

# Cancer in Oregon 2004

Annual report on cancer incidence and mortality among Oregonians



Oregon State Cancer Registry  
December 2007

# Oregon State Cancer Registry (OSCaR)

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## Funding Source

This publication was supported by Grant/Cooperative Agreement #U55/CCU021984 from the Centers for Disease Control and Prevention (CDC), National Program of Cancer Registries (NPCR). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC.

## Suggested Citation

Riddell C, Pliska JM. Cancer in Oregon, 2004: Annual Report on Cancer Incidence and Mortality Among Oregonians. Department of Human Services, Oregon Public Health Division, Oregon State Cancer Registry, Portland, Oregon, 2007.

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## Executive Summary

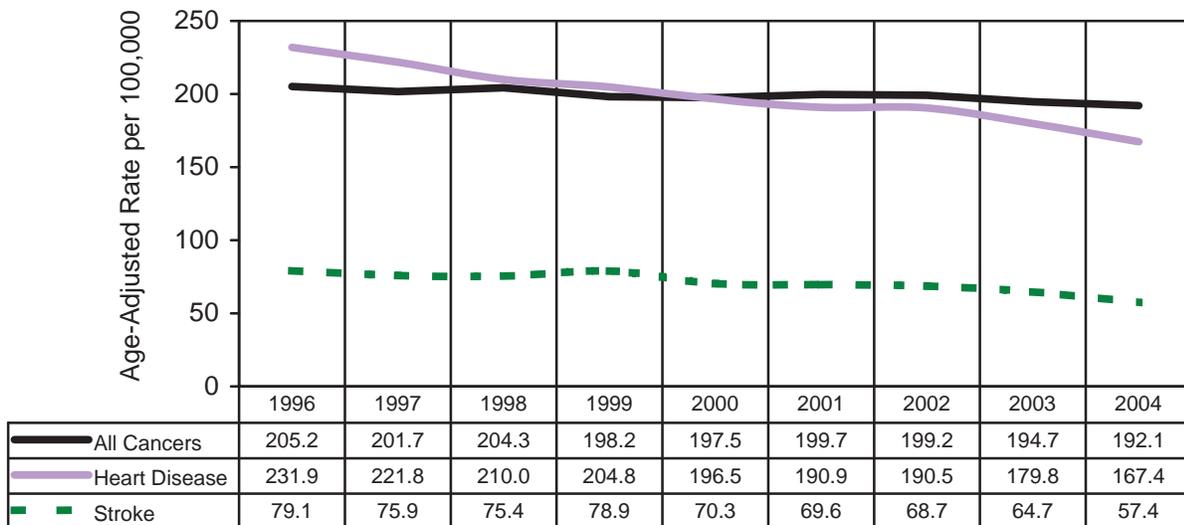
On an average day in 2004, 54 Oregonians were diagnosed with a reportable cancer<sup>1</sup>, and 20 Oregonians died from it. Altogether, 19,683 reportable cancers were added to the registry.

In 2001, because of declining deaths from heart disease, cancer became the leading cause of death among Oregonians. For state rankings, see [//apps.nccd.cdc.gov/ucsl/](http://apps.nccd.cdc.gov/ucsl/).

The median age at death due to cancer is 74 years compared to a median age at death of 82

for deaths due to heart disease. Nearly twice as many years of potential life lost before age 65 (YPLL) are due to cancer than to heart disease. In Oregon, cancer is the second leading cause of years of potential life lost for men, following unintentional injuries. For Oregon women, cancer is the leading cause of years of potential life lost. Annually, about 22,000 YPLLs in Oregon are attributable to cancer deaths.

**Leading Causes of Death in Oregon,  
Fitted Trends, 1996-2004**



<sup>1</sup> Reportable cancers include all cancers that are *in situ* or invasive with the following exceptions: basal and squamous cell carcinoma of the skin (except of the genitalia) and carcinoma *in situ* of the cervix.

## Executive Summary

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**Breast Cancer is the most** common reportable malignancy, with 2,671 invasive cases diagnosed in women and 9 in men during 2004. It is the 2<sup>nd</sup> most common cause of cancer death among Oregon women. Among states with high quality cancer incidence data, Oregon consistently has one of the highest female breast cancer incidence rates (5<sup>th</sup> among the states in 2003) ([//apps.nccd.cdc.gov/uscs/](http://apps.nccd.cdc.gov/uscs/)). However, the mortality rate due to female breast cancer in Oregon is below that seen nationally (ranking 27<sup>th</sup> in 2004) ([//statecancerprofiles.cancer.gov](http://statecancerprofiles.cancer.gov)). The trend in breast cancer incidence nationally and in Oregon is downward.

**Prostate Cancer is the 2<sup>nd</sup>** most common reportable malignancy, with 2,576 invasive cases diagnosed in 2004. It is also the 2<sup>nd</sup> most common cause of cancer death among Oregon men. Among states with high quality cancer incidence data, Oregon men ranked 37<sup>th</sup> for prostate cancer incidence in 2003.

**Lung Cancer is the 3<sup>rd</sup>** most common reportable malignancy, with 2,556 invasive cases diagnosed in 2004. Lung cancer is the leading cause of cancer death in Oregon for both men and women. At present, there are no effective early detection tools for lung cancer. Therefore, this malignancy is often diagnosed at an advanced stage, resulting in a poor prognosis. Tobacco use is the single greatest risk factor for lung cancer. In 2004, tobacco use was implicated in 80% of lung cancer deaths. Lung cancer incidence rates among Oregon men are lower than those seen nationally (ranking 40<sup>th</sup> in 2003). Lung cancer incidence among Oregon women is higher in comparison to other states (ranking 14<sup>th</sup> in 2003). Decreasing tobacco use in Oregon could significantly lower lung cancer incidence and mortality.

**Colorectal Cancer is the 4<sup>th</sup>** most common reportable malignancy, with 1,852 invasive cases diagnosed in 2004. Colorectal cancer is the 2<sup>nd</sup> most common cause of cancer death among Oregonians. Routine screening can reduce both the incidence and mortality of colorectal cancer through early detection and removal of precancerous polyps.

**Melanoma is the 5<sup>th</sup>** most common reportable malignancy with 977 invasive cases diagnosed in 2004<sup>1</sup>. Oregon has one of the higher melanoma incidence rates in the nation (ranking 8<sup>th</sup> in 2003), and a higher melanoma mortality rate than the national average (ranking 9<sup>th</sup> in 2004). Sun avoidance, particularly during childhood, is the best protective measure against developing melanomas.

**Bladder Cancer is the 6<sup>th</sup>** most common invasive malignancy with 874 invasive cases diagnosed in 2004. Smoking is the greatest risk factor for bladder cancer. Exposure to chemicals in the workplace can also increase the risk for bladder cancer if safety measures are not taken. Workers at highest risk are rubber, leather, textiles, and paint products workers as well as hairdressers, machinists, printers, and truck drivers. Although there are no recommendations for routine screening tests, blood in the urine is an early sign of bladder cancer. Having the bladder checked by a health care provider at the first sign of blood in the urine can identify bladder cancer in the earliest and most treatable stage.

## Introduction

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The Oregon State Cancer Registry (OSCaR) was established by the 1995 Oregon Legislature to conduct statewide cancer surveillance and to guide cancer control program planning. The registry began collecting information on all reportable cancers diagnosed in Oregon as of January 1, 1996. The enabling statute defines the purpose of OSCaR as follows:

*“The purpose of the registry shall be to provide information to design, target, monitor, facilitate, and evaluate efforts to determine the causes or sources of cancer and benign tumors among the residents of Oregon and to reduce the burden of cancer and benign tumors in Oregon.”*

Data from OSCaR provide an overview of all reportable cancers diagnosed in Oregon, including all cancers except basal or squamous cell carcinomas of the skin and *in situ* cervical cancers. Non-melanoma skin cancer is reportable when it occurs on the skin of the genitalia. Cancer incidence data, which are collected by registrars trained in cancer reporting, provide a more complete picture of cancer among Oregonians than can be obtained from mortality data alone. This information is useful for cancer prevention program staff, clinicians, policymakers, and for the public to understand the impact of cancer among Oregonians.

By combining information from the statewide cancer registry, death certificates, and health behavior surveys, it becomes possible to answer a variety of epidemiological questions. This information will help cancer control programs identify at-risk populations as well as support epidemiologic studies of risk factors and cancer etiology. Many such questions are covered in this report including the following:

- *How many Oregonians are diagnosed with cancer each year?*
- *Which cancers are the most common?*
- *Which cancers are the deadliest (most deaths per diagnosed case)?*
- *What are the trends in cancer incidence and mortality?*
- *Which groups of Oregonians are disproportionately affected by cancer?*
- *What geographic areas in the state have higher cancer mortality?*

OSCaR also collects information on the stage of disease (the level of a cancer’s progression) at the time of diagnosis. This is an important indicator of the effectiveness of screening efforts, as well as a determinant of treatment options and a predictor of survival for many types of cancers. For example, detecting female breast cancer in the early stages (through self exam, clinical breast exam, or mammography) is thought to reduce mortality and has a strong influence over whether a woman with breast cancer can be successfully treated.

## *What's New in 2004*

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Diagnosis year 2004 marks the ninth year of complete cancer reporting for Oregon. Five years (2000-2004) of complete data are included in this annual report and limited data for prior years. For historical data, please review prior reports on our website at [www.healthoregon.org/oscar](http://www.healthoregon.org/oscar). Beginning with this issue of *Cancer in Oregon*, information will be provided in two sections: a data report, and a separate risks and screening report. This document is the data report and will be published primarily as a web document.

Beginning in reporting year 2004, benign and borderline brain and CNS tumors became reportable cases and, though not included in total cancer counts, are included in this report in a separate section, "Brain and CNS Tumors, Non-Malignant".

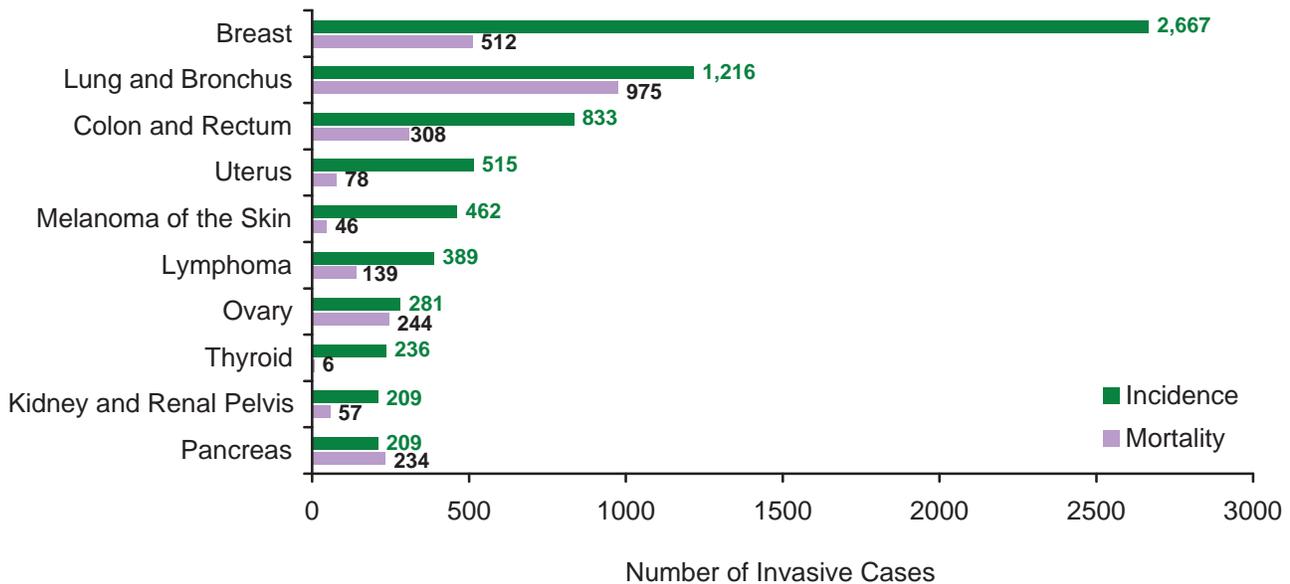
## Cancer Data Overview

During 2004, 19,683 new, reportable cancers were diagnosed among Oregonians; of these, 17,946 were invasive. Also during 2004, 7,320 Oregonians died due to cancer as the underlying cause of death. The 2004 Oregon total cancer mortality rate was 20% above the Healthy People 2010 target of 159.9 deaths per 100,000.

A brief overview of Oregon's 2004 cancer data reveals the following:

1. Oregon's 2004 age-adjusted cancer incidence rate of 475.0 per 100,000 was 1 percent higher than the 2004 national rate of 470.7.
2. Oregon's age-adjusted cancer mortality rate of 192.1 was 3 percent higher than the 2004 national rate of 185.7.
3. Although more cancers were reported in women, men had a higher incidence rate of invasive cancers and a higher mortality rate than women.
4. Breast cancers have the highest incidence in Oregon and lung cancers have the highest mortality.
5. Among Oregon females, breast cancer was the most frequently diagnosed cancer followed by lung, colorectal, and uterine cancer, and then melanoma. Lung cancer had the highest mortality for females, followed by breast, colorectal, ovarian, and pancreatic cancers.

**Leading Sites of Cancer Incidence and Mortality,  
Oregon Females, 2004**



## Cancer Data Overview

6. Among Oregon males, prostate cancer was the most frequently diagnosed, followed by lung, colorectal, and urinary bladder cancer, and by lymphoma. Lung cancer had the highest mortality for males followed by prostate, colorectal, and pancreatic cancer, and again by lymphoma.
7. Of the 45 states with central registry data meeting national data quality standards in 2003, Oregon males ranked 42<sup>nd</sup> for all-cancer incidence and Oregon females ranked 15<sup>th</sup>. For state rankings, see <http://apps.nccd.cdc.gov/uscs/>.
8. Among all 50 states, Oregon males ranked 34<sup>th</sup>, and Oregon females ranked 12<sup>th</sup> in all-cancer mortality for 2003. The higher ranking for Oregon females is primarily due to higher rates of lung cancer mortality.

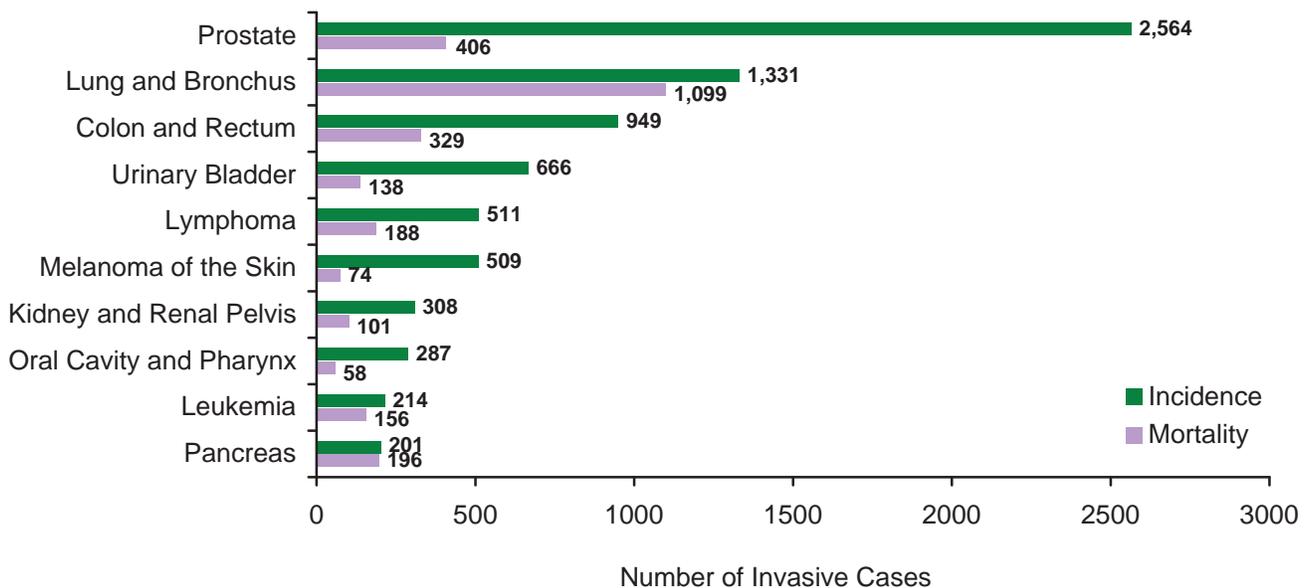
### Stage at Diagnosis

For some cancers, early stage diagnosis is a measure of success for population-based screening efforts. (See figures on opposite page.) From 1996 through 2004, the percentage of early stage diagnoses remained the same for female breast cancers and decreased for cervical cancers. The percentage of early stage diagnoses for colorectal cancers increased, and, although there is no national recommendation for prostate cancer screening, the percentage of early stage prostate cancer diagnoses has also increased.

Although the percentage of female breast cancers diagnosed at an early stage has remained the same, the percentage of *in situ* diagnoses has increased, which will likely improve outcomes.

Despite variability in the percentage of cases diagnosed at an early stage, all of these screenable cancers demonstrated reductions in mortality—likely due to a combination of improved screening and enhanced treatment.

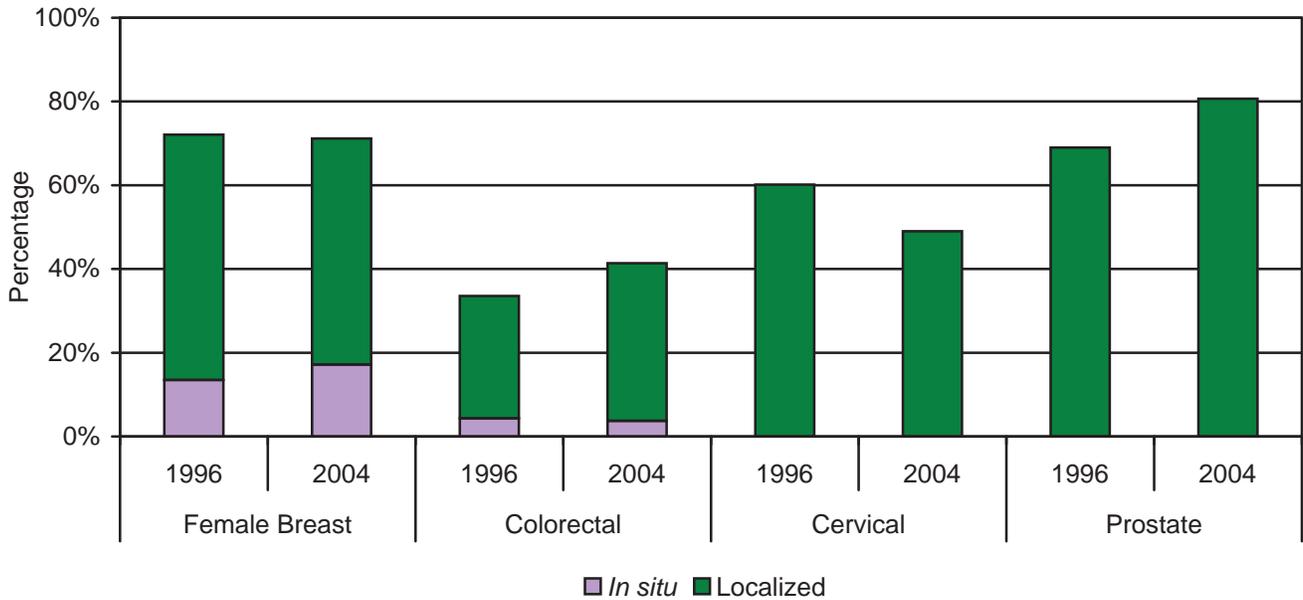
**Leading Sites of Cancer Incidence and Mortality,  
Oregon Males, 2004**



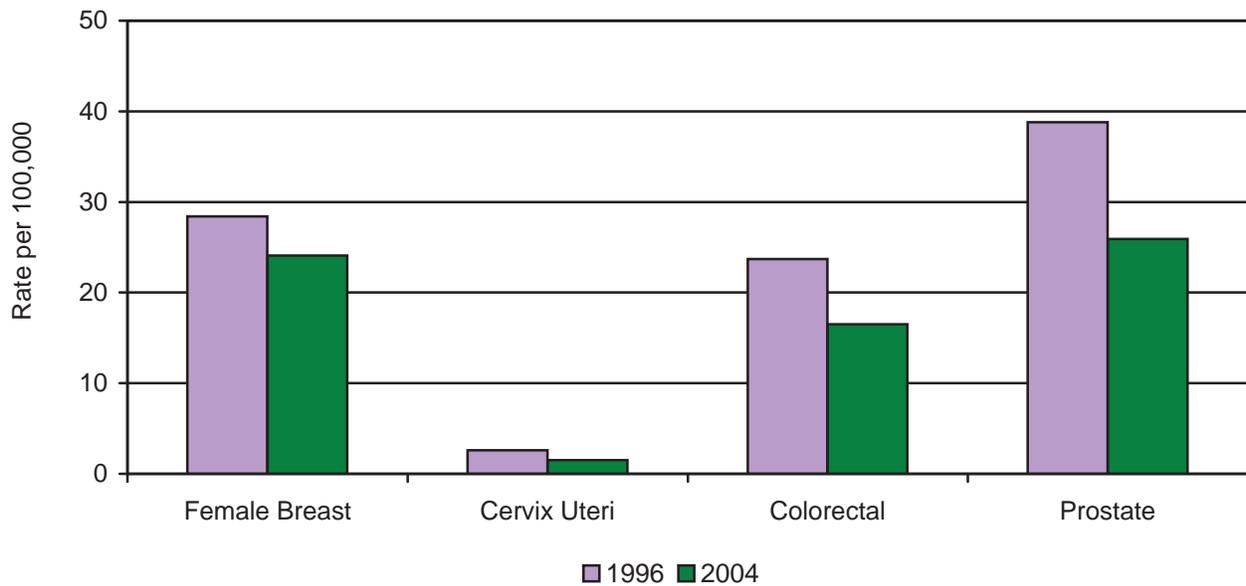
## Cancer Data Overview

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**Screenable Cancers Diagnosed at an Early (In situ or Local) Stage  
Oregon, 1996 and 2004**



**Screenable Cancers, Age-Adjusted Mortality Rates,  
Oregon, 1996 and 2004**



## Cancer Data Overview

### Mortality to Incidence (M/I) Ratios, Oregon, 2000-2004

	<b>Total</b>	<b>Male</b>	<b>Female</b>
<b>All Malignant Sites</b>	<b>0.41</b>	<b>0.41</b>	<b>0.40</b>
Pancreas	1.00	1.00	1.00
Mesothelioma	0.97	0.97	0.97
Liver and Intrahepatic Bile Duct	0.95	0.87	1.11
Esophagus	0.93	0.95	0.85
Lung and Bronchus	0.81	0.83	0.80
Myeloma	0.81	0.76	0.86
Brain and CNS	0.76	0.75	0.77
Ovary	0.72	n/a	0.72
Leukemia	0.68	0.68	0.68
Gallbladder	0.59	0.60	0.58
Stomach	0.57	0.53	0.63
Soft Tissue including Heart	0.45	0.43	0.48
Bones and Joints	0.40	0.50	0.29
Lymphoma	0.39	0.38	0.40
Colorectal	0.37	0.37	0.37
Larynx	0.36	0.33	0.45
Kidney and Renal Pelvis	0.34	0.36	0.32
Cervix Uteri	0.32	n/a	0.32
Oral Cavity and Pharynx	0.24	0.22	0.29
Urinary Bladder	0.22	0.21	0.26
Small Intestine	0.20	0.15	0.26
Breast	0.19	0.22	0.19
Uterus	0.17	n/a	0.17
Prostate	0.16	0.16	n/a
Melanoma of the Skin	0.14	0.17	0.11
Eye and Orbit	0.09	0.12	0.05
Thyroid	0.06	0.10	0.05
Testis	0.06	0.06	n/a

Oregon Data Sources: OSCaR (Incidence) and Center for Health Statistics (Mortality)

n/a = not applicable

### Disease Severity

The mortality-to-incidence (M/I) ratio provides a measure of disease severity. In general, the higher the M/I ratio, the poorer the expected outcome for a patient with cancer of that type. An M/I ratio over 1.0 indicates the poorest prognosis. This means more people died due to the particular cancer type than were diagnosed during the same year.

Overall, Oregon's M/I ratio for all cancers was 0.41 for the years 2000-2004. Pancreatic cancer had the worst prognosis with a ratio of 1.00. This was followed by mesothelioma with a ratio of 0.97.

## Cancer Data Overview

### Years of Potential Life Lost (YPLL) by Average Number of Years Lost Annually, Prior to Age 65

<b>Oregon, Years 2000-2004</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>
All Causes of Death	122,126	76,951	45,175
Accidents and Adverse Effects	23,662	16,523	7,139
<b>All Malignant Cancers</b>	<b>22,059</b>	<b>11,085</b>	<b>10,974</b>
Lung and Bronchus	4,433	2,392	2,040
Breast	2,464	13	2,451
Brain and CNS	1,841	1,089	752
Colon and Rectum	1,609	905	704
Leukemias	1,432	825	607
Lymphomas	1,068	669	399
Pancreas	925	557	368
Melanomas of Skin	781	505	277
Liver and Intrahepatic Bile Duct	740	517	222
Ovary	667	n/a	667
Esophagus	563	469	94
Kidney and Renal Pelvis	522	356	166
Soft Tissue Including Heart	494	283	211
Cervix Uteri	422	n/a	422
Stomach	396	233	163
Oral Cavity and Pharynx	368	286	82
Bones and Joints	301	208	92
Myeloma	270	177	93
Urinary Bladder	228	157	71
Uterus	203	n/a	203
Prostate	183	183	n/a
Diseases of the Heart	11,943	8,479	3,464
Suicide and Self-Inflicted Injury	10,458	8,218	2,240
Homicide and Legal Intervention	3,385	2,522	863
Chronic Liver Disease and Cirrhosis	3,212	2,097	1,115
Diabetes Mellitus	2,790	1,664	1,126
Cerebrovascular Diseases	2,478	1,333	1,145
Chronic Obstructive Pulmonary Disease and Allied Conditions	1,637	821	817
HIV (Human Immunodeficiency Virus)	1,546	1,368	178
Pneumonia and Influenza	966	553	414

Oregon Data Sources: OSCaR (Incidence) and Center for Health Statistics (Mortality)

YPLL calculations are rounded to the nearest whole year.

n/a = Not applicable

### Years of Potential Life Lost

Years of potential life lost (YPLLs) are a measurement of the risk of early death due to a particular cause. For example, using 65 years as a standard age of death, a person dying of cancer at age 25 would have 40 years of potential life lost before age 65. The YPLL measure is one way of evaluating the burden of a disease upon a defined population. Lost productivity due to an individual dying prematurely of cancer represents a loss of both economic and non-economic contributions to society.

Unintentional injury was the leading cause of YPLL for male Oregonians, and cancer was the leading cause of YPLL for female Oregonians. However, due to the high injury rate for men, unintentional injuries were the leading cause of YPLL with both sexes combined. It is interesting to note that, when a standard age at death of 70 or greater (rather than 65) is used in the calculation, cancer becomes the leading cause of YPLL among all Oregonians.

## Cancer Data Overview

Lung cancer is the leading cancer-related cause of YPLL for all Oregonians, followed by breast, brain/central nervous system, and colorectal cancer. Brain cancer is not a leading cancer site but is a leading cause of YPLL because over half

of deaths from this cancer occur in Oregonians younger than 65. Leukemias and lymphomas are two additional cancer sites each having over 1,000 YPLL each year.

**Incidence - Five Most Common Cancers  
Percentage of All Cancer Cases by Sex, Race, and Ethnicity  
Oregon (1996 - 2004) vs US (SEER 1996 - 2004)**

MEN			WOMEN		
U.S.		OREGON	U.S.		OREGON
<b>African American Men</b>			<b>African American Women</b>		
Prostate	38%	31%	Prostate		
Lung and Bronchus	16%	19%	Breast	31%	31%
Colon and Rectum	10%	9%	Colon and Rectum	13%	12%
Lymphoma	4%	4%	Lung and Bronchus	13%	12%
Oral and Pharynx	3%	4%	Corpus Uterus	5%	5%
			Lymphoma	4%	5%
<b>American Indian or Alaska Native Men</b>			<b>American Indian or Alaska Native Women</b>		
Prostate	20%	19%	Breast	28%	25%
Lung and Bronchus	15%	18%	Colon and Rectum	13%	18%
Colon and Rectum	14%	13%	Lung and Bronchus	10%	10%
Kidney and Renal	6%	5%	Corpus Uterus	5%	5%
Stomach	5%	4%	Ovary	4%	4%
<b>Asian or Pacific Islander Men</b>			<b>Asian or Pacific Islander Women</b>		
Prostate	25%	19%	Breast	33%	32%
Lung and Bronchus	15%	14%	Colon and Rectum	12%	11%
Colon and Rectum	14%	14%	Lung and Bronchus	9%	9%
Liver and Bile Duct	6%	10%	Corpus Uterus	6%	6%
Stomach	5%	5%	Thyroid	4%	5%
<b>White Men</b>			<b>White Women</b>		
Prostate	30%	29%	Breast	32%	32%
Lung and Bronchus	13%	16%	Lung and Bronchus	12%	14%
Colon and Rectum	11%	10%	Colon and Rectum	11%	10%
Urinary Bladder	7%	7%	Corpus Uterus	6%	6%
Lymphoma	5%	5%	Lymphoma	5%	4%
<b>Hispanic Men</b>			<b>Hispanic Women</b>		
Prostate	29%	25%	Breast	30%	28%
Colon and Rectum	11%	13%	Colon and Rectum	9%	10%
Lung and Bronchus	9%	8%	Lung and Bronchus	7%	8%
Lymphoma	7%	8%	Cervix Uteri	6%	6%
Leukemia	4%	5%	Corpus Uterus	6%	5%
<b>Non-Hispanic Men</b>			<b>Non-Hispanic Women</b>		
Prostate	31%	29%	Breast	32%	32%
Lung and Bronchus	14%	16%	Lung and Bronchus	12%	14%
Colon and Rectum	11%	10%	Colon and Rectum	11%	10%
Urinary Bladder	6%	7%	Corpus Uterus	6%	6%
Lymphoma	5%	5%	Lymphoma	4%	4%

US Data: Incidence SEER 13 Registry Data using SEER Stat 6.3.5 released April 2007

Oregon Data: OSCaR 1996-2004

## Cancer Data Overview

### Race and Ethnicity

Differences in age-adjusted incidence and death rates among population groups are important because they may reflect differences in screening

rates, treatment, access to care, or modifiable risk behaviors. However, due to issues with completeness and accuracy of race and ethnicity reporting, data must be interpreted with care. Please refer to the *Technical Section* for additional information.

**Mortality - Five Most Common Cancers**  
**Percentage of All Cancer Deaths by Sex, Race, and Ethnicity**  
**Oregon (1996 - 2004) vs US (SEER 1996 - 2004)**

MEN			WOMEN		
US	OREGON		US	OREGON	
<b>African American Men</b>			<b>African American Women</b>		
Lung and Bronchus	32%	32% Lung and Bronchus	Lung and Bronchus	20%	21% Lung and Bronchus
Prostate	16%	17% Prostate	Breast	19%	16% Breast
Colon and Rectum	9%	9% Colon and Rectum	Colon and Rectum	12%	10% Colon and Rectum
Pancreas	5%	5% Pancreas	Pancreas	6%	9% Pancreas
Esophagus	4%	4% Stomach	Ovary	4%	4% Lymphoma
<b>American Indian or Alaska Native Men</b>			<b>American Indian or Alaska Native Women</b>		
Lung and Bronchus	30%	32% Lung and Bronchus	Lung and Bronchus	22%	33% Lung and Bronchus
Colon and Rectum	10%	13% Colon and Rectum	Breast	14%	10% Breast
Prostate	9%	5% Esophagus	Colon and Rectum	10%	9% Colon and Rectum
Liver and Bile Duct	5%	5% Prostate	Pancreas	5%	5% Pancreas
Stomach	5%	4% Brain/Leukemia	Ovary	5%	5% Lymphoma/Leukemia
<b>Asian or Pacific Islander Men</b>			<b>Asian or Pacific Islander Women</b>		
Lung and Bronchus	26%	25% Lung and Bronchus	Lung and Bronchus	18%	18% Breast
Liver and Bile Duct	12%	18% Liver and Bile Duct	Breast	15%	15% Lung and Bronchus
Colon and Rectum	10%	10% Colon and Rectum	Colon and Rectum	10%	9% Colon and Rectum
Stomach	8%	7% Stomach	Stomach	7%	8% Stomach
Prostate	7%	6% Prostate	Liver and Bile Duct	6%	7% Liver and Bile Duct
<b>White Men</b>			<b>White Women</b>		
Lung and Bronchus	32%	31% Lung and Bronchus	Lung and Bronchus	24%	27% Lung and Bronchus
Prostate	11%	12% Prostate	Breast	16%	15% Breast
Colon and Rectum	10%	9% Colon and Rectum	Colon and Rectum	11%	10% Colon and Rectum
Pancreas	5%	5% Pancreas	Pancreas	6%	6% Ovary
Lymphoma	5%	5% Lymphoma	Ovary	5%	6% Pancreas
<b>Hispanic Men</b>			<b>Hispanic Women</b>		
Lung and Bronchus	22%	23% Lung and Bronchus	Breast	17%	15% Breast
Prostate	10%	10% Prostate	Lung and Bronchus	13%	14% Lung and Bronchus
Colon and Rectum	10%	8% Leukemia	Colon and Rectum	10%	9% Colon and Rectum
Liver and Bile Duct	6%	8% Lymphoma	Pancreas	6%	7% Leukemia
Stomach	6%	7% Pancreas	Ovary	6%	6% Pancreas
<b>Non-Hispanic Men</b>			<b>Non-Hispanic Women</b>		
Lung and Bronchus	33%	31% Lung and Bronchus	Lung and Bronchus	24%	27% Lung and Bronchus
Prostate	12%	12% Prostate	Breast	16%	15% Breast
Colon and Rectum	10%	9% Colon and Rectum	Colon and Rectum	11%	10% Colon and Rectum
Pancreas	5%	5% Pancreas	Pancreas	6%	6% Ovary
Lymphoma	4%	5% Lymphoma	Ovary	5%	6% Pancreas

US Data: SEER\*Stat database, Mortality-All Cause of Death, Public-Use  
 Oregon Data: OSCaR 1996-2004

## Cancer Data Overview

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As seen nationally, African American (AA) men in Oregon have the highest rate of cancer incidence and mortality, followed by whites. Among women in Oregon and nationally, whites have the highest cancer incidence rates, but AA women have higher mortality rates. American Indian/Alaskan Natives (AI/AN) in Oregon have higher cancer rates than are seen nationally. Nationwide, AI/AN cancer incidence and mortality are the lowest among the four reported racial groups. Hispanics have lower cancer incidence and mortality rates than non-Hispanics both in Oregon and nationally.

Historically, Oregon's American Indian/Alaska Native (AI/AN) population has had the lowest incidence and mortality rates of cancer of all racial/ethnic groups. OSCaR and other registries have found that AI/AN cases are often misclassified as another race or Hispanic. When AI/AN individuals are properly classified, rates are substantially higher. OSCaR links annually with local and national Indian Health Service and tribal clinic registries to correct racial coding for AI/AN persons. Perhaps this is why Oregon has higher rates than those seen nationally.

There are also differences in distribution of cancer by site among racial and ethnic groups. Regardless of race or ethnicity, prostate cancer was the most common cancer for men in Oregon and nationwide, while breast cancer was the most common cancer for women. However, lung cancers represent a greater burden among Hispanics and AI/AN women in Oregon than nationally. Cervical cancer could potentially be eliminated with appropriate, population-based screening and early Human Papilloma Virus (HPV) vaccination, but it is the 4<sup>th</sup> most common cancer among Hispanic women for both Oregon and the nation. Melanoma of the skin is the 5<sup>th</sup> most common cancer among white men in

Oregon, but is not among the five leading cancer sites nationally. Lymphomas also represent a greater burden among AI/AN and AA women in Oregon than they do nationally.

For men, lung cancers were the most common cause of cancer death among all racial and ethnic groups in Oregon. For women, lung cancers were also the leading cause of cancer death except among Asian and Pacific Islanders (A/PI), where breast cancers were the leading cause of cancer death. Oregon A/PI have a higher percentage of liver cancer deaths compared to other racial groups. Deaths from stomach cancers are also more common for A/PI men as well as in AA men. Generally considered rare cancers, multiple myeloma and brain/central nervous system cancers are among the top 5 cancer causes of death among AA men and AI/AN men, respectively.

Some of these differences may be driven by stage at diagnosis. Whites have the highest percentage of cancers diagnosed at an early stage and AI/AN have the lowest. Hispanics have a lower percentage of cases diagnosed at an early stage than non-Hispanics.

## ALL CANCERS - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2004)</b>	<b>19,683</b>	<b>9,818</b>	<b>9,864</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	499.3	516.5	482.2
Oregon Age-adjusted Rate	475.0	537.4	429.2
US Age-adjusted Rate <sup>1</sup>	470.7	548.3	417.6
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-1.5	-1.7	-1.5
US Annual Trend <sup>1</sup>	-0.9	-1.3	-0.6
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2004)</b>	<b>7,320</b>	<b>3,762</b>	<b>3,558</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	203.6	210.5	196.8
Oregon Age-adjusted Rate	192.1	228.1	167.0
US Age-Adjusted Rate <sup>2</sup>	185.7	228.3	157.0
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-1.1	-1.5	-0.9
US Annual Trend <sup>2</sup>	*-1.6	*-2.1	*-1.4
<b>PROGNOSIS AND BURDEN (2000-2004)</b>			
Prognosis: M/I Ratio	0.41	0.41	0.40
Burden: YPLL	22,059	11,085	7,139

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers (except for bladder cancer). Total column may exceed male/female columns due to coding to other gender.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

A total of 19,683 cancers were diagnosed among Oregonians in 2004 and reported to the central registry. Median age at diagnosis was 67. During the same year, 7,320 Oregonians died due to cancer. Median age at death was 74.

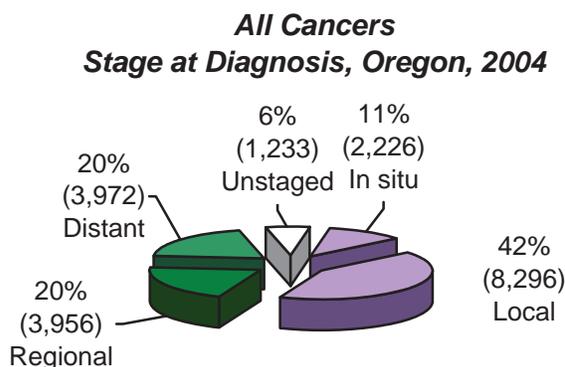
Just over half (53 percent) of the new cancers were diagnosed at the *in situ* or localized stage when cancer is more effectively treated, and 40 percent were diagnosed at the regional or distant stage. Another 6 percent had an unknown stage of diagnosis.

The age-adjusted incidence rate for all invasive cancers in 2004 was 475 cases per 100,000 population, or about one cancer per every 200 people.

The age-adjusted mortality rate for all invasive cancers in 2004 was 192 deaths per 100,000 population, or about one death per every 500 people.

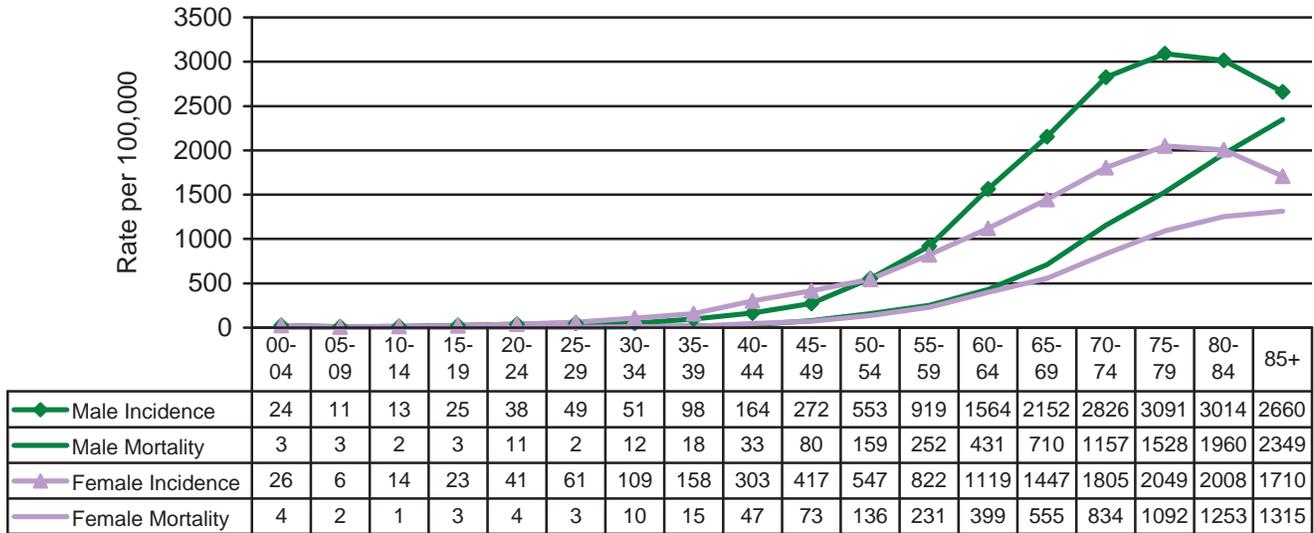
During the period 2000-2004, there were two deaths due to cancer for every five new cancer diagnoses. Based on a life expectancy of 65 years, a total of 22,059 years of life were lost due to cancer deaths before age 65.

