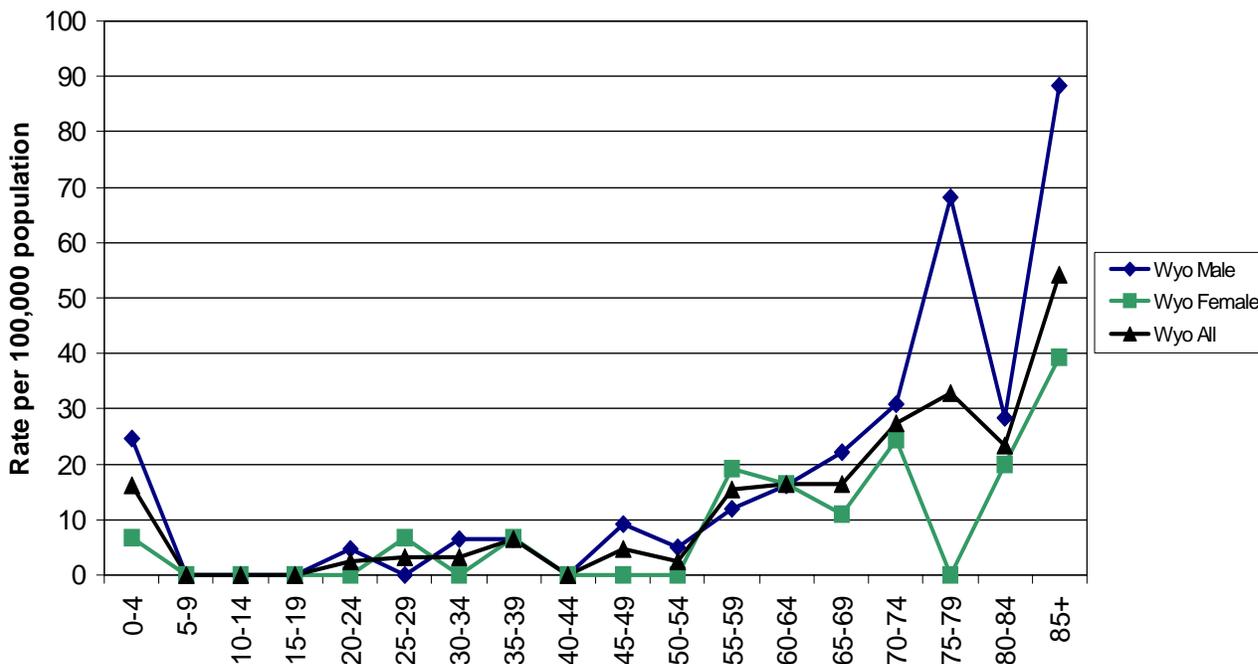
12-Year Incidence Trend

Leukemia



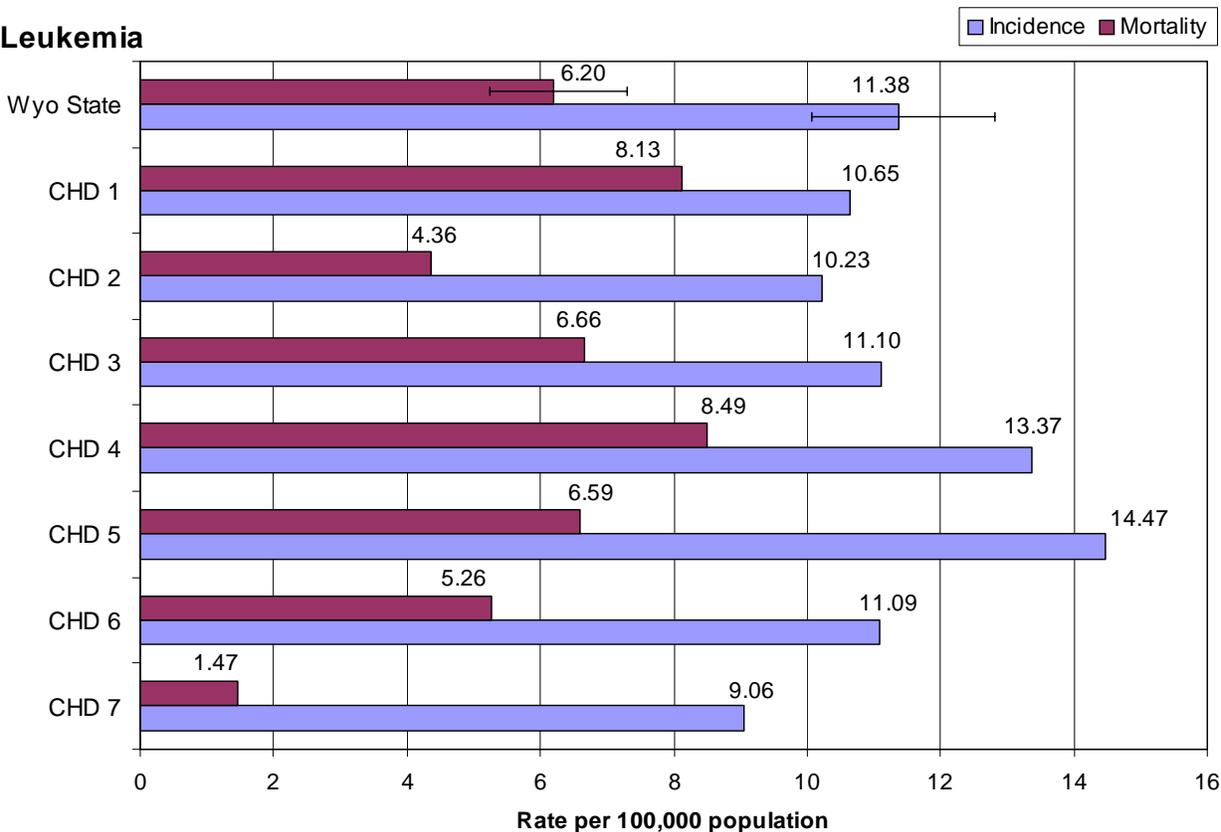
Age-Specific Incidence Rates - 2004

Leukemia



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

Leukemia



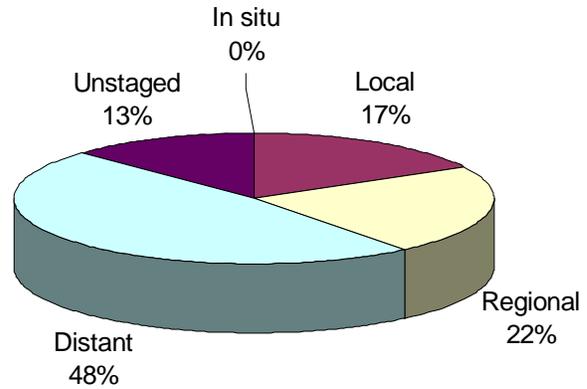
Lung and Bronchus

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	150	118	268
Wyo Incidence	61.8	43.3	51.7
US Incidence	78.0	53.6	63.8
# Cancer Deaths	123	89	212
Wyo Mortality	53.2	32.5	41.6
US Mortality	71.2	42.2	54.5

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



Lung cancer incidence and mortality rates in Wyoming males, females, and total population were all lower than the national rates. However, none of the differences were significant.

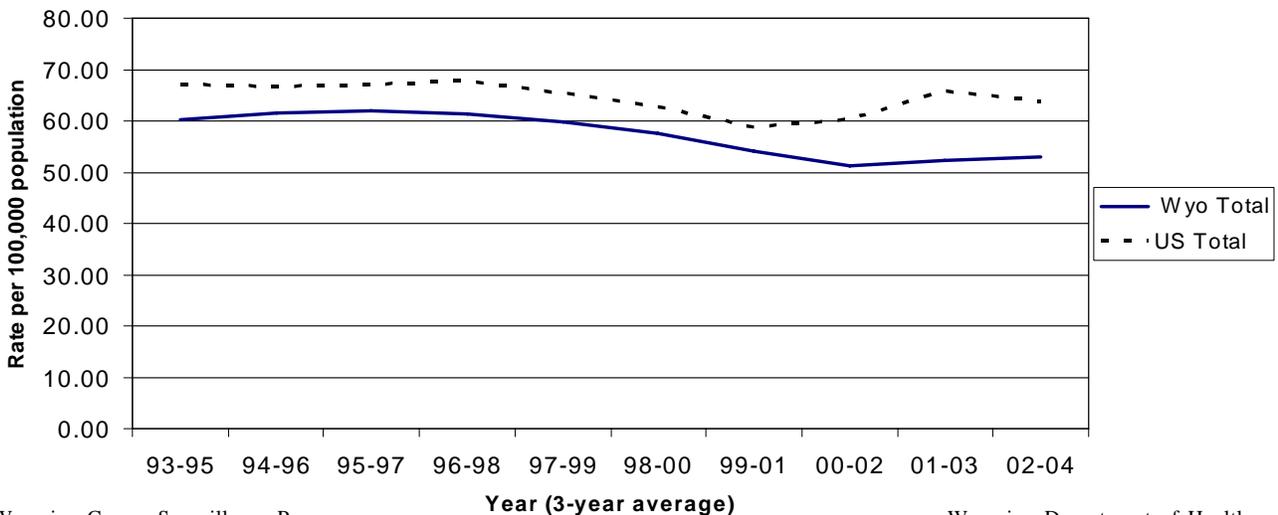
Incidence rates for lung cancer in Wyoming shows a leveling off since 00-02 after a modest decrease starting in 96-98. Nationally, the rate seems to also be plateauing after an increase from 99-01 to 01-03.

The percentages at each stage of diagnosis were very similar to the percentages seen in 2003.

There were no significant differences between CHD's and the state rate for incidence or mortality.