Regionally, the incidence of cancer was highest in the south Cascades and the area bordering the Columbia River, while mortality was highest along the south coast as well as the area bordering the Columbia River. [See All Cancers Maps.](#)

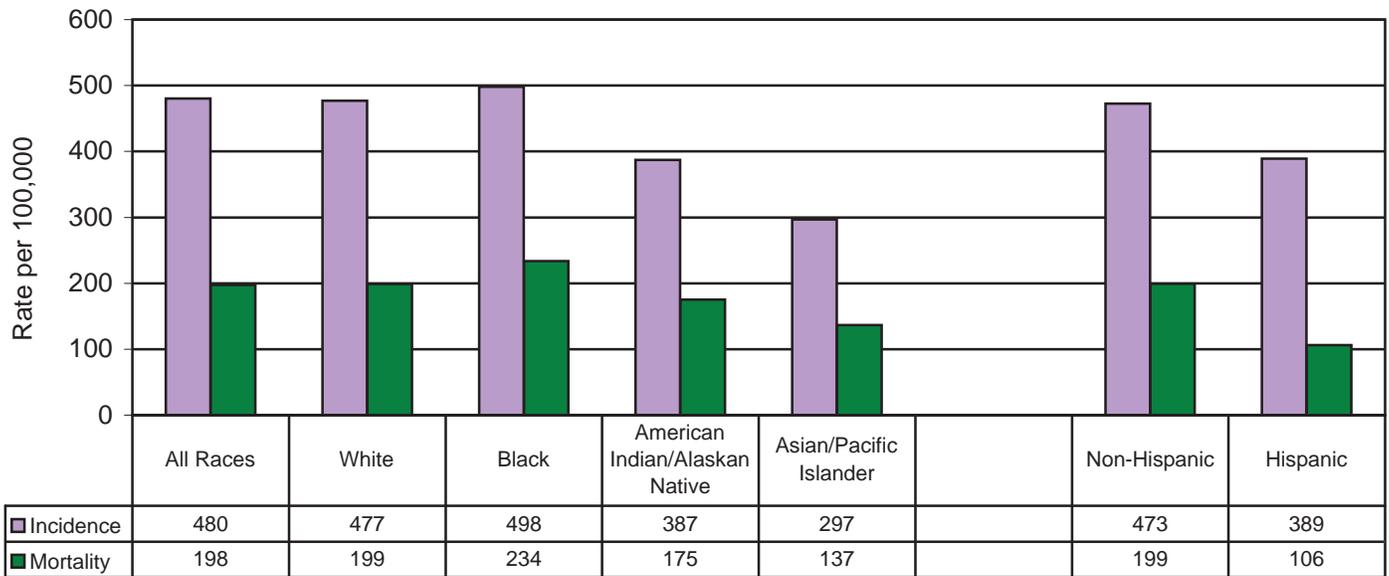


## All Cancers

**All Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2004**

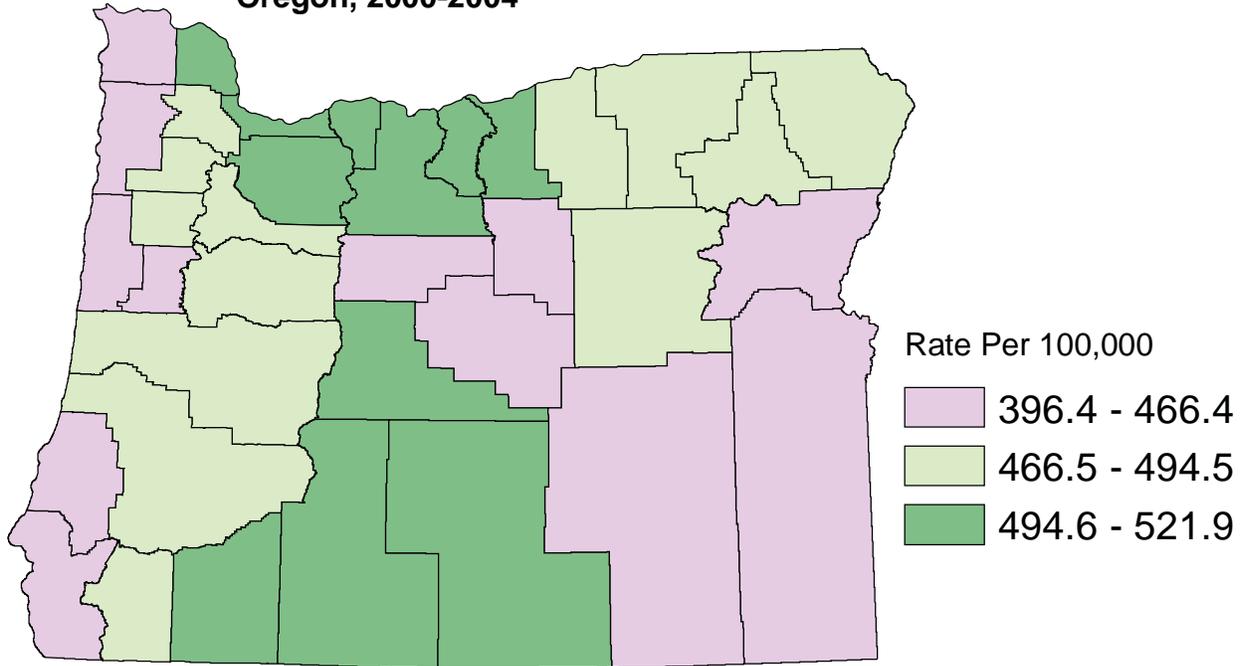


**All Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



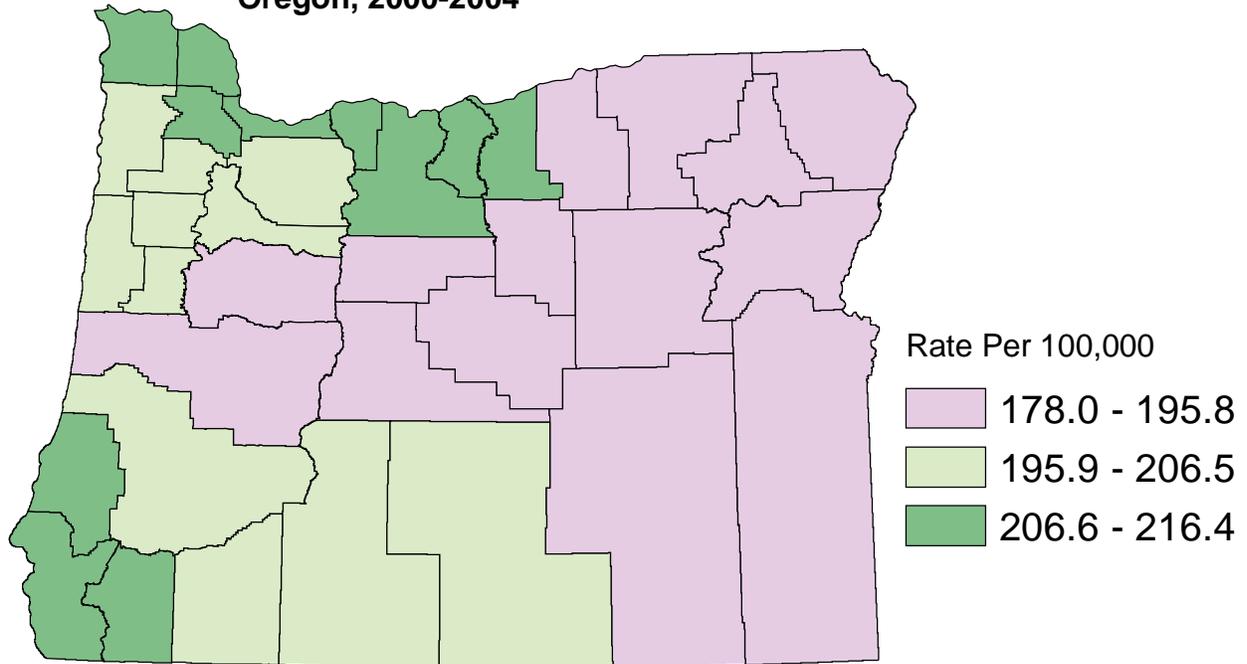
# All Cancers

## All Cancer Incidence: Oregon, 2000-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## All Cancer Mortality: Oregon, 2000-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## All Cancers

### All Cancer Incidence and Mortality Rates, by County, 2000-2004 Average

ALL CANCER Years 2000-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	5-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	5-Year Trend APC
<b>STATE</b>	<b>17,543</b>	<b>480.9</b>	<b>-1.5</b>	<b>7,233</b>	<b>196.5</b>	<b>-0.8</b>
Baker	102	L 433.3	+3.8	45	181.5	-2.4
Benton	313	L 443.5	-1.1	107	L 152.7	-3.2
Clackamas	1,673	476.9	-2.1	658	192.7	-3.9
Clatsop	200	460.5	-3.2	96	216.4	+1.2
Columbia	230	505.7	-2.5	101	H 227.4	+0.2
Coos	467	H 531.2	-2.6	207	H 222.9	+0.5
Crook	111	461.8	+2.9	43	178.1	-4.8
Curry	185	471.7	-0.8	87	210.8	-2.0
Deschutes	714	H 530.2	-3.0	236	L 178.0	-3.3
Douglas	672	501.2	-2.3	291	206.9	+0.8
Gilliam	15	574.9	+3.7	7	249.8	^
Grant	45	448.7	-2.3	23	216.8	+1.9
Harney	44	483.5	+4.5	17	184.2	-3.0
Hood River	93	448.8	+0.6	37	173.1	+2.7
Jackson	1,154	H 511.1	-1.2	462	195.9	-1.1
Jefferson	87	440.3	-2.2	37	192.3	-4.3
Josephine	544	485.9	+1.5	254	H 216.2	+2.5
Klamath	366	486.6	+1.3	155	202.7	-0.1
Lake	55	H 551.0	-1.1	22	214.0	-1.7
Lane	1,664	471.2	-0.1	696	193.2	+0.5
Lincoln	317	499.8	-1.5	134	206.9	-5.4
Linn	546	459.6	+2.8	252	206.5	+2.5
Malheur	130	L 393.2	+6.7	55	L 160.1	-6.5
Marion	1,424	H 501.4	-1.9	602	H 208.0	-0.8
Morrow	50	491.3	+2.1	22	219.4	+5.5
Multnomah	3,071	489.2	-2.9	1,290	H 208.0	-0.8
Polk	335	462.2	+0.9	132	L 171.7	+3.1
Sherman	8	L 328.9	^	3	134.1	^
Tillamook	159	456.1	+0.5	65	182.8	-5.0
Umatilla	329	463.8	-1.2	141	195.8	-1.5
Union	131	474.6	-0.4	53	179.6	-3.2
Wallowa	42	L 411.7	-7.4	18	164.9	-3.1
Wasco	153	517.6	+1.4	65	209.4	+0.3
Washington	1,710	L 446.7	* -3.1	648	L 178.2	+0.3
Wheeler	12	456.6	+21.6	5	185.1	^
Yamhill	393	468.0	+0.2	168	198.5	+1.7

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Bladder Cancer

### BLADDER CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2004)</b>	<b>874</b>	<b>667</b>	<b>207</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	24.3	37.3	11.5
Oregon Age-adjusted Rate	23.2	40.3	9.9
US Age-adjusted Rate <sup>1</sup>	21.4	37.5	9.6
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-0.7	-0.9	+0.1
US Annual Trend <sup>1</sup>	-0.3	-0.5	-0.1
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2004)</b>	<b>191</b>	<b>138</b>	<b>53</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	5.3	7.7	2.9
Oregon Age-adjusted Rate	4.9	8.5	2.4
US Age-Adjusted Rate <sup>2</sup>	4.4	7.6	2.2
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	+1.4	-0.3	+3.4
US Annual Trend <sup>2</sup>	+0.0	-0.2	-0.4
<b>PROGNOSIS AND BURDEN (2000-2004)</b>			
Prognosis: M/I Ratio	0.22	0.21	0.26
Burden: YPLL	228	157	71

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and include *in situ* cancers. Total column may exceed male/female columns due to coding to other gender.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

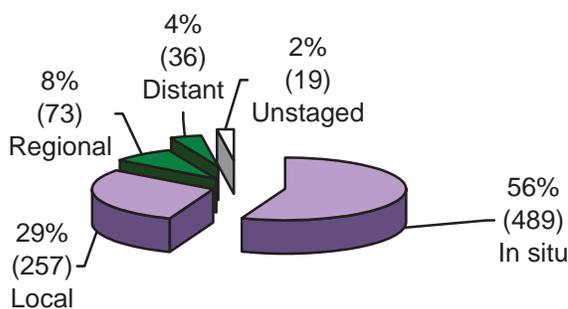
APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

**Bladder Cancer  
Stage at Diagnosis, Oregon, 2004**



A total of 874 cancers of the urinary bladder were diagnosed among Oregonians in 2004 and reported to the central registry. Median age at diagnosis was 73. During the same year, 191 Oregonians died due to bladder cancer. Median age at death was 77.

Most (85 percent) were diagnosed at *in situ* or local stage and 12 percent were diagnosed at regional or distant stage. Another 2 percent were unstaged.

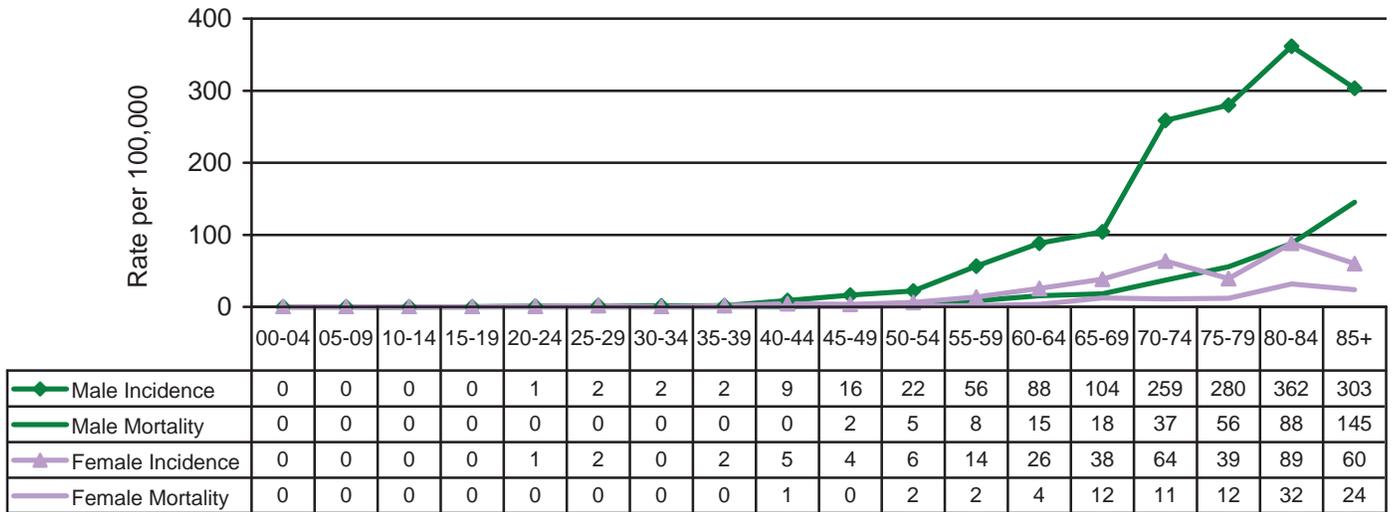
In 2004, the age-adjusted incidence rate for bladder cancer was 23 cases per 100,000 people and the age-adjusted mortality rate was 5 per 100,000. Both incidence and mortality were higher among men. Among men, the incidence rate was 40 per 100,000 compared to 10 per 100,000 among women. The age-adjusted mortality rate was 9 per 100,000 for men compared to 2 per 100,000 among women.

During the period 2000-2004, there were 22 deaths for every 100 new diagnoses of bladder cancer. Based on a life expectancy of 65 years, a total of 228 years of life were lost due to bladder cancer deaths before age 65.

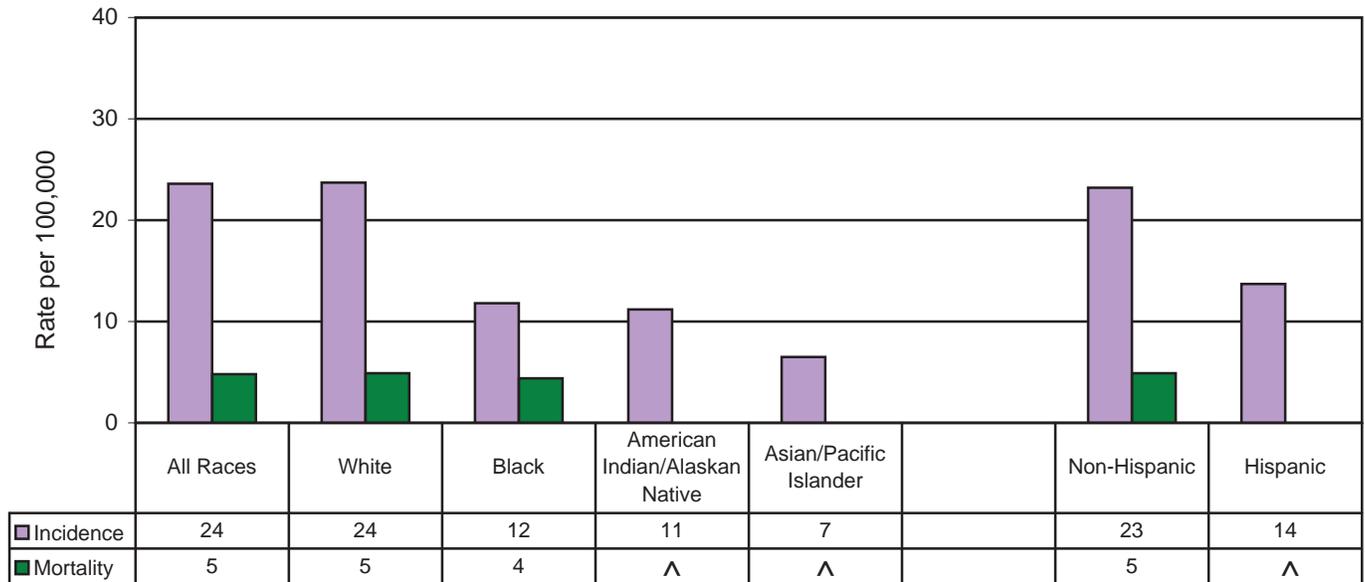
Regionally, bladder cancer incidence was highest in southwestern and central Oregon, while mortality was highest in southern Oregon and at the mouth of the Columbia River. [See Bladder Cancer Maps.](#)

# Bladder Cancer

**Bladder Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2004**



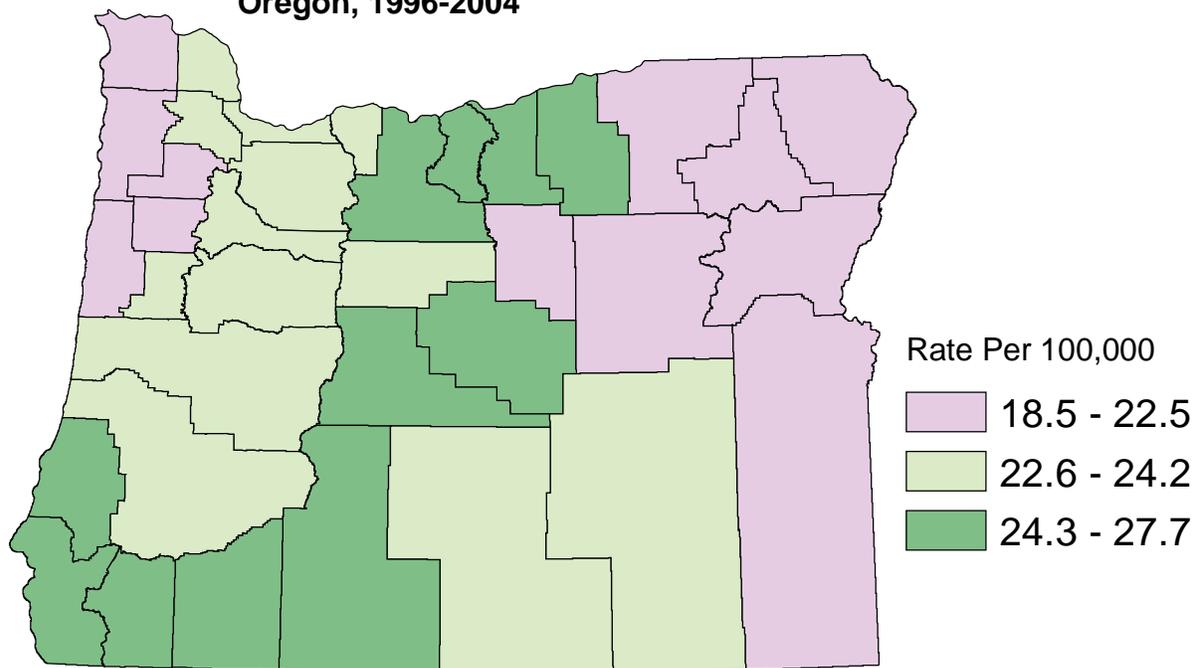
**Bladder Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



^ Rate not calculated due to instability of small numbers

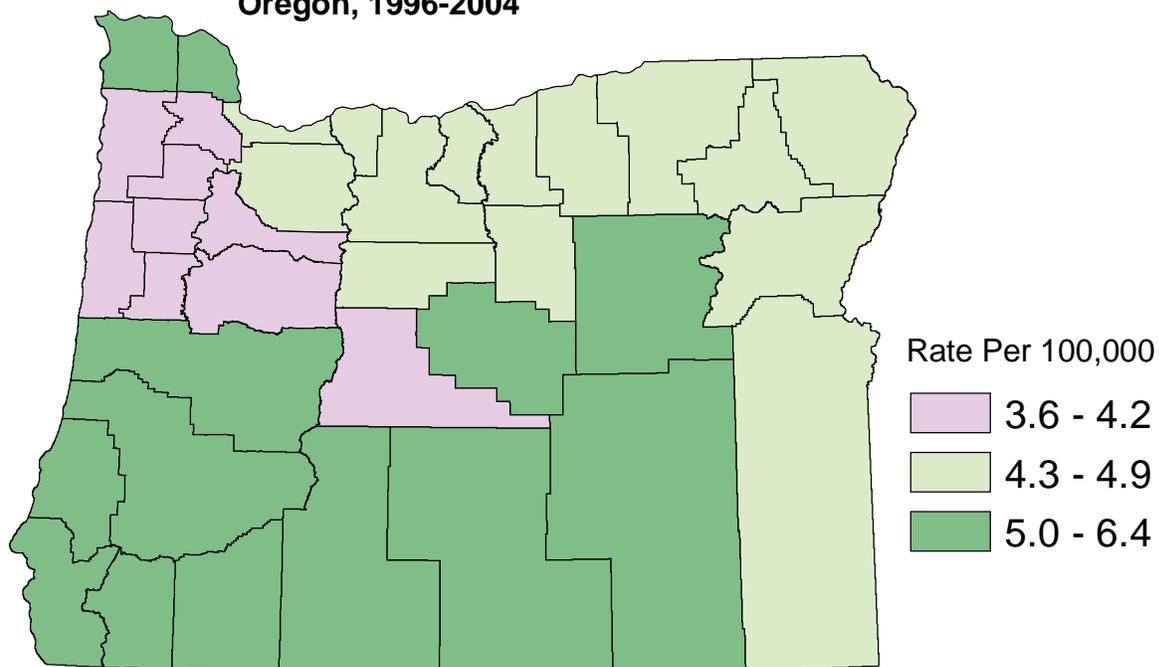
## Bladder Cancer

### Bladder Cancer Incidence: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

### Bladder Cancer Mortality: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Bladder Cancer

**Bladder Cancer Incidence and Mortality Rates, by County, 1996-2004 Average**

BLADDER Years 1996-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	9-Year Trend APC
<b>STATE</b>	<b>836</b>	<b>23.6</b>	<b>-0.4</b>	<b>174</b>	<b>4.8</b>	<b>* +1.5</b>
Baker	5	19.4	^	2	6.1	^
Benton	13	19.6	-3.9	2	L 2.8	^
Clackamas	82	25.2	-1.6	16	5.1	+4.3
Clatsop	9	21.2	^	3	5.9	^
Columbia	13	H 29.8	-0.8	3	6.2	^
Coos	28	H 30.4	-2.8	6	6.3	^
Crook	6	26.9	^	1	^	^
Curry	11	28.2	+1.9	3	6.4	^
Deschutes	33	26.4	+5.1	5	3.8	^
Douglas	32	23.4	-1.5	7	4.7	^
Gilliam	1	^	^	0	^	^
Grant	2	22.5	^	1	^	^
Harney	2	24.2	^	1	^	^
Hood River	3	L 15.5	^	1	^	^
Jackson	56	24.8	-0.8	12	5.2	-2.6
Jefferson	3	17.9	^	1	^	^
Josephine	30	25.6	-2.6	7	6.3	^
Klamath	19	25.4	+1.9	3	4.7	^
Lake	2	23.2	^	0	^	^
Lane	80	23.1	+2.4	20	5.6	* +5.7
Lincoln	15	22.9	-6.5	3	4.1	^
Linn	27	22.6	-4.4	7	5.3	^
Malheur	6	18.6	^	1	^	^
Marion	65	23.2	+1.7	12	4.2	+2.6
Morrow	2	24.7	^	0	^	^
Multnomah	140	23.0	-2.9	31	4.9	-0.1
Polk	15	21.1	+3.2	3	3.4	^
Sherman	1	^	^	0	^	^
Tillamook	10	27.0	-2.9	1	^	^
Umatilla	14	20.4	+0.2	3	4.9	^
Union	7	23.8	^	1	^	^
Wallowa	2	18.5	^	1	^	^
Wasco	8	25.9	^	1	^	^
Washington	73	L 21.1	-0.1	13	3.9	+1.0
Wheeler	1	^	^	0	^	^
Yamhill	20	25.5	-2.8	3	3.6	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Brain and CNS Tumors - Malignant

### BRAIN AND CNS CANCER FAST FACTS - OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2004)</b>	<b>277</b>	<b>160</b>	<b>117</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	7.7	9.0	6.5
Oregon Age-adjusted Rate	7.5	9.1	6.1
US Age-adjusted Rate <sup>1</sup>	6.4	7.5	5.4
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	+0.2	-0.9	+1.8
US Annual Trend <sup>1</sup>	-0.2	-0.7	+0.1
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2004)</b>	<b>207</b>	<b>116</b>	<b>91</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	5.8	6.5	5.0
Oregon Age-adjusted Rate	5.4	6.4	4.4
US Age-Adjusted Rate <sup>2</sup>	4.3	5.2	3.5
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-0.8	-0.3	-2.2
US Annual Trend <sup>2</sup>	*-1.1	*-1.6	-0.7
<b>PROGNOSIS AND BURDEN (2000-2004)</b>			
Prognosis: M/I Ratio	0.76	0.75	0.77
Burden: YPLL	1,841	1,089	752

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers. Total column may exceed male/female columns due to coding to other gender.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

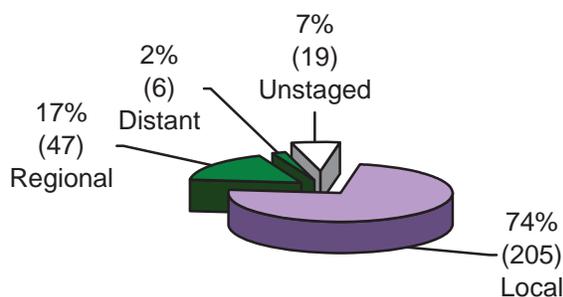
During 2004, 277 Oregonians were diagnosed with a malignant tumor of the brain or central nervous system. Median age at diagnosis was 58. During the same year, 207 people died of the disease. Median age at death was 64. While brain cancer was the second most common cancer among children, the highest age-specific rates of incidence and mortality of brain cancer were after age 60.

The age-adjusted incidence rate for cancer of the brain was 8 per 100,000 while the mortality rate was 5 per 100,000. Among men, age-adjusted brain cancer incidence was 9 per 100,000 and mortality was 6 per 100,000. Among women, age-adjusted brain cancer incidence was 6 per 100,000 and mortality was 4 per 100,000.

During the five year period 2000-2004, 76 people died of brain cancer for every 100 cases diagnosed. The five-year trend among males was an average decrease in incidence of 0.9 percent per year and an average decrease in mortality of 0.3 percent per year. The five-year trend among females was an average annual increase of 1.8 percent and an average annual decrease in mortality of 2.2 percent.

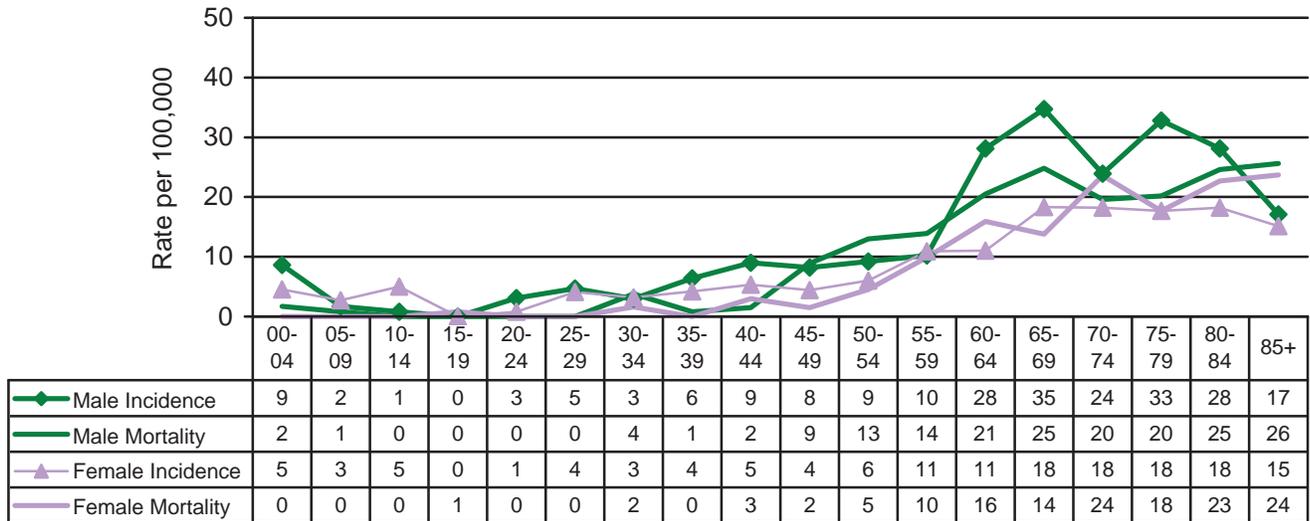
Regionally, brain cancer incidence was highest along the north coast, in the Willamette Valley, and in central Oregon. Mortality was highest in western Oregon. [See Brain and CNS Cancer Maps.](#)

**Brain and CNS Cancer  
Stage at Diagnosis, Oregon, 2004**

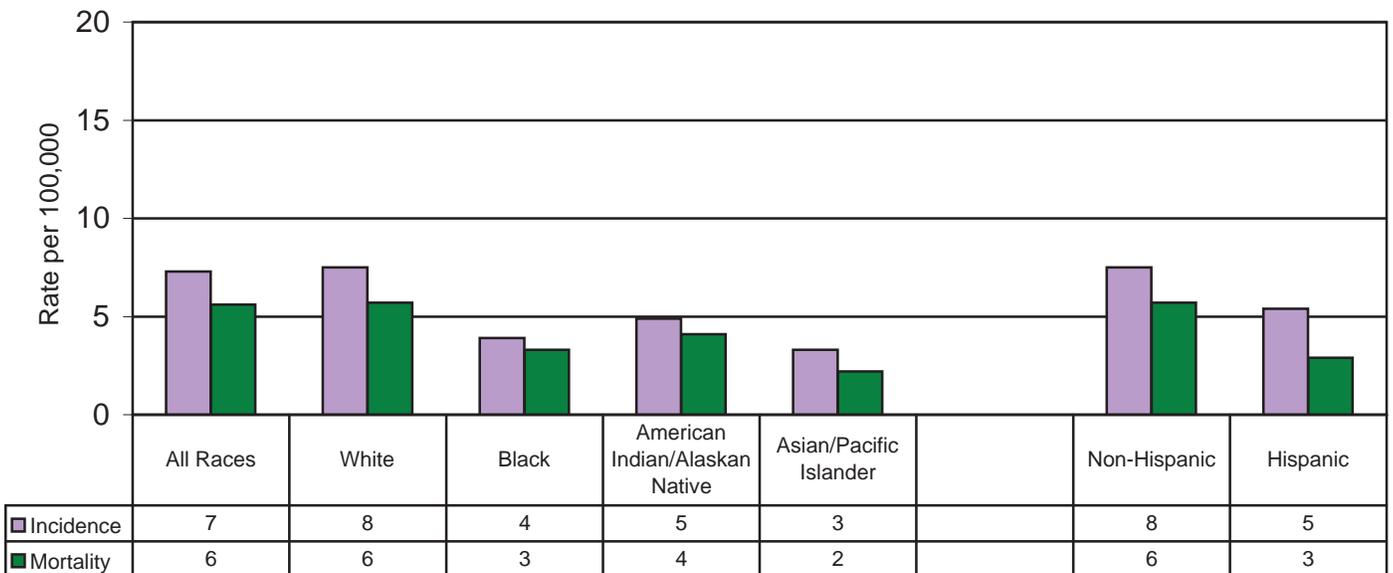


## Brain and CNS Tumors - Malignant

**Brain and CNS Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2004**

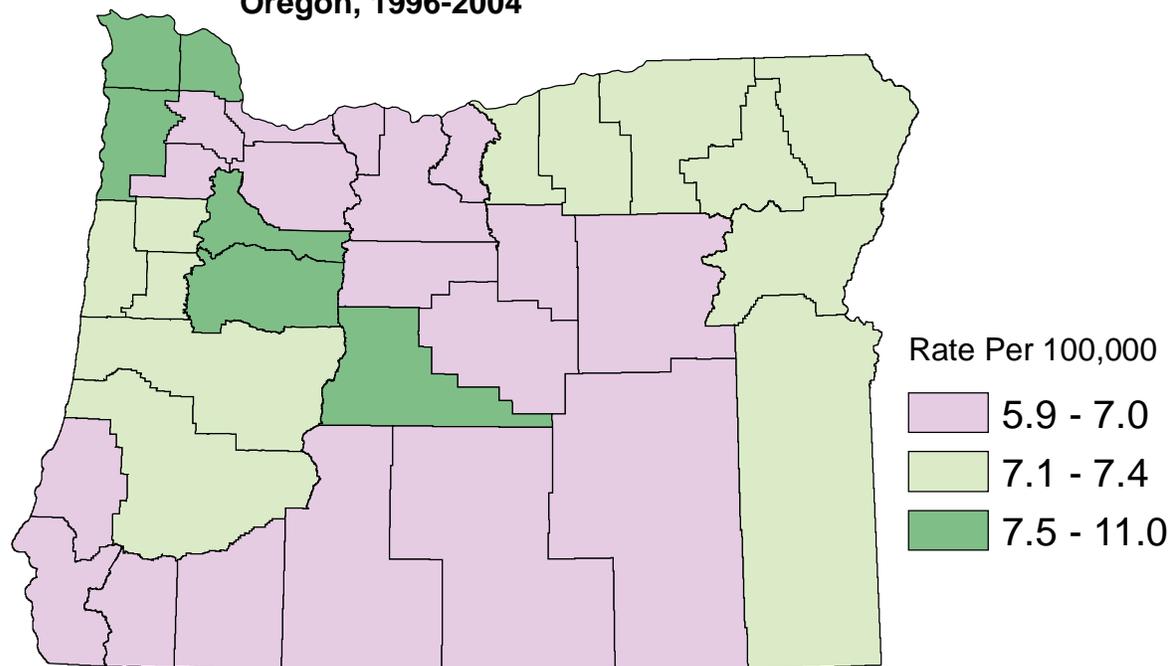


**Brain and CNS Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



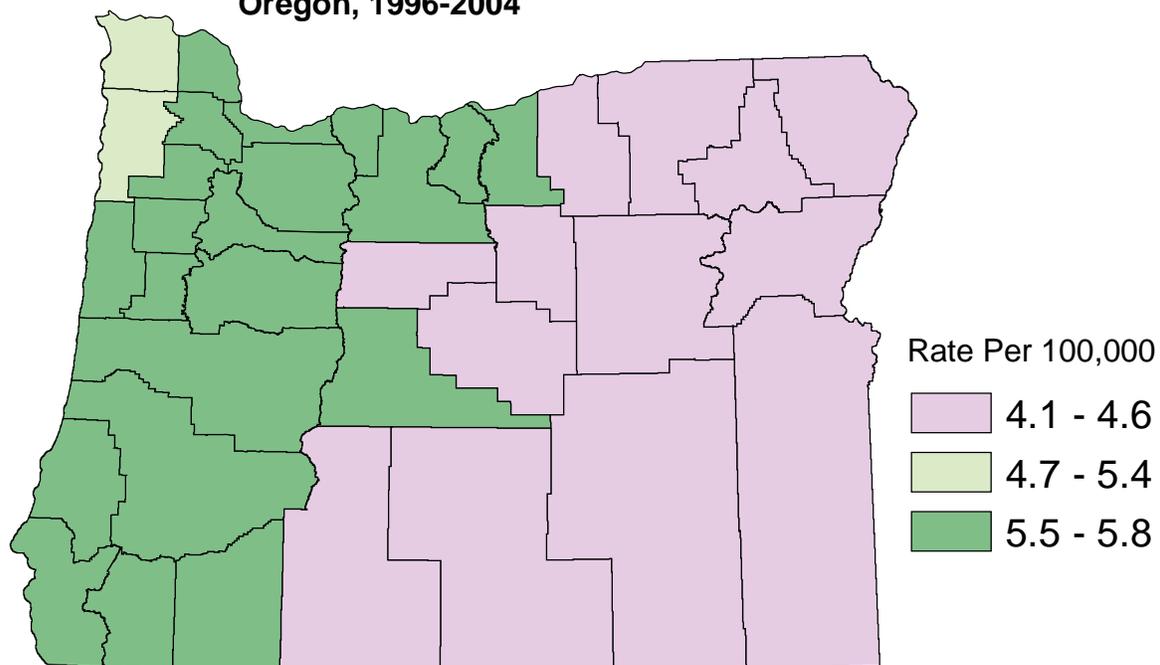
## Brain and CNS Tumors - Malignant

**Brain and CNS Cancer Incidence:  
Oregon, 1996-2004**



Rates have been smoothed to stabilize results from sparsely populated areas.

**Brain and CNS Cancer Mortality:  
Oregon, 1996-2004**



Rates have been smoothed to stabilize results from sparsely populated areas.

## Brain and CNS Tumors - Malignant

**Brain and CNS Cancer Incidence and Mortality Rates, by County, 1996-2004 Average**

BRAIN AND CNS Years 1996-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	9-Year Trend APC
<b>STATE</b>	<b>256</b>	<b>7.3</b>	<b>-0.3</b>	<b>196</b>	<b>5.6</b>	<b>-1.0</b>
Baker	2	7.9	^	2	7.3	^
Benton	5	7.3	^	4	5.4	^
Clackamas	26	7.7	-0.4	21	6.1	+1.3
Clatsop	4	11.0	^	2	5.4	^
Columbia	4	9.0	^	3	6.5	^
Coos	5	6.7	^	4	4.8	^
Crook	1	^	^	1	^	^
Curry	2	6.9	^	1	^	^
Deschutes	10	8.3	^	7	5.7	^
Douglas	9	7.6	^	8	6.6	^
Gilliam	0	^	^	0	^	^
Grant	0	^	^	0	^	^
Harney	0	^	^	0	^	^
Hood River	1	^	^	1	^	^
Jackson	14	6.7	-1.1	12	5.7	+0.3
Jefferson	1	^	^	1	^	^
Josephine	7	7.0	^	6	6.2	^
Klamath	5	6.5	^	3	4.6	^
Lake	1	^	^	0	^	^
Lane	24	7.1	-1.5	20	5.8	+0.0
Lincoln	5	10.1	^	4	6.6	^
Linn	8	7.3	^	6	5.5	^
Malheur	1	^	^	1	^	^
Marion	24	8.5	-2.4	15	5.5	-1.2
Morrow	1	^	^	1	^	^
Multnomah	45	7.0	+0.5	34	5.5	-2.3
Polk	6	8.5	^	4	6.0	^
Sherman	0	^	^	0	^	^
Tillamook	2	5.9	^	2	5.4	^
Umatilla	5	7.4	^	3	4.6	^
Union	1	^	^	1	^	^
Wallowa	0	^	^	0	^	^
Wasco	1	^	^	2	6.3	^
Washington	31	7.6	+1.1	21	5.6	+0.5
Wheeler	0	^	^	1	^	^
Yamhill	5	6.3	^	4	4.8	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## *Brain and CNS Tumors - Non-Malignant*

### **BRAIN AND CNS TUMORS - NON-MALIGNANT<sup>1</sup>**

#### **FAST FACTS - OREGON**

	<i>Total</i>	<i>Male</i>	<i>Female</i>
<b>CANCER INCIDENCE</b>			
<b>Total Cases (2004)</b>	<b>410</b>	<b>172</b>	<b>238</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	11.4	9.6	13.2
Oregon Age-adjusted Rate	11.0	9.9	12.2
<b>CANCER MORTALITY</b>			
<b>Total Deaths (2004)</b>	<b>18</b>	<b>9</b>	<b>9</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	0.5	0.5	0.5
Oregon Age-adjusted Rate	0.5	0.5	0.4

Rates are per 100,000 people; age-adjusted to the 19-age-group 2000 U.S. Standard Population.

<sup>1</sup>Non-malignant brain and CNS tumors include benign tumors of the meninges; brain; spinal cord; cranial nerves, and other CNS; and neuroendocrine and related structures.

#### **Brain and CNS Tumors, Non-Malignant, by County of Residence Oregon, 2004**

<b>State Total</b>	<b>410</b>				
Baker	2	Harney	0	Morrow	1
Benton	7	Hood River	2	Multnomah	91
Clackamas	42	Jackson	19	Polk	11
Clatsop	7	Jefferson	1	Sherman	1
Columbia	4	Josephine	7	Tillamook	5
Coos	8	Klamath	8	Umatilla	7
Crook	3	Lake	1	Union	3
Curry	0	Lane	27	Wallowa	1
Deschutes	7	Lincoln	5	Wasco	2
Douglas	11	Linn	13	Washington	56
Gilliam	0	Malheur	4	Wheeler	0
Grant	0	Marion	43	Yamhill	11

#### **Brain and CNS Tumors, Non-Malignant, by Site Oregon, 2004**

Cerebral meninges	101	Overlapping lesion of brain	5
Pituitary gland	84	Cauda equina	4
Acoustic nerve	61	Craniopharyngeal duct	3
Meninges, NOS	34	Cerebrum	2
Frontal lobe	22	Occipital lobe	2
Spinal cord	21	Ventricle, NOS	2
Brain, NOS	17	Brain stem	2
Cerebellum, NOS	15	Optic nerve	2
Parietal lobe	9	Olfactory nerve	1
Spinal meninges	8	Nervous system, NOS	1
Temporal lobe	6		

Newly reportable in 2004, a total of 410 benign brain and central nervous system (CNS) tumors were diagnosed and reported for an incidence rate of 11 tumors per 100,000 population. Thirty one of Oregon's 36 counties reported at least one benign brain tumor.

Benign brain tumors do not contain cancer cells and do not invade tissues around them or spread to other parts of the body, but may press on sensitive areas of the brain. Of the tumors reported in 2004, 297 were treated with surgery and 63 with radiation.

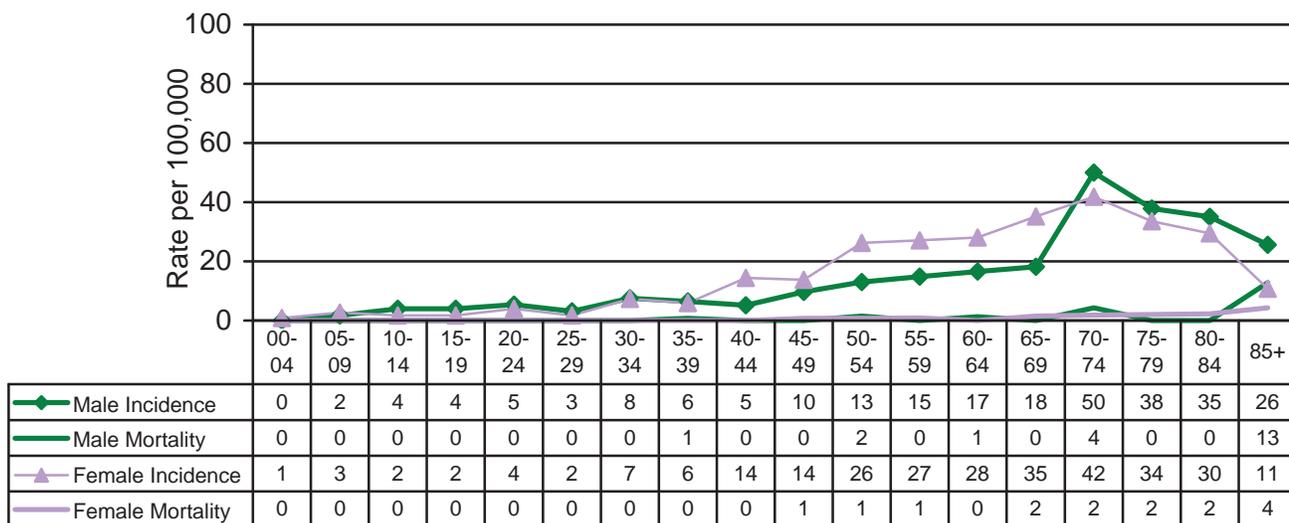
The greatest number of benign brain and CNS tumors were of the cerebral meninges (110), followed by tumors of the pituitary gland (84), and the acoustic nerve (61).

Nearly three-fifths of the benign tumors occurred in females (58 percent). Numbers of benign brain and CNS tumors were highest among women ages 50-54 and among men ages 70-74.

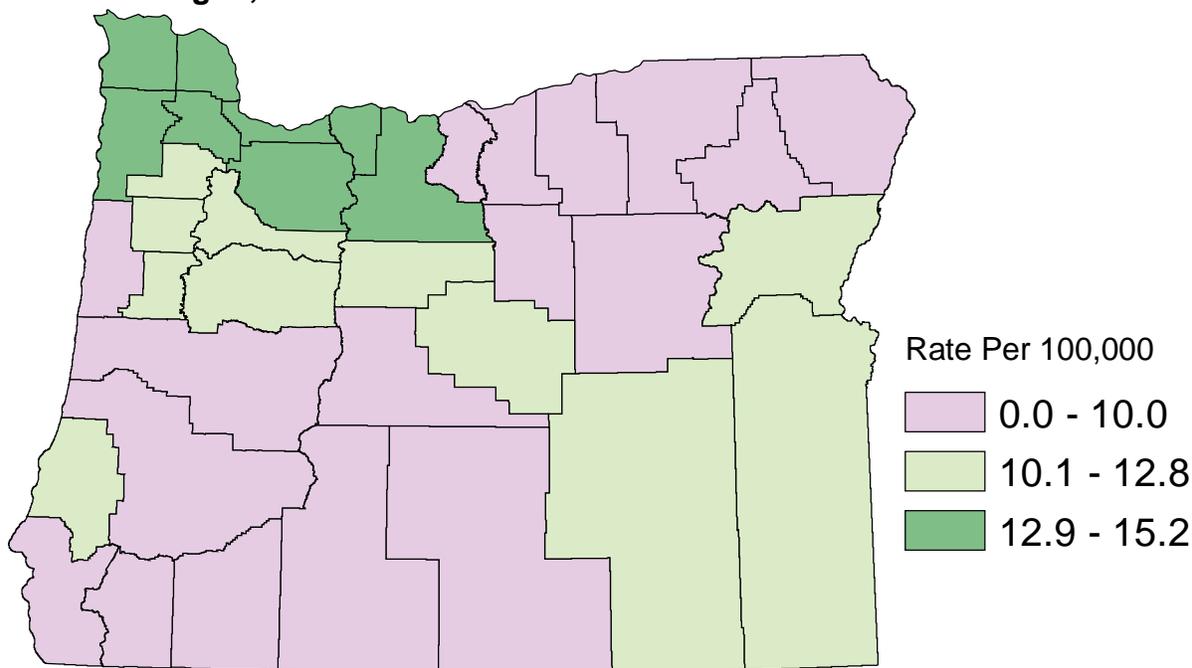
Regionally, the highest occurrence of benign brain tumors was along the north coast and along the Columbia River. [See Brain and CNS Tumors, Non-Malignant map.](#)

## Brain and CNS Tumors - Non-Malignant

**Brain and CNS Tumors, Non-Malignant, Incidence and Mortality Rates, by Age Group and Sex, Oregon, 2004**



**Brain and CNS Non-Malignant Tumor Incidence: Oregon, 2004**



Rates have been smoothed to stabilize results from sparsely populated areas.

## Breast Cancer - Female

### BREAST CANCER, FEMALE - FAST FACTS OREGON

	In Situ	Invasive
<b>CANCER INCIDENCE</b>		
<b>Total Cancer Cases (2004)</b>	<b>554</b>	<b>2,671</b>
<b>RATES (2004)</b>		
Oregon Crude Rate	30.6	147.7
Oregon Age-adjusted Rate	27.8	131.5
US Age-adjusted Rate <sup>1</sup>	29.4	121.3
<b>TRENDS (2000-2004) - APC</b>		
Oregon Annual Trend	-2.5	-3.2
US Annual Trend <sup>1</sup>	+0.0	*-2.8
<b>CANCER MORTALITY</b>		
<b>Total Cancer Deaths (2004)</b>	<b>512</b>	
<b>RATES (2004)</b>		
Oregon Crude Rate	29.0	
Oregon Age-adjusted Rate	24.1	
US Age-Adjusted Rate <sup>2</sup>	24.4	
<b>TRENDS (2000-2004) - APC</b>		
Oregon Annual Trend	-0.7	
US Annual Trend <sup>2</sup>	*-2.1	
<b>PROGNOSIS AND BURDEN (2000-2004)</b>		
Prognosis: M/I Ratio	0.19	
Burden: YPLL	2,451	

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

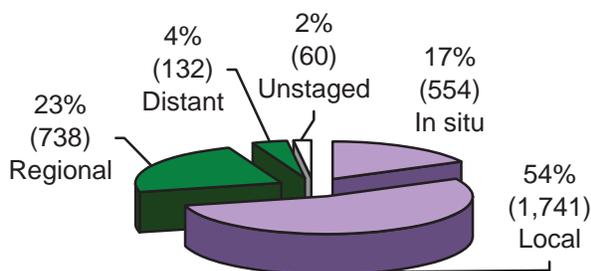
APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

**Breast Cancer, Female  
Stage at Diagnosis, Oregon, 2004**



Among Oregon women, 3,225 breast cancers were diagnosed in 2004 and reported to the central registry. Of these, 2,671 were invasive. Median age at invasive diagnosis was 62. During the same time period, 512 Oregon women died due to breast cancer. Median age at death was 69.

A large majority (71 percent) of breast tumors were diagnosed during the *in situ* or local stage, while 27 percent were diagnosed at regional or distant stage.

Age-adjusted incidence was 132 per 100,000 for invasive cancers and age-adjusted mortality was 24 per 100,000. Age-specific incidence rates increased with age, peaking at ages 75-79 with an incidence rate of 517 per 100,000. During the period 2000-2004, there was approximately one death for every five new invasive diagnoses. Based on a life expectancy of 65 years, a total of 2,451 years of life were lost to Oregon women due to early deaths from breast cancer.

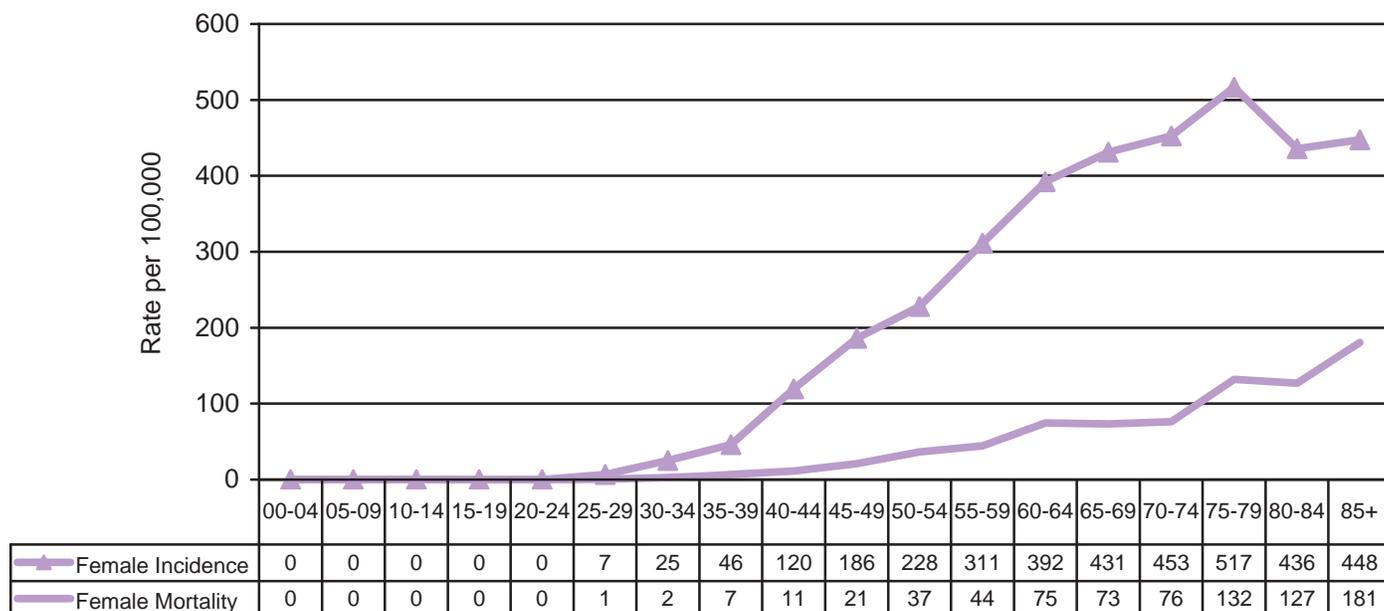
Oregon and Washington consistently rank among the top five states for female breast cancer incidence while having average rates for breast cancer mortality. During the five-year period from 2000-2004, incidence among Oregon women dropped an average of 3.2 percent each year. This decline mirrors a national decline, which may be attributable to a reduction in the use of hormone replacement therapy.\*

The highest incidence rates were in western Oregon, while the highest mortality rates were in central Oregon. See [Breast Cancer Maps](#).

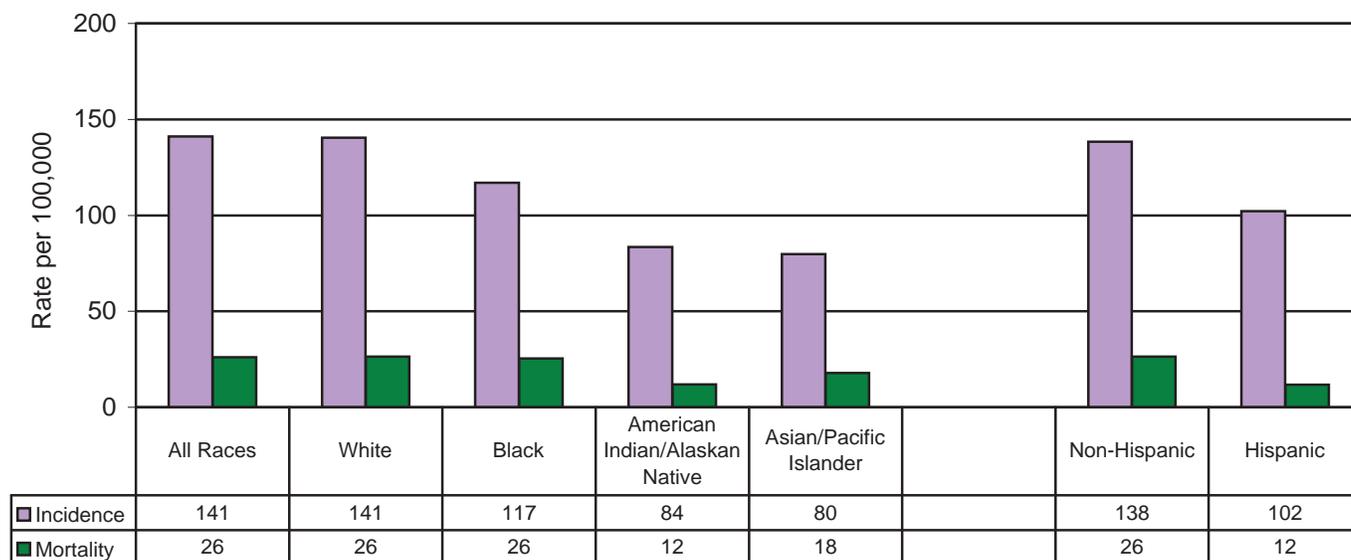
\*Decline in Breast Cancer Incidence – United States, 1999 – 2003, MMWR, June 8, 2007 / 56 (22):549-553.

## Breast Cancer - Female

**Breast Cancer, Female, Incidence and Mortality Rates,  
by Age Group, Oregon, 2004**

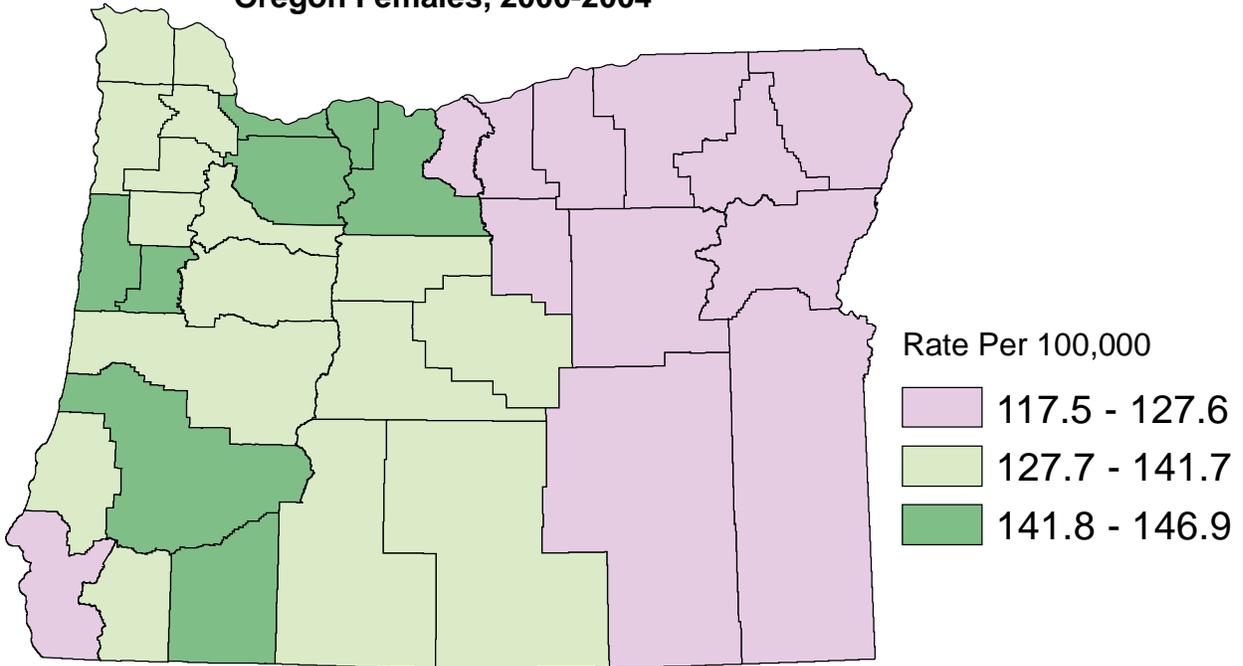


**Breast Cancer, Female, Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



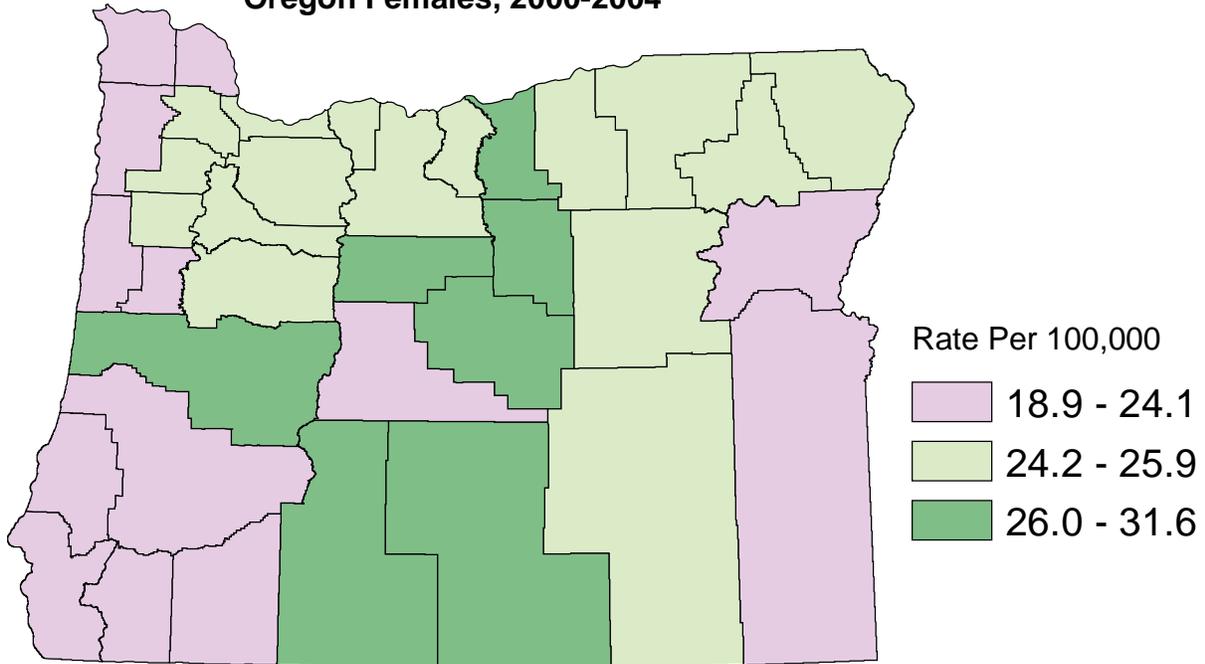
## Breast Cancer - Female

### Breast Cancer Incidence: Oregon Females, 2000-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

### Breast Cancer Mortality: Oregon Females, 2000-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Breast Cancer - Female

**Breast Cancer, Female, Incidence and Mortality Rates, by County, 2000-2004 Average**

BREAST, FEMALE Years 2000-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	5-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	5-Year Trend APC
<b>STATE</b>	<b>2,713</b>	<b>138.8</b>	<b>-3.2</b>	<b>513</b>	<b>25.3</b>	<b>-0.7</b>
Baker	15	125.1	+0.1	3	18.9	^
Benton	56	146.9	-1.0	9	22.9	^
Clackamas	283	146.1	-4.5	45	23.4	+8.0
Clatsop	30	131.1	-2.7	6	23.3	^
Columbia	28	L 114.6	+7.0	6	24.1	^
Coos	62	136.4	-8.5	11	20.9	-0.1
Crook	16	137.7	+3.8	4	31.6	^
Curry	20	L 107.0	+3.2	3	14.7	^
Deschutes	99	139.4	-3.2	17	23.4	+1.3
Douglas	84	123.9	-2.0	19	25.9	+2.7
Gilliam	2	141.8	^	1	^	^
Grant	6	111.5	^	2	29.4	^
Harney	6	118.3	^	1	^	^
Hood River	13	120.4	-5.4	4	28.7	^
Jackson	170	143.6	-1.4	31	24.0	-1.8
Jefferson	12	127.6	+22.0	3	26.9	^
Josephine	78	138.3	+6.3	18	28.1	+7.3
Klamath	51	133.9	-4.6	11	28.5	-5.5
Lake	7	140.9	^	1	^	^
Lane	261	138.7	-2.7	52	26.5	-4.1
Lincoln	49	145.8	-3.3	12	H 34.1	-4.8
Linn	71	L 115.9	-5.1	15	23.0	+9.6
Malheur	18	113.6	+4.6	3	15.9	^
Marion	229	H 150.7	-5.8	44	27.4	+3.0
Morrow	5	96.4	^	1	^	^
Multnomah	499	143.3	-5.2	91	25.7	-3.4
Polk	54	141.3	-0.4	10	24.1	^
Sherman	1	^	^	0	^	^
Tillamook	25	135.8	+8.6	6	29.3	^
Umatilla	44	L 117.5	-4.3	10	25.9	^
Union	20	141.9	+3.4	3	16.2	^
Wallowa	6	109.9	^	1	^	^
Wasco	23	151.3	+2.1	4	28.6	^
Washington	305	141.7	-4.8	56	26.1	+1.3
Wheeler	1	^	^	0	^	^
Yamhill	61	138.1	-5.1	14	30.0	-8.6

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Cervical Cancer

### CERVICAL CANCER - FAST FACTS OREGON

	Female
<b>CANCER INCIDENCE</b>	
<b>Total Cancer Cases (2004)</b>	<b>102</b>
<b>RATES (2004)</b>	
Oregon Crude Rate	7.3
Oregon Age-adjusted Rate	7.1
US Age-adjusted Rate <sup>1</sup>	8.1
<b>TRENDS (2000-2004) - APC</b>	
Oregon Annual Trend	*-10.5
US Annual Trend <sup>1</sup>	*-4.0
<b>CANCER MORTALITY</b>	
<b>Total Cancer Deaths (2004)</b>	<b>29</b>
<b>RATES (2004)</b>	
Oregon Crude Rate	1.6
Oregon Age-adjusted Rate	1.5
US Age-Adjusted Rate <sup>2</sup>	2.4
<b>TRENDS (2000-2004) - APC</b>	
Oregon Annual Trend	-7.3
US Annual Trend <sup>2</sup>	*-3.5
<b>PROGNOSIS AND BURDEN (2000-2004)</b>	
Prognosis: M/I Ratio	0.32
Burden: YPLL	422

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

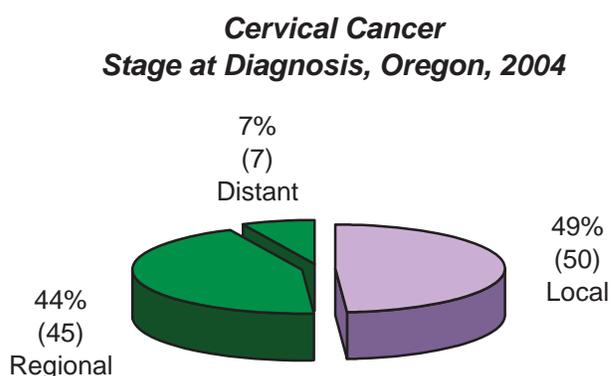
\* indicates a statistically significant trend.

During 2004, 102 Oregon women were diagnosed with invasive cervical cancer and 29 died of the disease. The incidence rate for cervical cancer was 7 per 100,000 women, slightly lower than the national rate of 8 per 100,000. The mortality rate was 2 deaths per 100,000 women, similar to the national rate. In Oregon, median age at diagnosis was 50 and median age at death was 60.

In addition to being lower than national rates, Oregon's cervical cancer rates are declining faster than national rates. Oregon's incidence has declined an average of 10.5 percent per year (compared to a U.S. decline of 4.0 percent), while mortality has declined 7.3 percent per year (compared to a U.S. decline of 3.5 percent). Oregon's declining incidence trend is statistically significant.

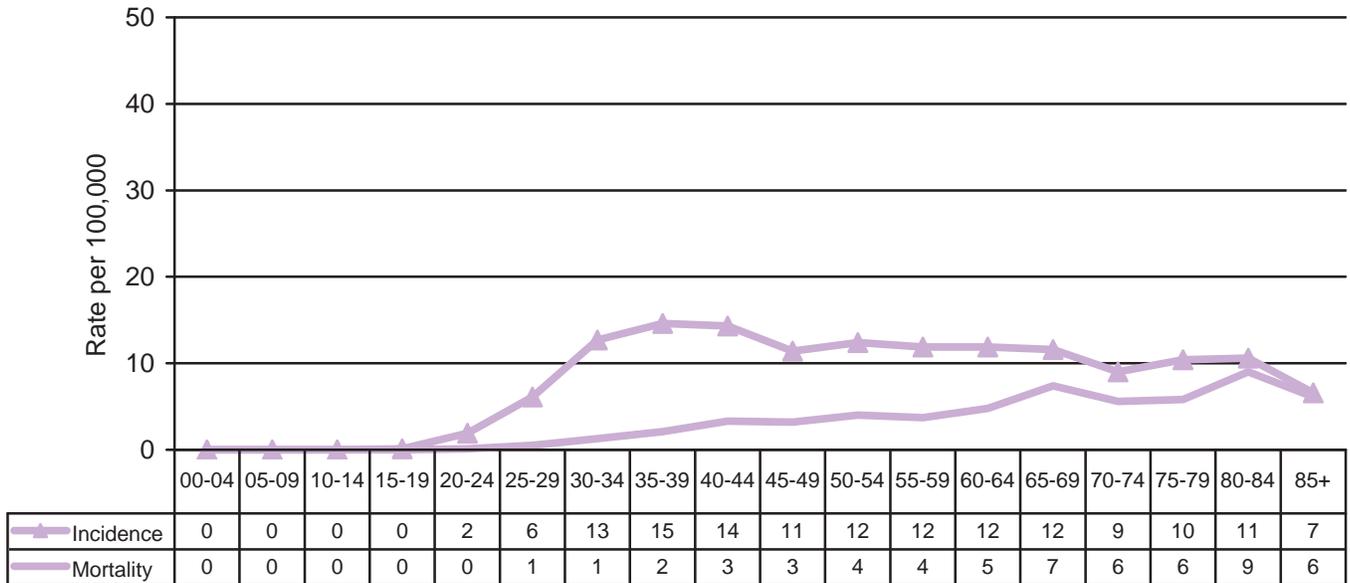
Because of routine Pap testing, the majority of cases are now diagnosed at the *in situ* stage, which is not reportable. In 2004, of all reportable cases, 49 percent were diagnosed at the localized stage. The most important risk factor for cervical cancer is infection by the human papilloma virus (HPV). Increased vaccination for HPV should further reduce the incidence of cervical cancer.

Regionally, incidence was highest in northeastern and southern Oregon, while mortality was highest in eastern and southern Oregon and the north coast. See [Cervical Cancer Maps](#).

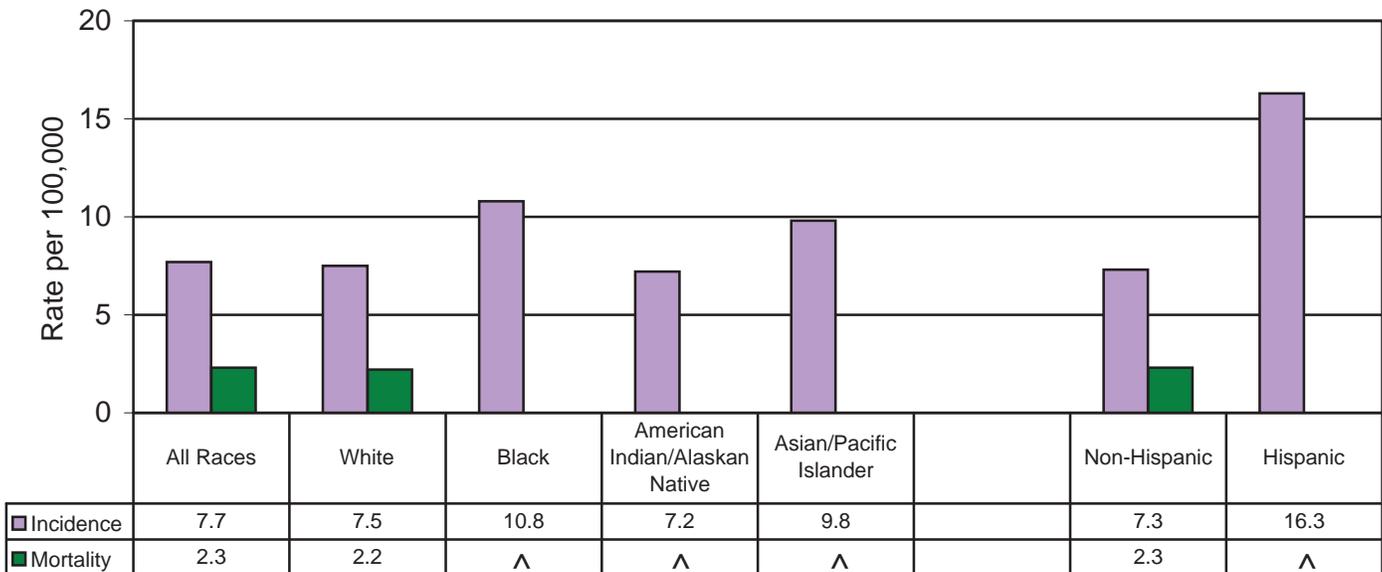


## Cervical Cancer

**Cervical Cancer Incidence and Mortality Rates,  
by Age Group, Oregon, 2004**



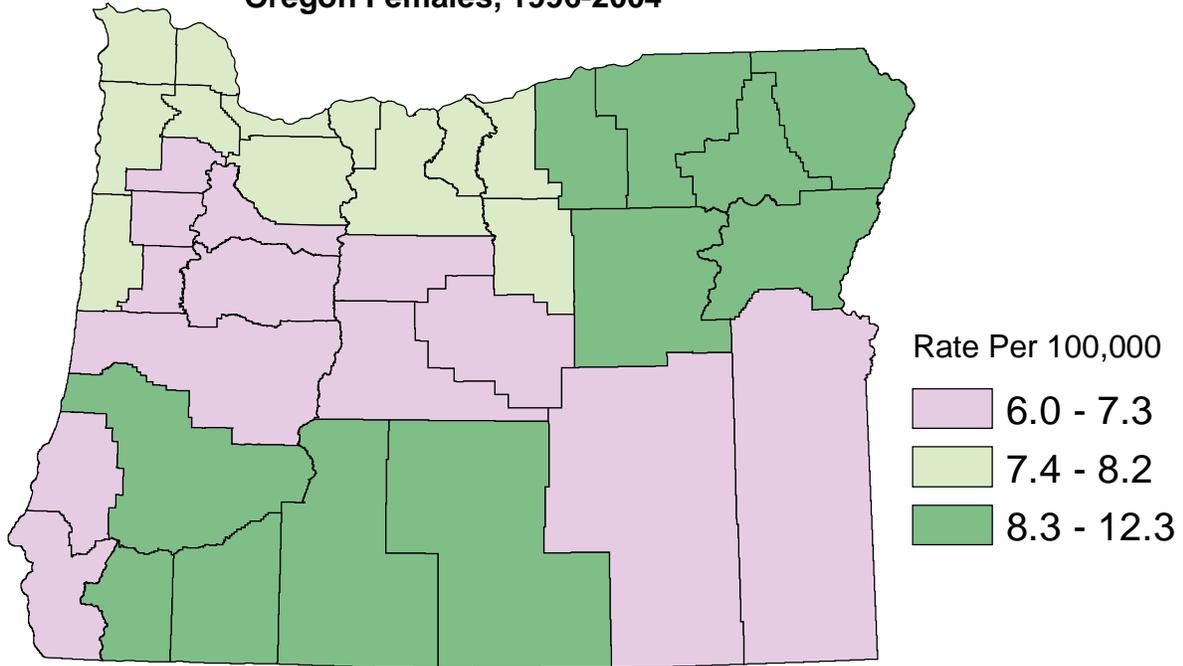
**Cervical Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



^ Rate not calculated due to instability of small numbers

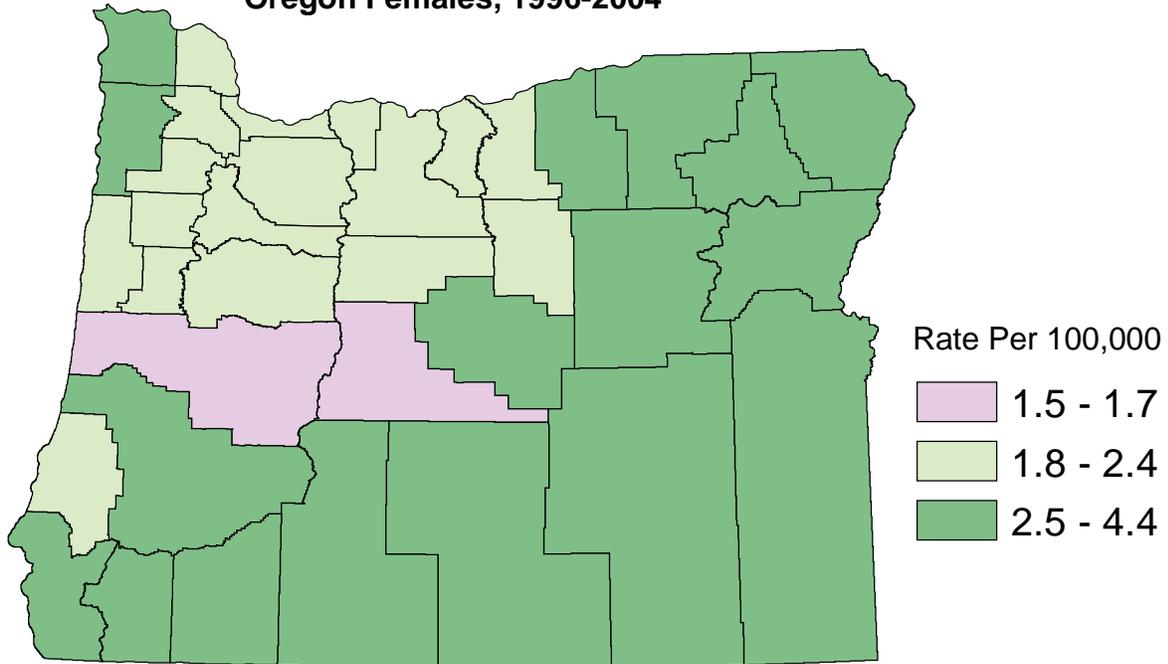
# Cervical Cancer

**Cervical Cancer Incidence:  
Oregon Females, 1996-2004**



Rates have been smoothed to stabilize results from sparsely populated areas.

**Cervical Cancer Mortality:  
Oregon Females, 1996-2004**



Rates have been smoothed to stabilize results from sparsely populated areas.

## Cervical Cancer

**Cervical Cancer, Incidence and Mortality Rates, by County, 1996-2004 Average**

CERVIX Years 1996-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	9-Year Trend APC
<b>STATE</b>	<b>136</b>	<b>7.7</b>	<b>* -4.1</b>	<b>42</b>	<b>2.3</b>	<b>-4.3</b>
Baker	1	^	^	0	^	^
Benton	2	6.3	^	0	^	^
Clackamas	10	L 5.4	^	4	2.2	^
Clatsop	1	^	^	1	^	^
Columbia	2	9.2	^	1	^	^
Coos	4	11.0	^	1	^	^
Crook	1	^	^	0	^	^
Curry	1	^	^	0	^	^
Deschutes	4	6.0	^	1	^	^
Douglas	5	9.3	^	2	2.7	^
Gilliam	0	^	^	0	^	^
Grant	0	^	^	0	^	^
Harney	1	^	^	0	^	^
Hood River	1	^	^	0	^	^
Jackson	10	H 10.7	^	3	2.5	^
Jefferson	0	^	^	0	^	^
Josephine	3	6.8	^	1	^	^
Klamath	4	11.0	^	0	^	^
Lake	0	^	^	0	^	^
Lane	11	6.8	+3.9	3	1.7	^
Lincoln	3	11.0	^	1	^	^
Linn	4	7.5	^	1	^	^
Malheur	1	^	^	0	^	^
Marion	11	7.6	-5.4	4	2.6	^
Morrow	1	^	^	0	^	^
Multnomah	27	7.9	* -8.0	7	2.2	^
Polk	2	5.4	^	1	^	^
Sherman	0	^	^	0	^	^
Tillamook	1	^	^	1	^	^
Umatilla	4	H 12.3	^	1	^	^
Union	1	^	^	0	^	^
Wallowa	0	^	^	0	^	^
Wasco	1	^	^	1	^	^
Washington	15	6.9	-4.4	4	2.1	^
Wheeler	0	^	^	0	^	^
Yamhill	4	10.2	^	1	^	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

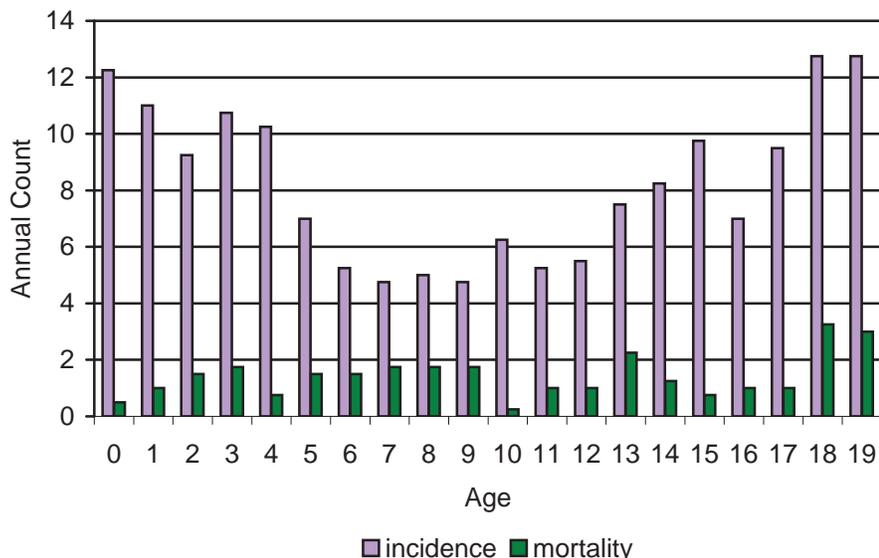
^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Childhood Cancer

**Childhood Cancers, Ages 0-19, Average Annual Incidence and Mortality, Oregon, 2001-2004**

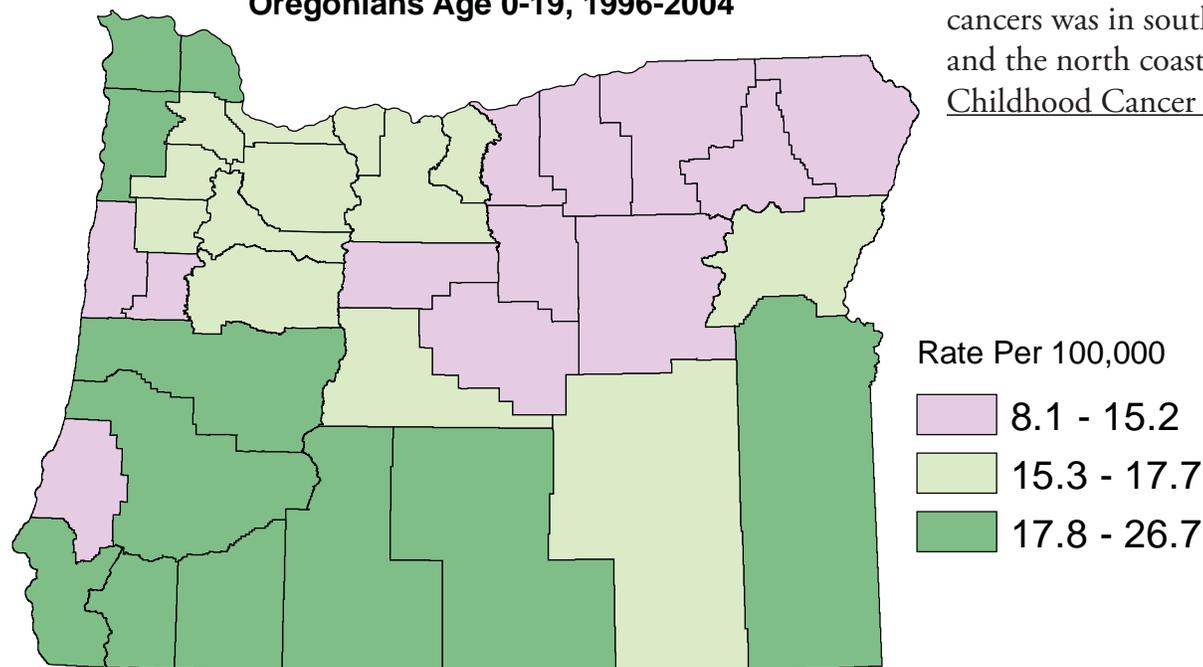


During 2001-2004, an average of 165 children under 20 were diagnosed with cancer per year: 85 males and 80 females. The incidence rate was 78 cases per 1,000,000 children.