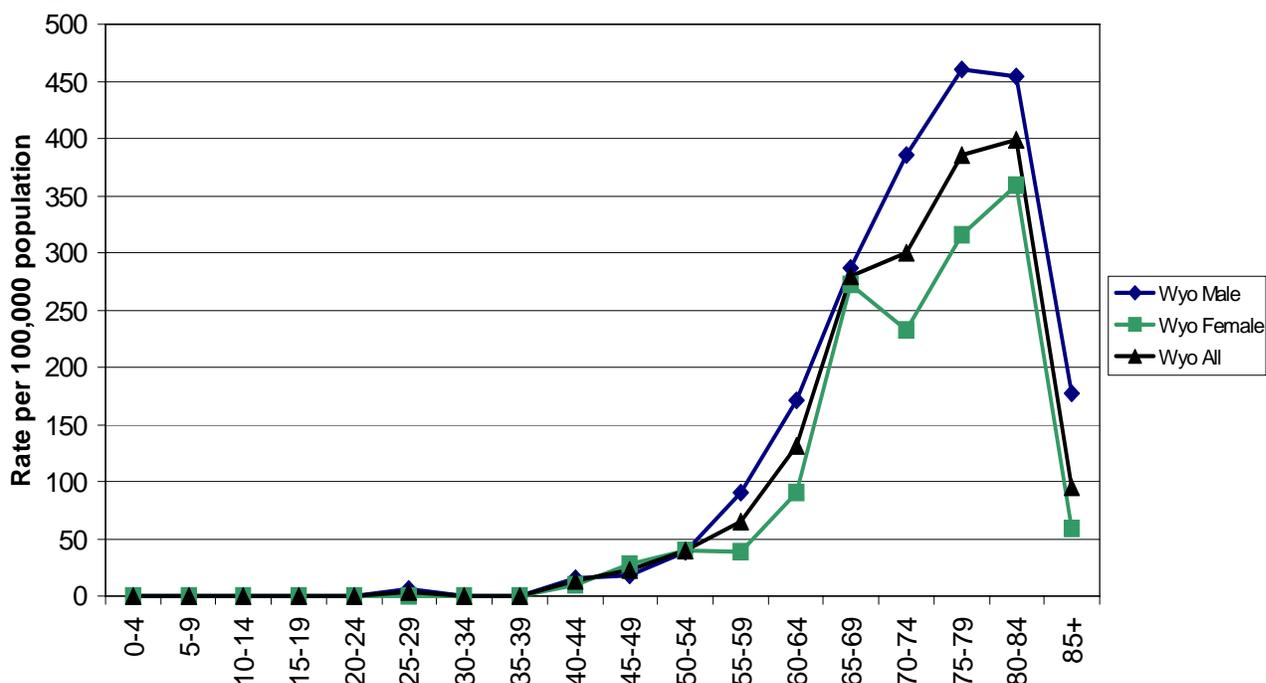
12-Year Incidence Trend

Lung and Bronchus



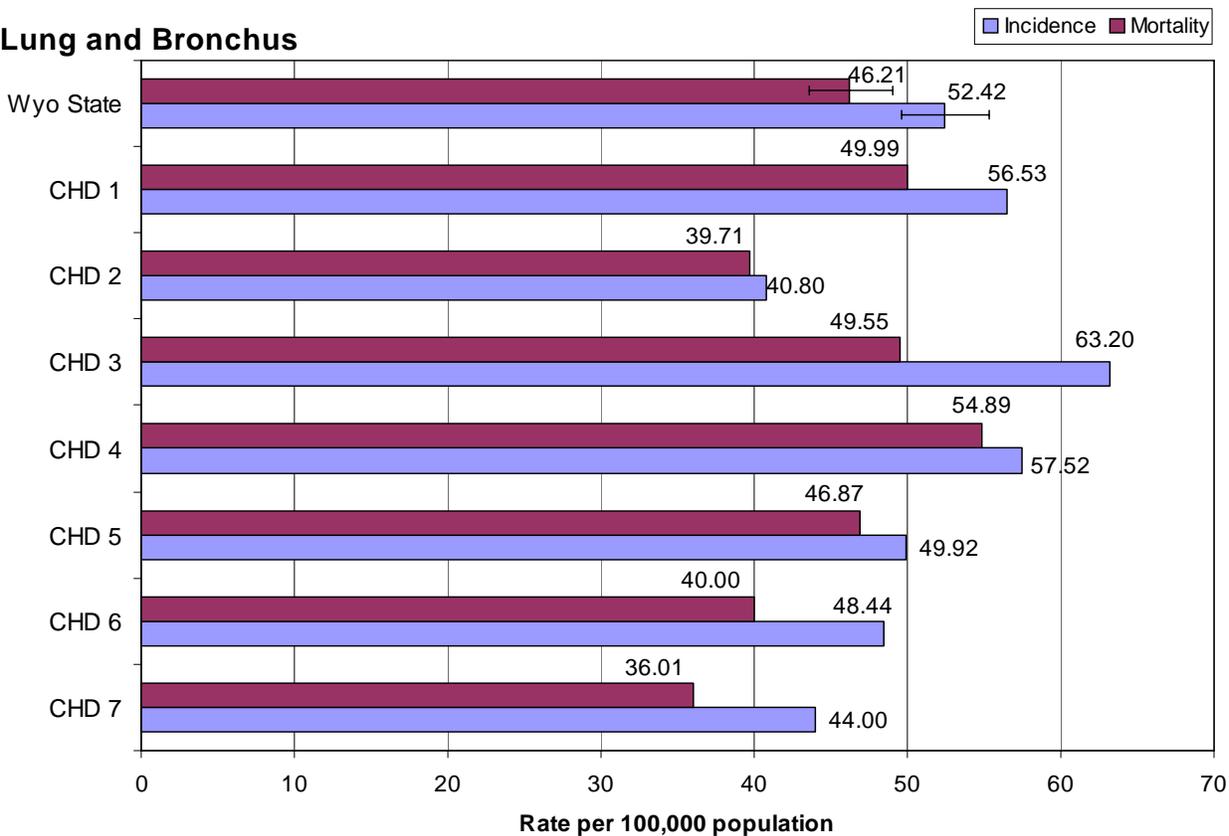
Age-Specific Incidence Rates - 2004

Lung and Bronchus



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

Lung and Bronchus



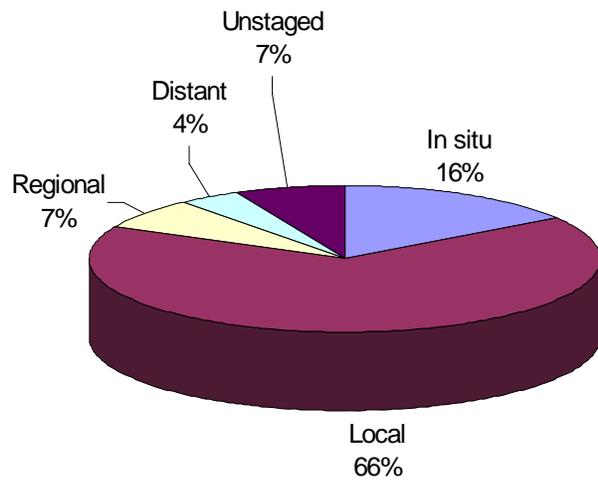
Melanoma (of the skin)

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	58	45	103
# In situ Cases	26	25	51
Wyo Incidence	23.4	17.2	19.7
US Incidence	25.8	17.0	20.6
# Cancer Deaths	10	11	21
Wyo Mortality	4.2	4.2	4.2
US Mortality	4.4	2.0	3.0

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



Incidence rates for melanoma of the skin in Wyoming for males and total population were lower than the national rates, while females were just higher than the national rate. The mortality rates for females and total population were higher than the national, but males were just a touch lower. None of the differences were statistically significant.

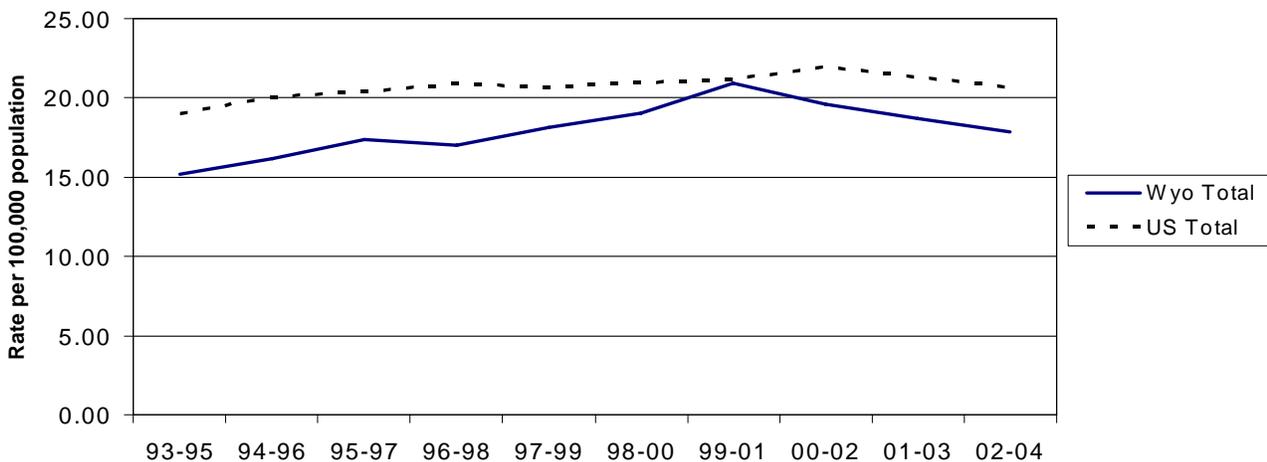
A decreasing trend in melanoma incidence for Wyoming residents that began in 99-01 appears to be continuing in 02-04. Nationally, the rate also seems to be decreasing a little since 00-02.

The percent of cases diagnosed at the in situ stage decreased from 29% in 2003, while the percentage of cases diagnosed at the local stage increased from 59% in 2003.

No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

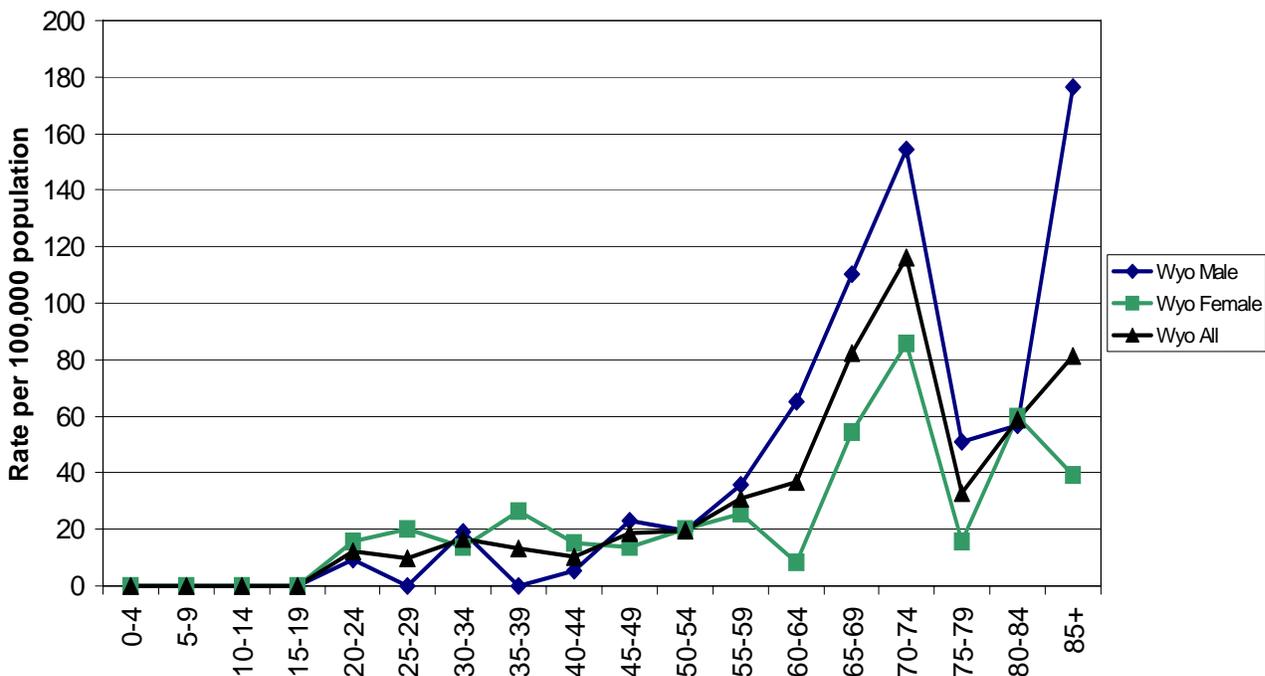
12-Year Incidence Trend

Melanoma (of the skin)



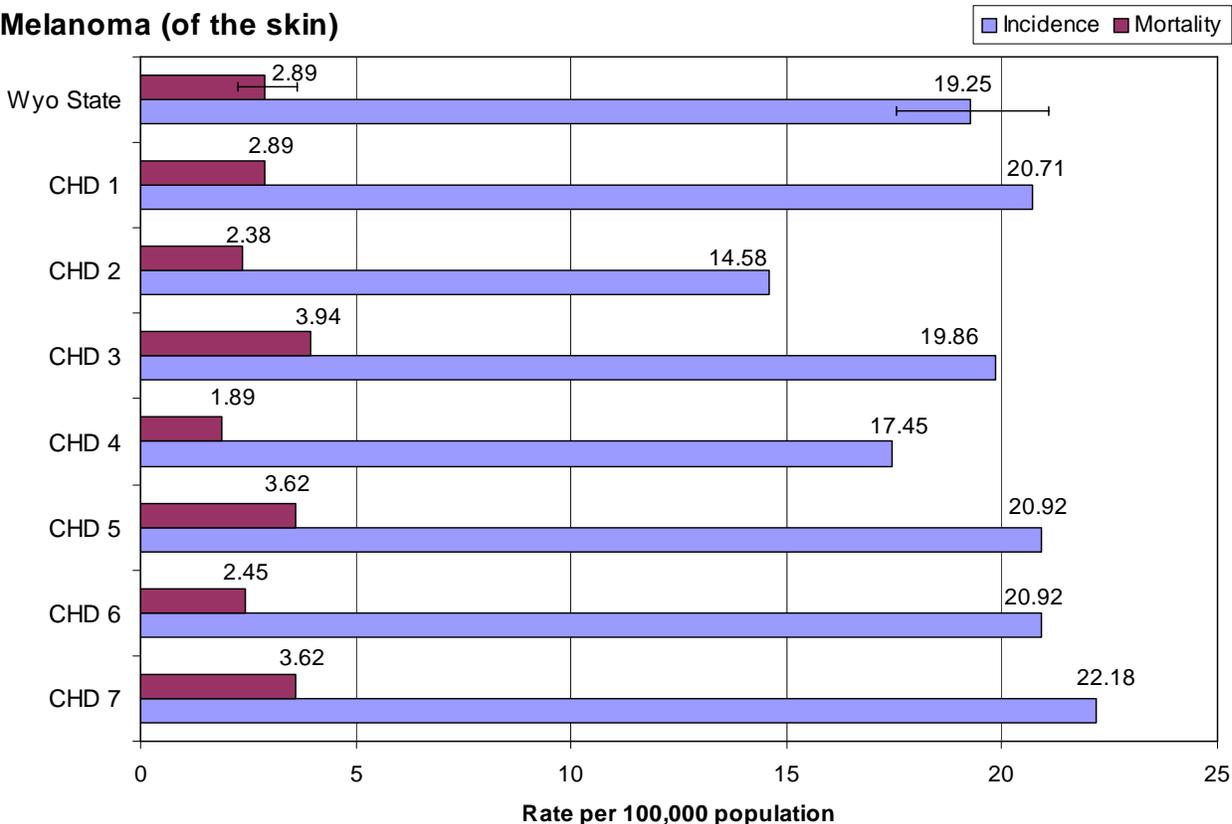
Age-Specific Incidence Rates - 2004

Melanoma (of the skin)



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

Melanoma (of the skin)



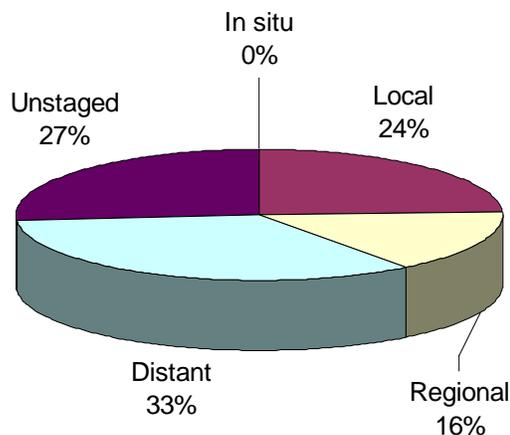
Non-Hodgkin Lymphoma

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	53	41	94
Wyo Incidence	22.3	14.3	17.8
US Incidence	23.3	16.7	19.6
# Cancer Deaths	16	22	38
Wyo Mortality	7.7	8.1	7.7
US Mortality	9.7	6.1	7.6

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



The incidence rate for males, females, and total population in Wyoming were all lower than the national rate. The mortality rate for females in Wyoming was higher than the national rate, while the mortality rate for males and total population were both lower. None of these differences were statistically significant.

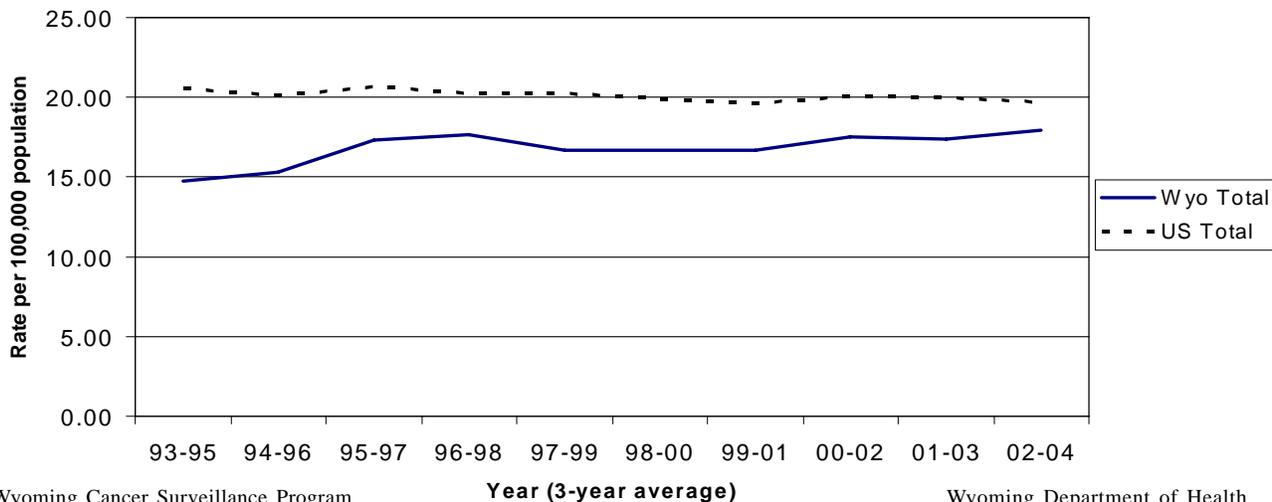
The 12-year incidence trend shows a possible slight increase since 01-03.

The percent of cancers diagnosed at each stage in 2004 was very similar to the percentages in 2003.

No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

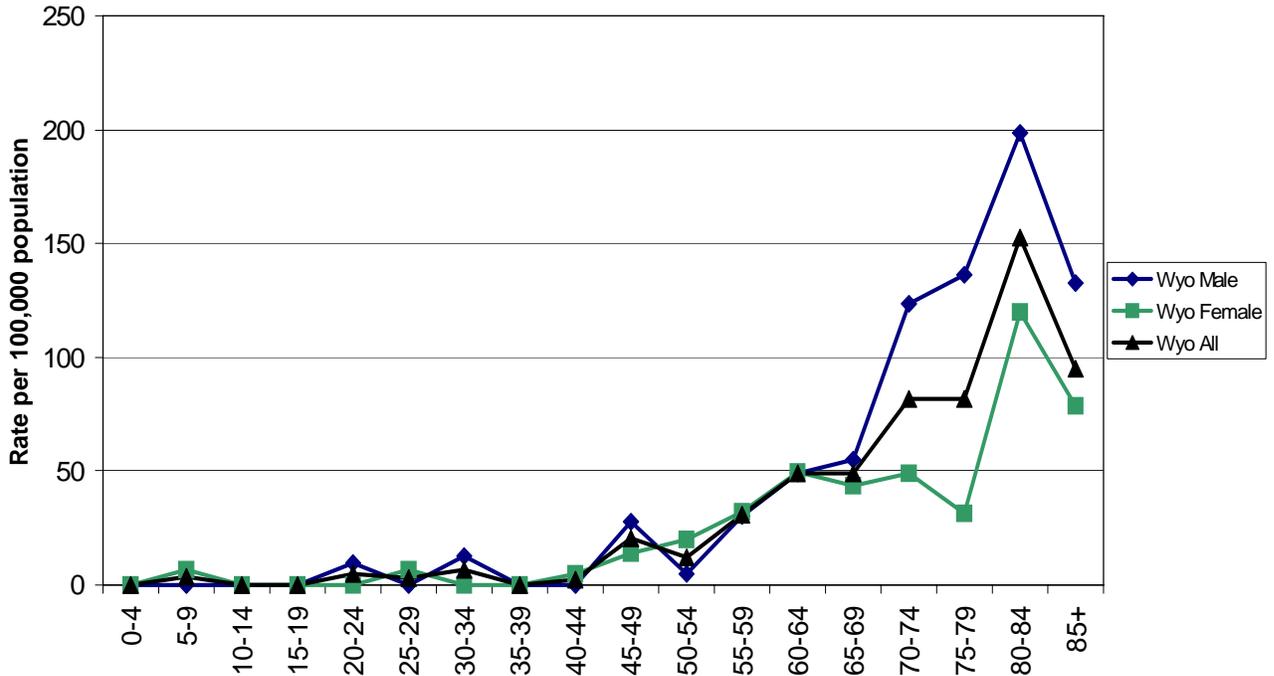
12-Year Incidence Trend

Non-Hodgkin Lymphoma



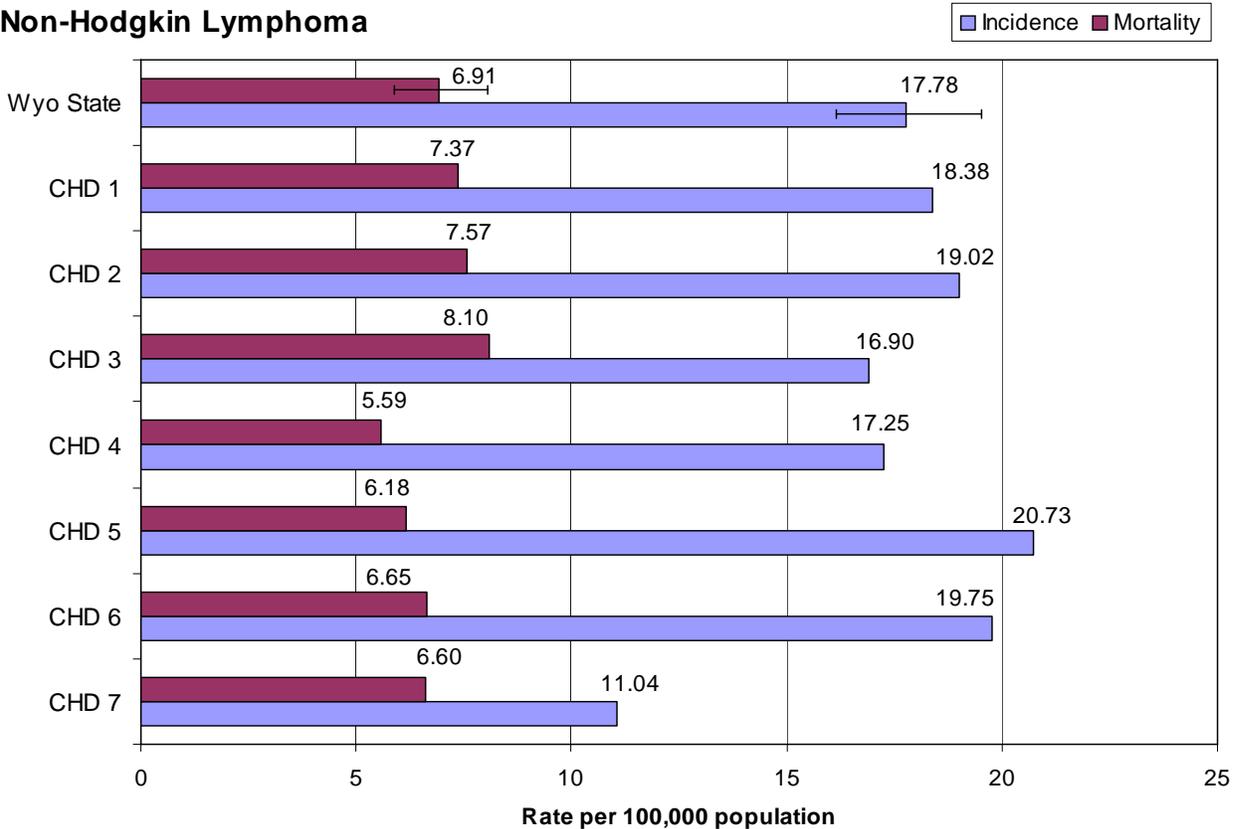
Age-Specific Incidence Rates - 2004

Non-Hodgkin Lymphoma



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

Non-Hodgkin Lymphoma



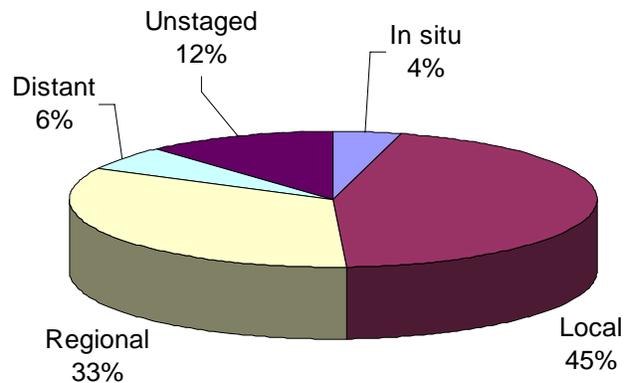
Oral Cavity and Pharynx

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	33	25	58
# In situ Cases	1	2	3
Wyo Incidence	14.2	9.0	11.2
US Incidence	15.2	5.7	10.1
# Cancer Deaths	7	8	15
Wyo Mortality	2.9	2.9	2.9
US Mortality	3.8	1.4	2.5

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



Incidence and mortality rates for cancer of the oral cavity and pharynx in males was lower than the national rate, while the rates for females and total population were both higher, though not significantly. It is interesting to note that 2004 saw a large jump in the number of cases in females from ten (10) cases in 2003 to 25 cases in 2004.