Leukemia was the most common diagnosis with an average of 46 cases newly diagnosed per year. Tumors of the central nervous system had an average of 30 cases diagnosed and lymphoma had an average of 28 cases diagnosed.

During the same time period, an average of 28 children died per year, 16 males and 12 females. The mortality rate was 30 deaths per 1,000,000 children.

**Childhood Cancer Incidence: Oregonians Age 0-19, 1996-2004**



Between 1996 and 2004, the highest incidence of childhood cancers was in southern Oregon and the north coast. [See Childhood Cancer map.](#)

Rates have been smoothed to stabilize results from sparsely populated areas.

## Childhood Cancer

### Rates of Childhood Cancer Incidence by Sex and Age Group, Oregonians Age 0-19, 2001-2004

	Sex			Age			
	Total	Male	Female	<5	5-9	10-14	15-19
<b>Total</b>	<b>173.2</b>	<b>174.1</b>	<b>172.2</b>	<b>237.8</b>	<b>115.3</b>	<b>132.3</b>	<b>210.9</b>
Leukemias, myeloproliferative & myelodysplastic diseases	48.2	47.9	48.6	95.5	40.9	29.3	29.5
Lymphomas and reticuloendothelial neoplasms	28.5	34.0	22.8	11.1	11.8	32.3	58.1
<i>Hodgkin lymphomas</i>	15.5	15.6	15.3	1.1	3.2	18.2	38.7
<i>Non-Hodgkin lymphomas (except Burkitt lymphoma)</i>	9.4	13.7	4.8	3.3	6.5	12.1	15.3
CNS and misc intracranial and intraspinal neoplasms	31.2	30.5	32.0	45.5	32.3	29.3	18.3
Neuroblastoma and other peripheral nervous cell tumors	6.7	6.8	6.6	24.6	3.2	0.0	0.0
Retinoblastoma	1.1	1.0	1.1	4.4	0.0	0.0	0.0
Renal tumors	6.4	5.8	7.2	16.6	8.6	1.0	0.0
Hepatic tumors	2.9	3.1	2.7	7.8	1.1	0.0	3.1
Malignant bone tumors	8.6	10.1	6.9	2.2	4.3	9.1	18.3
<i>Osteosarcomas</i>	3.1	4.5	1.6	0.0	0.0	5.1	7.1
<i>Ewing tumor and related sarcomas of bone</i>	4.4	4.6	4.3	2.2	4.3	3.0	8.2
Soft tissue and other extraosseous sarcomas	11.1	7.2	15.1	20.0	5.4	8.1	11.2
Germ cell & trophoblastic tumors & neoplasms of gonads	11.4	17.6	4.8	4.5	3.2	9.1	28.5
Other malignant epithelial neoplasms and melanomas	16.5	9.0	24.4	3.4	4.3	14.1	43.8
Other and unspecified malignant neoplasms	0.5	1.1	0.0	2.2	0.0	0.0	0.0

Rates are per 1,000,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130) standard.

### Average Annual Counts of Childhood Cancer Incidence by Sex and Age Group, Oregonians Age 0-19, 2001-2004

	Sex			Age			
	Total	Male	Female	<5	5-9	10-14	15-19
<b>Total</b>	<b>165</b>	<b>85</b>	<b>80</b>	<b>54</b>	<b>27</b>	<b>33</b>	<b>52</b>
Leukemias, myeloproliferative & myelodysplastic diseases	46	23	22	22	10	7	7
Lymphomas and reticuloendothelial neoplasms	28	17	11	3	3	8	14
<i>Hodgkin lymphomas</i>	15	8	7	0	1	5	10
<i>Non-Hodgkin lymphomas (except Burkitt lymphoma)</i>	9	7	2	1	2	3	4
CNS and misc intracranial and intraspinal neoplasms	30	15	15	10	8	7	5
Neuroblastoma and other peripheral nervous cell tumors	6	3	3	6	1	0	0
Retinoblastoma	1	1	1	1	0	0	0
Renal tumors	6	3	3	4	2	0	0
Hepatic tumors	3	2	1	2	0	0	1
Malignant bone tumors	8	5	3	1	1	2	5
<i>Osteosarcomas</i>	3	2	1	0	0	1	2
<i>Ewing tumor and related sarcomas of bone</i>	4	2	2	1	1	1	2
Soft tissue and other extraosseous sarcomas	11	4	7	5	1	2	3
Germ cell & trophoblastic tumors & neoplasms of gonads	11	9	2	1	1	2	7
Other malignant epithelial neoplasms and melanomas	16	5	12	1	1	4	11
Other and unspecified malignant neoplasms	1	1	0	1	0	0	0

## Colorectal Cancer

### COLORECTAL CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2004)</b>	<b>1,852</b>	<b>984</b>	<b>868</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	49.6	53.2	46.1
Oregon Age-adjusted Rate	46.9	56.1	39.4
US Age-adjusted Rate <sup>1</sup>	47.8	56.1	41.4
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-2.2	-2.3	-2.2
US Annual Trend <sup>1</sup>	*-3.1	*-3.3	*-2.9
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2004)</b>	<b>637</b>	<b>329</b>	<b>308</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	17.7	18.4	17.0
Oregon Age-adjusted Rate	16.5	20.2	13.8
US Age-Adjusted Rate <sup>2</sup>	17.9	21.6	15.2
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-2.0	-3.0	-0.5
US Annual Trend <sup>2</sup>	*-3.3	*-3.5	*-3.4
<b>PROGNOSIS AND BURDEN (2000-2004)</b>			
Prognosis: M/I Ratio	0.37	0.37	0.37
Burden: YPLL	1,609	905	704

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers. Total column may exceed male/female columns due to coding to other gender.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

During 2004, 1,852 cases of colorectal cancer were diagnosed and reported to the central registry. Median age at diagnosis was 71. During the same time period, 637 Oregonians died due to colorectal cancer. Median age at death was 76.

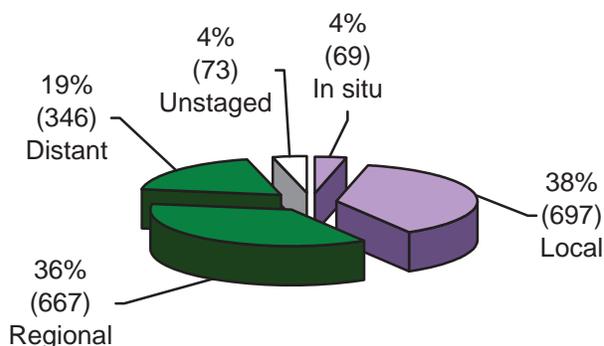
More than two in five colorectal cancer cases were diagnosed in the *in situ* or localized stage when colorectal cancer can be effectively treated, and 55 percent were diagnosed at the regional or distant stage. Another 4 percent were unstaged.

The age-adjusted rate of new colorectal cancers in 2004 was 47 per 100,000, or about one cancer per every 2,000 persons. The age-adjusted mortality rate in 2004 was 17 per 100,000.

Colorectal cancer is the second leading cause of cancer death in Oregon. During the period 2000-2004, there were about two deaths for every five new colorectal cancer diagnoses. Based on a life expectancy of 65 years, a total of 1,609 years of life were lost due to early deaths from colorectal cancer.

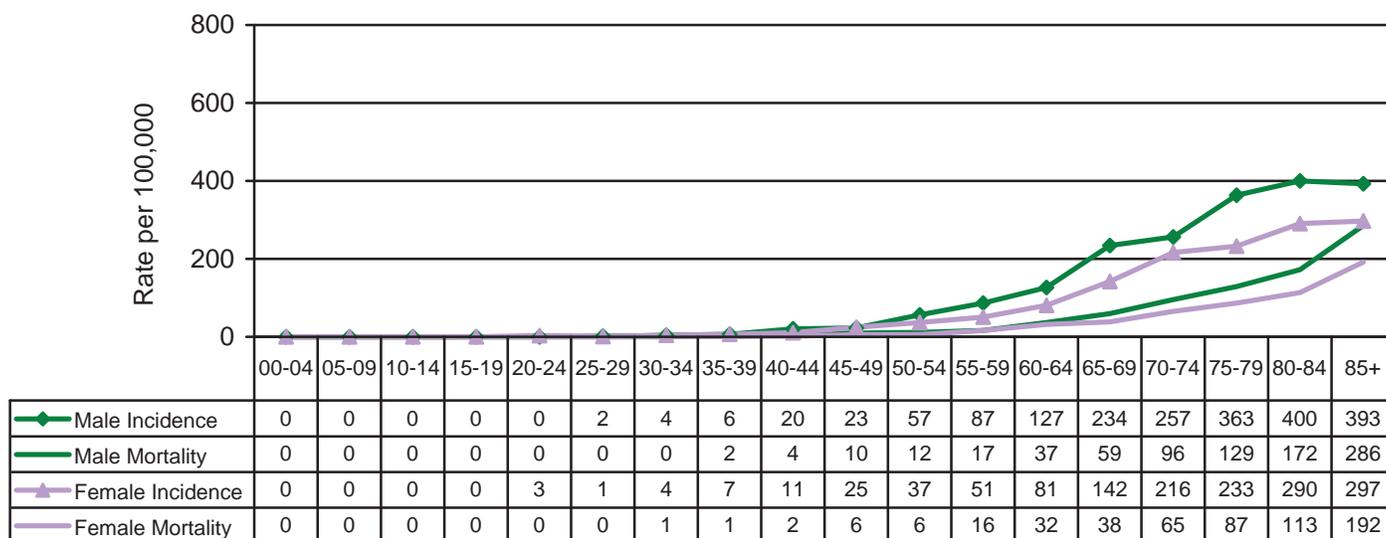
Regionally, incidence was highest in southern and northeastern Oregon, while mortality was highest at the northern and southern tips of the coast. [See Colorectal cancer maps.](#)

**Colorectal Cancer  
Stage at Diagnosis, Oregon, 2004**

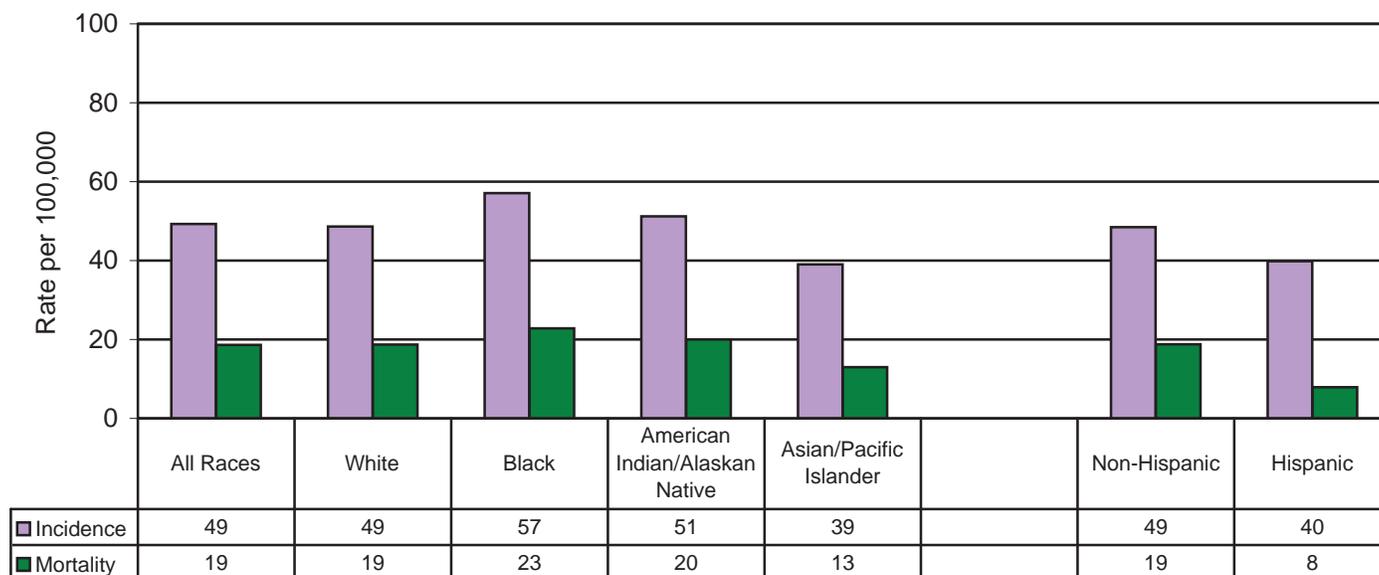


## Colorectal Cancer

**Colorectal Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2004**

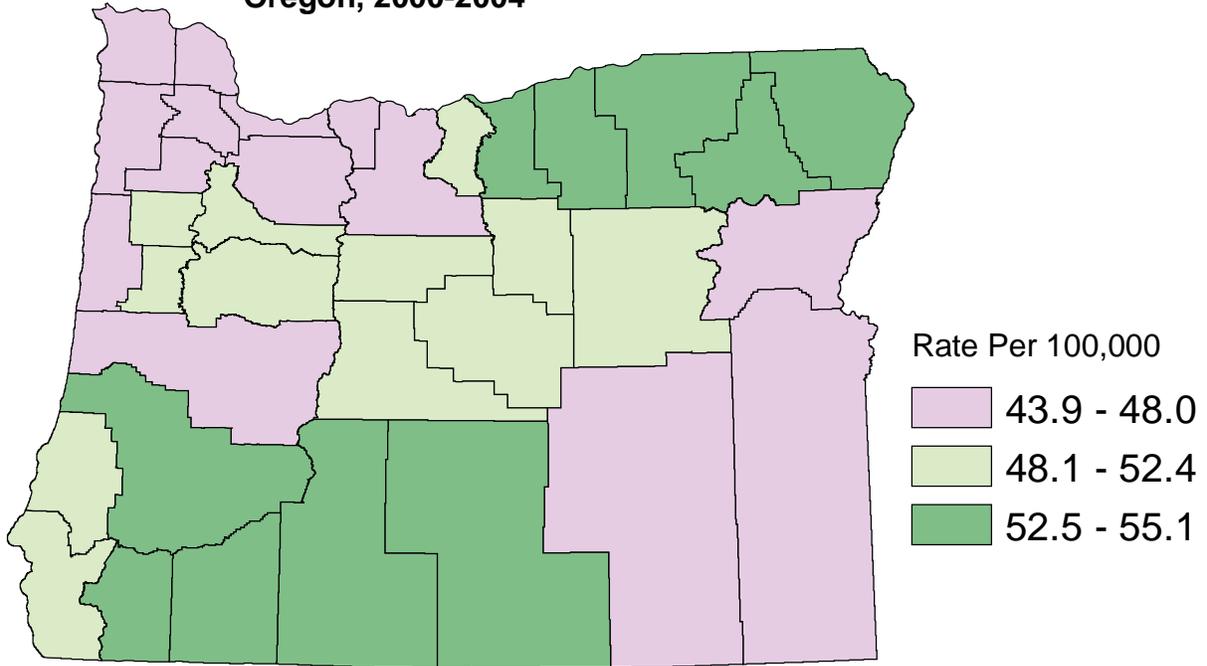


**Colorectal Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



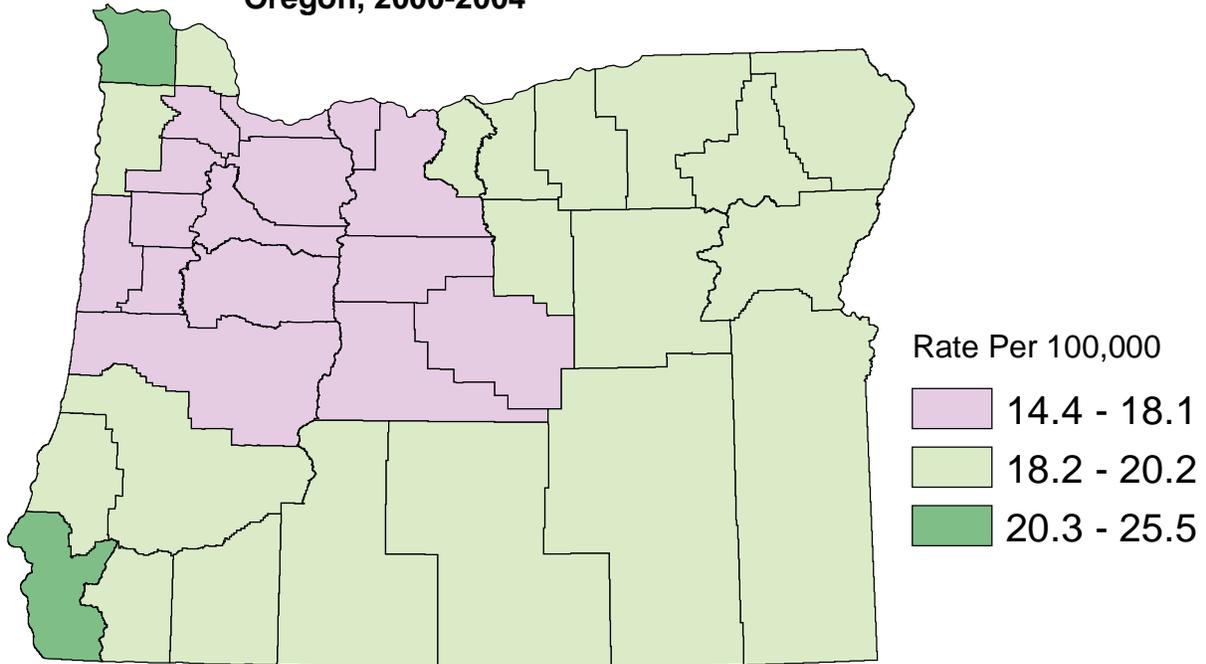
# Colorectal Cancer

## Colorectal Cancer Incidence: Oregon, 2000-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Colorectal Cancer Mortality: Oregon, 2000-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Colorectal Cancer

**Colorectal Cancer Incidence and Mortality Rates, by County, 2000-2004 Average**

COLON/RECTUM Years 1996-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	9-Year Trend APC
<b>STATE</b>	<b>1,794</b>	<b>48.8</b>	<b>-2.2</b>	<b>664</b>	<b>17.8</b>	<b>-2.0</b>
Baker	11	43.9	+3.0	3	12.9	^
Benton	32	44.3	-8.4	9	13.4	^
Clackamas	170	49.1	+1.9	60	17.5	-5.4
Clatsop	21	48.0	-7.3	11	H 25.5	+9.3
Columbia	24	53.2	-12.1	9	19.7	^
Coos	34	L 37.0	-9.7	15	16.1	+0.5
Crook	12	49.1	+10.2	4	17.5	^
Curry	21	51.0	+2.0	9	20.9	^
Deschutes	70	52.4	-1.9	22	16.8	-7.9
Douglas	73	52.9	-4.2	25	17.6	+3.1
Gilliam	2	54.2	^	1	^	^
Grant	5	49.9	^	3	24.7	^
Harney	4	40.6	^	2	20.4	^
Hood River	10	49.8	^	3	13.5	^
Jackson	123	53.0	-7.7	45	19.1	-4.1
Jefferson	9	48.8	^	4	18.9	^
Josephine	62	52.7	-1.9	24	19.6	-5.7
Klamath	39	50.7	+5.7	15	19.8	+4.1
Lake	6	60.6	^	1	^	^
Lane	161	44.8	+0.1	52	L 14.4	+1.5
Lincoln	40	H 60.7	+8.5	13	19.2	-9.4
Linn	61	50.0	+8.3	23	18.7	-6.2
Malheur	16	47.5	+1.9	7	20.9	^
Marion	157	H 54.3	-5.4	65	H 21.9	+6.5
Morrow	7	69.6	^	3	25.1	^
Multnomah	291	46.8	-2.1	114	18.1	-1.3
Polk	38	50.3	+0.6	15	18.2	-1.6
Sherman	0	^	^	0	^	^
Tillamook	12	L 32.5	-11.2	5	14.8	^
Umatilla	39	55.1	-7.5	15	20.2	-9.4
Union	15	51.4	+0.0	8	H 28.0	^
Wallowa	4	37.9	^	1	^	^
Wasco	17	56.1	+1.8	6	18.5	-5.8
Washington	167	45.5	-3.8	58	15.6	-5.7
Wheeler	1	^	^	1	^	^
Yamhill	39	45.4	+4.8	13	14.9	+5.4

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.  
APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Esophageal Cancer

### ESOPHAGEAL CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2004)</b>	<b>204</b>	<b>160</b>	<b>44</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	5.7	9.0	2.4
Oregon Age-adjusted Rate	5.4	9.4	2.1
US Age-adjusted Rate <sup>1</sup>	-2.0	-0.1	-9.2
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-1.9	-0.1	-8.7
US Annual Trend <sup>1</sup>	+0.2	+0.1	0.0
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2004)</b>	<b>205</b>	<b>161</b>	<b>44</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	5.7	9	2.4
Oregon Age-adjusted Rate	5.5	9.6	2.2
US Age-Adjusted Rate <sup>2</sup>	4.4	7.7	1.7
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	+1.0	+0.4	+1.7
US Annual Trend <sup>2</sup>	-0.3	-0.1	*-1.5
<b>PROGNOSIS AND BURDEN (2000-2004)</b>			
Prognosis: M/I Ratio	0.93	0.95	0.85
Burden: YPLL	563	469	94

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers. Total column may exceed male/female columns due to coding to other gender.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

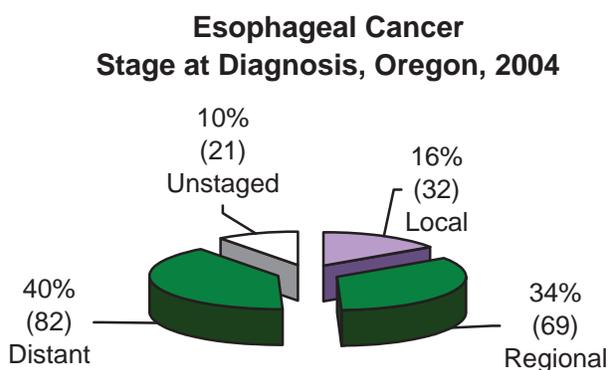
In 2004, 204 esophageal cancers were diagnosed among Oregonians and reported to the central registry. Median age at diagnosis was 70. During the same time period, 205 Oregonians died due to esophageal cancer. Median age at death was 72.

About 16 percent of esophageal cancers were diagnosed at the local stage and 74 percent were diagnosed at the regional or distant stage.

The age-adjusted incidence rate of esophageal cancer in 2004 was 5 per 100,000 and the mortality rate was 6 per 100,000. Men had higher incidence and mortality rates than women. Among men, the incidence rate was 9 per 100,000 and among women the rate was 2 per 100,000. The mortality rate among men was 10 per 100,000 and among women was 2 per 100,000.

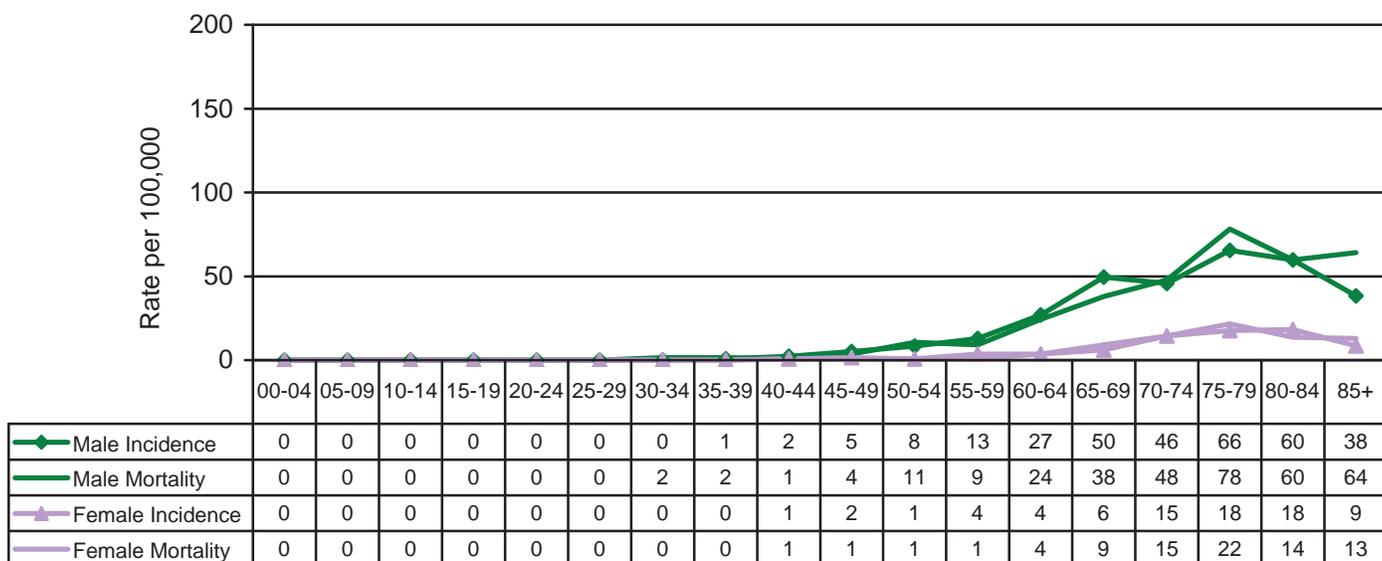
During the period 2000-2004, there were 93 deaths for every 100 diagnoses of esophageal cancer. Based on a life expectancy of 65 years, a total of 563 years of life were lost due to early deaths from esophageal cancer.

Regionally, esophageal cancer incidence was highest in the Columbia River Gorge and north central Oregon. Mortality from esophageal cancer was highest along the north and south coast, and the central and northeast regions of the state. [See Esophageal Cancer maps.](#)

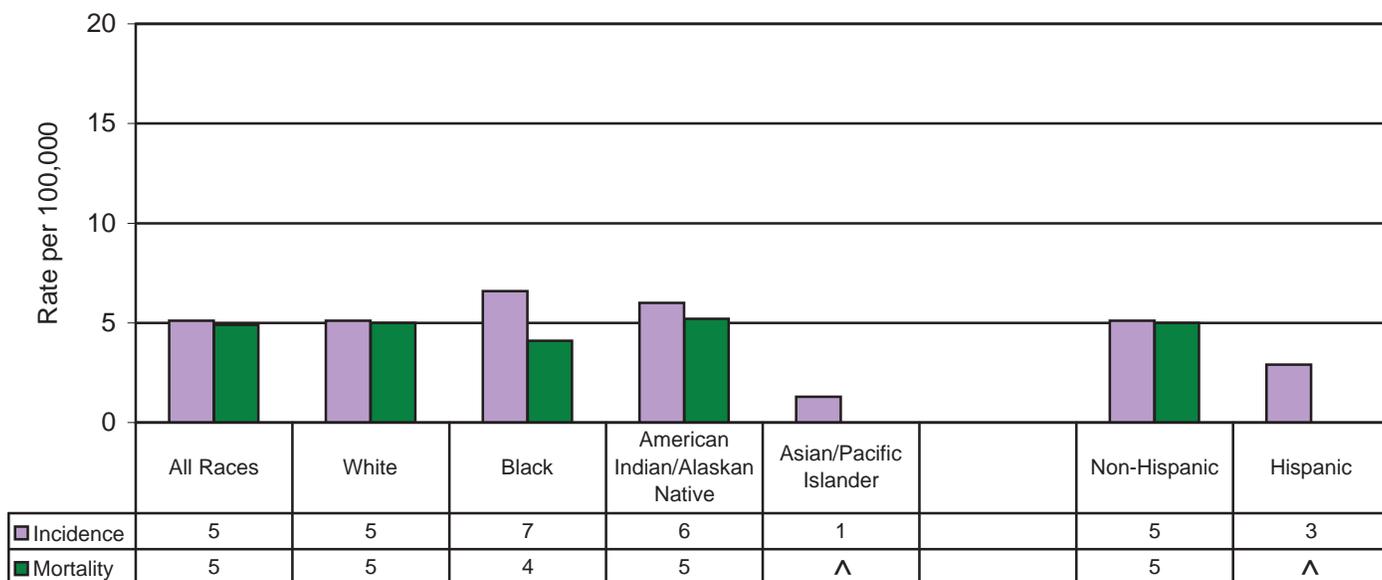


## Esophageal Cancer

**Esophageal Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2004**



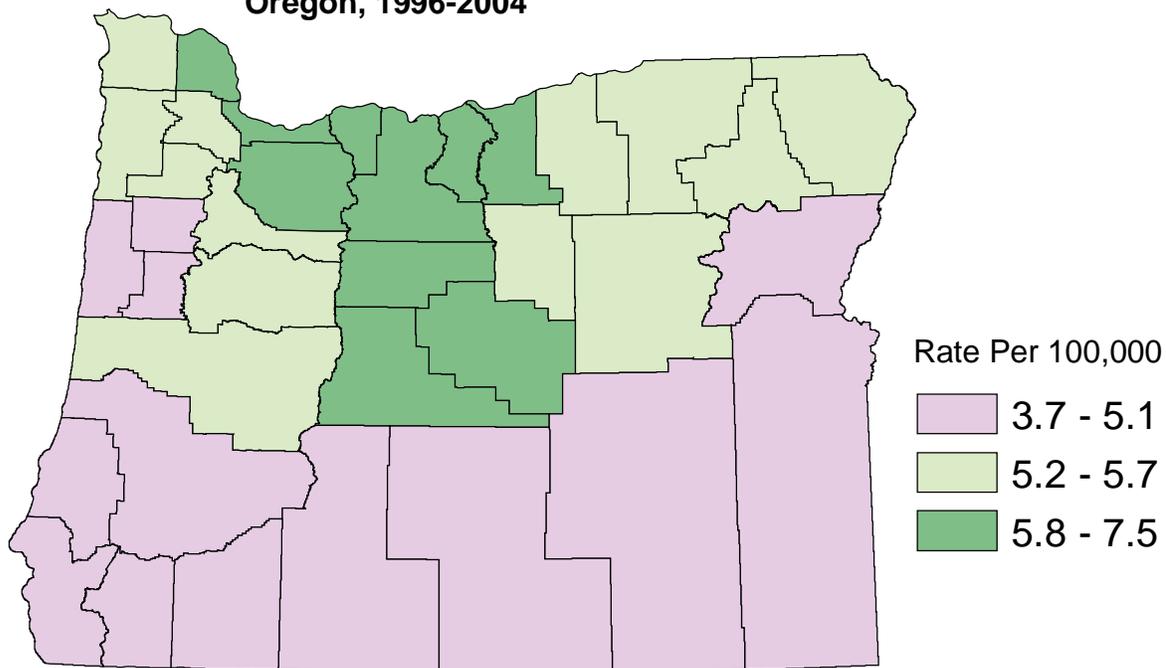
**Esophageal Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



^ Rate not calculated due to instability of small numbers

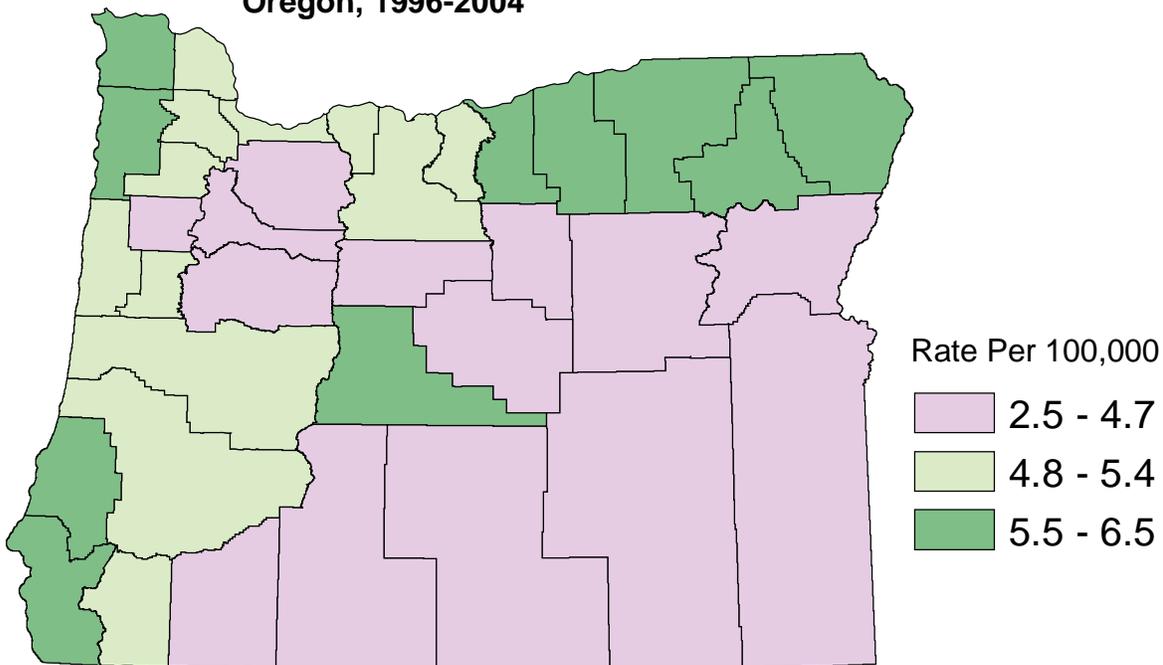
## Esophageal Cancer

### Esophageal Cancer Incidence: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

### Esophageal Cancer Mortality: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Esophageal Cancer

**Esophageal Cancer Incidence and Mortality Rates, by County, 1996-2004 Average**

ESOPHAGUS Years 1996-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	9-Year Trend APC
<b>STATE</b>	<b>181</b>	<b>5.1</b>	<b>+3.2</b>	<b>173</b>	<b>4.9</b>	<b>+2.4</b>
Baker	1	^	^	1	^	^
Benton	2	3.7	^	2	3.7	^
Clackamas	15	4.7	+4.8	15	4.6	+6.6
Clatsop	2	4.5	^	3	6.3	^
Columbia	3	6.4	^	2	5.4	^
Coos	7	H 7.7	^	6	6.6	^
Crook	1	^	^	1	^	^
Curry	2	5.8	^	2	6.1	^
Deschutes	9	H 7.6	^	8	6.5	^
Douglas	7	4.8	^	6	4.5	^
Gilliam	0	^	^	0	^	^
Grant	1	^	^	0	^	^
Harney	0	^	^	0	^	^
Hood River	1	^	^	1	^	^
Jackson	11	4.8	+2.0	8	3.8	^
Jefferson	1	^	^	1	^	^
Josephine	5	4.5	^	6	5.1	^
Klamath	4	4.8	^	3	4.4	^
Lake	1	^	^	0	^	^
Lane	19	5.4	+3.1	17	4.9	+4.8
Lincoln	3	5.3	^	4	6.2	^
Linn	6	5.1	^	6	5.4	^
Malheur	1	^	^	1	^	^
Marion	14	5.0	+4.4	14	5.0	+2.6
Morrow	1	^	^	1	^	^
Multnomah	32	5.3	+4.8	31	5.0	+2.6
Polk	3	4.5	^	3	3.8	^
Sherman	0	^	^	0	^	^
Tillamook	2	7.2	^	2	6.5	^
Umatilla	4	5.8	^	4	5.5	^
Union	1	^	^	1	^	^
Wallowa	0	^	^	0	^	^
Wasco	2	6.0	^	2	5.2	^
Washington	15	4.3	+2.9	16	4.7	+1.8
Wheeler	0	^	^	0	^	^
Yamhill	4	5.0	^	4	4.7	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Kidney Cancer

### KIDNEY CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2004)</b>	<b>518</b>	<b>309</b>	<b>209</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	14.4	17.3	11.6
Oregon Age-adjusted Rate	13.6	17.6	10.3
US Age-adjusted Rate <sup>1</sup>	13.3	18.2	9.2
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	*+6.1	*+5.6	*+6.9
US Annual Trend <sup>1</sup>	*+2.5	*+1.9	*+3.3
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2004)</b>	<b>158</b>	<b>101</b>	<b>57</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	4.4	5.7	3.2
Oregon Age-adjusted Rate	4.1	6.0	2.6
US Age-Adjusted Rate <sup>2</sup>	4.1	5.9	2.7
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-1.6	-0.8	-2.7
US Annual Trend <sup>2</sup>	-0.7	-1.0	*-0.7
<b>PROGNOSIS AND BURDEN (2000-2004)</b>			
Prognosis: M/I Ratio	0.34	0.36	0.32
Burden: YPLL	522	356	166

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers. Total column may exceed male/female columns due to coding to other gender.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

Kidney cancer includes renal cell carcinoma (cancer that forms in the lining of very small tubes in the kidney that filter the blood and remove waste products) and renal pelvis carcinoma (cancer that forms in the center of the kidney where urine collects).

In 2004, 518 cancers of the kidney were diagnosed in Oregonians and reported to the central registry. Median age at diagnosis was 65. During the same time period, 158 Oregonians died due to cancer of the kidney. Median age at death was 73. More than half (58 percent) were diagnosed at the local stage.

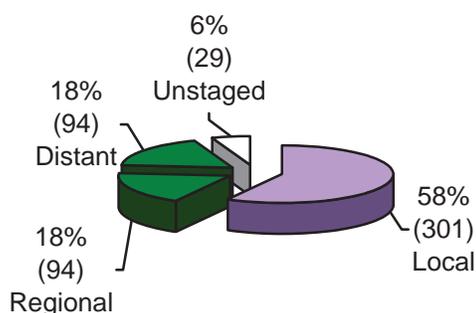
The age-adjusted incidence rate of cancer of the kidney in 2004 was 14 per 100,000. Among men, the incidence rate was 18 per 100,000 and among women the rate was 10 per 100,000.

The age-adjusted mortality rate for cancer of the kidney in 2004 was 4 per 100,000. Among men, the mortality rate was 6 per 100,000 and among women the rate was 3 per 100,000.

During the period 2000-2004, there were 34 deaths for every 100 diagnoses. Based on a life expectancy of 65 years, a total of 522 years of life were lost due to early deaths from kidney cancer.

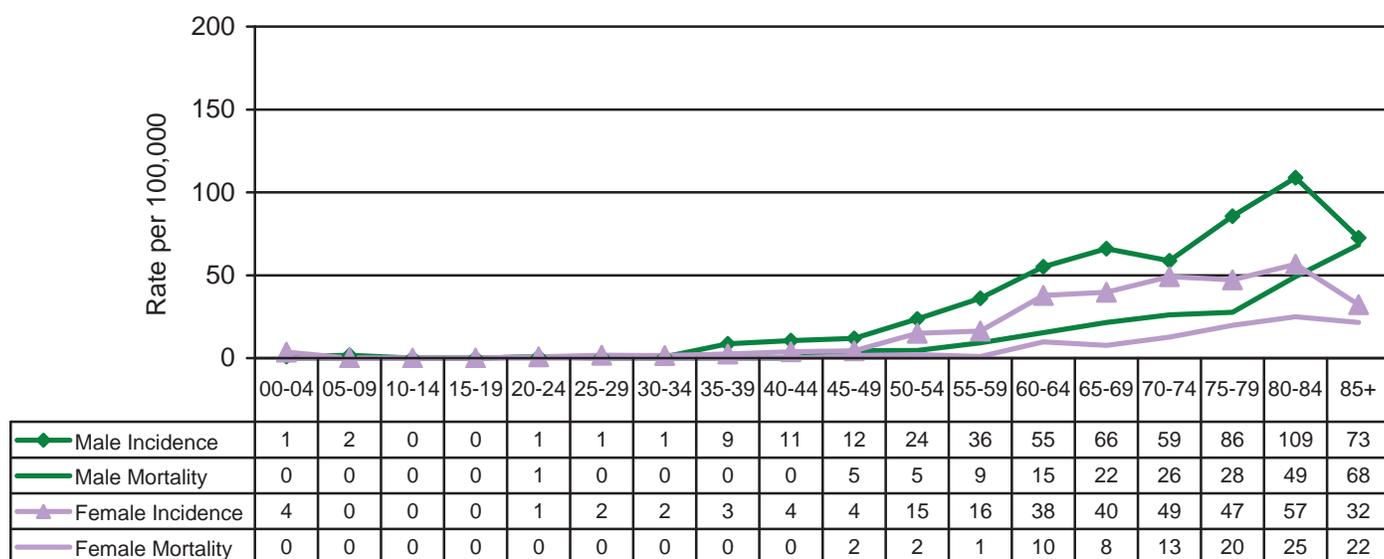
The incidence was highest in the south Cascades and the northwest region of Oregon, while mortality was highest on the north coast and in central Oregon. See [Kidney Cancer maps](#).