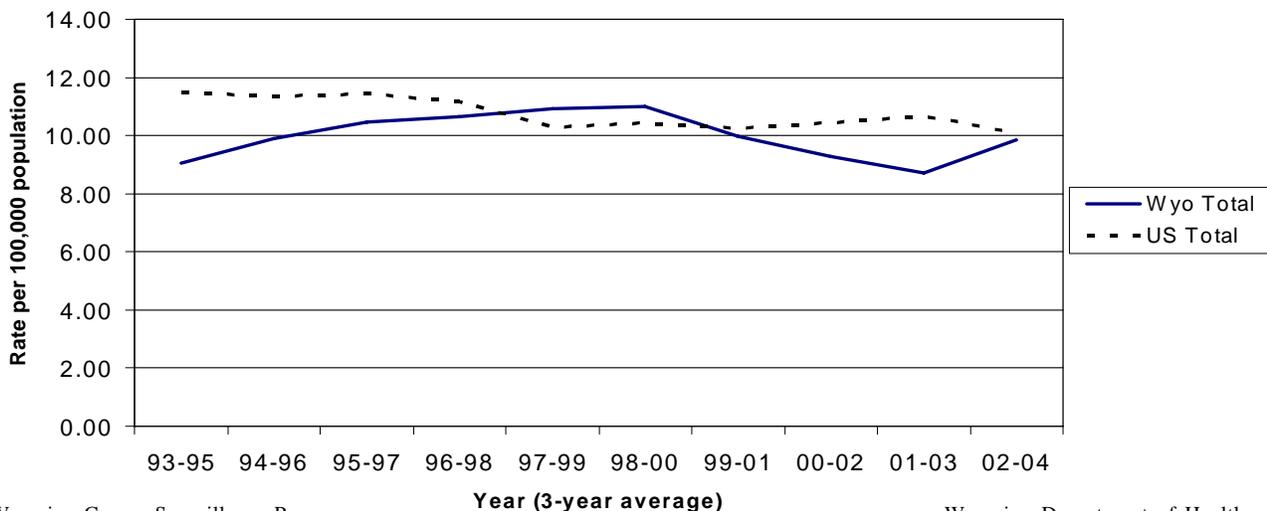
The 12-Year incidence trend appears to be on the increase since 01-03 after a period of decrease starting in 98-00. Nationally, the trend shows a slight bump in rates in 01-03.

More cases were staged as local in 2004 (45%) than in 2003 (38%), while fewer cases were staged as regional in 2004 (33%) than in 2003 (48%).

No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

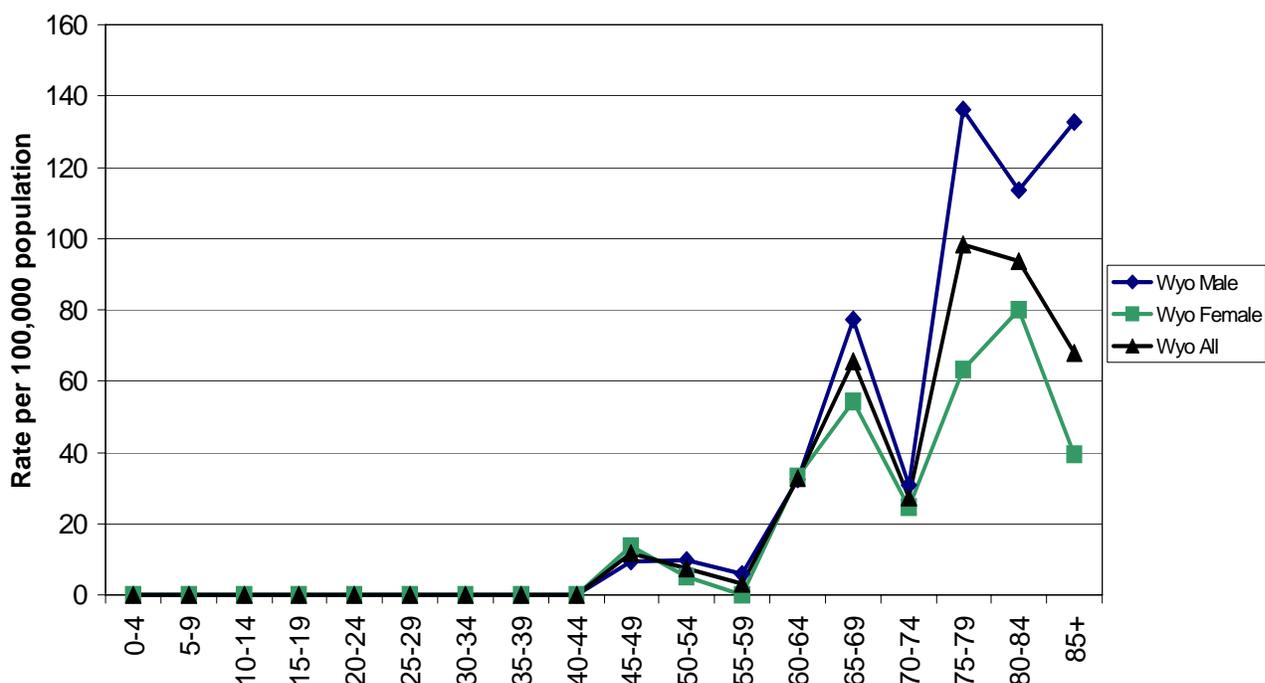
12-Year Incidence Trend

Oral Cavity and Pharynx



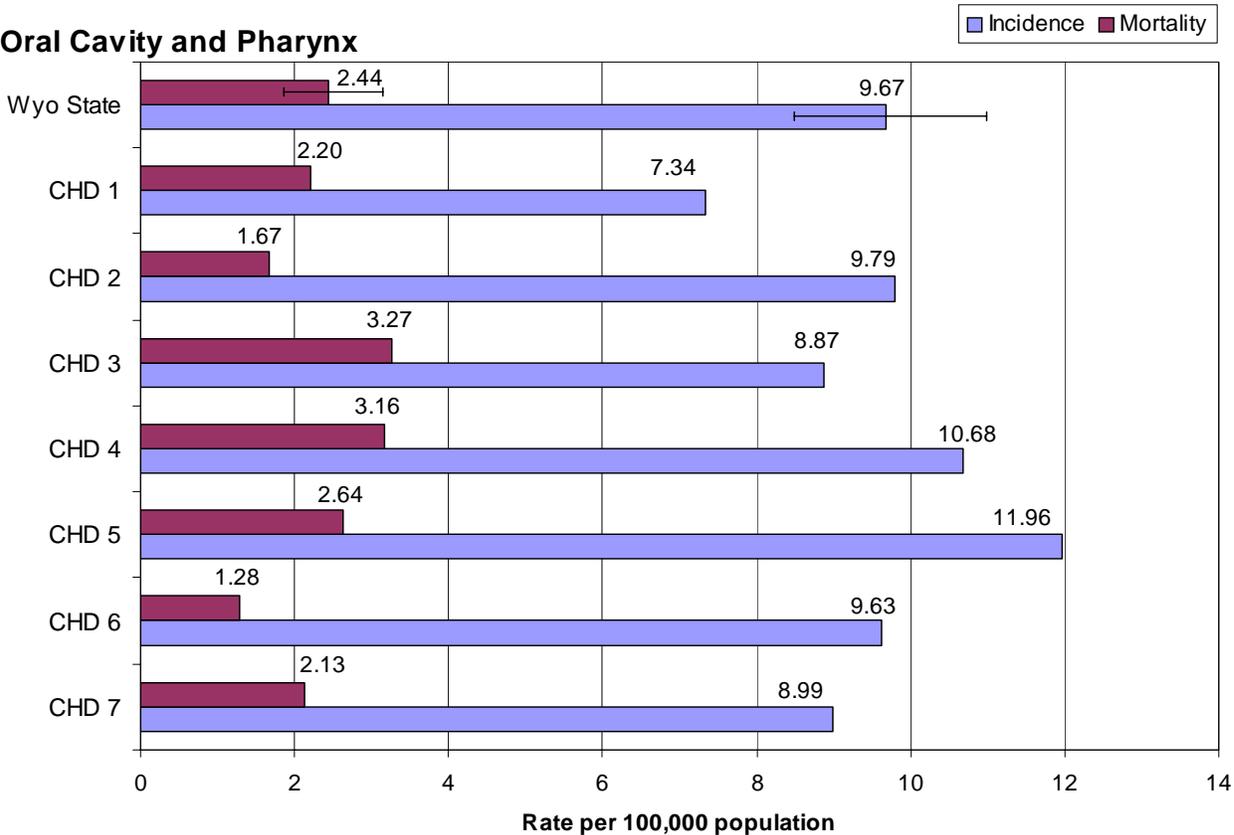
Age-Specific Incidence Rates - 2004

Oral Cavity and Pharynx



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

Oral Cavity and Pharynx



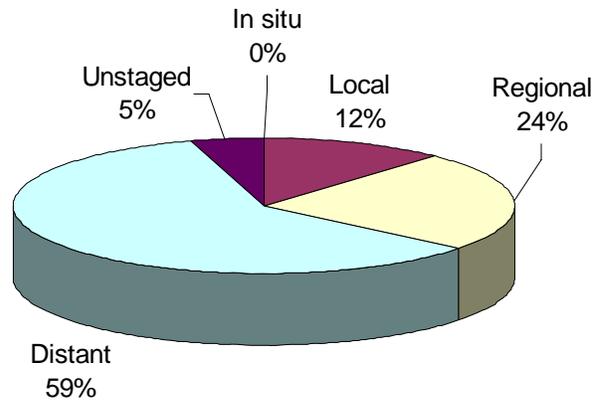
Ovary

Incidence and Mortality Summary

	Female
# Invasive Cases	41
Wyo Incidence	14.6
US Incidence	13.5
# Cancer Deaths	32
Wyo Mortality	11.5
US Mortality	9.2

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



The incidence and mortality rates in Wyoming females for ovarian cancer were both slightly higher than the national rates. However, neither difference was significant.

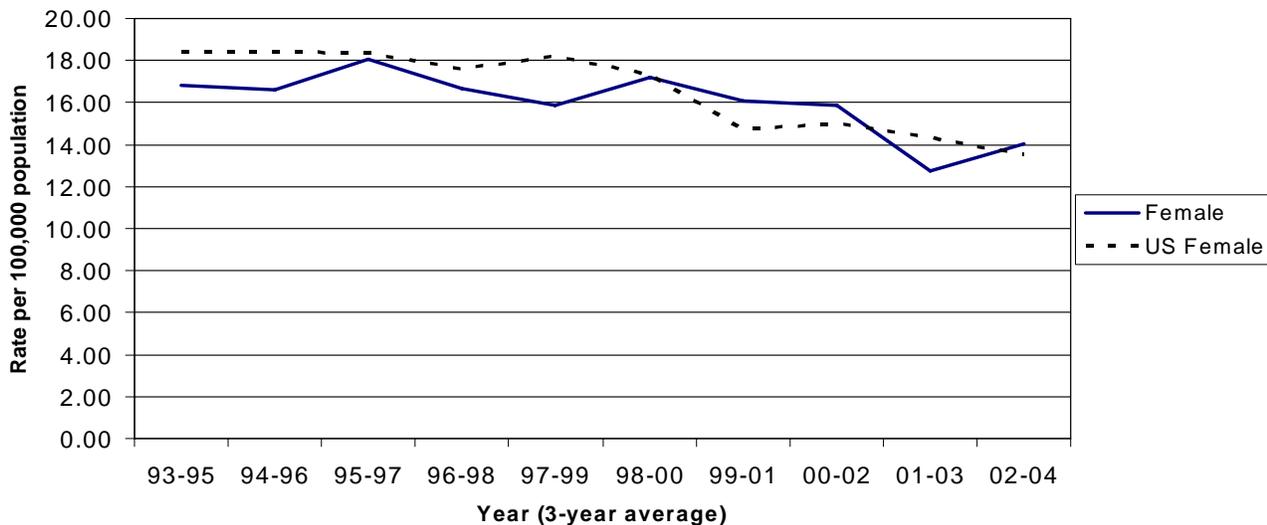
The 12-year incidence trend shows an increase in cases from 01-03 to 02-04, after a decrease from 00-02 to 01-03. The national rate shows a slight bump in cases in 00-02, but otherwise is decreasing.

The percent of cases diagnosed at each stage in 2004 is essentially the same as the percentages in 2003.

No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

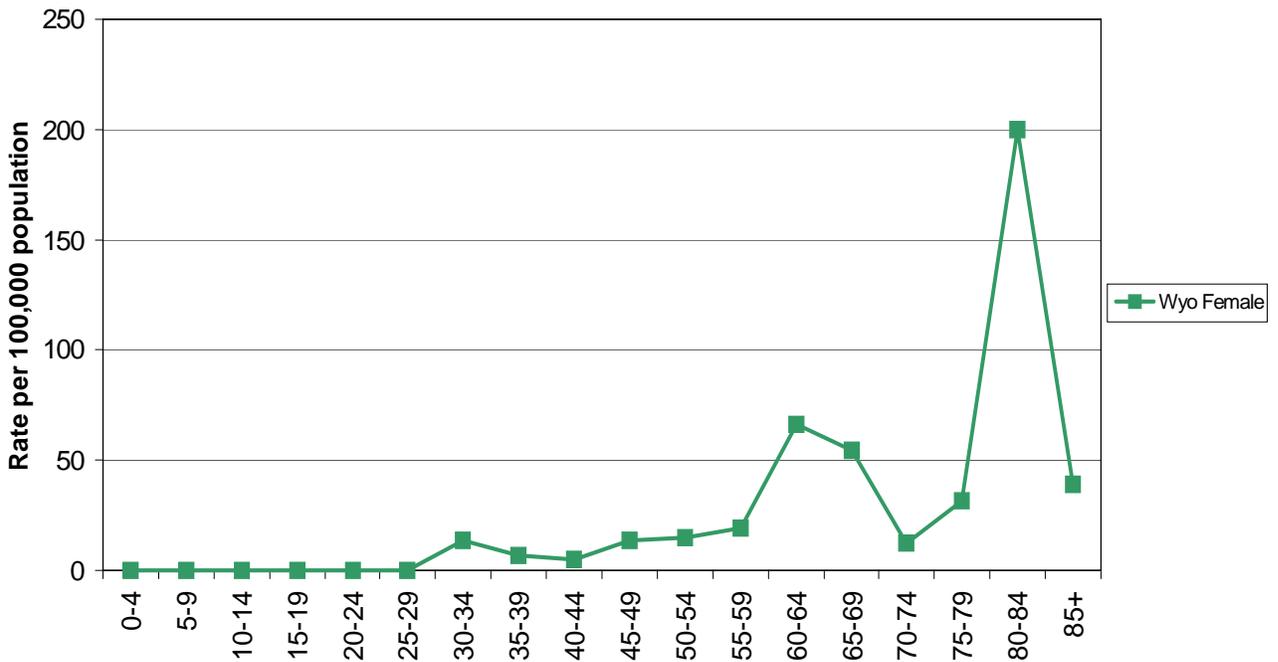
12-Year Incidence Trend

Ovary



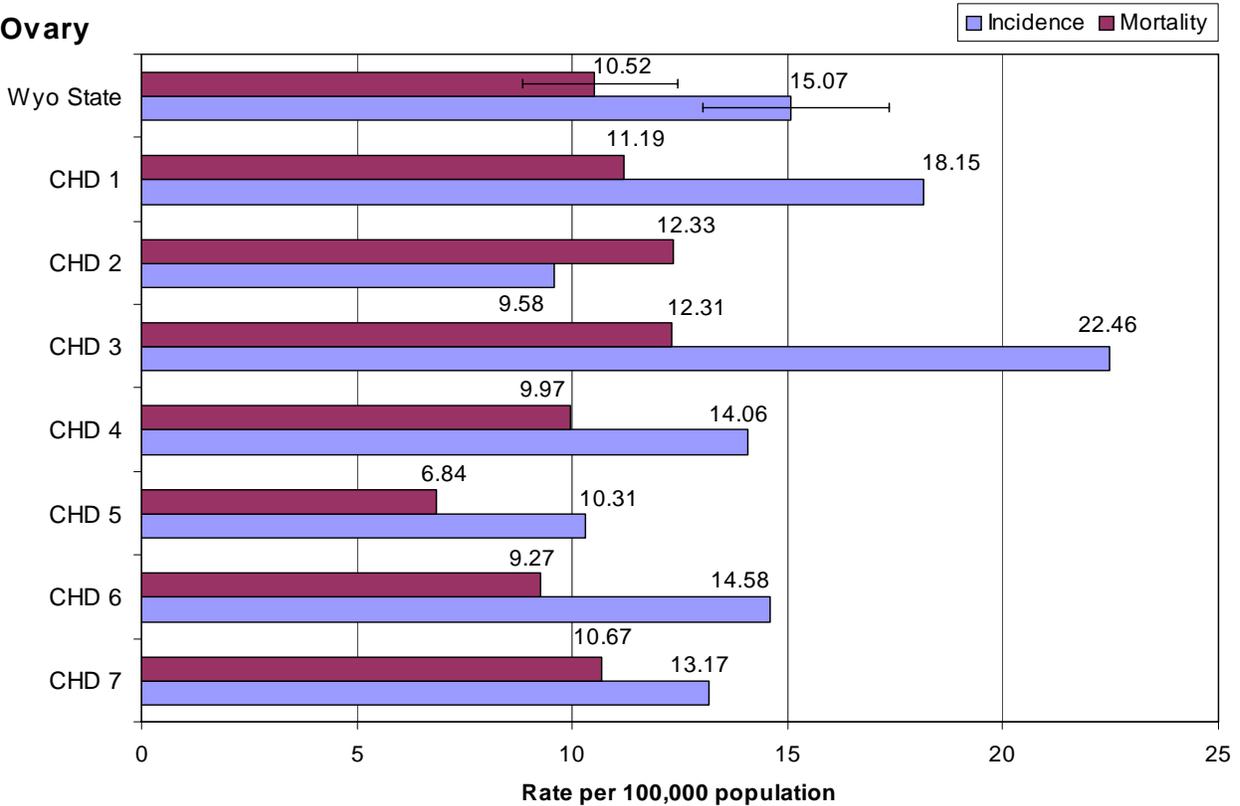
Age-Specific Incidence Rates, 2004

Ovary



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

Ovary



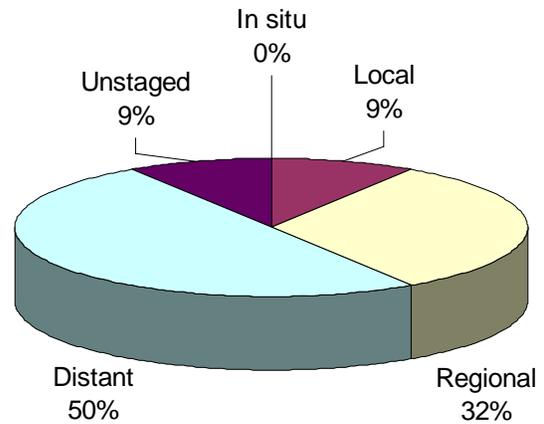
Pancreas

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	21	21	42
Wyo Incidence	9.6	7.5	8.2
US Incidence	12.4	9.7	10.9
# Cancer Deaths	25	31	56
Wyo Mortality	10.8	10.7	10.6
US Mortality	11.9	9.0	10.3

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



The incidence rates of cancer of the pancreas in Wyoming males, females, and the total population were all lower than the national rates. The mortality rate for males was lower, while the rates for females and total population were slightly higher than the national rate. None of the differences were significant.

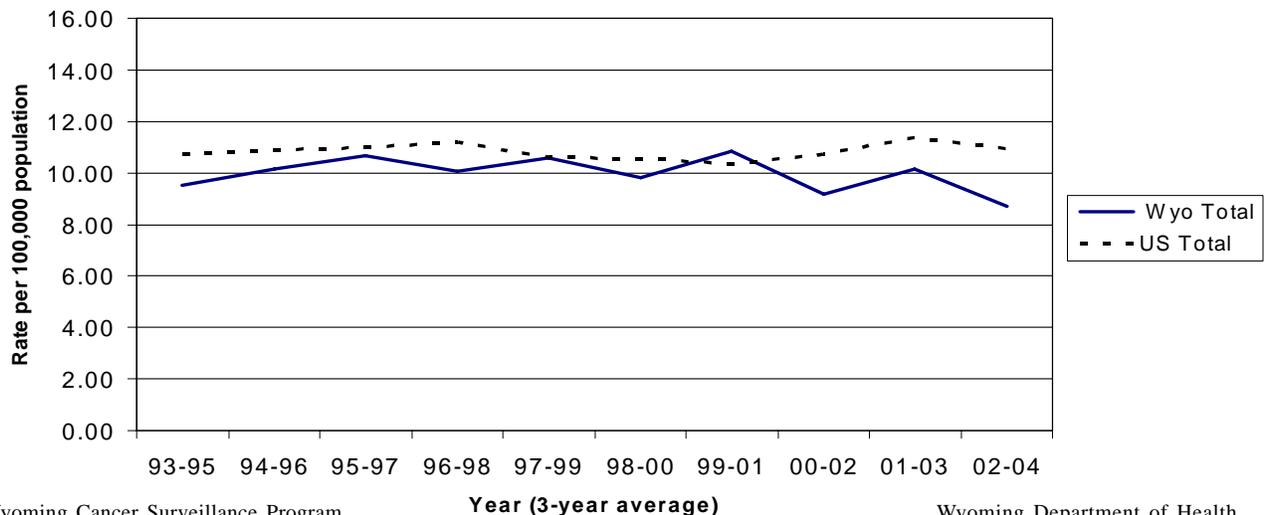
Wyoming's trend shows a possible decrease from 01-03 to 02-04, after an increase from 00-02 to 01-03.

The percent of cases in each diagnostic stage were virtually the same as the percents from 2003.

No statistically significant differences were found between the CHD's and state rates for incidence or mortality.