**Kidney Cancer  
Stage at Diagnosis, Oregon, 2004**

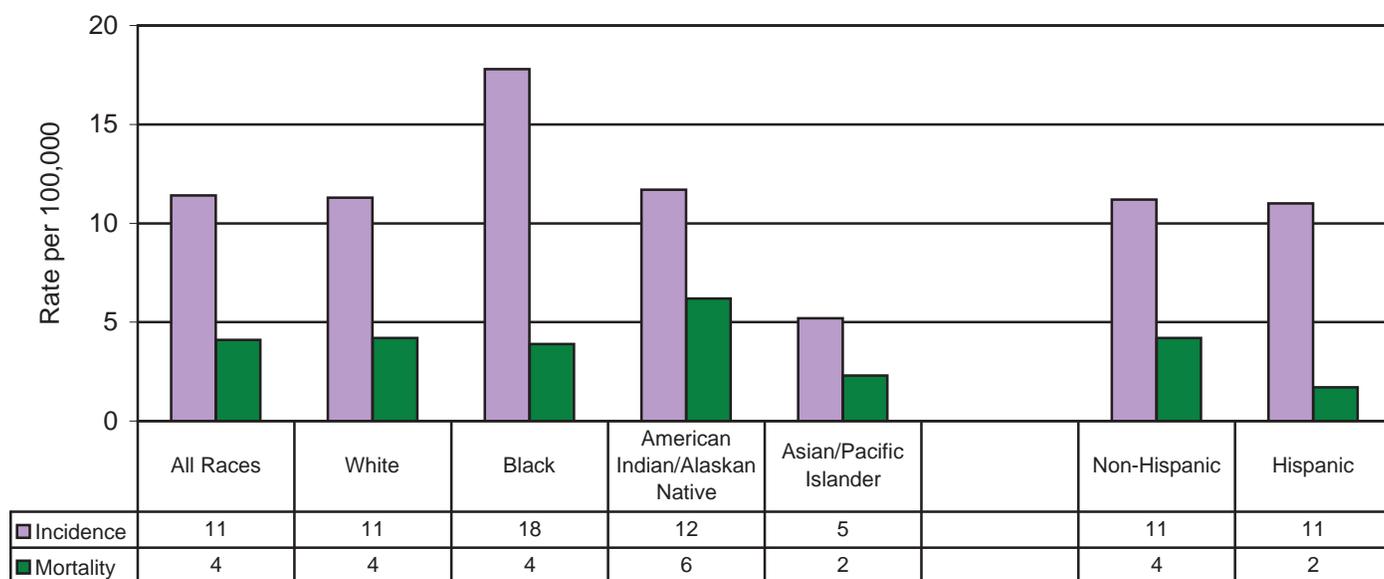


# Kidney Cancer

**Kidney Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2004**

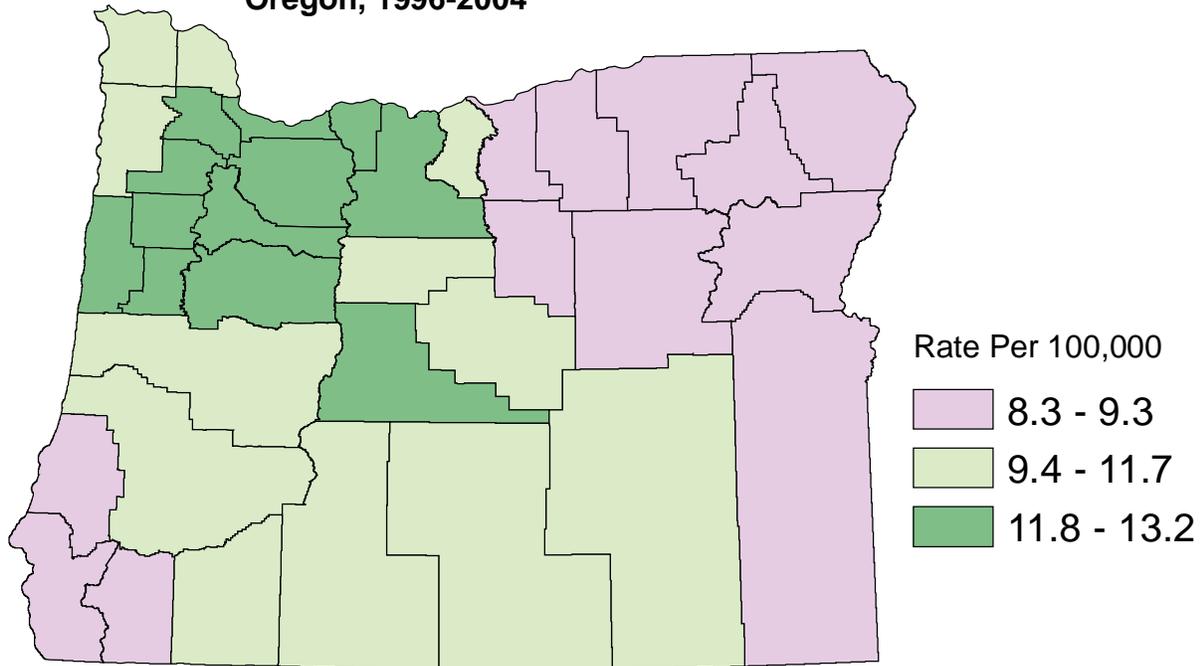


**Kidney Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



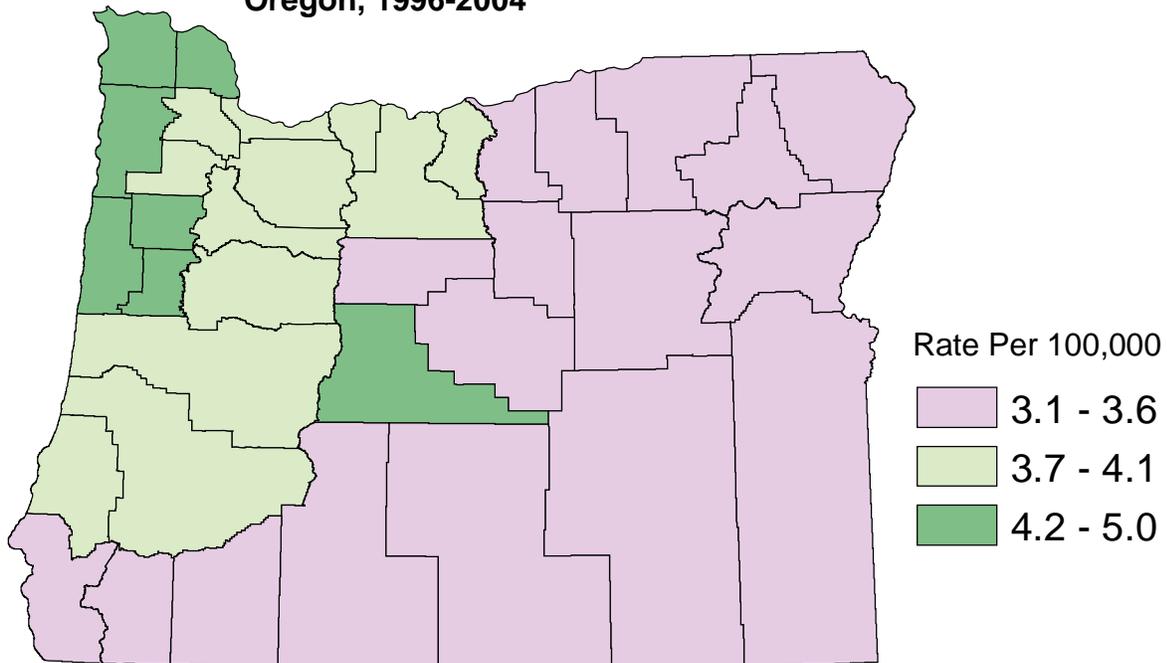
# Kidney Cancer

## Kidney Cancer Incidence: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Kidney Cancer Mortality: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Kidney Cancer

**Kidney Cancer Incidence and Mortality Rates, by County, 1996-2004 Average**

KIDNEY/RENAL Years 1996-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	9-Year Trend APC
<b>STATE</b>	<b>404</b>	<b>11.4</b>	<b>+3.8</b>	<b>147</b>	<b>4.1</b>	<b>-0.7</b>
Baker	2	8.7	^	1	^	^
Benton	6	9.3	^	3	4.1	^
Clackamas	40	11.9	+5.5	14	4.2	+5.7
Clatsop	5	11.2	^	2	5.0	^
Columbia	5	11.6	^	3	6.7	^
Coos	15	H 17.3	+1.4	5	5.5	^
Crook	2	10.4	^	1	^	^
Curry	3	8.8	^	1	^	^
Deschutes	17	13.2	+10.1	6	4.6	^
Douglas	16	12.5	+5.9	7	4.8	^
Gilliam	0	^	^	0	^	^
Grant	1	^	^	0	^	^
Harney	1	^	^	0	^	^
Hood River	2	8.2	^	0	^	^
Jackson	22	10.0	+7.5	8	3.6	^
Jefferson	2	12.4	^	1	^	^
Josephine	10	9.0	^	4	3.6	^
Klamath	8	11.7	^	3	4.7	^
Lake	2	19.4	^	1	^	^
Lane	37	10.7	+4.6	14	4.1	-4.6
Lincoln	8	12.8	^	3	4.3	^
Linn	14	12.1	+10.0	5	4.2	^
Malheur	3	8.8	^	1	^	^
Marion	35	12.6	+5.1	13	4.7	+4.7
Morrow	1	^	^	1	^	^
Multnomah	73	11.9	+2.8	25	4.1	-3.2
Polk	9	13.1	^	3	3.9	^
Sherman	1	^	^	0	^	^
Tillamook	4	11.4	^	2	4.6	^
Umatilla	6	8.3	^	2	3.1	^
Union	2	8.3	^	1	^	^
Wallowa	1	^	^	0	^	^
Wasco	3	10.2	^	2	5.8	^
Washington	38	10.3	+0.4	12	3.4	-1.4
Wheeler	0	^	^	0	^	^
Yamhill	10	12.1	^	3	3.3	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Leukemia

### LEUKEMIA - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2004)</b>	<b>371</b>	<b>215</b>	<b>156</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	10.3	12.0	8.6
Oregon Age-adjusted Rate	10.0	12.7	7.8
US Age-adjusted Rate <sup>1</sup>	11.6	15.1	9.0
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-6.4	-5.1	-8.4
US Annual Trend <sup>1</sup>	*-2.3	*-2.5	*-2.5
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2004)</b>	<b>268</b>	<b>156</b>	<b>112</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	7.5	8.7	6.2
Oregon Age-adjusted Rate	7.0	9.5	5.2
US Age-Adjusted Rate <sup>2</sup>	7.2	9.7	5.5
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-2.4	-1.3	-3.0
US Annual Trend <sup>2</sup>	*-1.5	*-1.4	*-2.0
<b>PROGNOSIS AND BURDEN (2000-2004)</b>			
Prognosis: M/I Ratio	0.68	0.68	0.68
Burden: YPLL	1,432	825	607

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers. Total column may exceed male/female columns due to coding to other gender.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.  
M/I = Mortality to Incidence Ratio.  
YPLL = Years of Potential Life Lost.  
\* indicates a statistically significant trend.

Leukemia is a cancer that starts in blood-forming tissue such as the bone marrow and causes large numbers of abnormal blood cells to be produced and released into the bloodstream.

In 2004, a total of 371 Oregonians were diagnosed with leukemia and reported to the central registry. Median age at diagnosis was 67. During the same time period, 268 Oregonians died due to leukemia. Median age at death was 76.

The age-adjusted annual incidence rate for leukemia in 2004 was 10 per 100,000. The age-adjusted incidence rate among men was 13 per 100,000 and among women was 8 per 100,000.

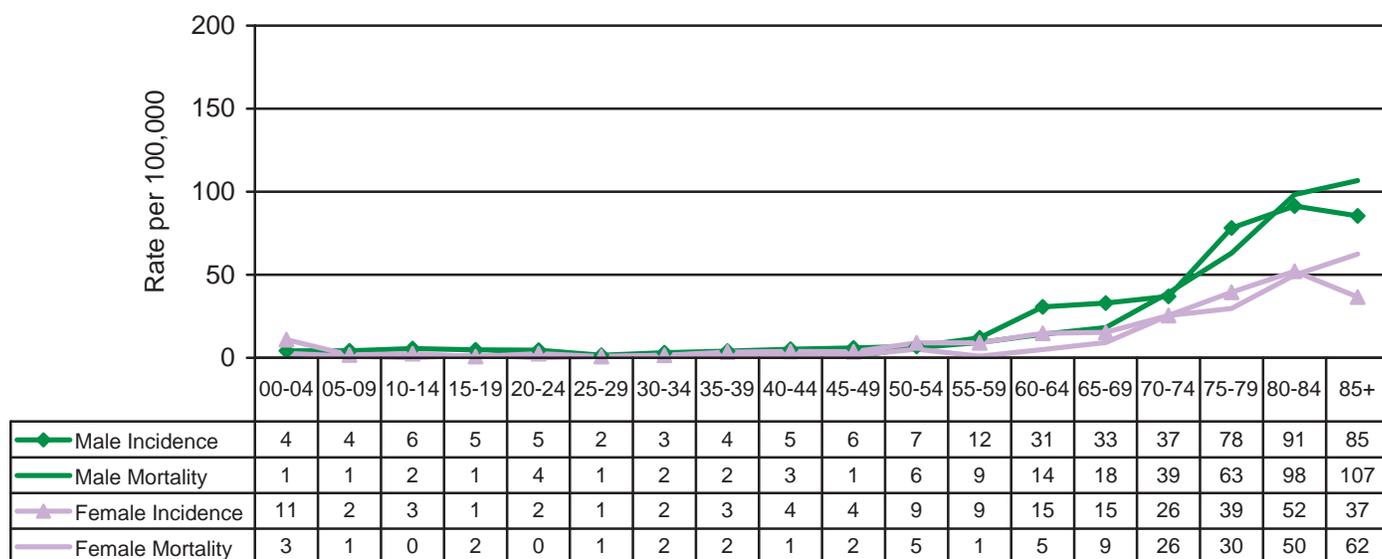
The age-adjusted mortality rate for leukemia in 2004 was 7 per 100,000. Among men, the rate was 10 per 100,000 and among women the rate was 5 per 100,000.

During the period 2000-2004, the mortality to incidence ratio was 68 deaths for every hundred new diagnoses. Based on a life expectancy of 65 years, a total of 1,432 years of potential life were lost due to early deaths from leukemia.

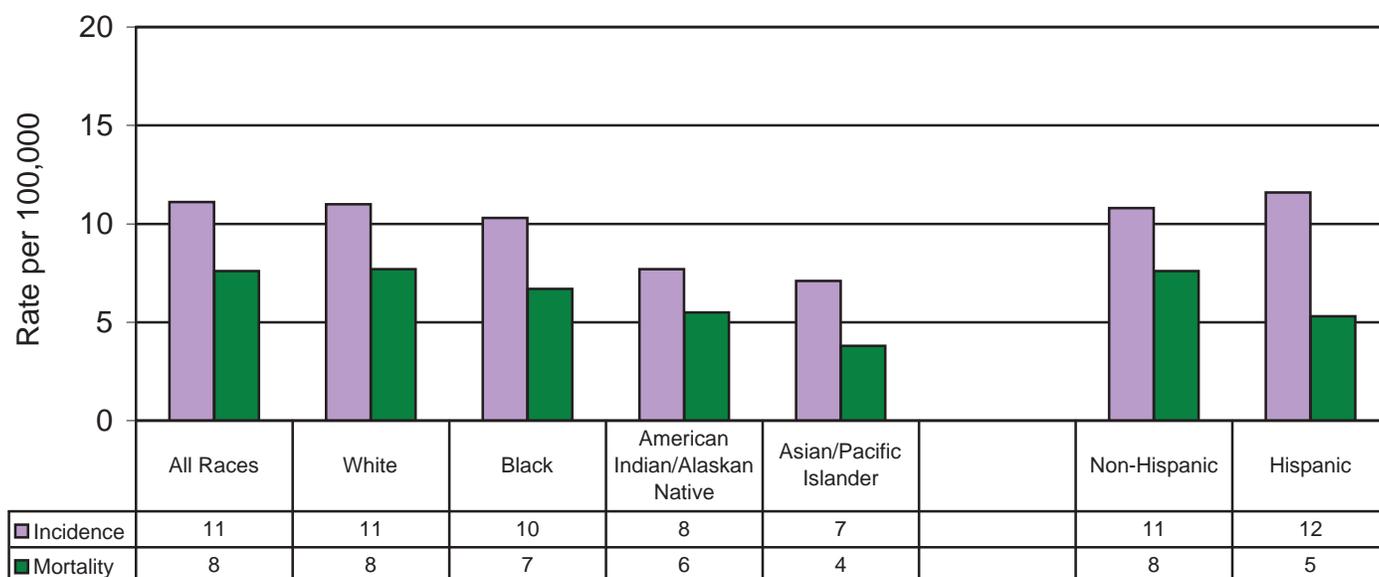
Regionally, incidence was highest in the Columbia River Gorge and mortality was highest in northeastern Oregon and areas of the Willamette Valley. [See Leukemia maps.](#)

## Leukemia

**Leukemia Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2004**

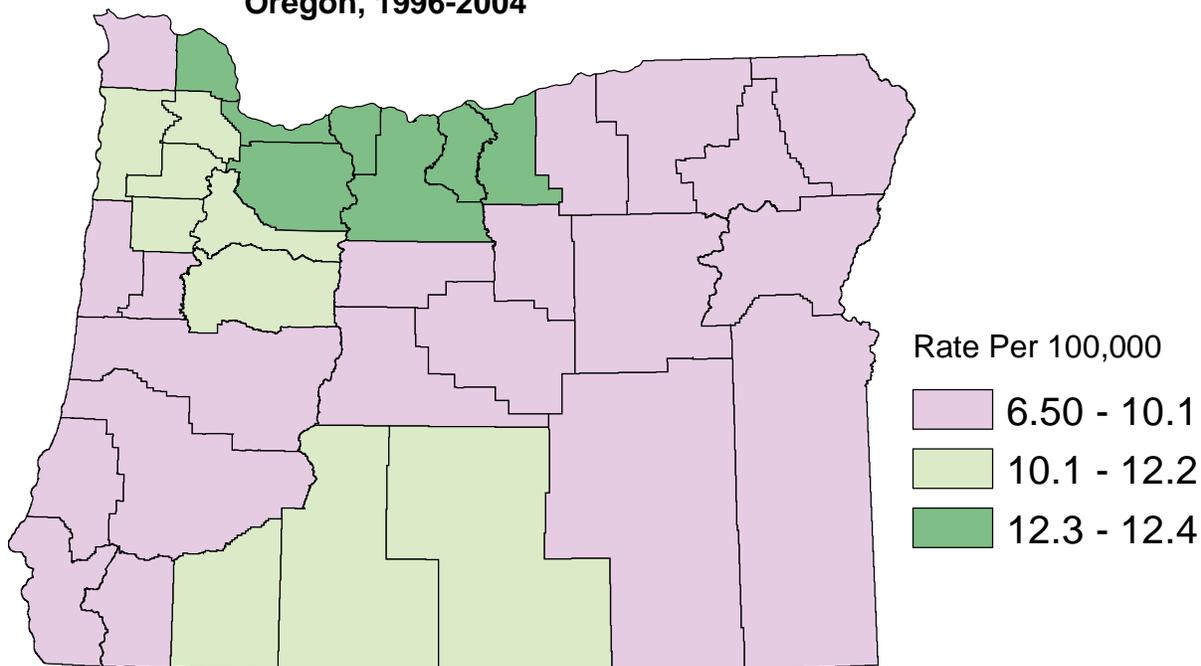


**Leukemia Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



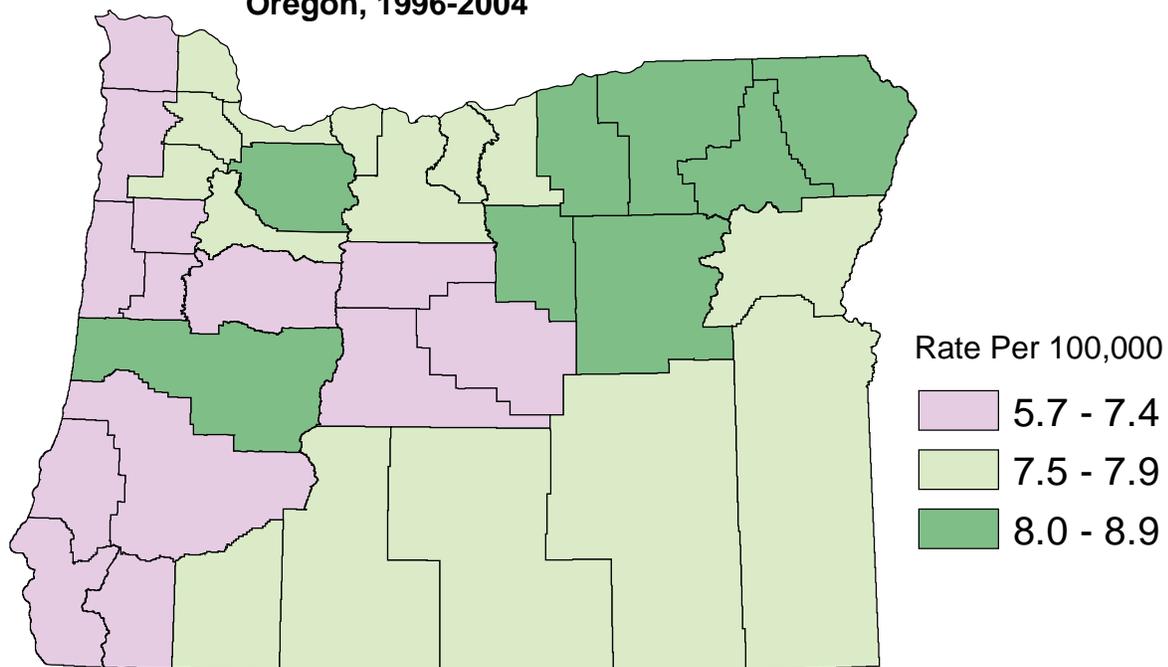
# Leukemia

## Leukemia Incidence: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Leukemia Mortality: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Leukemia

**Leukemia Incidence and Mortality Rates, by County, 1996-2004 Average**

LEUKEMIA Years 1996-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	9-Year Trend APC
<b>STATE</b>	<b>389</b>	<b>11.1</b>	<b>-0.6</b>	<b>270</b>	<b>7.6</b>	<b>-1.9</b>
Baker	2	8.3	^	2	7.7	^
Benton	7	9.9	^	5	7.4	^
Clackamas	39	11.8	-0.3	25	8.0	-4.3
Clatsop	4	9.1	^	2	5.8	^
Columbia	6	14.7	^	3	7.8	^
Coos	10	11.4	^	9	9.2	^
Crook	1	^	^	1	^	^
Curry	4	9.7	^	3	7.7	^
Deschutes	11	9.4	-1.6	8	6.8	^
Douglas	13	10.5	-1.9	10	7.6	^
Gilliam	0	^	^	0	^	^
Grant	1	^	^	1	^	^
Harney	1	^	^	1	^	^
Hood River	2	8.0	^	1	^	^
Jackson	25	11.6	-1.5	18	7.9	-5.2
Jefferson	2	11.3	^	1	^	^
Josephine	9	8.5	^	6	5.7	^
Klamath	9	12.9	^	5	6.3	^
Lake	1	^	^	1	^	^
Lane	34	10.0	+4.1	31	8.9	-2.9
Lincoln	5	L 7.3	^	3	L 4.3	^
Linn	11	9.6	+3.6	9	7.4	^
Malheur	4	10.8	^	2	7.1	^
Marion	35	12.3	-2.6	21	7.5	+0.4
Morrow	1	^	^	1	^	^
Multnomah	77	12.4	-0.7	50	7.9	+1.1
Polk	7	10.3	^	5	7.4	^
Sherman	0	^	^	0	^	^
Tillamook	3	10.2	^	3	9.8	^
Umatilla	7	10.1	^	6	8.0	^
Union	3	10.9	^	2	6.8	^
Wallowa	1	^	^	1	^	^
Wasco	3	9.8	^	1	^	^
Washington	43	11.7	-2.2	27	7.6	-2.4
Wheeler	1	^	^	0	^	^
Yamhill	8	9.6	^	5	6.6	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

# Liver Cancer

## LIVER CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2004)</b>	<b>200</b>	<b>148</b>	<b>52</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	5.6	8.3	2.9
Oregon Age-adjusted Rate	5.2	8.1	2.6
US Age-adjusted Rate <sup>1</sup>	6.4	10.0	3.4
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	+6.5	+7.3	+4.3
US Annual Trend <sup>1</sup>	*+1.9	+2.2	+0.3
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2004)</b>	<b>171</b>	<b>115</b>	<b>56</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	4.8	6.4	3.1
Oregon Age-adjusted Rate	4.6	6.7	2.8
US Age-Adjusted Rate <sup>2</sup>	5.1	7.4	3.2
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	+3.9	+5.6	+1.2
US Annual Trend <sup>2</sup>	*+2.6	*+2.4	*+2.3
<b>PROGNOSIS AND BURDEN (2000-2004)</b>			
Prognosis: M/I Ratio	0.95	0.87	1.11
Burden: YPLL	740	517	222

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers. Total column may exceed male/female columns due to coding to other gender.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

In 2004, 200 liver cancers were diagnosed among Oregon residents and reported to the central registry. Median age at diagnosis was 61. During the same time period, 171 Oregonians died due to liver cancer. Median age at death was 68.

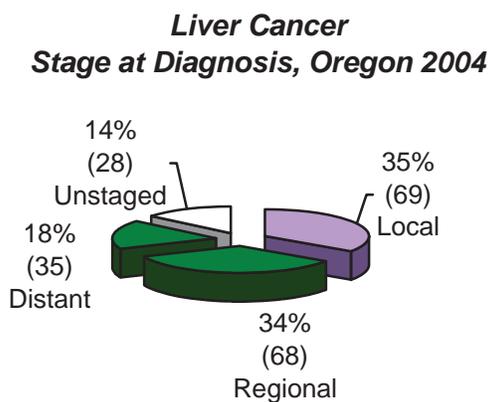
About a third (35 percent) of the new liver cancers were diagnosed at the local stage and just over a half (52 percent) were diagnosed at the regional or distant stage. Another 14 percent were unstaged.

Incidence and mortality were higher among men. The age-adjusted incidence rate among men was 8 per 100,000 and among women was 3 per 100,000. The age-adjusted mortality rate was 7 per 100,000 among men and 3 per 100,000 among women.

Incidence and mortality rates from liver cancer are high among Asians and Pacific Islanders. This may be related to higher rates of chronic viral hepatitis in parts of this community.

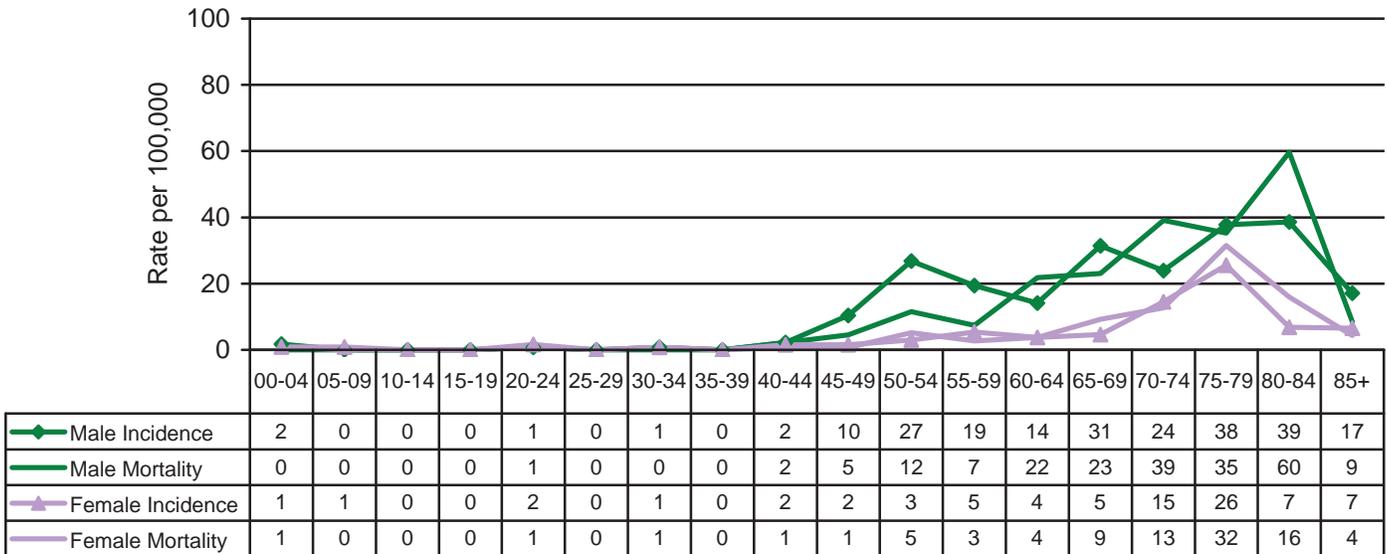
During the period 2000-2004, the mortality to incidence ratio was 0.95. Based on a life expectancy of 65 years, a total of 740 years of life were lost due to early deaths from liver cancer.

Liver cancer incidence was higher in western Oregon and mortality was highest in the northern part of the state. [See Liver Cancer maps.](#)

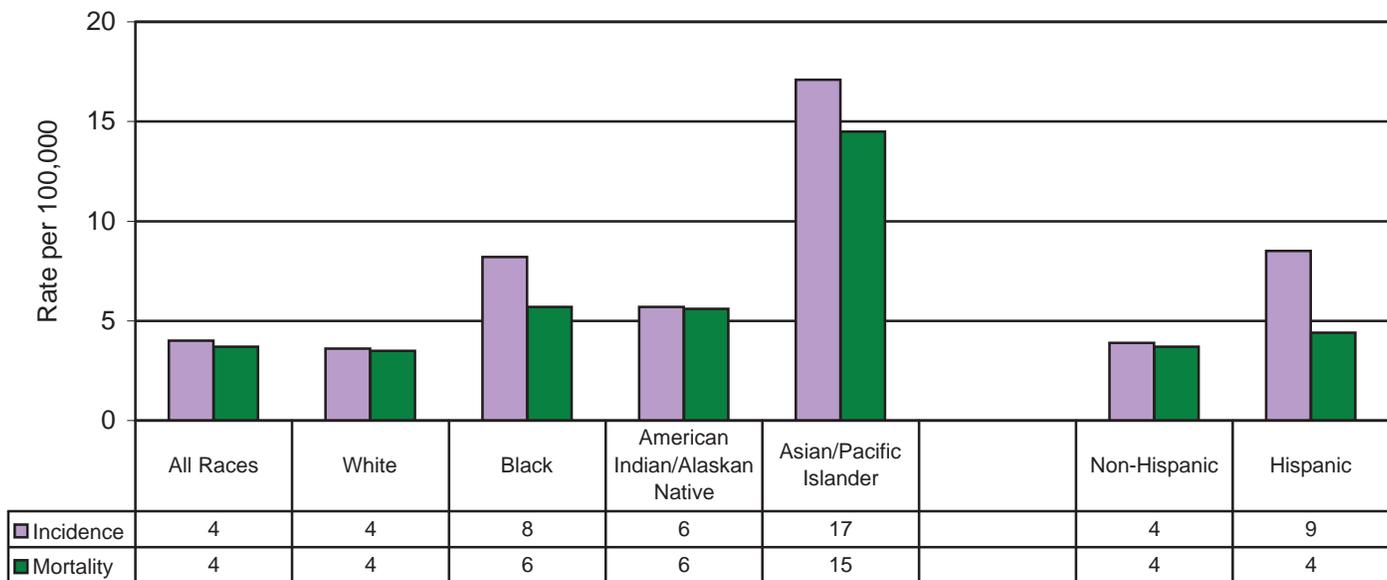


# Liver Cancer

**Liver Cancer Incidence and Mortality Rates, by Age Group and Sex, Oregon, 2004**

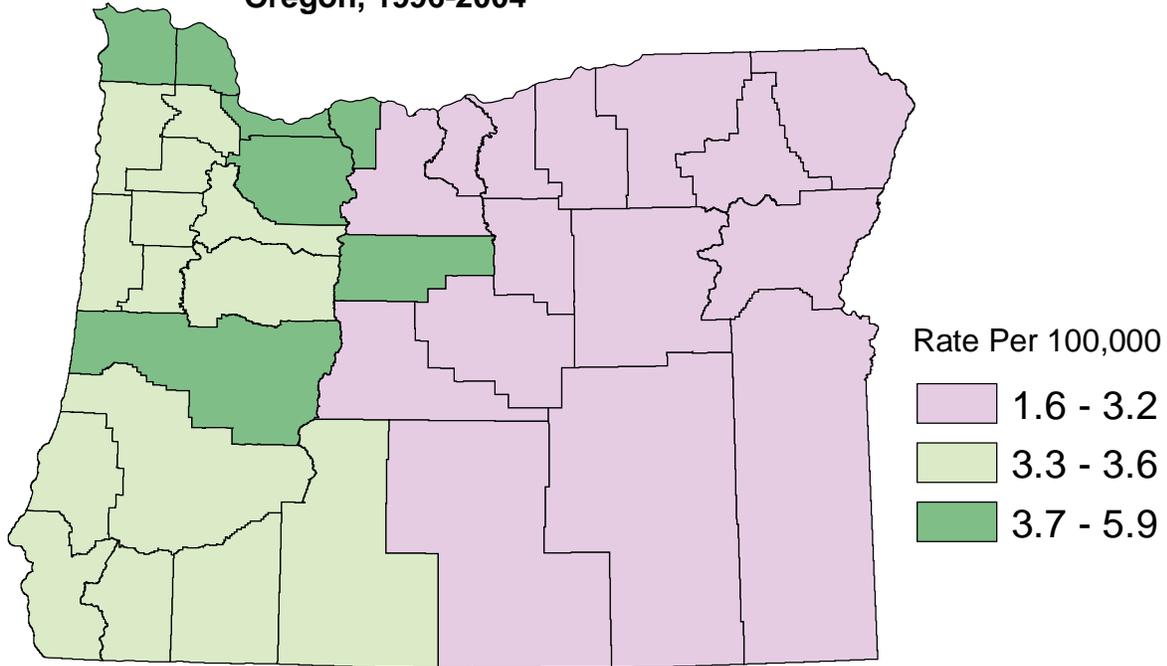


**Liver Cancer Incidence and Mortality Rates, by Race and Ethnicity, Oregon, 1996-2004**



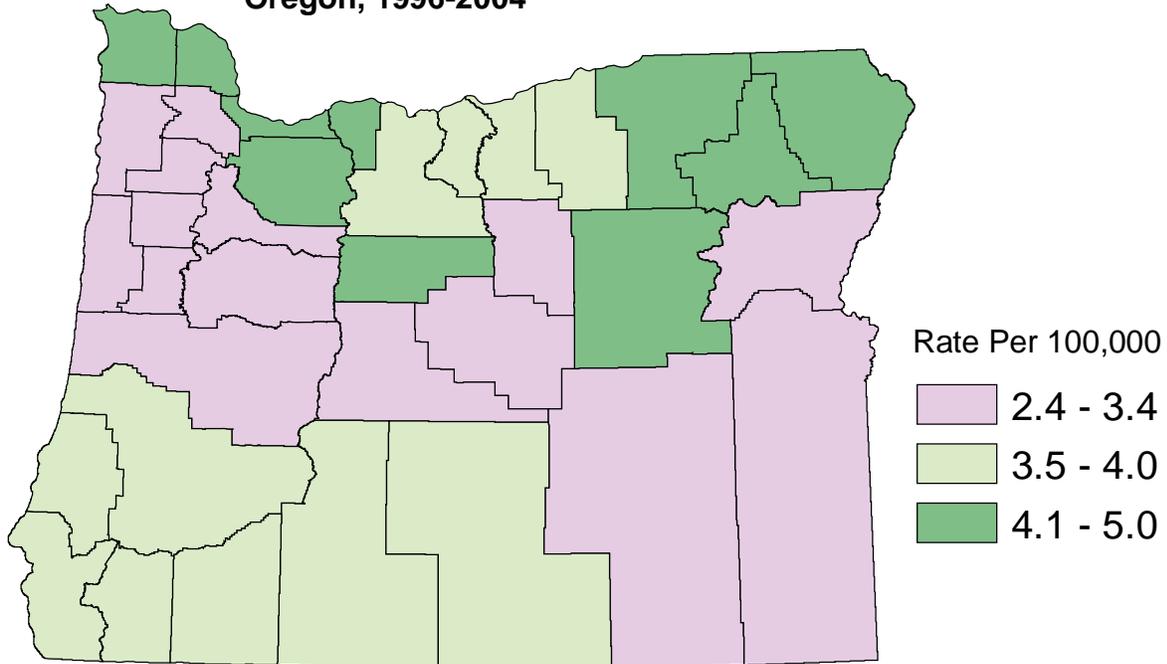
# Liver Cancer

## Liver Cancer Incidence: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Liver Cancer Mortality: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Liver Cancer

**Liver Cancer Incidence and Mortality Rates, by County, 1996-2004 Average**

LIVER/BILE DUCT Years 1996-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	9-Year Trend APC
<b>STATE</b>	<b>142</b>	<b>4.0</b>	<b>* +6.3</b>	<b>133</b>	<b>3.7</b>	<b>+5.3</b>
Baker	1	^	^	1	^	^
Benton	2	3.7	^	3	4.1	^
Clackamas	11	3.3	+4.0	11	3.4	-5.0
Clatsop	2	5.9	^	2	5.0	^
Columbia	2	4.7	^	2	4.8	^
Coos	5	5.7	^	4	4.3	^
Crook	0	^	^	1	^	^
Curry	2	6.0	^	2	5.6	^
Deschutes	3	2.6	^	3	2.4	^
Douglas	6	4.8	^	5	4.0	^
Gilliam	0	^	^	0	^	^
Grant	0	^	^	0	^	^
Harney	0	^	^	0	^	^
Hood River	1	^	^	1	^	^
Jackson	7	3.4	^	8	3.6	^
Jefferson	1	^	^	1	^	^
Josephine	4	3.4	^	4	3.7	^
Klamath	3	4.7	^	4	4.8	^
Lake	0	^	^	0	^	^
Lane	13	3.8	+0.2	12	3.4	+1.1
Lincoln	2	3.0	^	2	3.1	^
Linn	5	4.2	^	4	3.0	^
Malheur	1	^	^	1	^	^
Marion	10	3.5	^	9	3.3	^
Morrow	0	^	^	0	^	^
Multnomah	35	H 5.6	* +7.5	30	H 4.9	+7.0
Polk	2	2.9	^	2	3.0	^
Sherman	0	^	^	0	^	^
Tillamook	1	^	^	1	^	^
Umatilla	2	3.2	^	3	4.2	^
Union	1	^	^	1	^	^
Wallowa	0	^	^	0	^	^
Wasco	1	^	^	1	^	^
Washington	13	3.6	* +12.6	12	3.3	+8.7
Wheeler	0	^	^	0	^	^
Yamhill	3	4.2	^	3	3.6	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Lung and Bronchial Cancer

### LUNG AND BRONCHIAL CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2004)</b>	<b>2,556</b>	<b>1,337</b>	<b>1,218</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	71.1	74.8	67.4
Oregon Age-adjusted Rate	68.6	79.9	59.9
US Age-adjusted Rate <sup>1</sup>	61.5	75.7	51.1
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-1.3	-1.7	-1.1
US Annual Trend <sup>1</sup>	*-1.8	*-2.9	-0.7
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2004)</b>	<b>2,074</b>	<b>1,099</b>	<b>975</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	57.7	61.5	53.9
Oregon Age-adjusted Rate	55.3	66.2	47.1
US Age-Adjusted Rate <sup>2</sup>	53.3	70.3	40.9
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-1.4	-1.9	-1.2
US Annual Trend <sup>2</sup>	*-1.1	*-2.1	-0.1
<b>PROGNOSIS AND BURDEN (2000-2004)</b>			
Prognosis: M/I Ratio	0.81	0.83	0.80
Burden: YPLL	4,433	2,392	2,040

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers. Total column may exceed male/female columns due to coding to other gender.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

Among Oregon residents, 2,556 lung cancers were diagnosed in 2004 and reported to the central registry. Median age at diagnosis was 71. During the same time period, 2,074 Oregonians died due to lung cancer. Median age at death was 72.