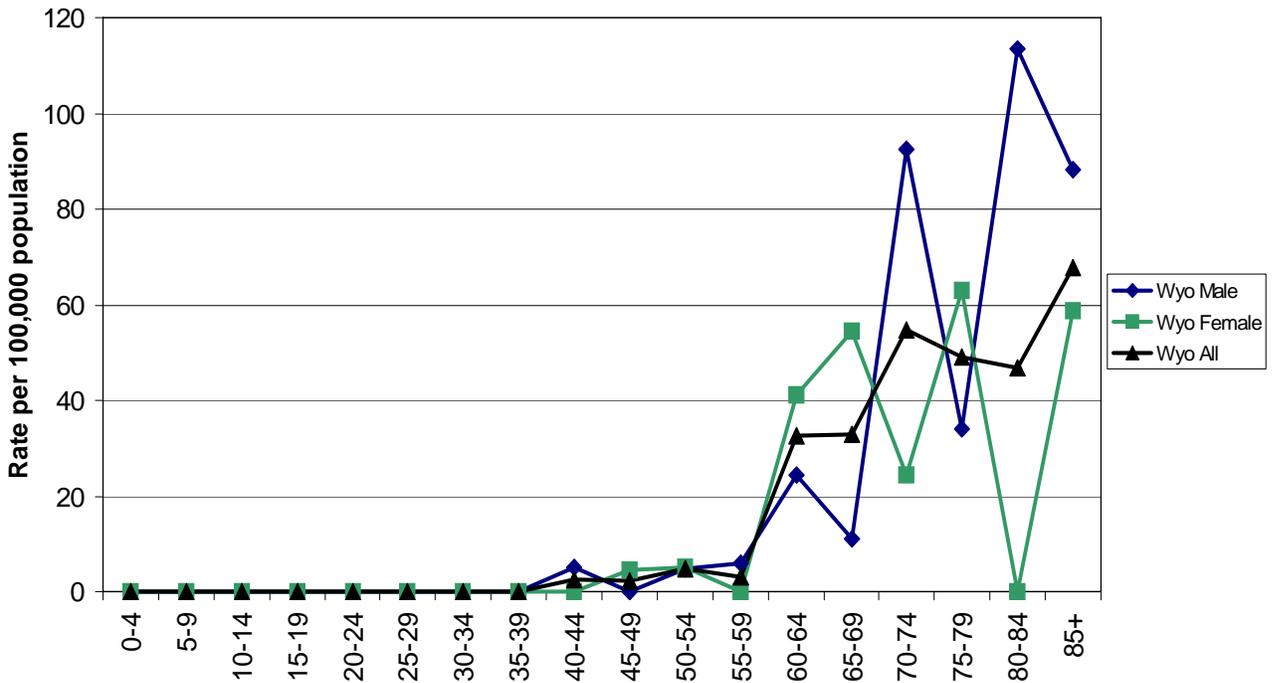
12-Year Incidence Trend

Pancreas



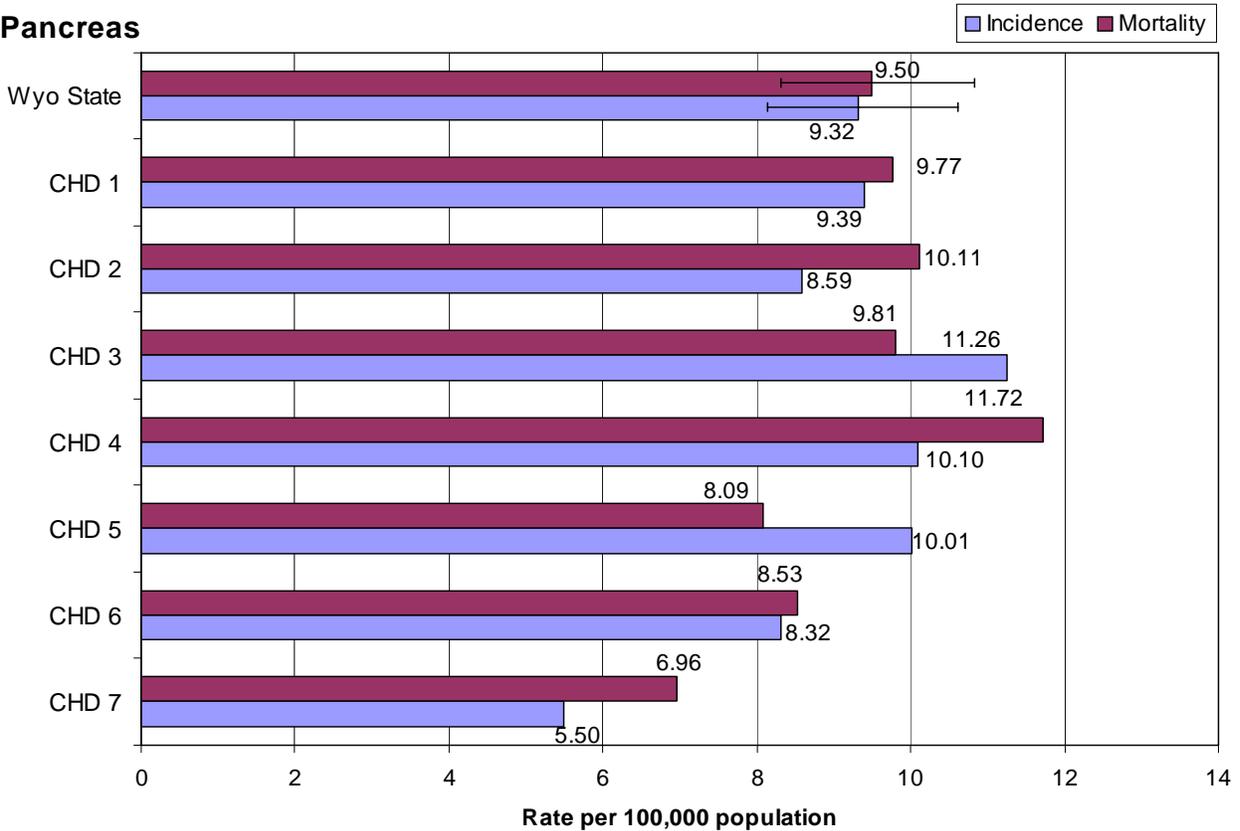
Age-Specific Incidence Rates - 2004

Pancreas



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

Pancreas



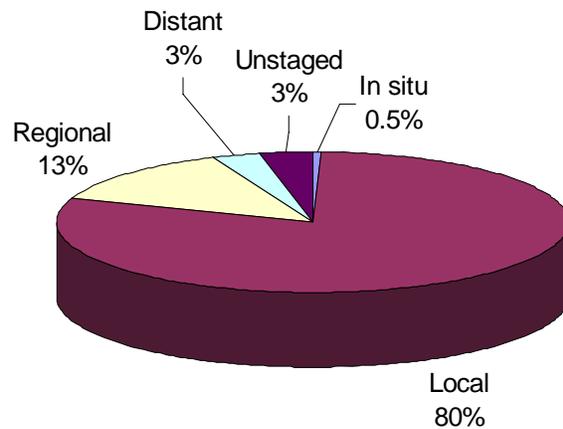
Prostate

Incidence and Mortality Summary

	Male
# Invasive Cases	388
Wyo Incidence	154.1
US Incidence	148.8
# Cancer Deaths	52
Wyo Mortality	27.3
US Mortality	24.5

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



The incidence and mortality rate for prostate cancer in Wyoming males was slightly higher than the national rate, though not significantly.

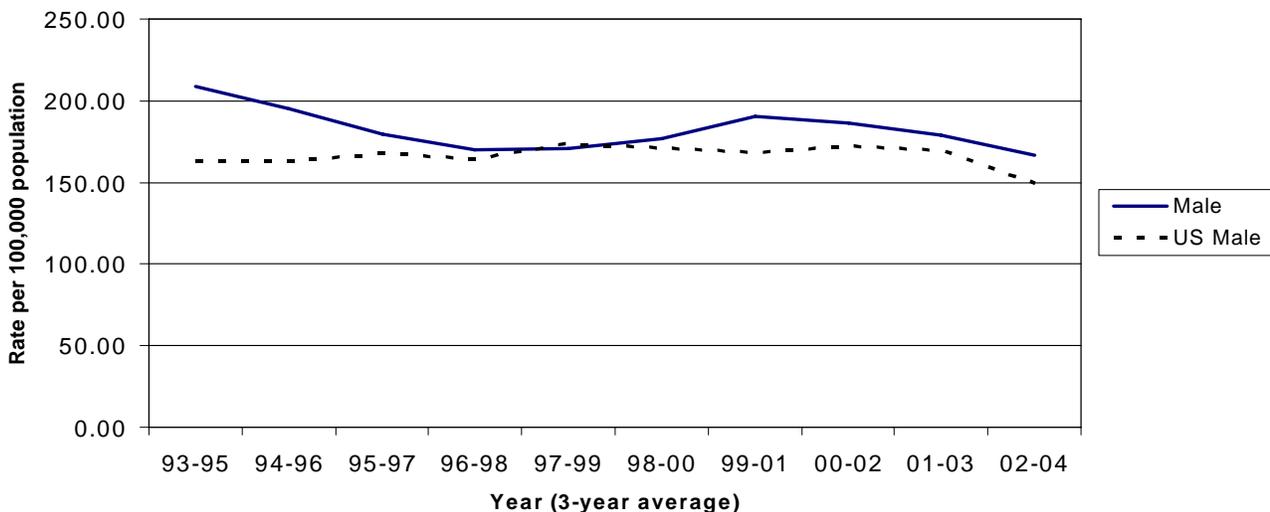
After an upswing in prostate cancer incidence that started in 97-99, there appears to be a modest decline in the rate since 99-01. The national rate also seems to be on the decline since 01-03.

The percent of cases diagnosed at each stage in 2004 is essentially the same as in 2003.

The incidence rate in CHD 1 was significantly higher than the state incidence rate from 2000 to 2004. However, the incidence rates in CHD 5 and CHD 7 were significantly lower than the state rate. Additionally, CHD 7 has a significantly lower mortality rate than the state from 2000 to 2004.

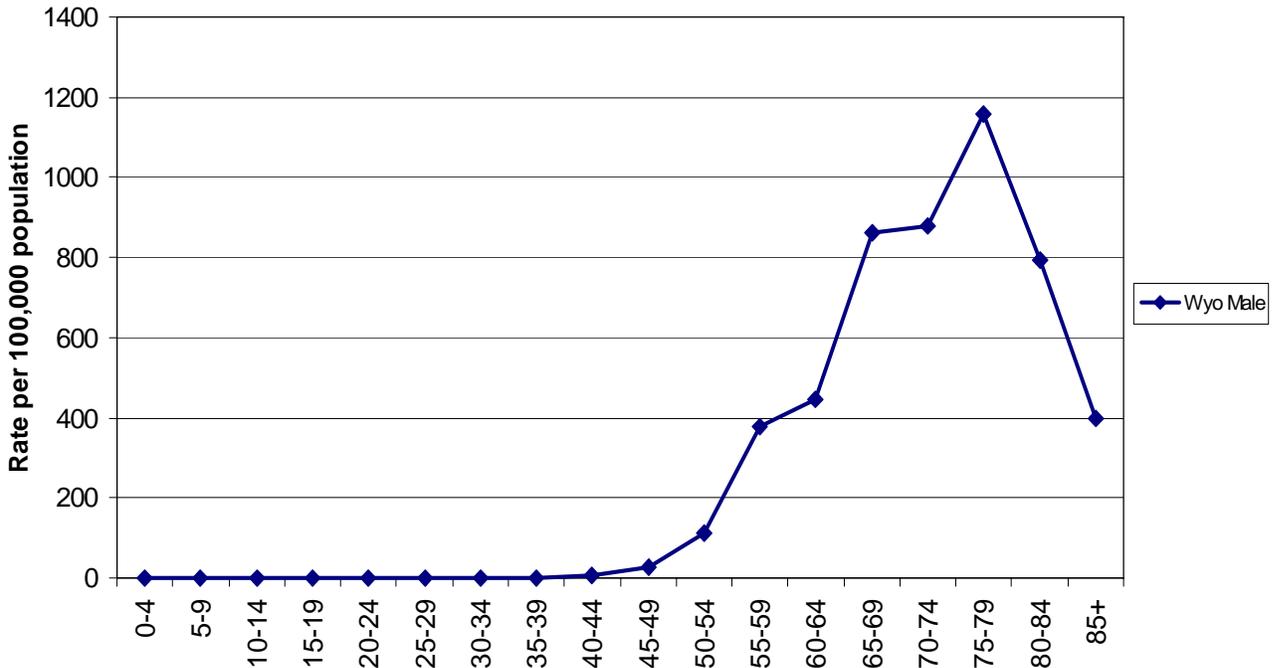
12-Year Incidence Trend

Prostate



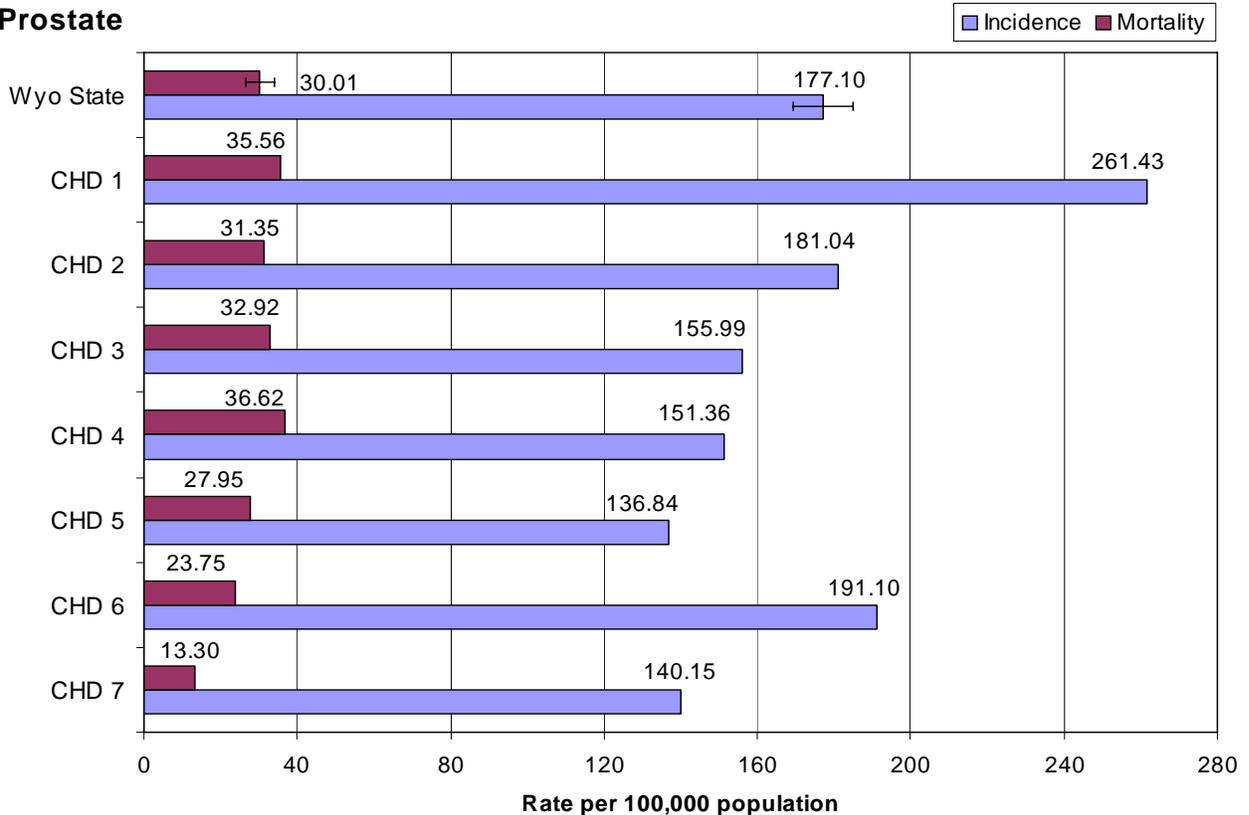
Age-Specific Incidence Rates, 2004

Prostate



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

Prostate



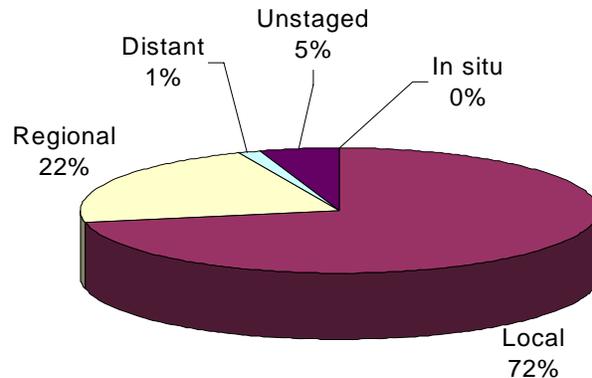
Thyroid

Incidence and Mortality Summary

	Male	Female	Total
# Invasive Cases	12	54	66
Wyo Incidence	4.3	20.5	12.5
US Incidence	4.8	13.8	9.3
# Cancer Deaths	1	0	1
Wyo Mortality	NC	NC	NC
US Mortality	0.5	0.5	0.5

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



Incidence rates for thyroid cancer in Wyoming were higher than the national rates for females and total population, but a little lower in males. These differences were not statistically significant.

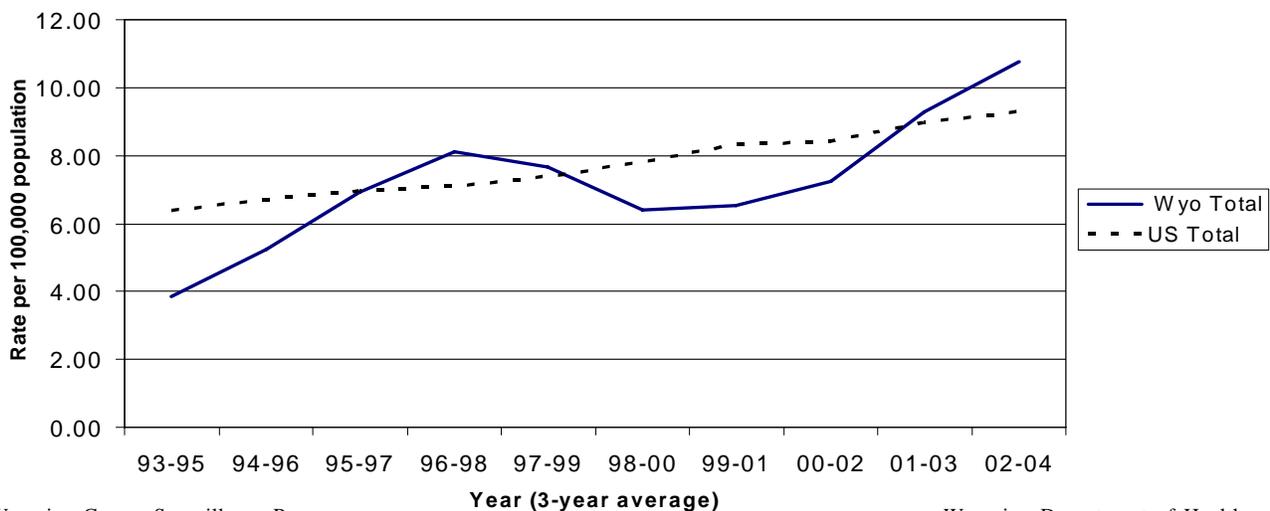
The trend for thyroid cancer in Wyoming shows a moderately steep increase that started in 99-01 continuing through 02-04. The national rate also appears to be on in the increase, though at a more modest pace.

The percentage of cases that were staged as local was up in 2004 (72%) from 2003 (57%).

No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

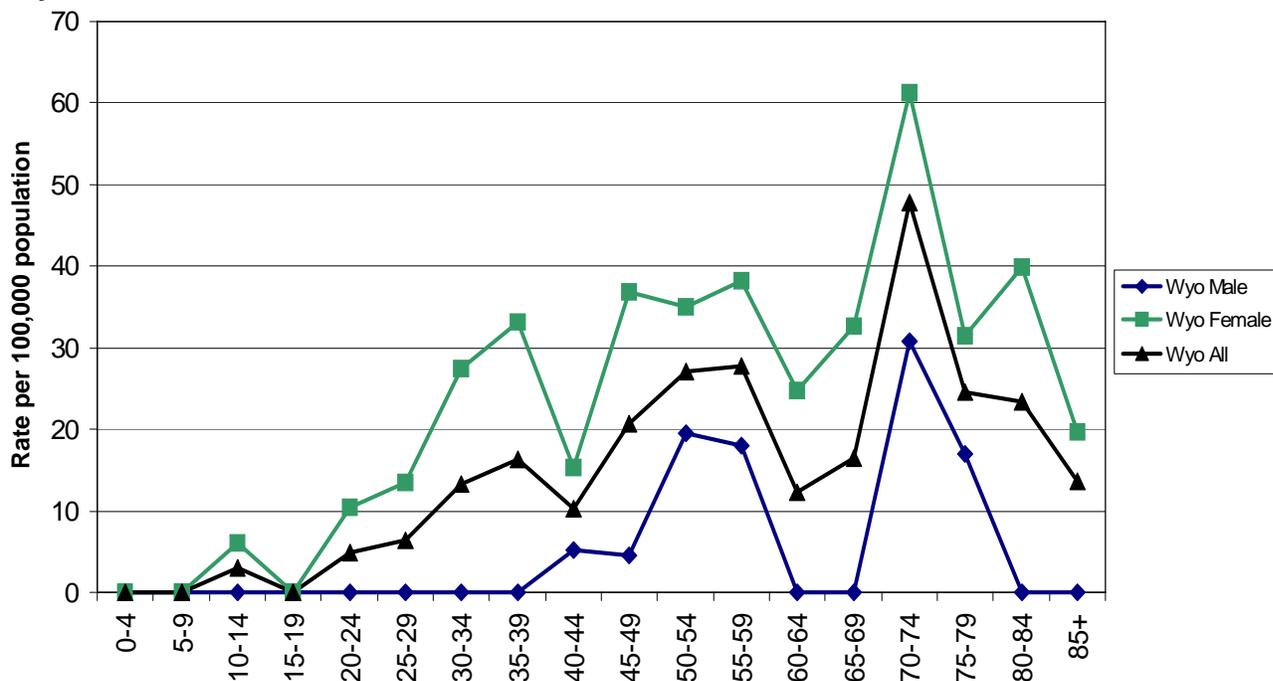
12-Year Incidence Trend

Thyroid



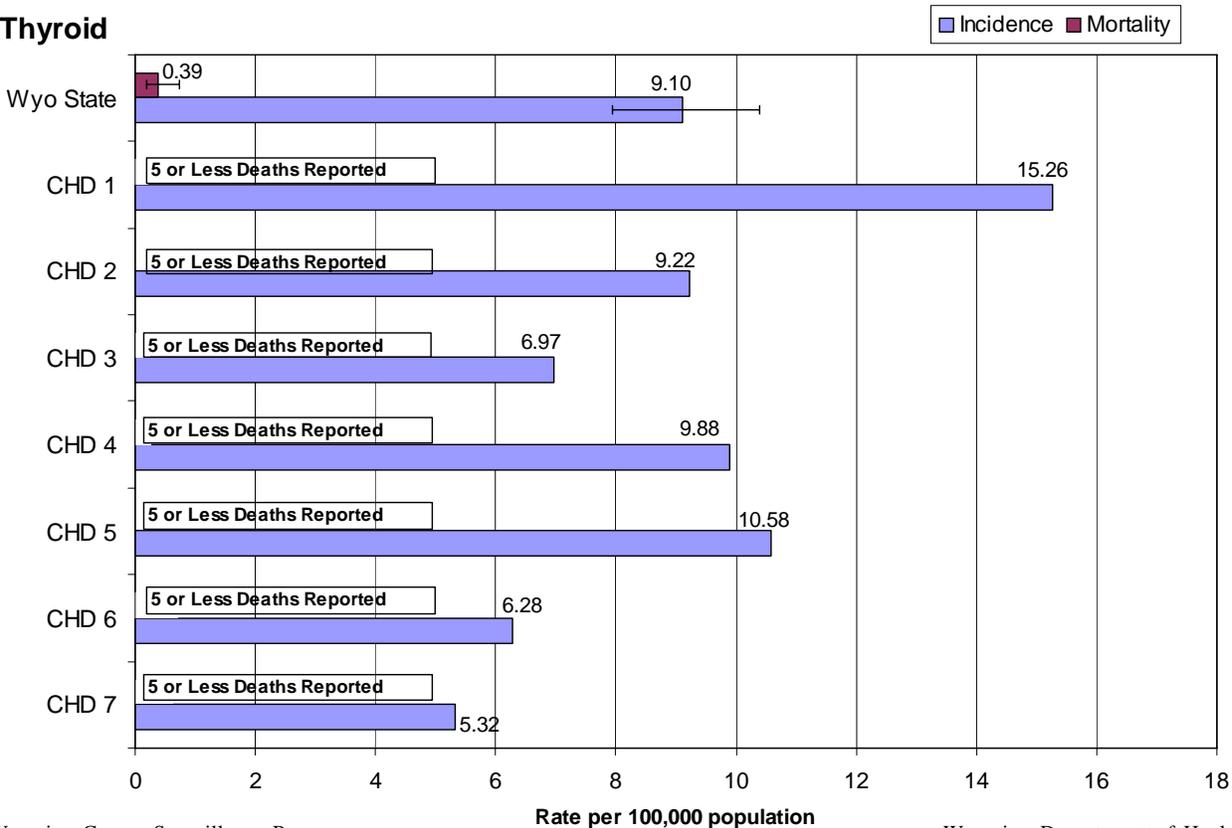
Age-Specific Incidence Rates - 2004

Thyroid



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

Thyroid



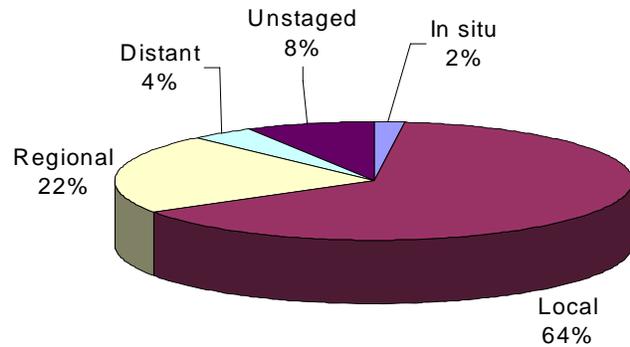
Uterine (Corpus Uteri & Uterus)

Incidence and Mortality Summary

	Female
# Invasive Cases	45
Wyo Incidence	15.5
US Incidence	23.2
# Cancer Deaths	8
Wyo Mortality	2.9
US Mortality	3.9

* indicates the state rate is significantly different than the national rate
 NC = rate not calculated for under 5 cases/deaths

Stage at Diagnosis



The incidence and mortality rates in Wyoming females for uterine cancer is lower than the national rate, though not significantly.