Over three-fourths of new lung cancers (76 percent) were diagnosed at the regional or distant stage.

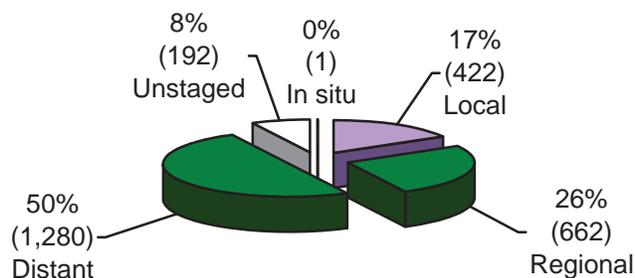
The age-adjusted annual rate of new lung cancers in 2004 was 69 cancers per 100,000 population. Among men, incidence increased from 9 per 100,000 at age 40-44 to 547 per 100,000 by age 75-79. Among women, the incidence increased from 10 per 100,000 at age 40-44 to 414 per 100,000 by age 75-79.

The mortality rate due to lung cancer increased among men from 5 per 100,000 at age 40-44 to 507 per 100,000 at age 75-79; and among women, the mortality rate increased from 8 per 100,000 at age 40-44 to 329 per 100,000 at 75-79.

Lung cancer is the leading cause of cancer death in Oregon. During the period 2000-2004, there were four deaths for every five new lung cancer diagnoses. Based on a life expectancy of 65 years, a total of 4,443 years of life were lost due to early deaths from lung cancer.

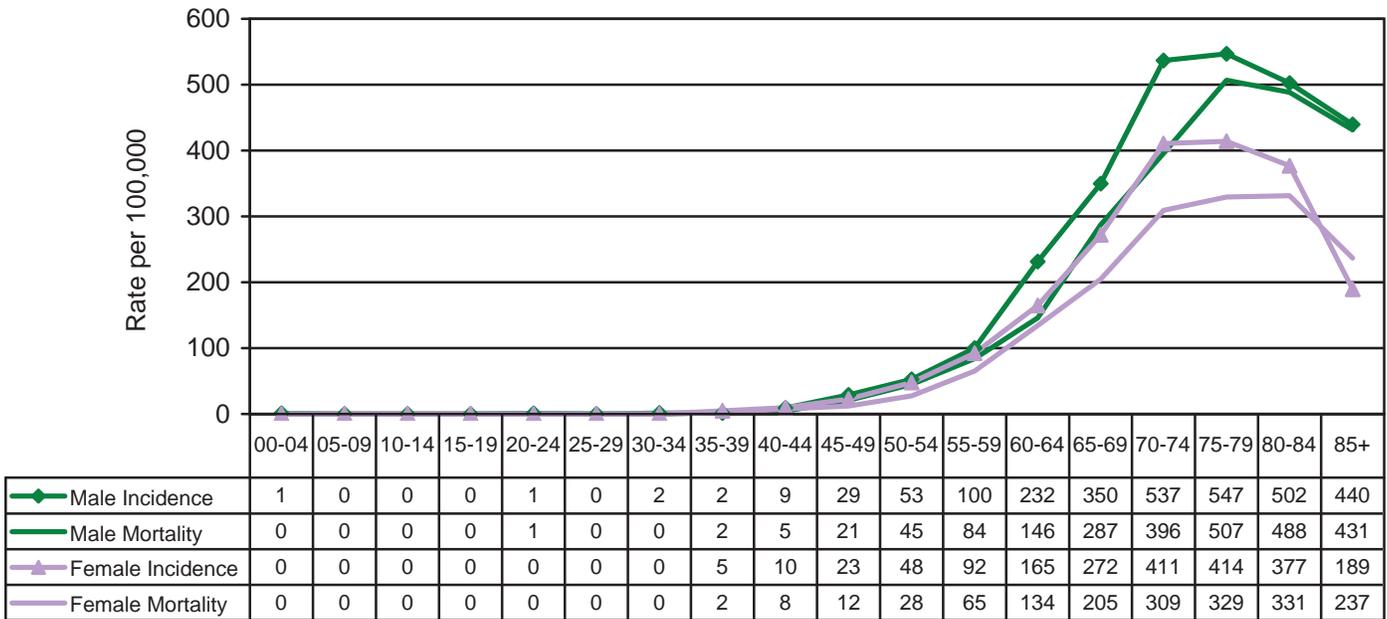
Regionally, incidence was highest along the southern coast, in the north Willamette Valley and in central Oregon. Mortality was highest in the Columbia River Gorge and the southern coast. [See Lung Cancer maps.](#)

**Lung and Bronchial Cancer  
Stage at Diagnosis, Oregon, 2004**

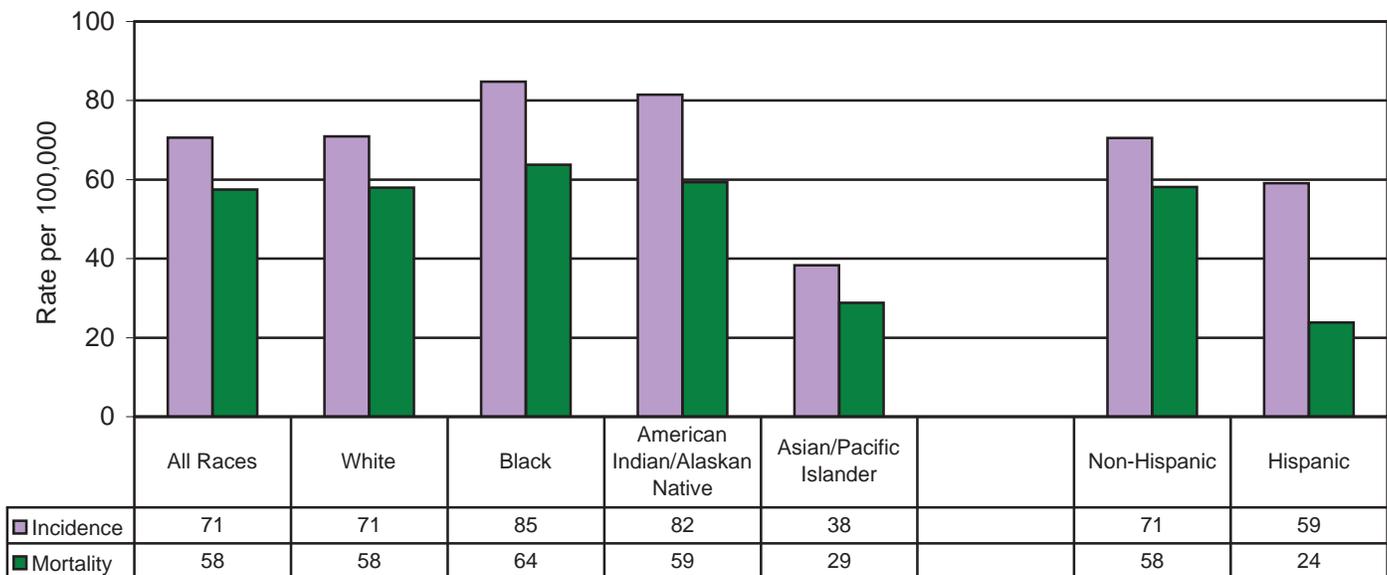


# Lung and Bronchial Cancer

**Lung and Bronchial Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2004**

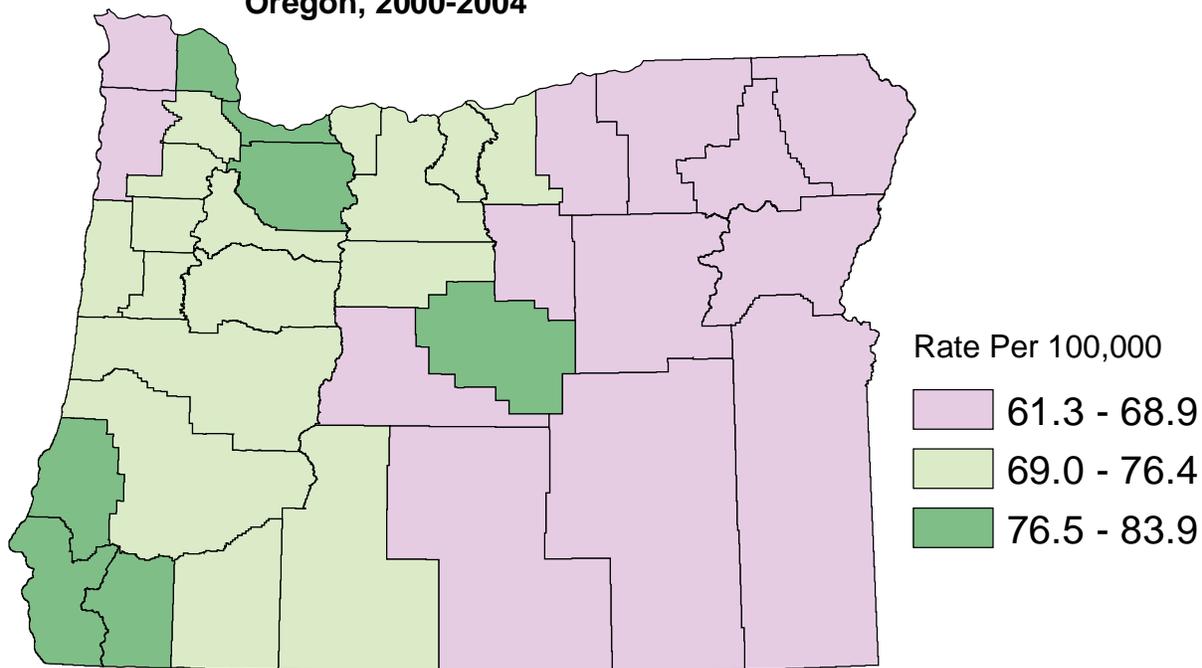


**Lung and Bronchial Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



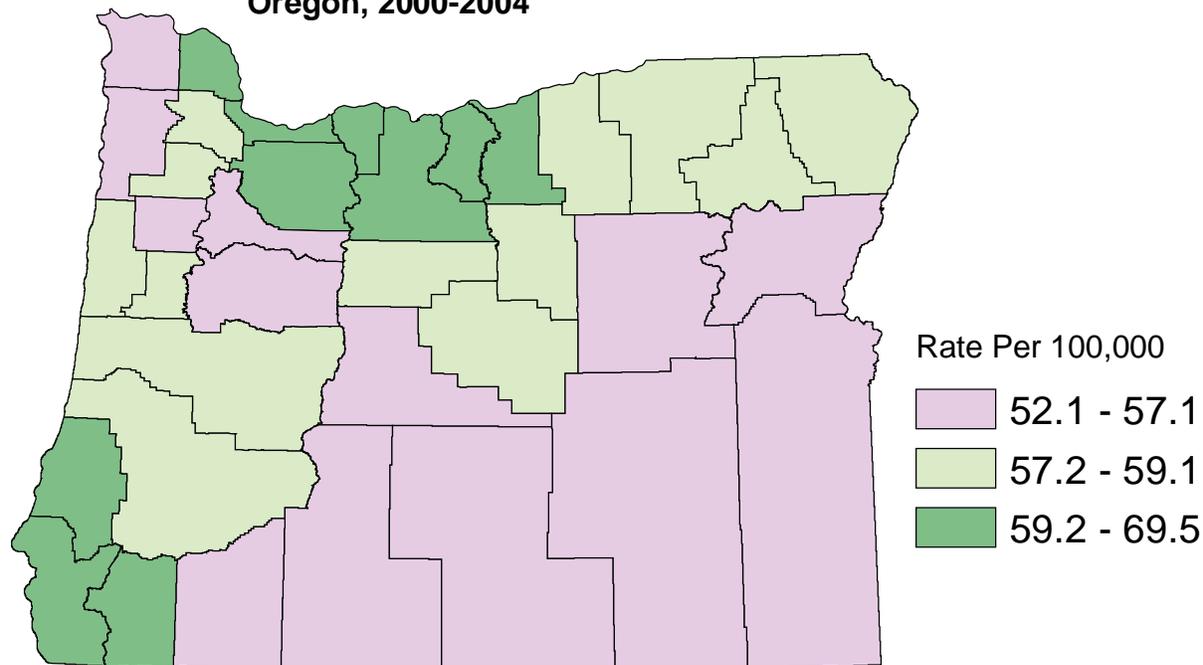
## Lung and Bronchial Cancer

### Lung Cancer Incidence: Oregon, 2000-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

### Lung Cancer Mortality: Oregon, 2000-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Lung and Bronchial Cancer

**Lung Cancer Incidence and Mortality Rates, by County, 2000-2004 Average**

LUNG/BRONCHUS Years 2000-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	5-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	5-Year Trend APC
<b>STATE</b>	<b>2,518</b>	<b>69.6</b>	<b>-1.3</b>	<b>2,052</b>	<b>56.5</b>	<b>-1.4</b>
Baker	15	62.5	+12.1	13	52.3	+7.8
Benton	32	L 47.7	-8.2	27	L 39.7	-2.4
Clackamas	224	65.8	+0.5	177	52.1	-3.3
Clatsop	31	68.9	-6.7	25	55.8	-4.6
Columbia	37	H 83.5	-7.0	31	H 70.5	-4.9
Coos	84	H 91.9	-3.7	72	H 77.3	-1.1
Crook	19	78.9	-7.2	14	59.1	-11.0
Curry	34	H 83.9	+13.1	26	62.4	+5.3
Deschutes	82	L 61.3	+0.6	70	52.4	-1.5
Douglas	109	H 77.3	-3.9	87	61.1	-1.7
Gilliam	2	73.8	^	1	^	^
Grant	6	57.0	^	5	49.6	^
Harney	6	66.0	^	5	54.5	^
Hood River	12	59.2	-5.3	10	47.9	^
Jackson	167	72.1	-2.4	133	57.1	-2.5
Jefferson	11	54.7	-9.3	9	47.0	^
Josephine	94	H 80.2	-3.1	82	H 69.5	+2.8
Klamath	54	70.2	-4.4	44	56.8	+3.6
Lake	7	68.3	^	5	50.8	^
Lane	248	70.2	+1.4	207	58.3	-0.4
Lincoln	55	H 83.8	-4.1	44	H 66.6	-4.7
Linn	90	74.5	+7.2	72	59.0	+3.5
Malheur	19	57.3	+4.1	16	47.5	-19.0
Marion	196	69.9	-0.5	164	58.1	-0.7
Morrow	9	87.8	^	8	H 82.4	^
Multnomah	462	H 77.3	-1.3	360	60.1	-1.1
Polk	41	L 57.0	+0.1	34	L 45.8	+4.0
Sherman	1	^	^	2	71.3	^
Tillamook	24	66.3	-12.2	19	51.8	-11.3
Umatilla	44	63.1	-1.9	41	57.6	+1.1
Union	16	56.3	+0.5	13	44.7	-7.8
Wallowa	5	48.2	^	4	41.6	^
Wasco	23	76.4	-4.3	20	64.2	-3.3
Washington	197	L 55.8	-2.0	162	L 46.1	-2.5
Wheeler	3	88.6	^	2	71.0	^
Yamhill	58	69.5	+3.1	47	56.3	+1.0

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.  
APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

# Lymphoma

## LYMPHOMA - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2004)</b>	<b>908</b>	<b>514</b>	<b>394</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	25.3	28.8	21.8
Oregon Age-adjusted Rate	24.0	29.8	19.3
US Age-adjusted Rate <sup>1</sup>	22.2	26.2	19.0
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	+1.3	+2.2	+0.4
US Annual Trend <sup>1</sup>	+0.2	-0.1	*+0.7
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2004)</b>	<b>327</b>	<b>188</b>	<b>139</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	9.1	10.5	7.7
Oregon Age-adjusted Rate	8.5	11.6	6.2
US Age-Adjusted Rate <sup>2</sup>	7.5	9.4	6.0
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-1.5	+0.9	-5.1
US Annual Trend <sup>2</sup>	*-3.5	*-3.3	*-4.0
<b>PROGNOSIS AND BURDEN (2000-2004)</b>			
Prognosis: M/I Ratio	0.39	0.38	0.40
Burden: YPLL	1,068	669	399

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers. Total column may exceed male/female columns due to coding to other gender.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

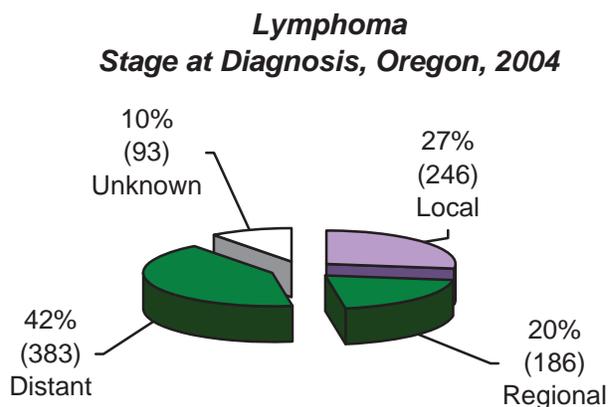
Among Oregon residents, 908 cases of lymphoma were diagnosed in 2004 and reported to the central registry. Median age at diagnosis was 66. During the same time period, 327 Oregonians died due to lymphoma. Median age at death was 76.

The age-adjusted incidence of lymphoma in 2004 was 24 cases per 100,000 population. Among men, incidence was 30 per 100,000 and among women 19 per 100,000.

The age-adjusted mortality rate due to lymphoma was 9 per 100,000. Among men, the mortality rate was 12 per 100,000 and among women it was 6 per 100,000.

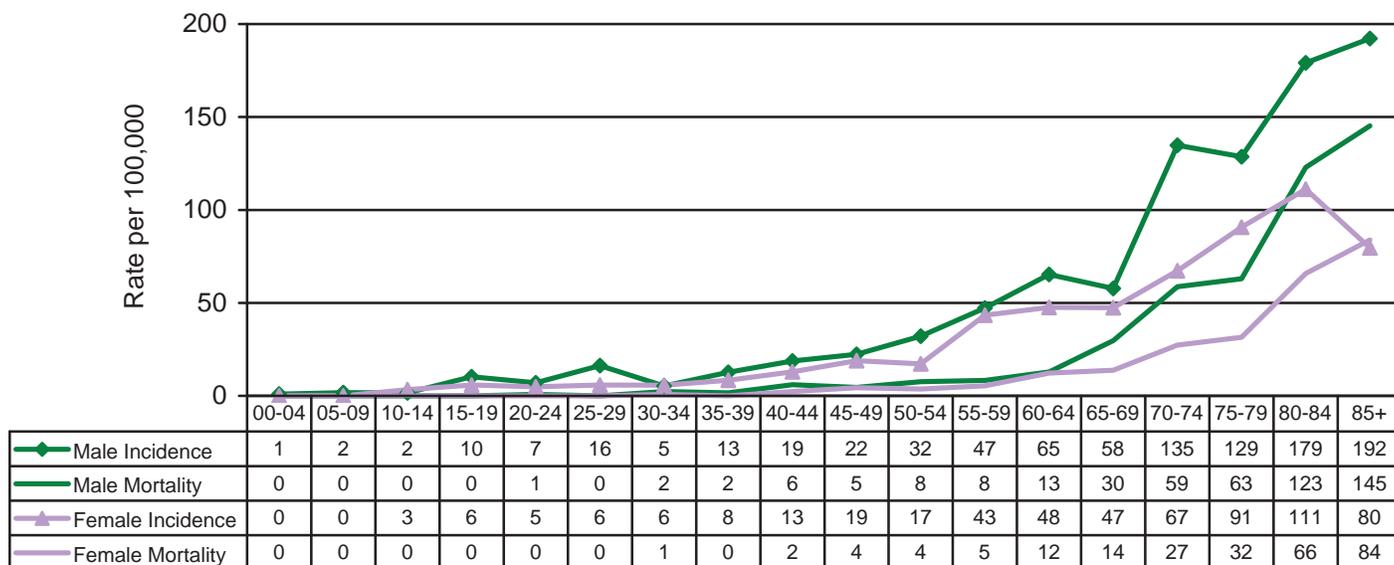
During the period 2000-2004, the mortality to incidence ratio was 0.39, meaning there were about two deaths for every five new lymphoma diagnoses. Based on a life expectancy of 65 years, a total of 1,068 years of life were lost due to early deaths from lymphoma.

Regionally, lymphoma incidence was highest in the Cascades, the north Willamette Valley, and central Oregon. Lymphoma mortality was highest in eastern and north central Oregon. [See Lymphoma maps.](#)

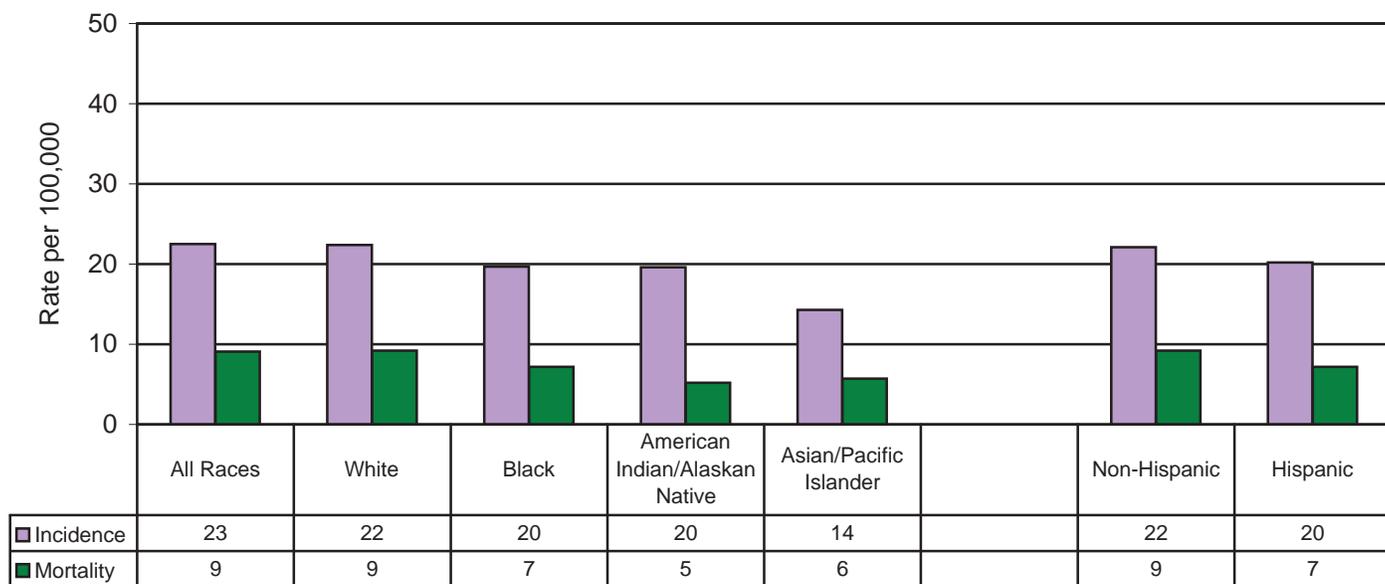


# Lymphoma

**Lymphoma Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2004**

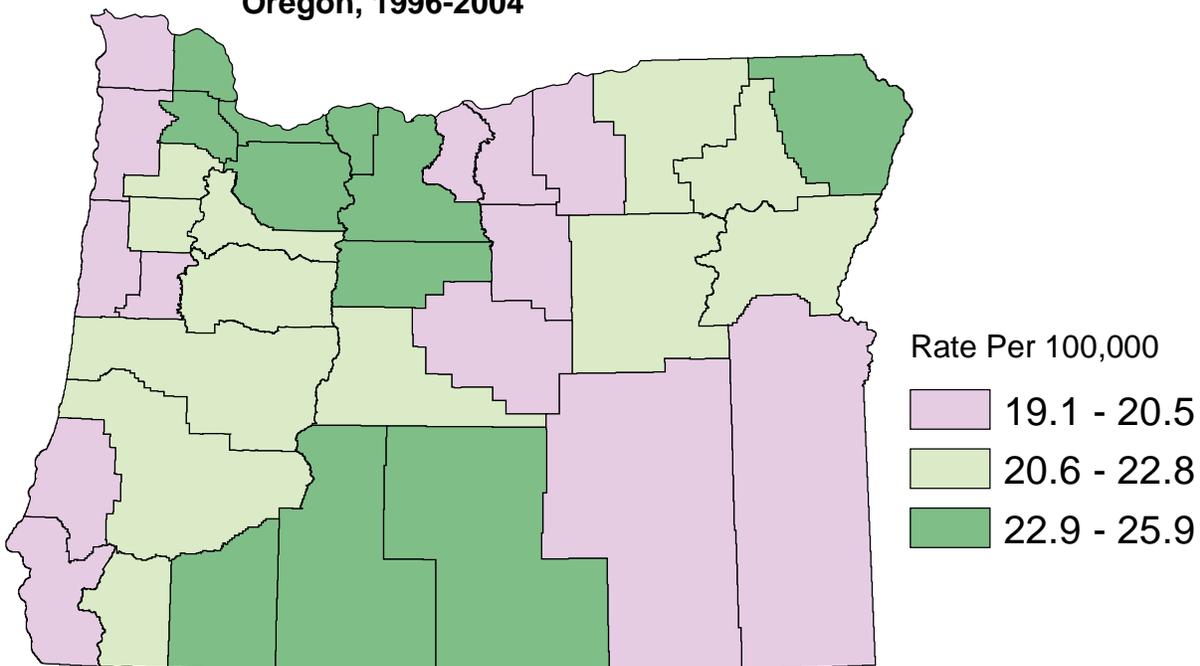


**Lymphoma Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



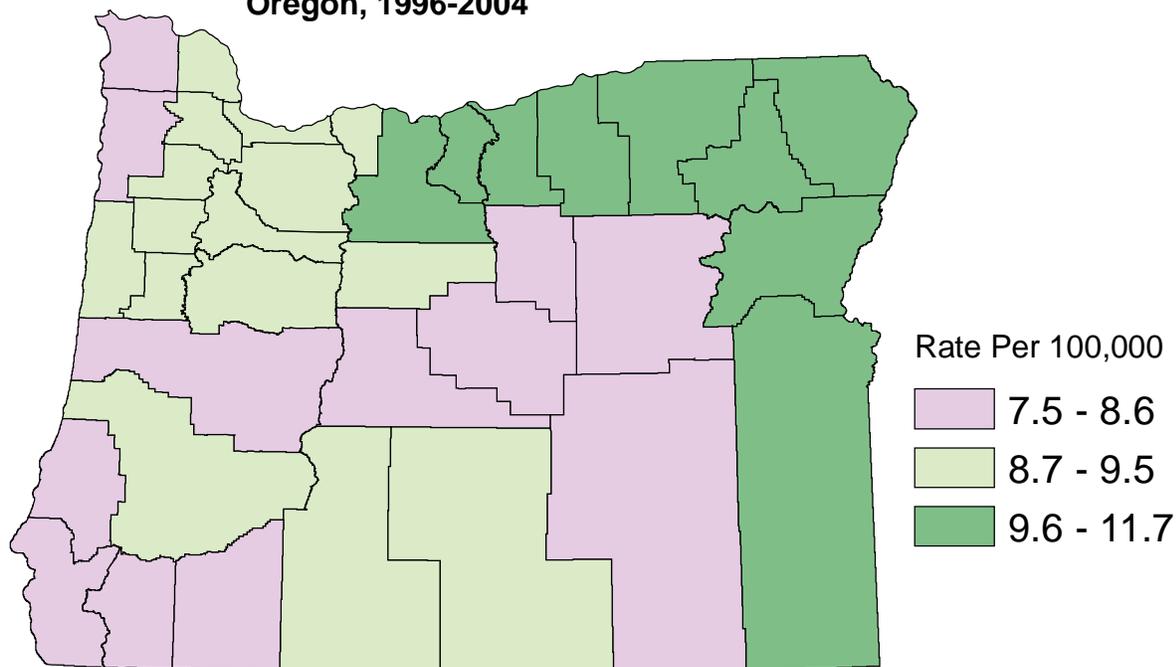
# Lymphoma

## Lymphoma Incidence: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Lymphoma Mortality: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Lymphoma

**Lymphoma Incidence and Mortality Rates, by County, 1996-2004 Average**

LYMPHOMA	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age-Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age-Adjusted Rate	9-Year Trend APC
Years 1996-2004						
Oregon Counties						
<b>STATE</b>	<b>794</b>	<b>22.5</b>	<b>+1.7</b>	<b>326</b>	<b>9.1</b>	<b>-1.0</b>
Baker	5	21.3	^	2	9.7	^
Benton	13	19.1	-4.1	5	7.1	^
Clackamas	75	22.4	-0.6	31	9.5	-2.1
Clatsop	8	19.2	^	4	8.4	^
Columbia	13	H 28.9	-1.6	5	12.3	^
Coos	21	25.2	+2.1	8	8.8	^
Crook	5	20.0	^	2	7.8	^
Curry	7	20.5	^	2	6.2	^
Deschutes	27	22.2	+4.1	10	8.2	^
Douglas	30	23.2	-3.1	12	9.1	-4.5
Gilliam	1	^	^	0	^	^
Grant	2	22.9	^	1	^	^
Harney	2	20.5	^	1	^	^
Hood River	5	24.8	^	2	8.9	^
Jackson	55	H 25.9	+6.7	17	7.5	+2.3
Jefferson	4	23.9	^	2	11.2	^
Josephine	24	22.4	+2.3	11	9.7	+0.7
Klamath	15	21.6	+10.3	7	9.9	^
Lake	3	29.5	^	1	^	^
Lane	73	21.4	+4.4	30	8.6	-1.0
Lincoln	12	20.4	+6.5	7	10.8	^
Linn	21	18.6	+3.9	12	9.8	+1.8
Malheur	6	19.0	^	2	7.0	^
Marion	62	22.0	+1.1	27	9.3	+2.4
Morrow	2	19.1	^	1	^	^
Multnomah	148	23.2	-0.6	60	9.5	-3.5
Polk	16	22.8	+5.1	8	10.2	^
Sherman	0	^	^	0	^	^
Tillamook	6	17.8	^	3	7.0	^
Umatilla	14	21.0	+3.9	7	10.4	^
Union	6	21.6	^	3	9.5	^
Wallowa	2	22.9	^	1	^	^
Wasco	8	28.5	^	4	11.7	^
Washington	88	23.0	+0.3	33	9.5	-1.6
Wheeler	0	^	^	0	^	^
Yamhill	18	21.7	+2.9	8	9.1	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.  
APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Melanoma of the Skin

### MELANOMA OF THE SKIN - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2004)</b>	<b>1,899</b>	<b>994</b>	<b>905</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	27.2	28.5	25.8
Oregon Age-adjusted Rate	26.1	28.7	24.6
US Age-adjusted Rate <sup>1</sup>	19.4	24.8	15.6
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	+1.2	+0.3	+1.9
US Annual Trend <sup>1</sup>	+1.5	+1.4	+1.5
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2004)</b>	<b>120</b>	<b>74</b>	<b>46</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	3.3	4.1	2.5
Oregon Age-adjusted Rate	3.1	4.4	2.2
US Age-Adjusted Rate <sup>2</sup>	2.7	3.9	1.7
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	+1.0	+1.3	+0.6
US Annual Trend <sup>2</sup>	0.0	+0.7	*-1.3
<b>PROGNOSIS AND BURDEN (2000-2004)</b>			
Prognosis: M/I Ratio	0.14	0.17	0.11
Burden: YPLL	781	505	277

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers. Total column may exceed male/female columns due to coding to other gender.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

Among Oregon residents, 1,899 melanomas were diagnosed in 2004 and reported to the central registry. Median age at diagnosis was 57. During the same time period, 120 Oregonians died due to melanoma. Median age at death was 81.

Most cases of melanoma (94 percent) were diagnosed at the *in situ* or local stage when the cancer is most treatable.

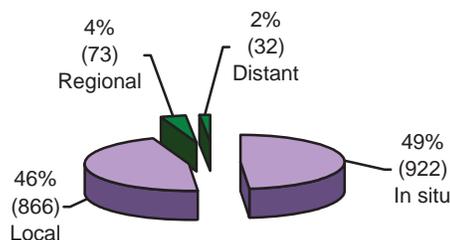
The age-adjusted incidence rate for melanoma in 2004 was 26 per 100,000. Among men, the incidence rate was 29 per 100,000 and among women the rate was 25 per 100,000.

The age-adjusted mortality rate for melanoma in 2004 was 3 per 100,000. Among men, the mortality rate was 4 per 100,000 and among women the rate was 2 per 100,000.

During the period 2000-2004, there were 14 deaths for every 100 melanoma diagnoses. Based on a life expectancy of 65 years, a total of 781 years of life were lost due to early deaths from melanoma.

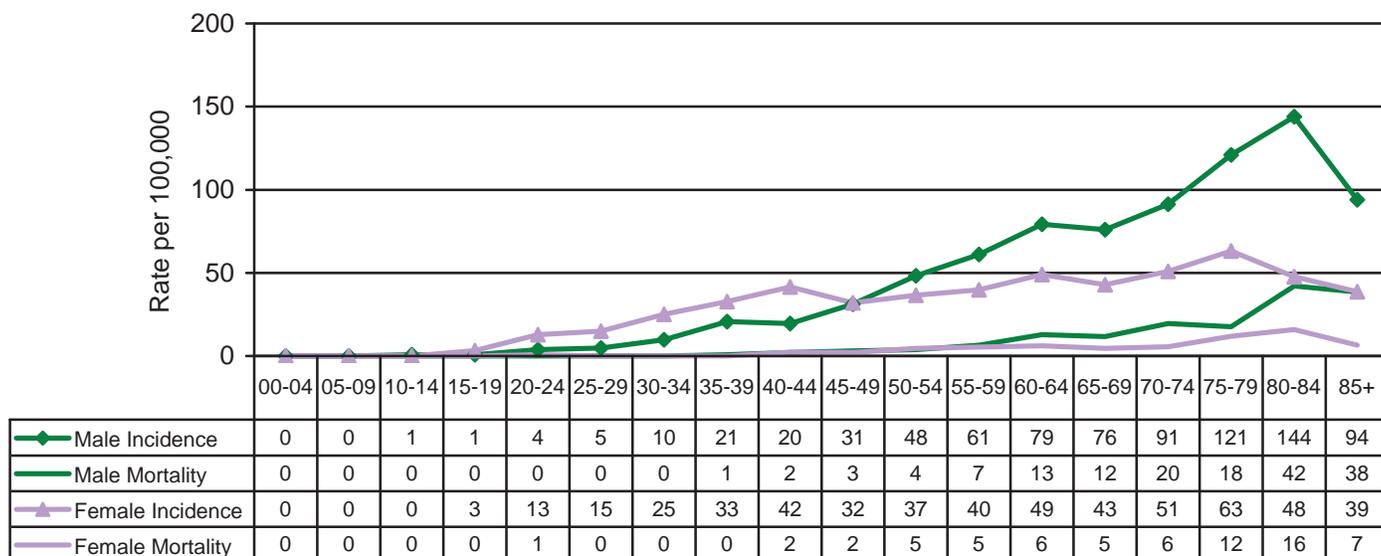
Regionally, melanoma incidence was highest in the Columbia River Gorge and areas of central and southern Oregon. Melanoma mortality was highest along the north coast and in central Oregon. See [Melanoma maps](#).

**Melanoma of the Skin  
Stage at Diagnosis, Oregon, 2004**

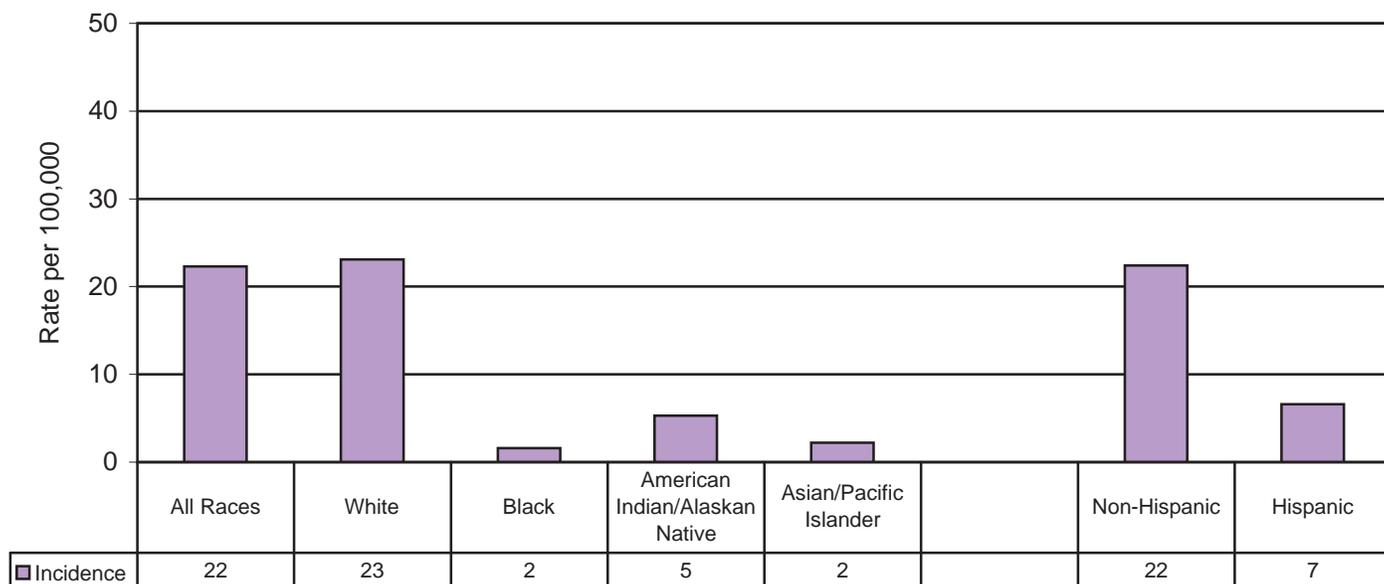


## *Melanoma of the Skin*

**Melanoma of the Skin Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2004**

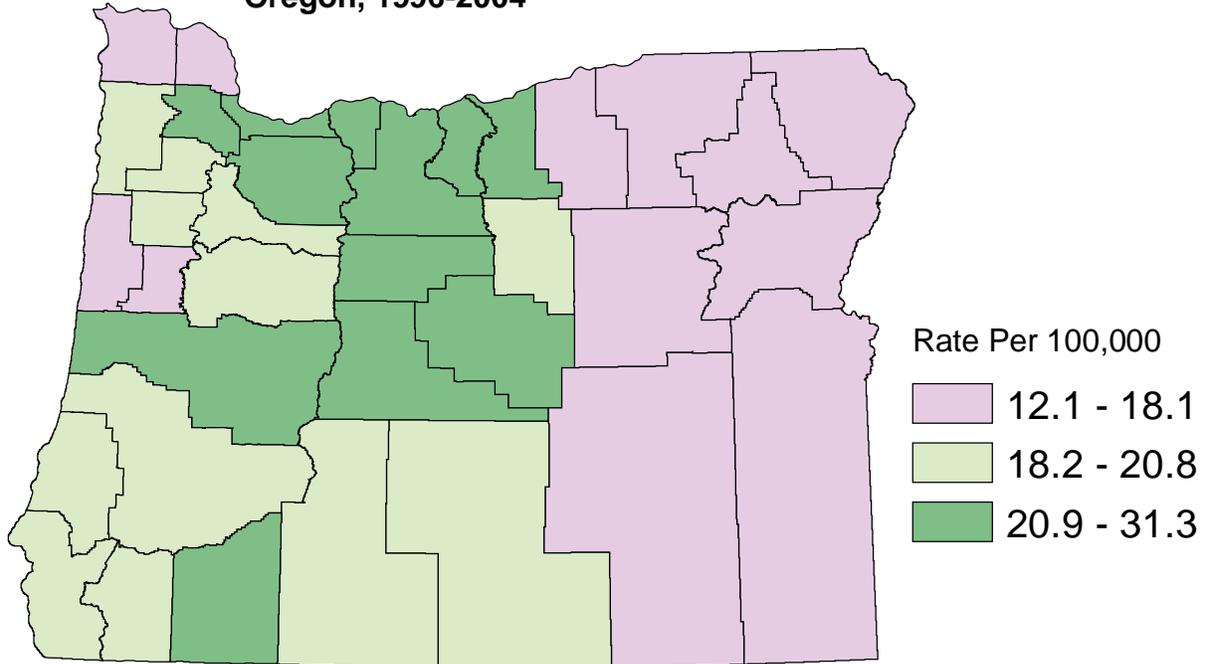


**Melanoma of the Skin Incidence Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



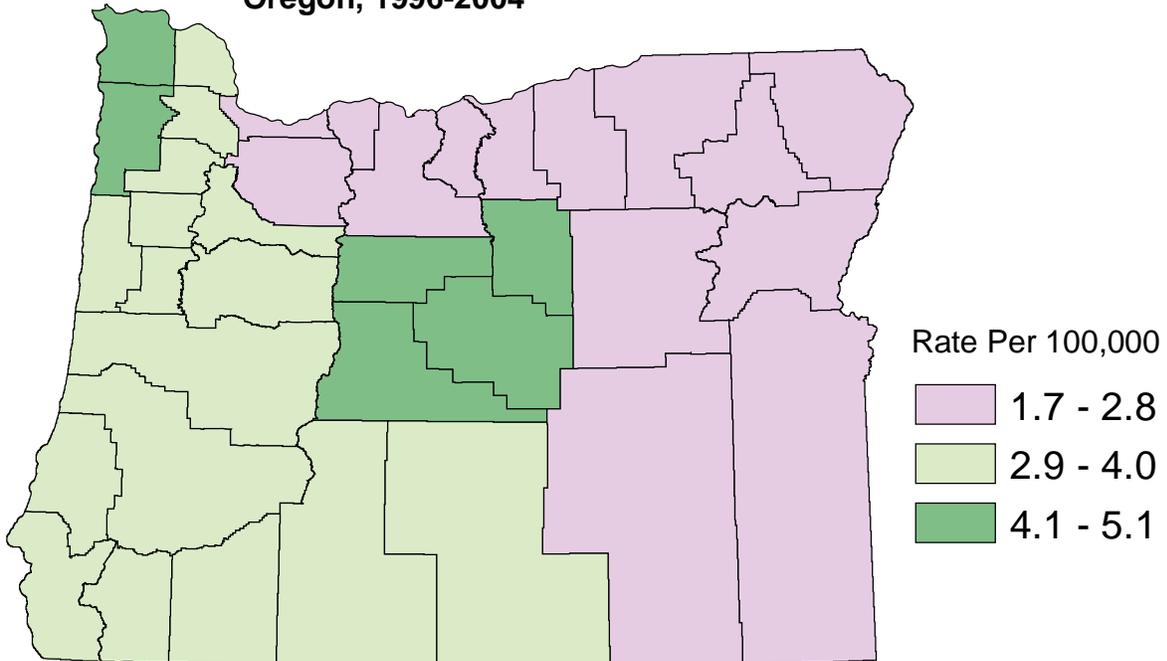
# Melanoma of the Skin

## Melanoma Incidence: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Melanoma Mortality: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## *Melanoma of the Skin*

**Melanoma Incidence and Mortality Rates, by County, 1996-2004 Average**

MELANOMA Years 1996-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	9-Year Trend APC
<b>STATE</b>	<b>783</b>	<b>22.3</b>	<b>+3.2</b>	<b>113</b>	<b>3.2</b>	<b>+0.8</b>
Baker	3	L 14.0	^	0	^	^
Benton	14	20.6	+9.2	1	^	^
Clackamas	85	H 24.7	+0.8	11	3.2	+0.0
Clatsop	5	L 13.1	^	2	4.5	^
Columbia	8	L 16.5	^	2	3.8	^
Coos	22	H 28.8	-1.1	3	4.0	^
Crook	5	22.3	^	1	^	^
Curry	6	19.8	^	1	^	^
Deschutes	39	H 31.3	+3.0	5	4.3	^
Douglas	38	H 32.2	+3.5	3	2.6	^
Gilliam	1	^	^	0	^	^
Grant	1	^	^	1	^	^
Harney	1	^	^	0	^	^
Hood River	4	20.1	^	1	^	^
Jackson	54	H 27.2	+2.5	8	4.0	^
Jefferson	2	L 12.8	^	1	^	^
Josephine	17	18.6	+4.6	5	4.8	^
Klamath	9	L 12.3	^	2	3.1	^
Lake	2	20.8	^	0	^	^
Lane	83	H 24.7	+0.6	11	3.2	+5.4
Lincoln	9	L 16.4	^	3	4.6	^
Linn	20	L 18.1	+0.8	4	3.1	^
Malheur	4	L 12.1	^	1	^	^
Marion	56	20.3	+10.1	8	3.0	^
Morrow	2	21.5	^	1	^	^
Multnomah	137	20.9	+4.3	18	2.8	+0.6
Polk	13	19.1	+9.4	1	^	^
Sherman	0	^	^	0	^	^
Tillamook	6	21.6	^	2	5.7	^
Umatilla	12	L 16.8	+0.3	2	2.7	^
Union	5	19.7	^	1	^	^
Wallowa	2	18.1	^	0	^	^
Wasco	6	21.7	^	1	^	^
Washington	97	23.9	+2.3	11	2.9	+1.4
Wheeler	0	^	^	0	^	^
Yamhill	15	18.5	+4.3	3	3.1	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Oropharyngeal Cancer

### ORAL AND PHARYNGEAL CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2004)</b>	<b>443</b>	<b>306</b>	<b>137</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	11.7	16.1	7.4
Oregon Age-adjusted Rate	10.9	15.9	6.5
US Age-adjusted Rate <sup>1</sup>	10.3	15.3	6.0
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-0.7	-0.9	-1.6
US Annual Trend <sup>1</sup>	-1.0	-1.0	-1.2
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2004)</b>	<b>94</b>	<b>58</b>	<b>36</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	2.6	3.2	2.0
Oregon Age-adjusted Rate	2.5	3.4	1.7
US Age-Adjusted Rate <sup>2</sup>	2.6	4.0	1.5
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-3.5	-5.8	-1.2
US Annual Trend <sup>2</sup>	*-1.0	-0.6	*-2.0
<b>PROGNOSIS AND BURDEN (2000-2004)</b>			
Prognosis: M/I Ratio	0.24	0.22	0.29
Burden: YPLL	368	286	82

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers. Total column may exceed male/female columns due to coding to other gender.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

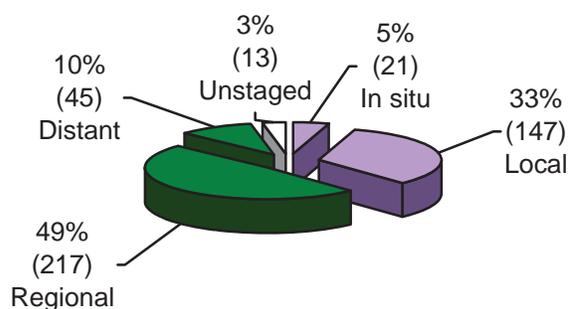
APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

#### Oral and Pharyngeal Cancer Stage at Diagnosis, Oregon, 2004



Among Oregon residents, 443 cancers of the mouth and pharynx were diagnosed in 2004 and reported to the central registry. Median age at diagnosis was 63. During the same time period, 94 Oregonians died due to oropharyngeal cancer. Median age at death was also 63.