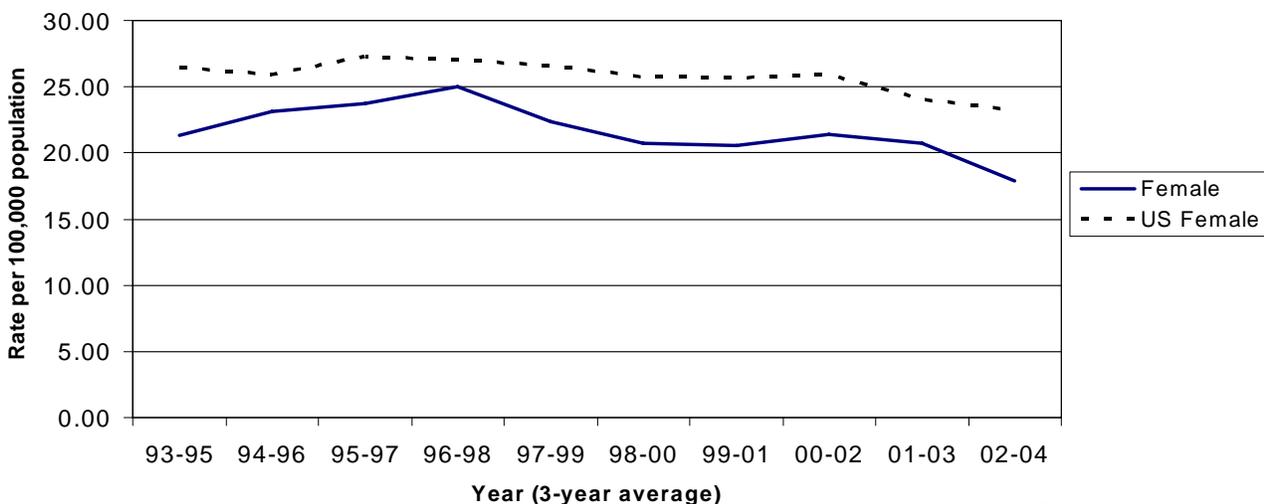
There appears to be a continuation in a decrease in incidence in 02-04 after leveling off a bit from 00-02 to 01-03. The incidence trend for the nation also shows a potential decrease starting in 00-02.

The percentage of cases that were staged as local increased in 2004 (64%) from 2003 (54%).

No statistically significant differences were found between the CHD's and state rate for incidence or mortality.

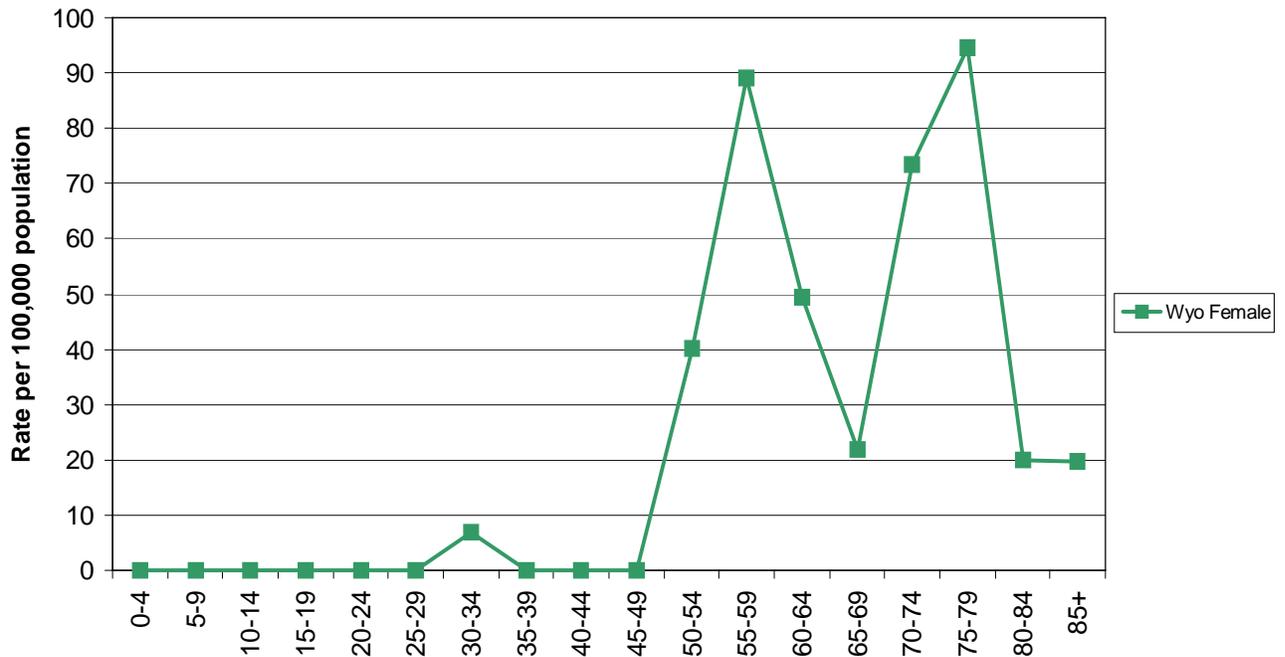
12-Year Incidence Trend

Uterine



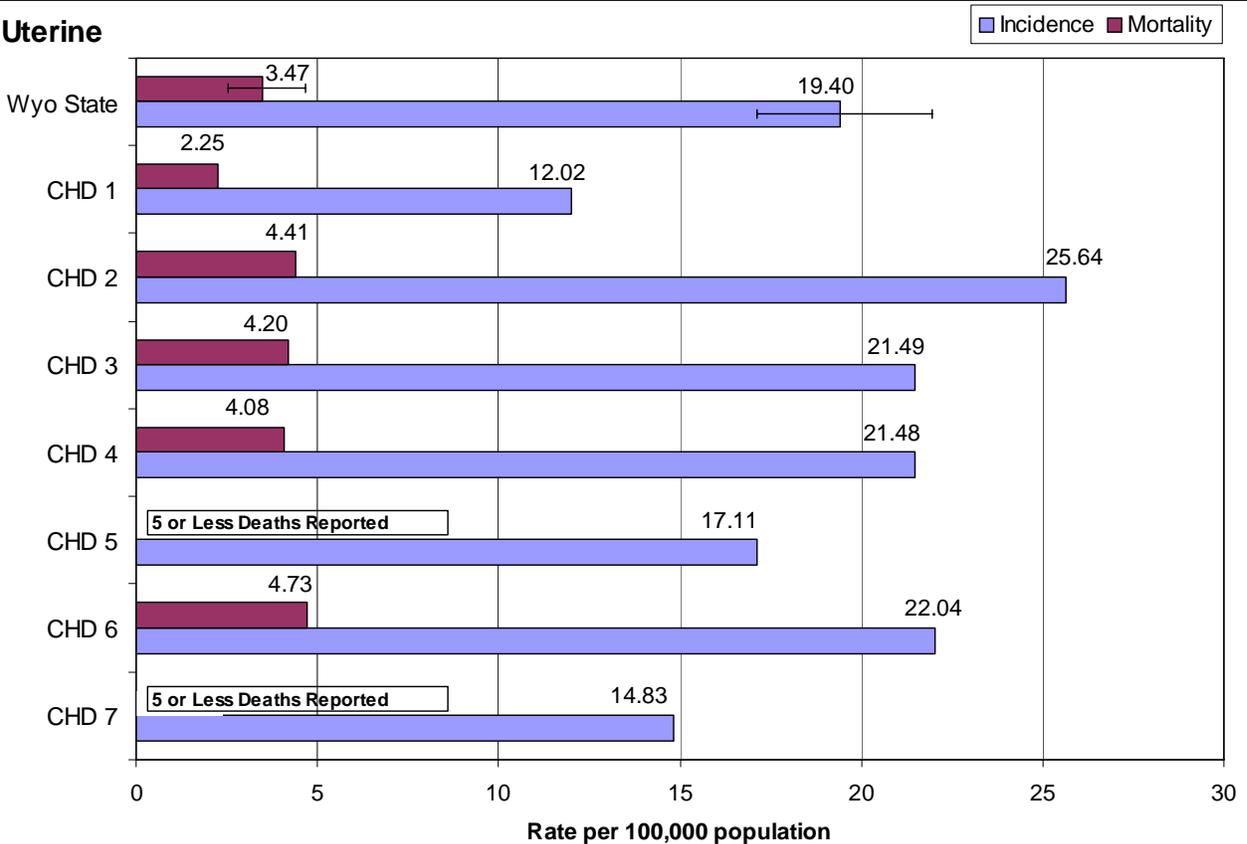
Age-Specific Incidence Rates, 2004

Uterine



Cancer Health District Incidence and Mortality 5-Year Average, 2000-2004

Uterine



Appendix A

References

Centers for Disease Control and Prevention. CDC Wonder. (<http://www.cdc.gov>)

Surveillance, Epidemiology, and End Results (SEER) Program Public-Use Data (1969-2003)
(SEER*STAT, Version 6.2.4), National Cancer Institute, DCCPS, Surveillance Research Program,
Cancer Statistics Branch, released April 2006, based on November 2005 submissions.

Wyoming Department of Administration and Information, Economic Analysis Division. Wyoming State and
County Population. (<http://eativ.state.wy.us/eahome.htm>)

Surveillance, Epidemiology, and End Results (SEER) U.S. Population Data, National Cancer Institute
(<http://seer.cancer.gov/popdata/>)

Age-Adjustment

Previous to data year 1999, the Wyoming Cancer Surveillance Program (WCSP) performed age-adjustment of cancer mortality rates using the 1940 standard population and a 10-year age group, or the 1970 standard population using 5-year age groups. Starting with the data year 1999, WCSP began using the Year 2000 standard population with 5-year age groups to calculate cancer mortality and cancer incidence rates.

The decision to use 5-year age groups was made to keep WCSP data calculations “in-line” with the national cancer reports published through SEER and the National Cancer Institute. The 5-year age group also enables cancer prevention programs to use Wyoming reports (e.g., Vital Records) as printed versus requesting specially calculated rates.

“Age-adjusted rates should be used for comparative purposes only and should not be interpreted as the absolute risk of the disease or death.” As can be seen in Chart A (below) and Chart B, (following page), the change in standard population affects the magnitude of the age-adjusted rates but not the trends of the rates. In general, the age-adjusted rate is only appropriate to track trends over time or to make comparisons among groups using the same population standard.

Chart A:

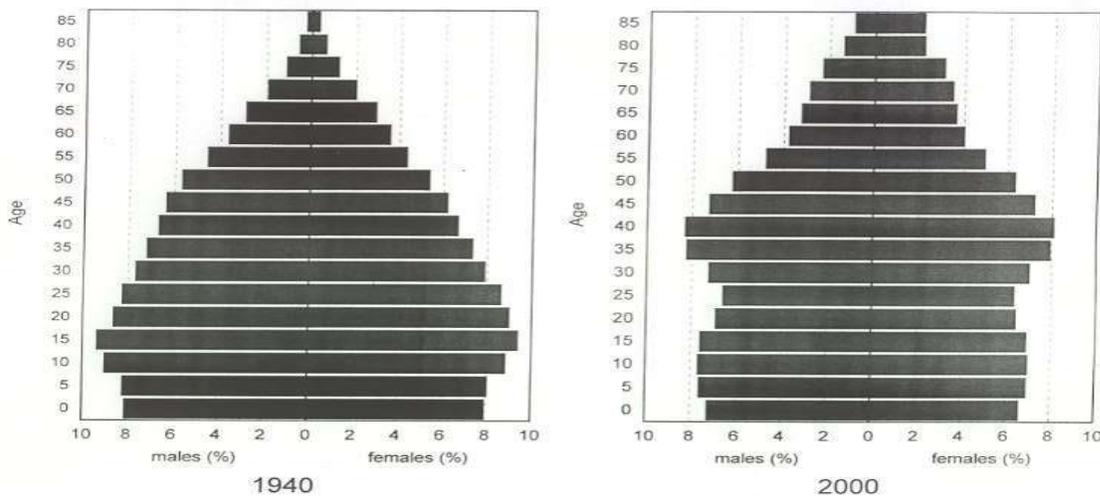


Chart B:

U.S. Age-Adjusted Cancer Mortality, All Sites Combined by Standard Year Populations 1940, 1970, 2000