Nearly two-fifths (38 percent) were diagnosed at the *in situ* or local stage.

The age-adjusted incidence rate for oropharyngeal cancer in 2004 was 11 per 100,000. Among men, the incidence rate was 16 per 100,000 and among women the rate was 7 per 100,000.

The age-adjusted mortality rate for oropharyngeal cancer in 2004 was 3 per 100,000. Among men, the mortality rate was 3 per 100,000 and among women 2 per 100,000.

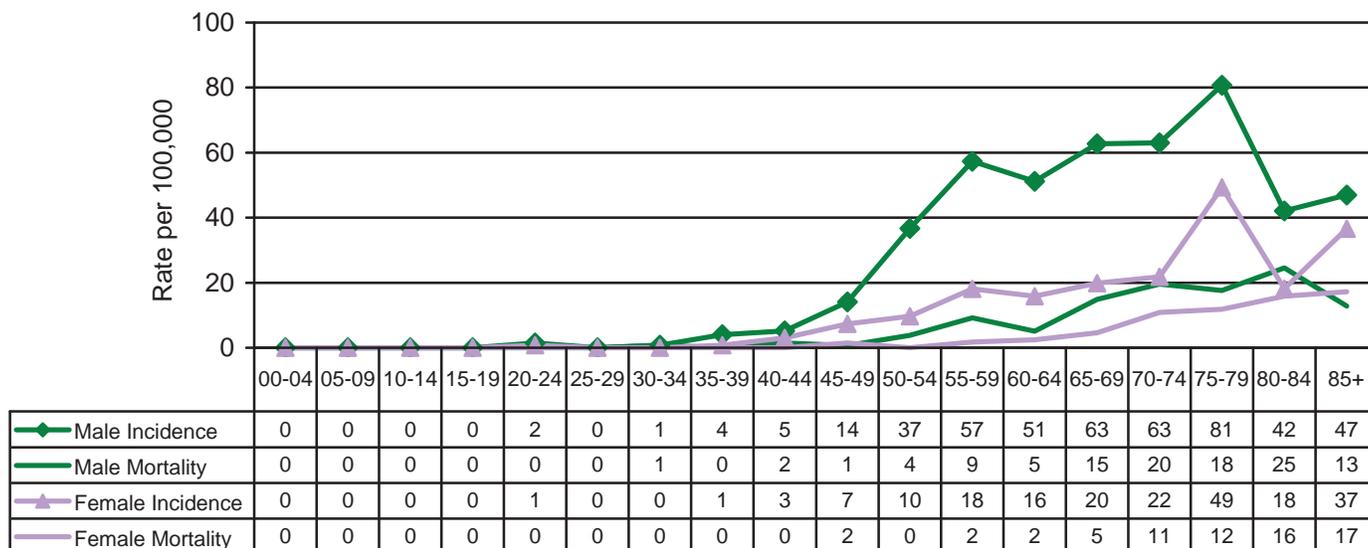
During the period 2000-2004, there were 24 deaths for every 100 diagnoses of invasive oropharyngeal cancer. Based on a life expectancy of 65 years, a total of 368 years of life were lost due to early deaths from oropharyngeal cancer.

The trend for oropharyngeal cancer in Oregon and nationally was decreasing during the 2000-2004 period.

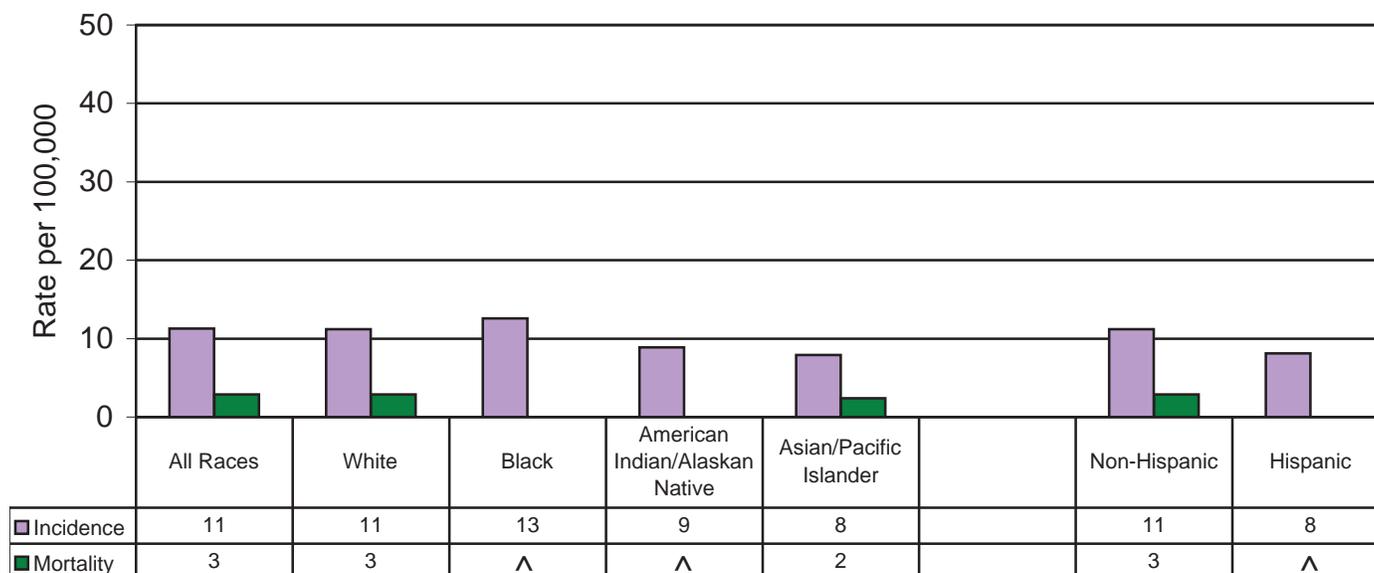
Regionally, oropharyngeal cancer incidence was highest in the Columbia River Gorge and areas of southwestern Oregon. Mortality was highest in northwestern Oregon. See [Oral Cancer maps](#).

# Oropharyngeal Cancer

**Oral and Pharyngeal Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2004**



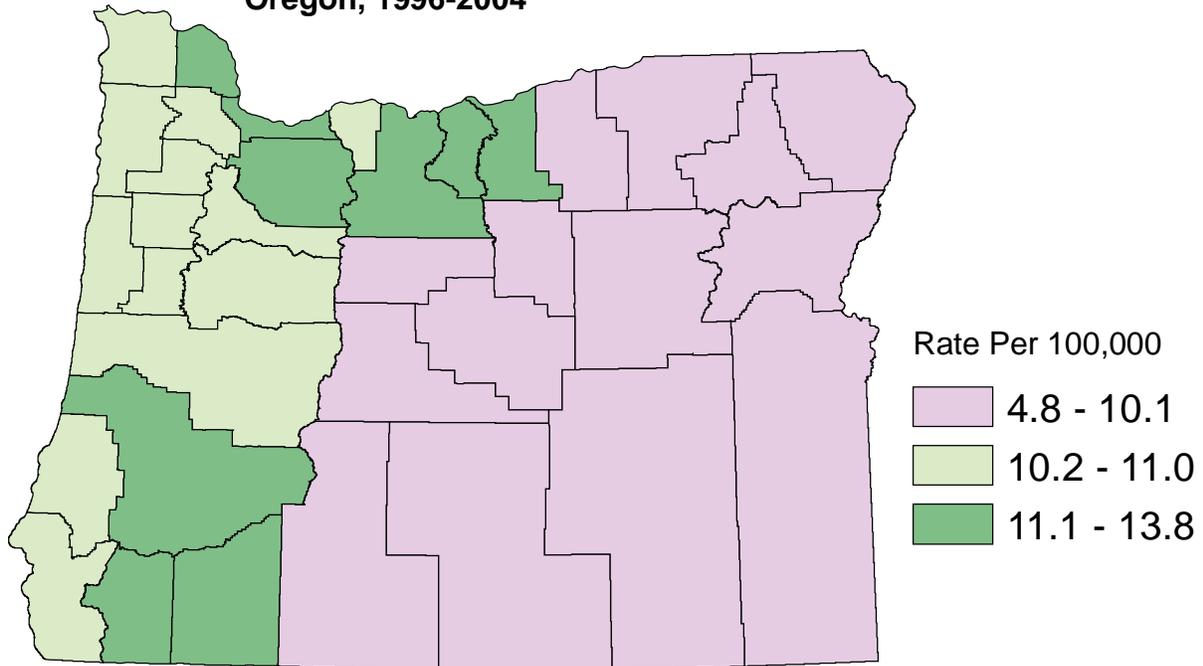
**Oral and Pharyngeal Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



^ Rate not calculated due to instability of small numbers

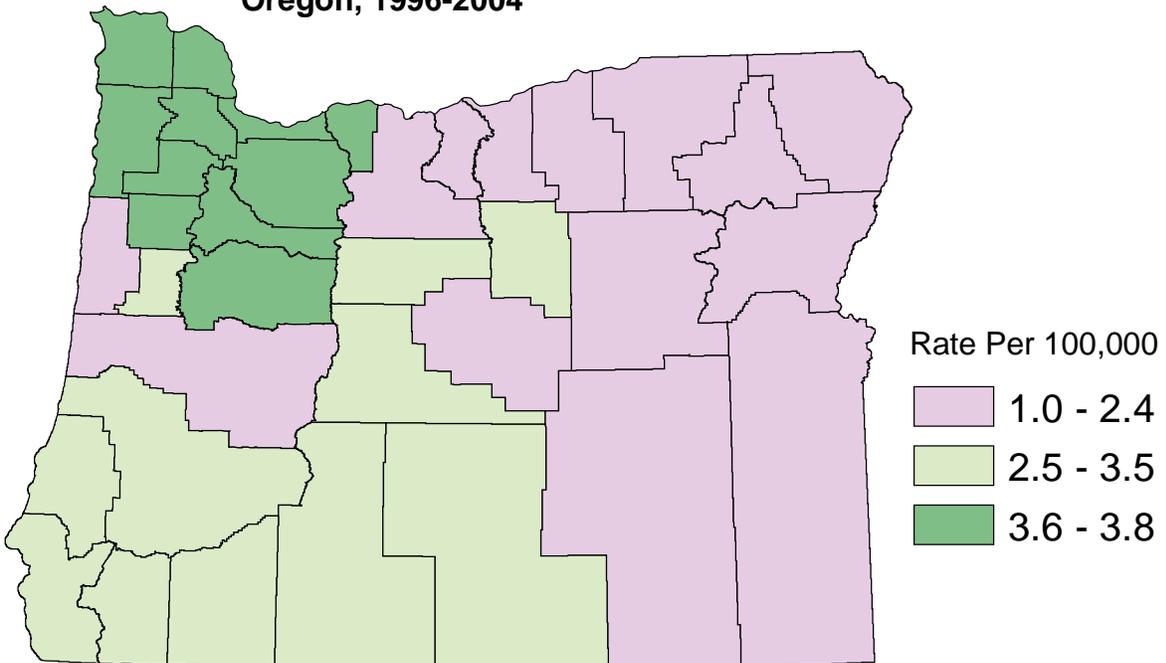
# Oropharyngeal Cancer

## Oropharyngeal Cancer Incidence: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Oropharyngeal Cancer Mortality: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Oropharyngeal Cancer

**Oral Cancer Incidence and Mortality Rates, by County, 1996-2004 Average**

ORAL/PHARYNX Years 1996-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	9-Year Trend APC
<b>STATE</b>	<b>402</b>	<b>11.3</b>	<b>-1.2</b>	<b>103</b>	<b>2.9</b>	<b>-3.5</b>
Baker	2	9.7	^	1	^	^
Benton	5	L 7.0	^	1	^	^
Clackamas	40	11.7	+2.4	10	3.0	^
Clatsop	4	10.5	^	2	3.8	^
Columbia	6	13.3	^	1	^	^
Coos	12	H 14.4	-1.0	4	4.2	^
Crook	1	^	^	0	^	^
Curry	4	11.0	^	1	^	^
Deschutes	12	9.1	-3.4	3	2.5	^
Douglas	15	11.3	-7.1	4	3.1	^
Gilliam	1	^	^	0	^	^
Grant	1	^	^	0	^	^
Harney	1	^	^	0	^	^
Hood River	2	8.4	^	1	^	^
Jackson	26	12.0	-0.8	7	3.0	^
Jefferson	2	9.5	^	1	^	^
Josephine	12	11.6	+0.1	4	3.5	^
Klamath	7	9.1	^	3	3.5	^
Lake	1	^	^	0	^	^
Lane	38	11.0	-0.2	7	2.1	^
Lincoln	9	H 15.1	^	3	4.2	^
Linn	14	11.7	+1.1	5	3.9	^
Malheur	3	8.0	^	1	^	^
Marion	29	10.5	-4.5	6	2.2	^
Morrow	2	16.5	^	0	^	^
Multnomah	86	H 13.8	-2.4	23	3.6	-5.4
Polk	6	L 8.2	^	2	2.5	^
Sherman	0	^	^	0	^	^
Tillamook	4	13.3	^	1	^	^
Umatilla	7	10.1	^	2	2.4	^
Union	2	7.9	^	1	^	^
Wallowa	0	^	^	0	^	^
Wasco	4	12.5	^	1	^	^
Washington	38	10.4	-2.4	8	2.5	^
Wheeler	0	^	^	0	^	^
Yamhill	8	10.3	^	1	^	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Ovarian Cancer

### OVARIAN CANCER - FAST FACTS OREGON

	Female
<b>CANCER INCIDENCE</b>	
<b>Total Cancer Cases (2004)</b>	<b>282</b>
<b>RATES (2004)</b>	
Oregon Crude Rate	15.5
Oregon Age-adjusted Rate	13.8
US Age-adjusted Rate <sup>1</sup>	12.6
<b>TRENDS (2000-2004) - APC</b>	
Oregon Annual Trend	-5.1
US Annual Trend <sup>1</sup>	*-5.9
<b>CANCER MORTALITY</b>	
<b>Total Cancer Deaths (2004)</b>	<b>244</b>
<b>RATES (2004)</b>	
Oregon Crude Rate	13.5
Oregon Age-adjusted Rate	11.3
US Age-Adjusted Rate <sup>2</sup>	8.8
<b>TRENDS (2000-2004) - APC</b>	
Oregon Annual Trend	+1.0
US Annual Trend <sup>2</sup>	-0.5
<b>PROGNOSIS AND BURDEN (2000-2004)</b>	
Prognosis: M/I Ratio	0.72
Burden: YPLL	667

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

Among Oregon women, 282 ovarian cancers were diagnosed in 2004 and reported to the central registry. Median age at diagnosis was 65. During the same time period, 244 Oregonians died due to ovarian cancer. Median age at death was 75.

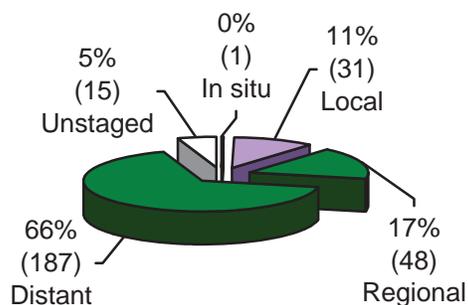
Most ovarian cancers (84 percent) were diagnosed at the regional or distant stage.

The age-adjusted incidence rate for ovarian cancer in 2004 was 14 per 100,000 compared to 13 nationally. The age-adjusted mortality rate for ovarian cancer in 2004 was 11 per 100,000 compared to 9 nationally. Incidence and mortality increased after age 40.

During the period 2000-2004, there were 72 deaths for every 100 diagnoses of invasive ovarian cancer. Based on a life expectancy of 65 years, a total of 667 years of life were lost due to early deaths from ovarian cancer.

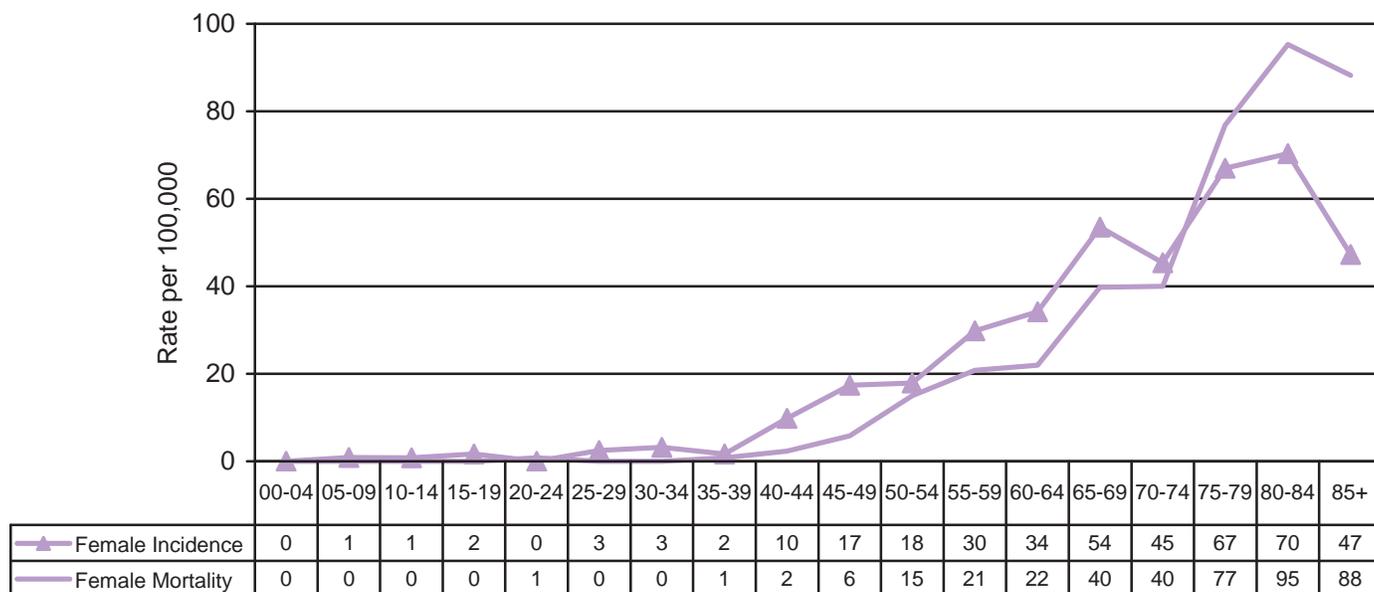
Regionally, ovarian cancer incidence was higher in western Oregon. Mortality was highest in southwest Oregon and the north coast. [See Ovarian Cancer maps.](#)

**Ovarian Cancer  
Stage at Diagnosis, Oregon, 2004**

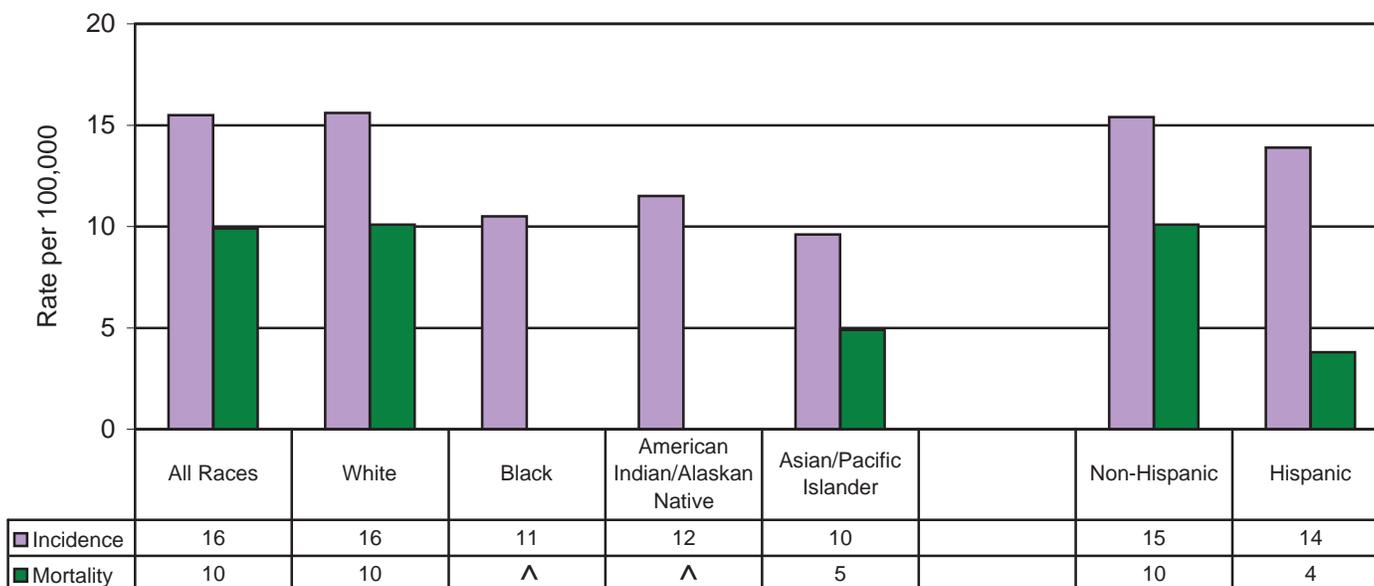


## Ovarian Cancer

**Ovarian Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2004**



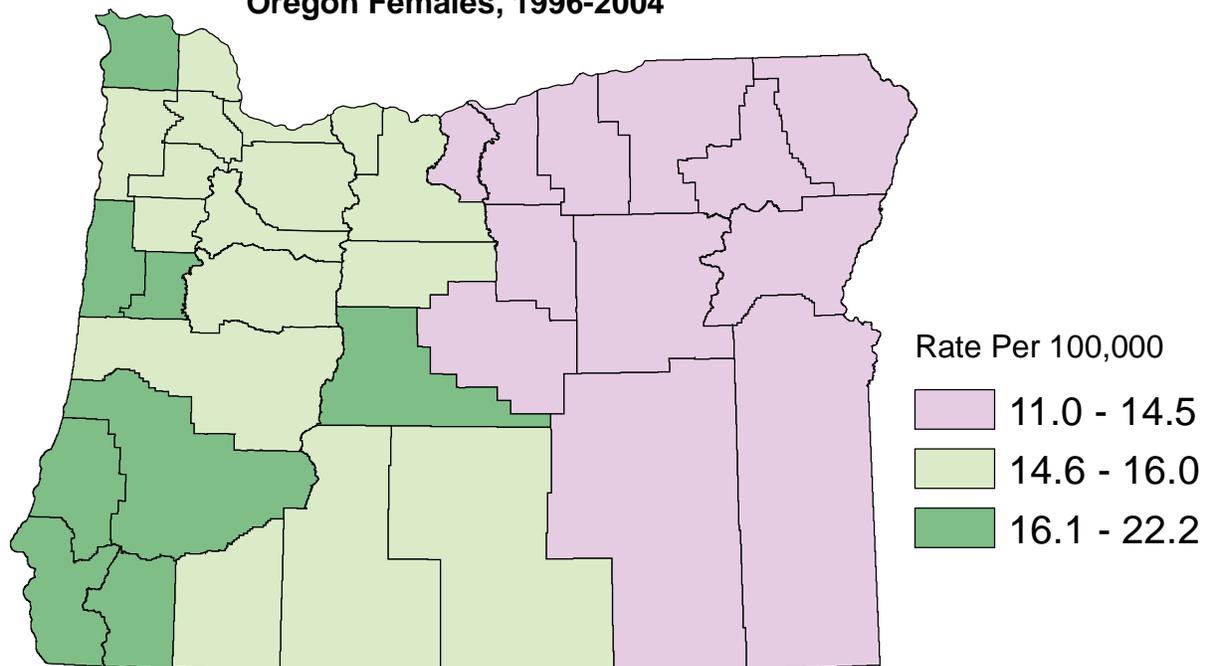
**Ovarian Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



^ Rate not calculated due to instability of small numbers

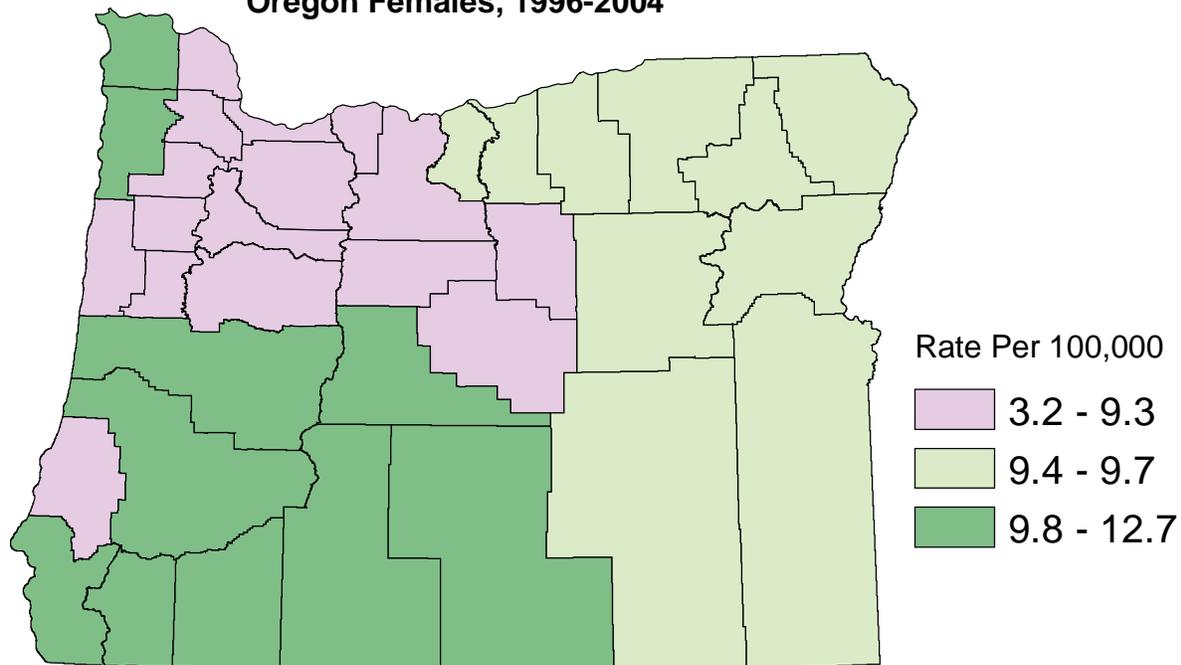
## Ovarian Cancer

### Ovarian Cancer Incidence: Oregon Females, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

### Ovarian Cancer Mortality: Oregon Females, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Ovarian Cancer

**Ovarian Cancer Incidence and Mortality Rates, by County, 1996-2004 Average**

OVARY Years 1996-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	9-Year Trend APC
<b>STATE</b>	<b>295</b>	<b>15.5</b>	<b>* -2.8</b>	<b>196</b>	<b>9.9</b>	<b>+1.5</b>
Baker	1	^	^	1	^	^
Benton	5	14.1	^	3	8.1	^
Clackamas	31	17.0	-3.8	19	10.4	+5.5
Clatsop	5	22.2	^	3	12.7	^
Columbia	2	L 8.4	^	2	8.0	^
Coos	7	15.7	^	4	8.0	^
Crook	1	^	^	0	^	^
Curry	3	15.9	^	2	9.2	^
Deschutes	11	16.4	* -10.5	7	10.5	^
Douglas	11	15.9	-1.7	8	11.6	^
Gilliam	0	^	^	0	^	^
Grant	1	^	^	1	^	^
Harney	1	^	^	0	^	^
Hood River	2	15.1	^	2	13.3	^
Jackson	18	15.4	-1.7	12	9.8	+1.9
Jefferson	1	^	^	1	^	^
Josephine	10	17.3	^	7	10.9	^
Klamath	7	17.6	^	4	11.2	^
Lake	1	^	^	1	^	^
Lane	29	15.3	+1.2	21	11.2	+1.0
Lincoln	5	16.3	^	3	8.9	^
Linn	10	16.3	^	7	10.9	^
Malheur	3	14.5	^	2	9.9	^
Marion	25	16.3	-5.0	18	11.7	-2.1
Morrow	1	^	^	1	^	^
Multnomah	55	16.0	-1.5	33	9.3	+2.8
Polk	4	12.5	^	3	7.2	^
Sherman	0	^	^	0	^	^
Tillamook	3	15.1	^	2	10.6	^
Umatilla	5	14.5	^	4	9.7	^
Union	2	11.6	^	1	^	^
Wallowa	0	^	^	0	^	^
Wasco	2	14.7	^	2	11.0	^
Washington	28	13.3	-4.4	17	8.0	-2.2
Wheeler	0	^	^	0	^	^
Yamhill	7	15.5	^	5	12.1	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Pancreatic Cancer

### PANCREATIC CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2004)</b>	<b>413</b>	<b>201</b>	<b>212</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	11.4	11.2	11.6
Oregon Age-adjusted Rate	10.8	11.9	9.7
US Age-adjusted Rate <sup>1</sup>	11.3	12.8	10.1
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	+1.9	+0.8	+2.3
US Annual Trend <sup>1</sup>	-0.1	-0.5	+0.3
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2004)</b>	<b>430</b>	<b>196</b>	<b>234</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	12.0	11.0	12.9
Oregon Age-adjusted Rate	11.2	11.7	10.6
US Age-Adjusted Rate <sup>2</sup>	10.6	12.3	9.2
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	+1.4	-1.0	+3.3
US Annual Trend <sup>2</sup>	+0.1	+0.3	-0.1
<b>PROGNOSIS AND BURDEN (2000-2004)</b>			
Prognosis: M/I Ratio	1.00	1.00	1.00
Burden: YPLL	925	557	368

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers. Total column may exceed male/female columns due to coding to other gender.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

Among Oregonians, 413 pancreatic cancers were diagnosed in 2004 and reported to the central registry. Median age at diagnosis was 72. During the same time period, 430 Oregonians died due to pancreatic cancer. Median age at death was 74.

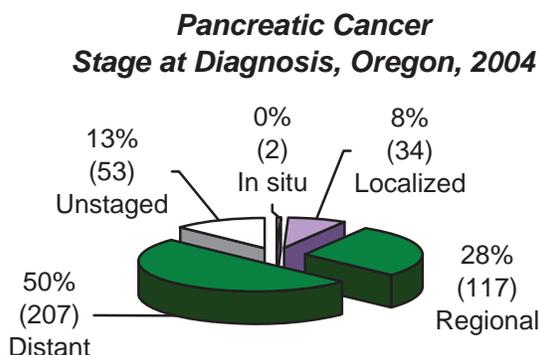
The majority (78 percent) of pancreatic cancers were diagnosed at the regional or distant stage. Another 13 percent were unstaged.

The age-adjusted incidence rate of pancreatic cancer in 2004 was 11 per 100,000. Among men, the incidence rate was 12 per 100,000 and among women the rate was 10 per 100,000. Incidence and mortality for both men and women increased after age 50.

The age-adjusted mortality rate for pancreatic cancer in 2004 was 11 per 100,000. Among men, the mortality rate was 12 per 100,000 and among women the rate was 9 per 100,000.

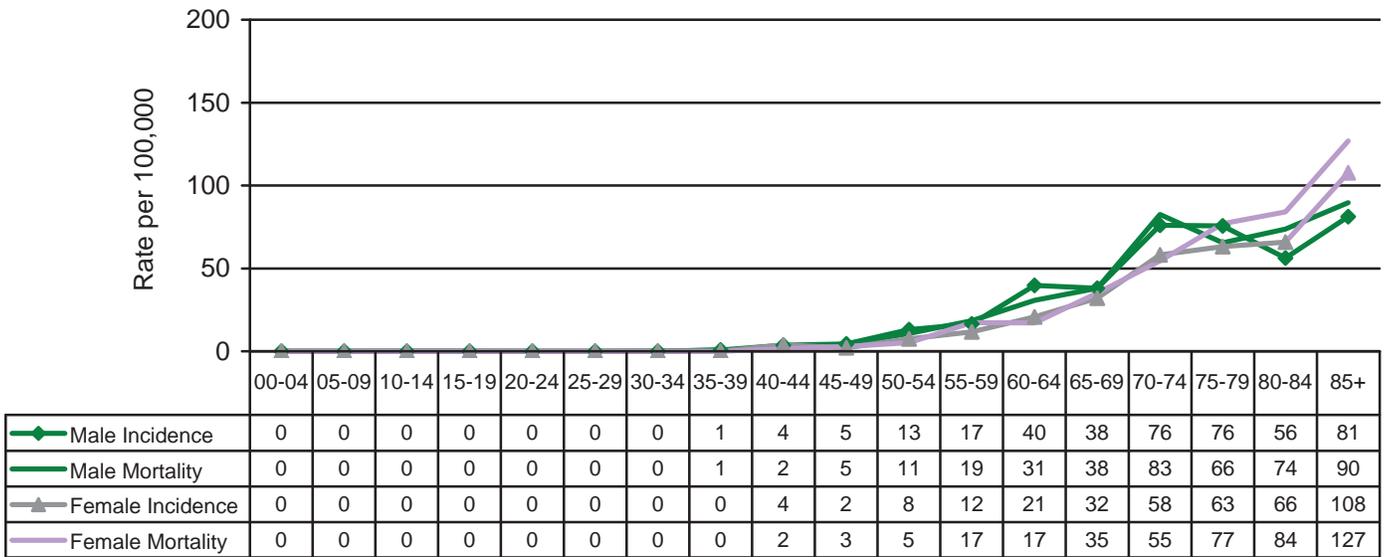
During the period 2000-2004, there were 100 deaths for every 100 diagnoses of pancreatic cancer. Based on a life expectancy of 65 years, a total of 925 years of life were lost due to early deaths from pancreatic cancer.

Pancreatic cancer incidence was highest in the region bordering the Columbia River. Mortality was highest in the region bordering the Columbia River and Lane county. [See Pancreatic Cancer maps.](#)

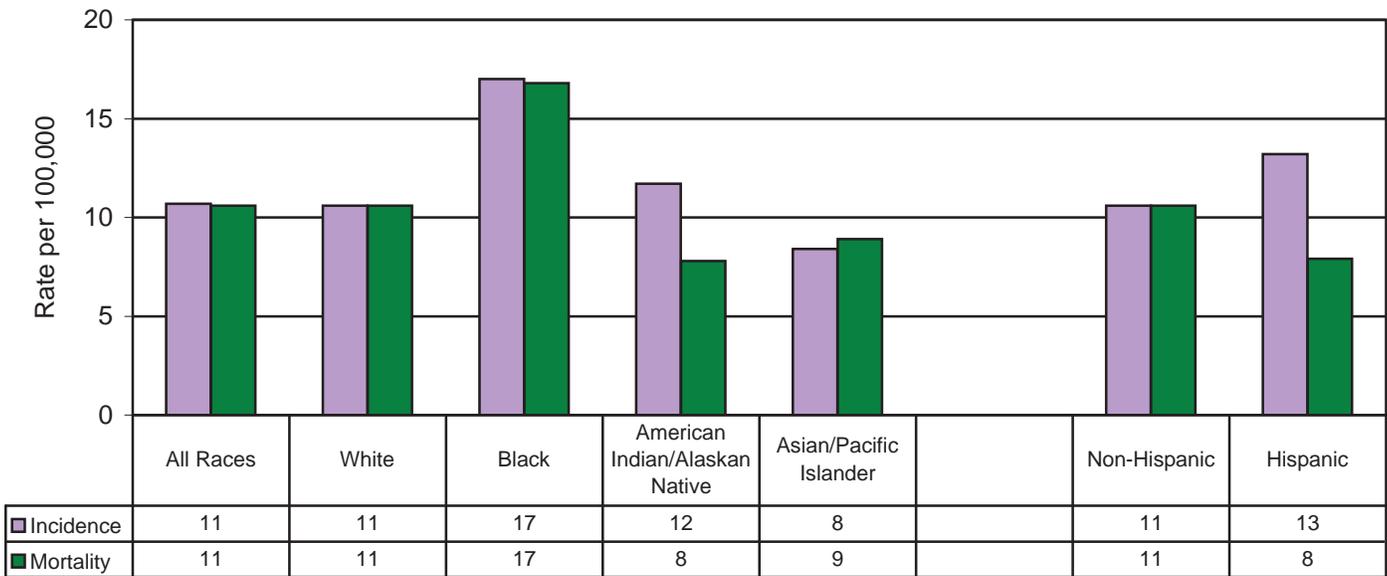


## Pancreatic Cancer

**Pancreatic Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2004**

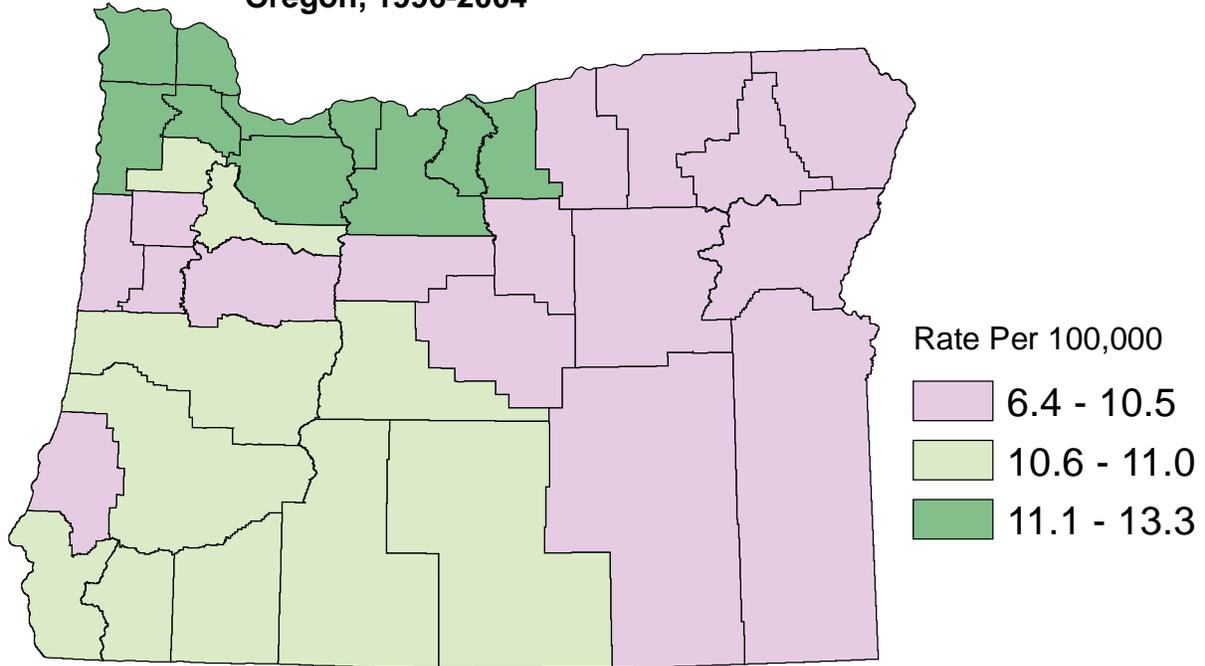


**Pancreatic Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



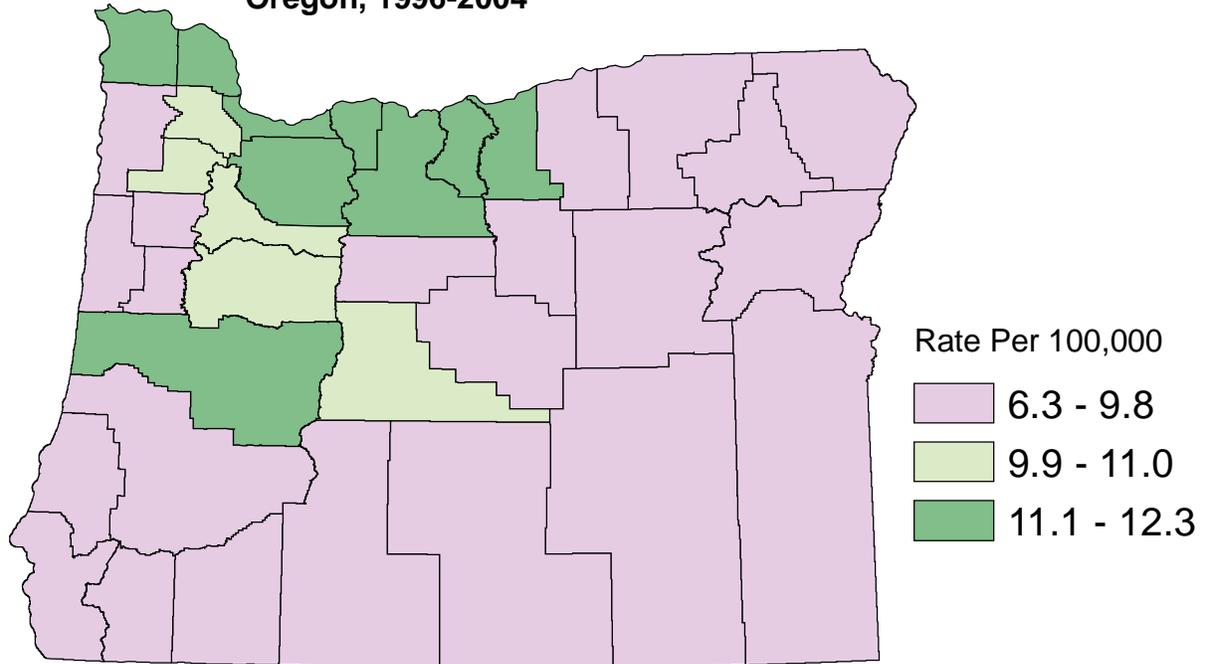
# Pancreatic Cancer

## Pancreatic Cancer Incidence: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Pancreatic Cancer Mortality: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Pancreatic Cancer

**Pancreatic Cancer Incidence and Mortality Rates, by County, 1996-2004 Average**

PANCREAS Years 1996-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	9-Year Trend APC
<b>STATE</b>	<b>378</b>	<b>10.7</b>	<b>+0.7</b>	<b>376</b>	<b>10.6</b>	<b>+0.8</b>
Baker	1	^	^	2	6.3	^
Benton	6	8.6	^	6	8.2	^
Clackamas	32	9.9	+1.9	32	9.8	-4.2
Clatsop	6	13.3	^	5	12.3	^
Columbia	3	8.0	^	3	7.6	^
Coos	11	11.7	+1.4	11	12.4	-3.9
Crook	1	^	^	2	9.2	^
Curry	5	11.8	^	5	12.2	^
Deschutes	13	10.7	-2.9	13	10.3	+1.4
Douglas	15	11.2	-1.8	16	11.9	+2.4
Gilliam	0	^	^	0	^	^
Grant	1	^	^	2	15.3	^
Harney	1	^	^	2	H 19.8	^
Hood River	1	^	^	1	^	^
Jackson	24	10.7	+3.4	22	9.8	+3.2
Jefferson	1	^	^	2	10.8	^
Josephine	10	9.3	^	10	9.2	-3.4
Klamath	10	12.9	^	9	12.6	^
Lake	1	^	^	2	16.3	^
Lane	38	11.0	+3.5	42	12.1	+1.9
Lincoln	7	11.1	^	6	9.8	^
Linn	13	10.5	+4.3	13	10.6	+4.1
Malheur	3	9.0	^	2	L 5.8	^
Marion	30	10.8	-2.9	30	10.7	-0.8
Morrow	1	^	^	1	^	^
Multnomah	71	11.7	+0.4	69	11.4	+1.1
Polk	6	8.4	^	5	L 7.5	^
Sherman	0	^	^	0	^	^
Tillamook	4	11.5	^	3	9.6	^
Umatilla	7	10.5	^	7	9.7	^
Union	2	6.4	^	1	^	^
Wallowa	1	^	^	1	^	^
Wasco	4	13.2	^	4	12.8	^
Washington	37	10.7	+2.5	37	10.8	+2.7
Wheeler	0	^	^	0	^	^
Yamhill	9	11.3	^	9	11.0	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Prostate Cancer

### PROSTATE CANCER - FAST FACTS OREGON

	Male
<b>CANCER INCIDENCE</b>	
<b>Total Cancer Cases (2004)</b>	<b>2,576</b>
<b>RATES (2004)</b>	
Oregon Crude Rate	144.2
Oregon Age-adjusted Rate	148.5
US Age-adjusted Rate <sup>1</sup>	155.1
<b>TRENDS (2000-2004) - APC</b>	
Oregon Annual Trend	*-4.5
US Annual Trend <sup>1</sup>	-3.2
<b>CANCER MORTALITY</b>	
<b>Total Cancer Deaths (2004)</b>	<b>406</b>
<b>RATES (2004)</b>	
Oregon Crude Rate	22.7
Oregon Age-adjusted Rate	25.9
US Age-Adjusted Rate <sup>2</sup>	25.4
<b>TRENDS (2000-2004) - APC</b>	
Oregon Annual Trend	*-3.8
US Annual Trend <sup>2</sup>	*-4.3
<b>PROGNOSIS AND BURDEN (2000-2004)</b>	
Prognosis: M/I Ratio	0.16
Burden: YPLL	183

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

Among Oregon men, 2,576 invasive prostate cancers were diagnosed in 2004 and reported to the central registry. Median age at diagnosis was 67. During the same time period, 406 Oregon men died due to prostate cancer. Median age at death was 81.

The majority of prostate cancers (81 percent) were diagnosed at the local stage.

During 2004, the age-adjusted annual incidence rate for new prostate cancers was 149 per 100,000, which was slightly lower than the national rate of 155 per 100,000. The age-adjusted mortality rate was 26 per 100,000 compared to 25 per 100,000 for the U.S.

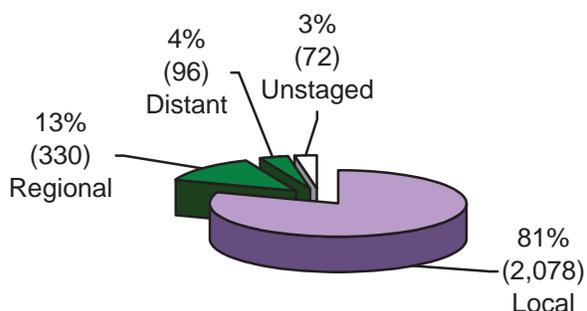
Incidence and mortality rates for prostate cancer were higher among African American Oregonians than other groups.

During the period 2000-2004, there was approximately one death for every six new prostate cancer diagnoses. Based on a life expectancy of 65 years, a total of 183 years of life were lost due to early deaths from prostate cancer.

The incidence of prostate cancer and prostate cancer mortality both declined significantly in Oregon during 2000-2004. Incidence declined 4.5 percent and mortality declined 3.8 percent. Oregon's decline mirrored a similar national trend.

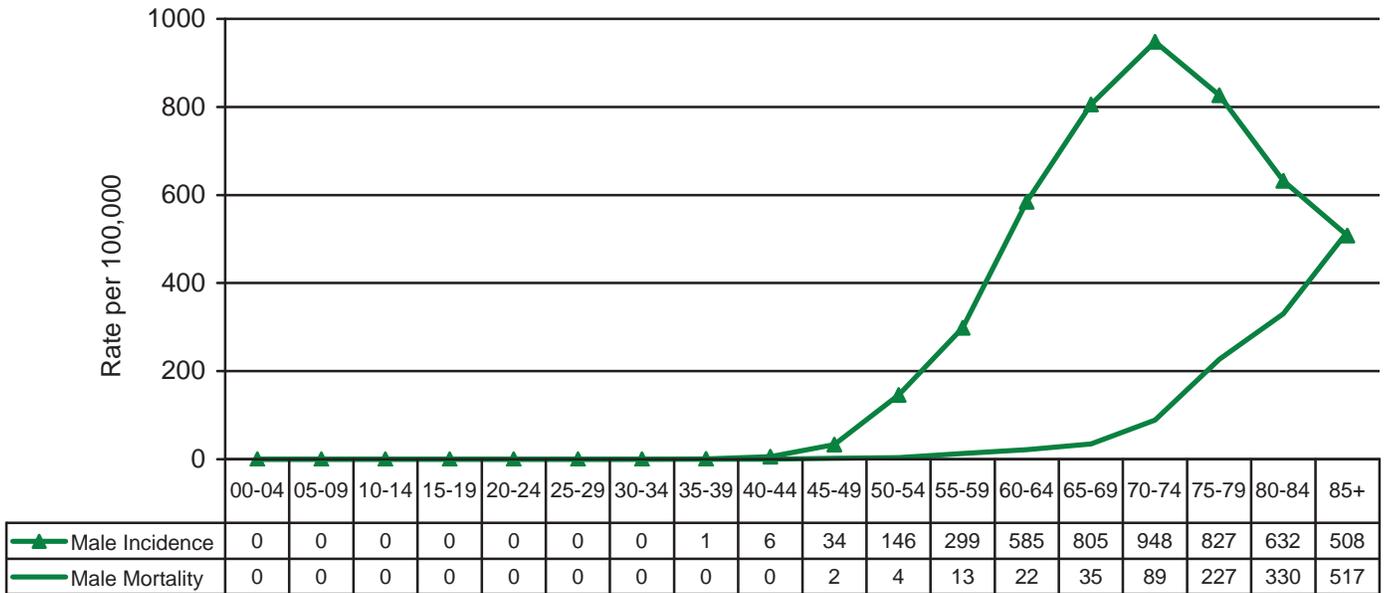
Prostate cancer incidence was highest in northeastern Oregon and areas of central and southern Oregon, while mortality was highest in the southern coastal area and north Willamette Valley. [See Prostate Cancer maps.](#)

**Prostate Cancers  
Stage at Diagnosis, Oregon, 2004**

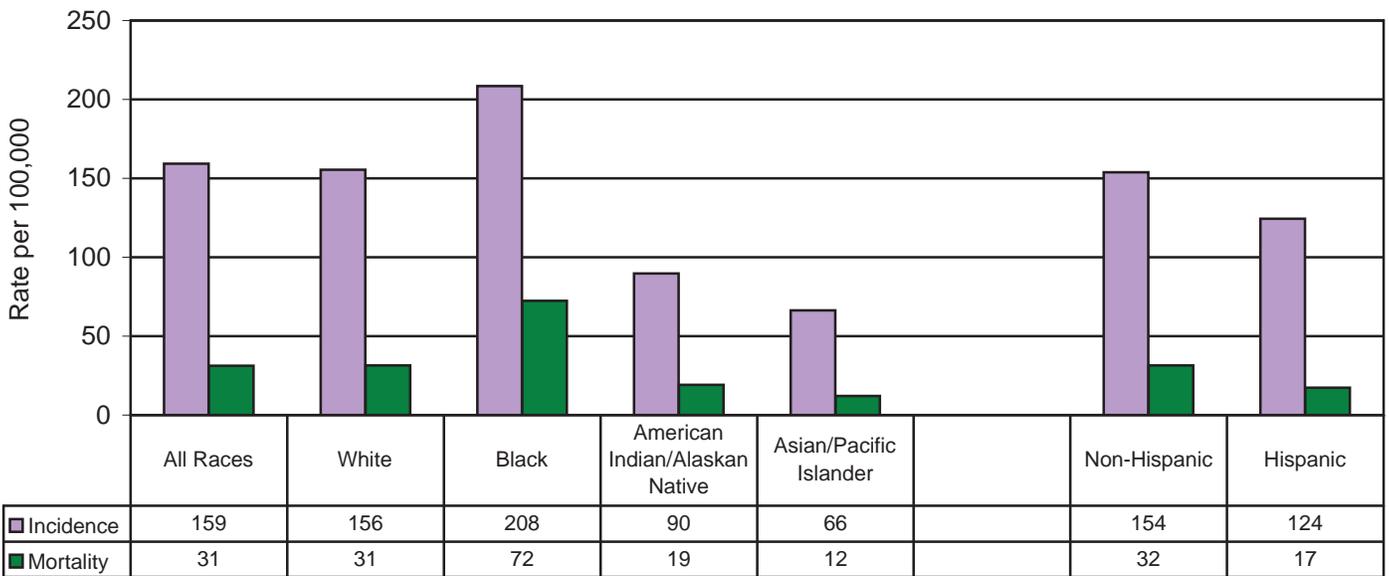


# Prostate Cancer

**Prostate Cancer Incidence and Mortality Rates,  
by Age Group, Oregon, 2004**

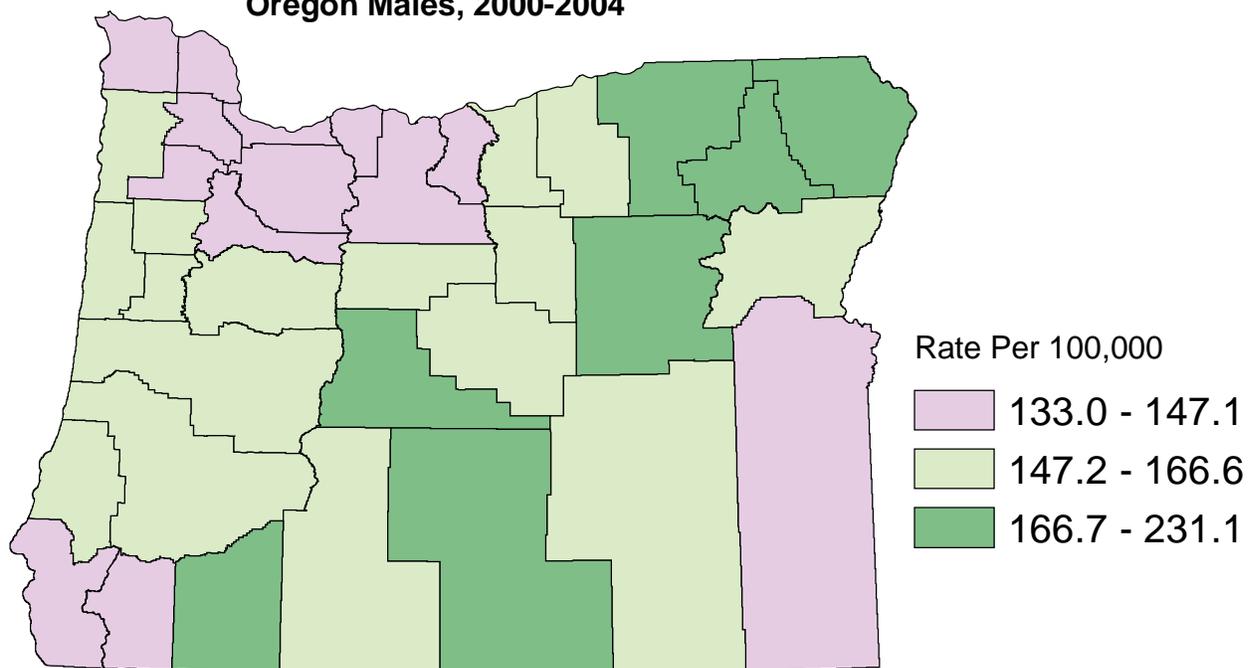


**Prostate Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



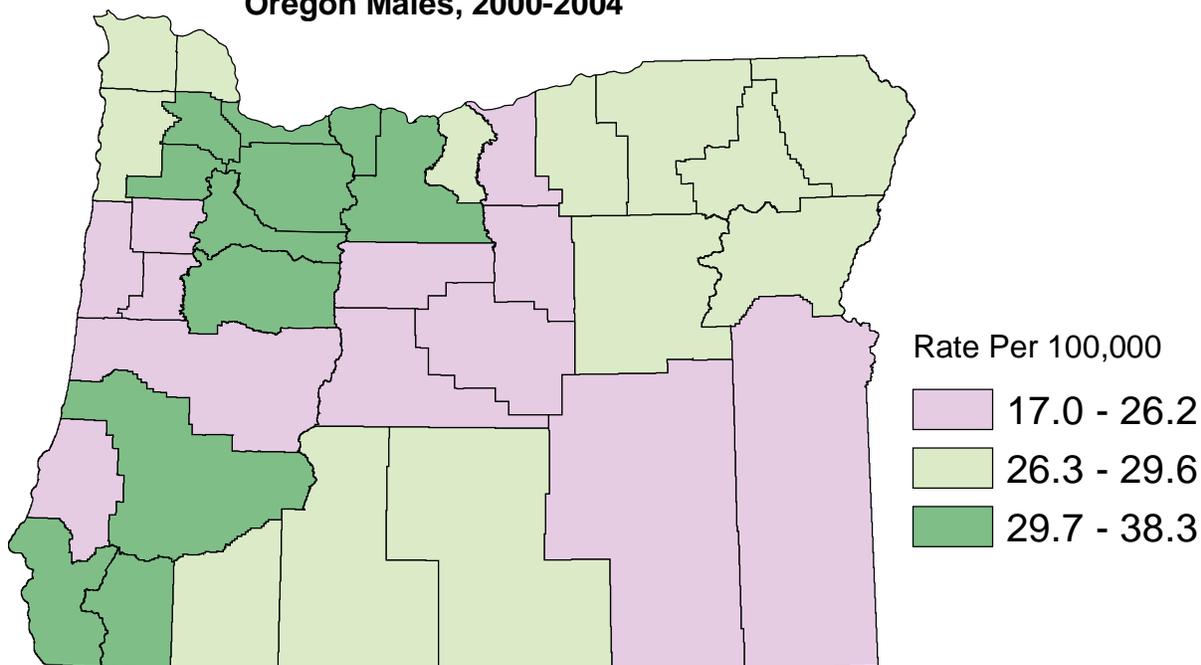
## Prostate Cancer

### Prostate Cancer Incidence: Oregon Males, 2000-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

### Prostate Cancer Mortality: Oregon Males, 2000-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Prostate Cancer

**Prostate Cancer, Incidence and Mortality Rates, by County, 2000-2004 Average**

PROSTATE Years 2000-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	5-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	5-Year Trend APC
<b>STATE</b>	<b>2,597</b>	<b>157.8</b>	<b>* -4.5</b>	<b>422</b>	<b>28.4</b>	<b>* -3.8</b>
Baker	18	152.9	-5.3	4	37.4	^
Benton	59	190.3	-2.5	6	22.5	^
Clackamas	240	151.4	-4.2	38	29.9	-3.3
Clatsop	29	145.5	-2.1	5	29.6	^
Columbia	31	143.8	-2.1	5	28.9	^
Coos	74	169.5	+0.2	10	23.0	-13.4
Crook	20	166.6	+1.5	2	19.5	^
Curry	32	159.4	-6.7	8	38.3	^
Deschutes	152	231.1	* -12.4	11	20.6	+7.4
Douglas	103	154.1	-7.2	19	30.8	-6.5
Gilliam	2	145.1	^	1	^	^
Grant	10	191.5	^	2	38.4	^
Harney	10	210.6	^	1	^	^
Hood River	19	200.0	-0.1	2	20.7	^
Jackson	183	173.6	-1.9	29	27.8	-9.9
Jefferson	16	152.8	-14.3	3	30.6	^
Josephine	82	147.1	-1.2	18	33.7	+0.5
Klamath	53	142.1	-2.2	9	29.1	^
Lake	9	178.3	^	2	35.3	^
Lane	242	151.8	-7.6	37	25.1	-4.8
Lincoln	49	161.3	* -10.2	6	24.3	^
Linn	81	146.7	+3.0	14	26.9	-3.8
Malheur	21	133.0	+23.8	3	17.0	^
Marion	211	170.7	-4.2	36	30.0	-1.8
Morrow	7	136.6	^	0	^	^
Multnomah	369	141.5	* -4.1	76	32.7	-0.7
Polk	58	180.6	1.9	9	26.2	^
Sherman	2	122.6	^	0	^	^
Tillamook	28	160.8	+1.9	4	26.8	^
Umatilla	55	167.0	-6.5	8	29.1	^
Union	25	193.3	-1.6	5	40.5	^
Wallowa	10	182.7	^	2	47.4	^
Wasco	27	192.7	* -12.5	3	23.3	^
Washington	217	136.7	* -6.5	33	25.2	* +10.9
Wheeler	3	220.8	^	1	^	^
Yamhill	51	137.9	-8.8	10	29.9	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Stomach Cancer

### STOMACH CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2004)</b>	<b>237</b>	<b>141</b>	<b>96</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	6.5	7.7	5.3
Oregon Age-adjusted Rate	6.2	8.1	4.7
US Age-adjusted Rate <sup>1</sup>	8.0	11.1	5.5
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-0.8	-2.2	+2.0
US Annual Trend <sup>1</sup>	-1.2	*-1.8	0.4
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2004)</b>	<b>122</b>	<b>65</b>	<b>57</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	3.4	3.6	3.2
Oregon Age-adjusted Rate	3.2	3.8	2.7
US Age-Adjusted Rate <sup>2</sup>	4.0	5.5	2.8
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-1.4	-5.8	+4.4
US Annual Trend <sup>2</sup>	*-3.2	*-3.4	*-3.0
<b>PROGNOSIS AND BURDEN (2000-2004)</b>			
Prognosis: M/I Ratio	0.57	0.53	0.63
Burden: YPLL	396	233	163

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers. Total column may exceed male/female columns due to coding to other gender.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

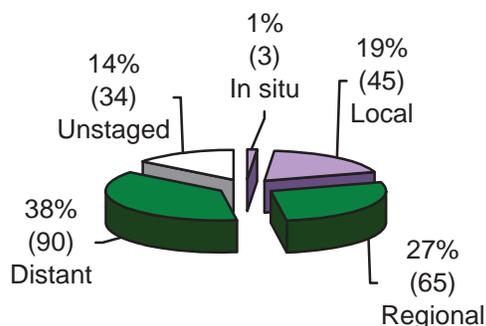
APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

**Stomach Cancer  
Stage at Diagnosis, Oregon, 2004**



In 2004, 237 cases of stomach cancer were diagnosed and reported to the central registry. Median age at diagnosis was 68. During the same time period, 122 Oregonians died due to stomach cancers. Median age at death was 72.

Most stomach cancers (65 percent) were diagnosed at the regional or distant stage; another 14 percent were unstaged.

The age-adjusted incidence rate for stomach cancer in 2004 was 6 per 100,000. Among men, the incidence rate was 8 per 100,000 and among women the rate was 5 per 100,000.

The age-adjusted mortality rate for stomach cancer in 2004 was 3 per 100,000. The national mortality trend during 2000-2004 declined 3.2 percent while Oregon's trend declined 1.4 percent.

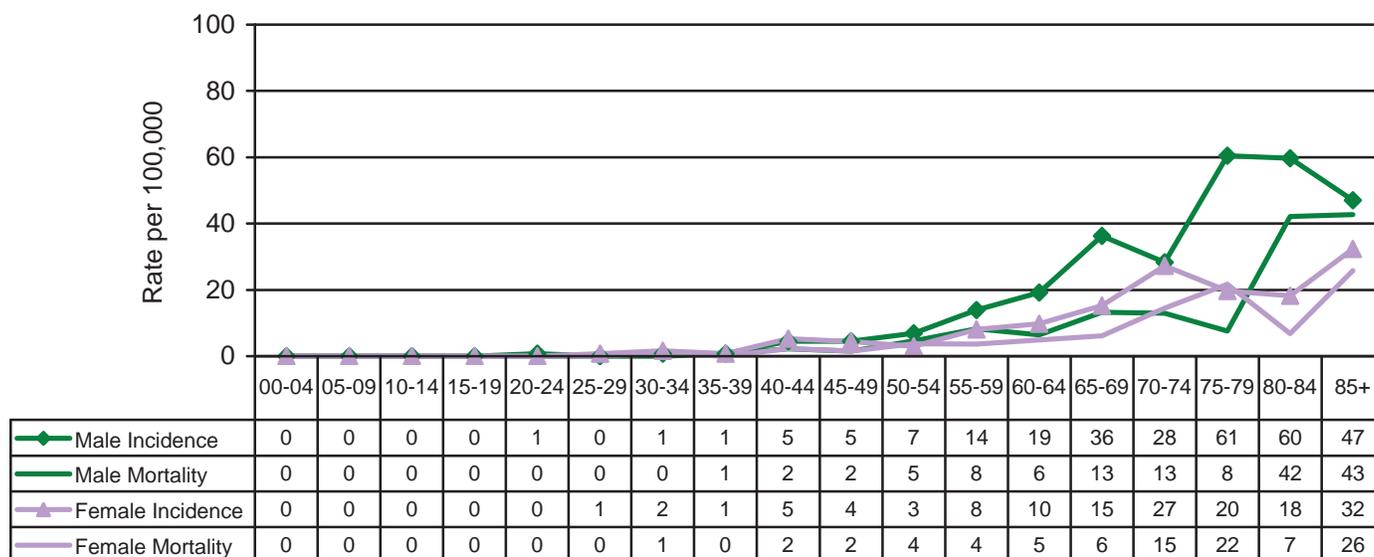
Stomach cancer incidence and mortality rates were highest among Asian and Pacific Islanders.

During the period 2000-2004, there were 57 deaths for every 100 diagnoses of stomach cancer. Based on a life expectancy of 65 years, a total of 396 years of life were lost due to early deaths from stomach cancer.

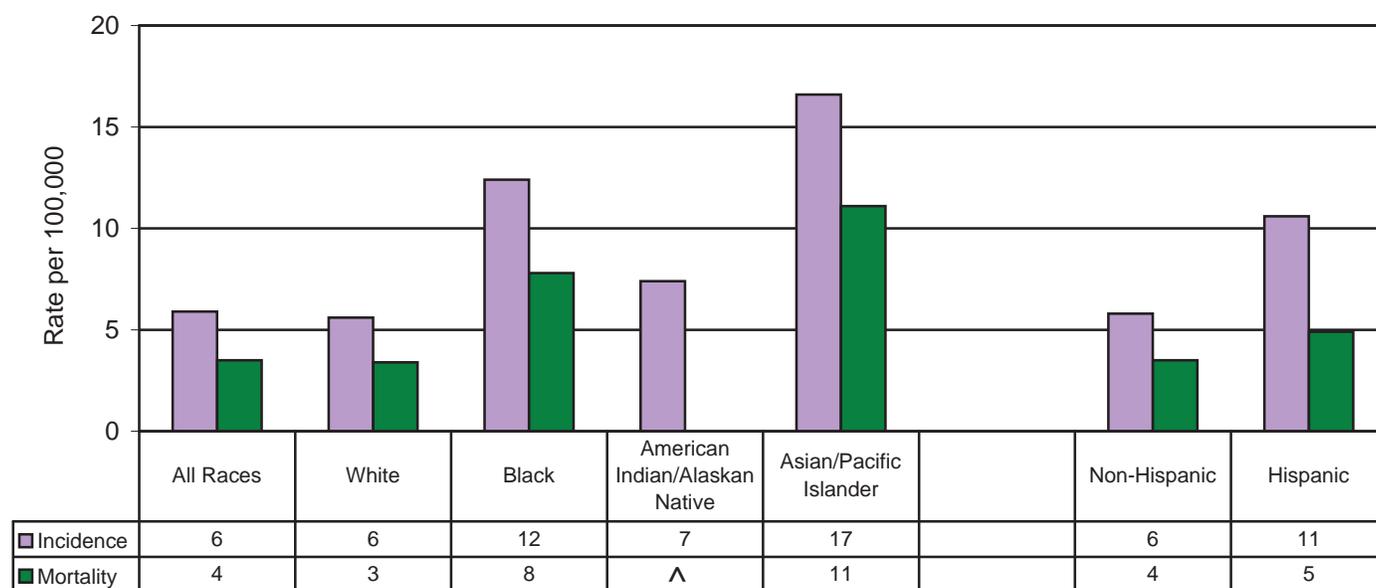
Stomach cancer incidence was highest in the Columbia River Gorge, while mortality was highest along the lower Columbia River Gorge and in parts of central Oregon. [See Stomach Cancer maps.](#)

## Stomach Cancer

**Stomach Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2004**



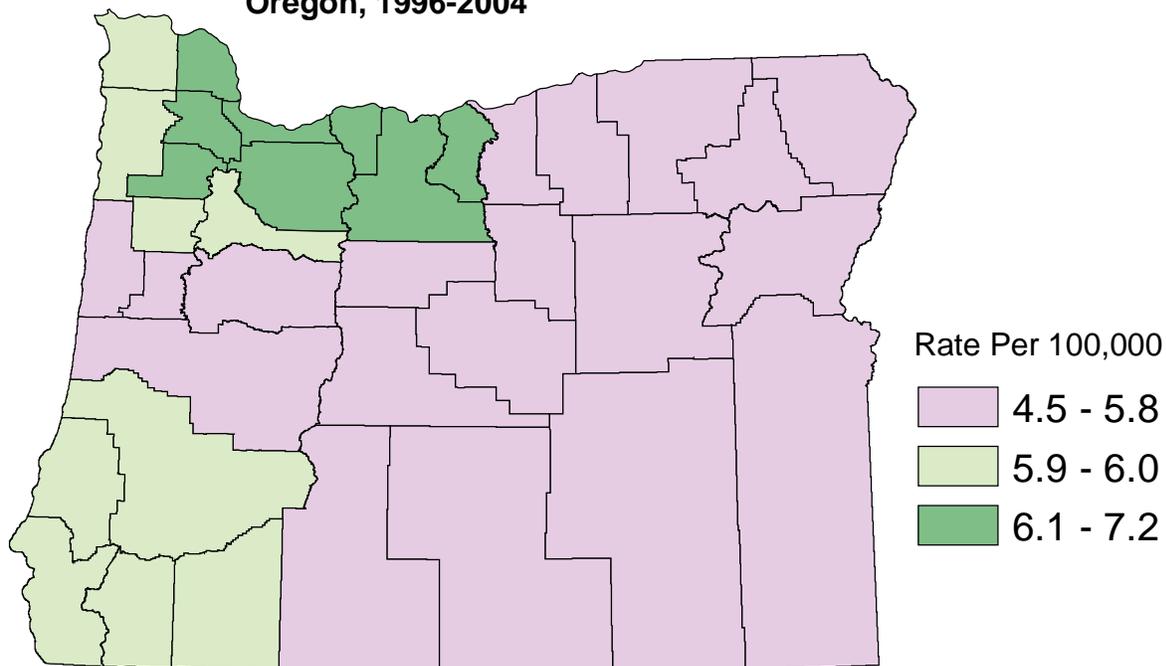
**Stomach Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



^ Rate not calculated due to instability of small numbers

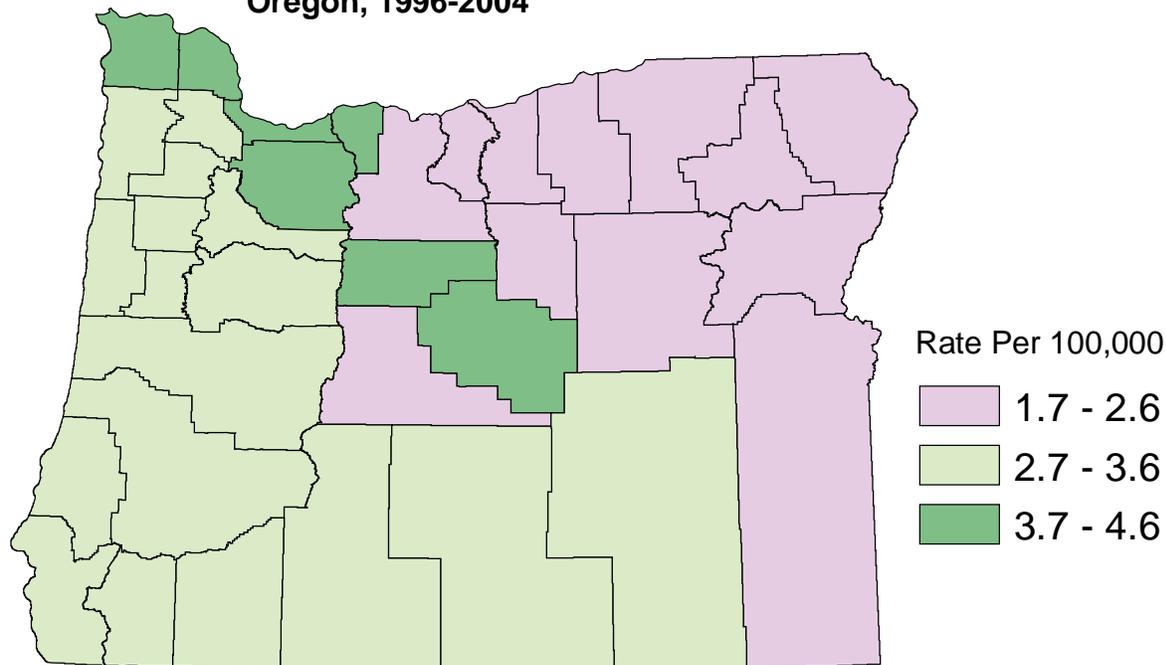
# Stomach Cancer

## Stomach Cancer Incidence: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Stomach Cancer Mortality: Oregon, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Stomach Cancer

**Stomach Cancer Incidence and Mortality Rates, by County, 1996-2004 Average**

STOMACH Years 1996-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	9-Year Trend APC
<b>STATE</b>	<b>209</b>	<b>5.9</b>	<b>-1.1</b>	<b>126</b>	<b>3.5</b>	<b>-3.4</b>
Baker	1	^	^	1	^	^
Benton	3	4.1	^	2	2.5	^
Clackamas	19	5.9	-6.4	13	3.8	-7.4
Clatsop	3	6.0	^	2	3.9	^
Columbia	3	8.1	^	3	H 6.8	^
Coos	5	5.6	^	3	2.9	^
Crook	1	^	^	1	^	^
Curry	2	4.0	^	1	^	^
Deschutes	6	4.5	^	2	L 1.9	^
Douglas	7	5.5	^	4	2.8	^
Gilliam	0	^	^	0	^	^
Grant	1	^	^	1	^	^
Harney	0	^	^	0	^	^
Hood River	2	7.5	^	1	^	^
Jackson	13	5.9	-7.2	8	3.5	^
Jefferson	1	^	^	0	^	^
Josephine	7	6.8	^	3	2.8	^
Klamath	4	5.6	^	2	3.2	^
Lake	1	^	^	0	^	^
Lane	17	4.8	+1.8	11	3.2	-5.1
Lincoln	4	6.0	^	2	3.8	^
Linn	7	6.0	^	4	3.4	^
Malheur	2	7.3	^	2	4.7	^
Marion	16	5.7	+2.9	10	3.6	-2.1
Morrow	1	^	^	0	^	^
Multnomah	44	H 7.2	-3.3	29	H 4.6	-2.1
Polk	3	4.4	^	2	3.2	^
Sherman	0	^	^	0	^	^
Tillamook	2	5.7	^	1	^	^
Umatilla	4	5.8	^	2	2.6	^
Union	3	9.3	^	2	6.5	^
Wallowa	0	^	^	0	^	^
Wasco	1	^	^	1	^	^
Washington	22	6.3	+2.9	12	3.4	+0.3
Wheeler	0	^	^	0	^	^
Yamhill	5	6.1	^	2	2.7	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Thyroid Cancer

### THYROID CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2004)</b>	<b>310</b>	<b>74</b>	<b>236</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	8.6	4.1	13.1
Oregon Age-adjusted Rate	8.4	4.1	12.8
US Age-adjusted Rate <sup>1</sup>	9.4	4.8	14.0
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	*+5.8	+6.6	*+5.7
US Annual Trend <sup>1</sup>	*+6.0	*+5.4	*+6.3
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2004)</b>	<b>14</b>	<b>8</b>	<b>6</b>
<b>RATES (2004)</b>			
Oregon Crude Rate	0.4	0.4	0.3
Oregon Age-adjusted Rate	0.4	0.5	0.3
US Age-Adjusted Rate <sup>2</sup>	0.5	0.5	0.5
<b>TRENDS (2000-2004) - APC</b>			
Oregon Annual Trend	-3.6	+12.3	-13.4
US Annual Trend <sup>2</sup>	-0.9	-1.1	-0.9
<b>PROGNOSIS AND BURDEN (2000-2004)</b>			
Prognosis: M/I Ratio	0.06	0.10	0.05
Burden: YPLL	48	17	32

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers. Total column may exceed male/female columns due to coding to other gender.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

In 2004, 310 cases of thyroid cancer were diagnosed and reported to the central registry. Median age at diagnosis was 49. During the same time period, 14 Oregonians died due to thyroid cancer. Median age at death was 75.

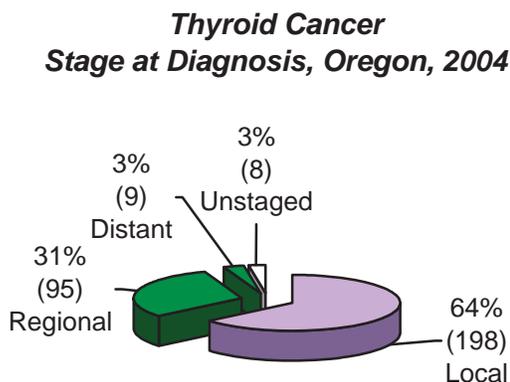
Most thyroid cancers (64 percent) were diagnosed at the local stage.

The age-adjusted incidence rate for thyroid cancer in 2004 was 8 per 100,000. Among men, the incidence rate was 4 per 100,000 and among women the rate was 13 per 100,000.

The age-adjusted mortality rate for thyroid cancer in 2004 was 0.4 per 100,000. Among men, the mortality rate was 0.5 per 100,000 and among women the rate was 0.3 per 100,000.

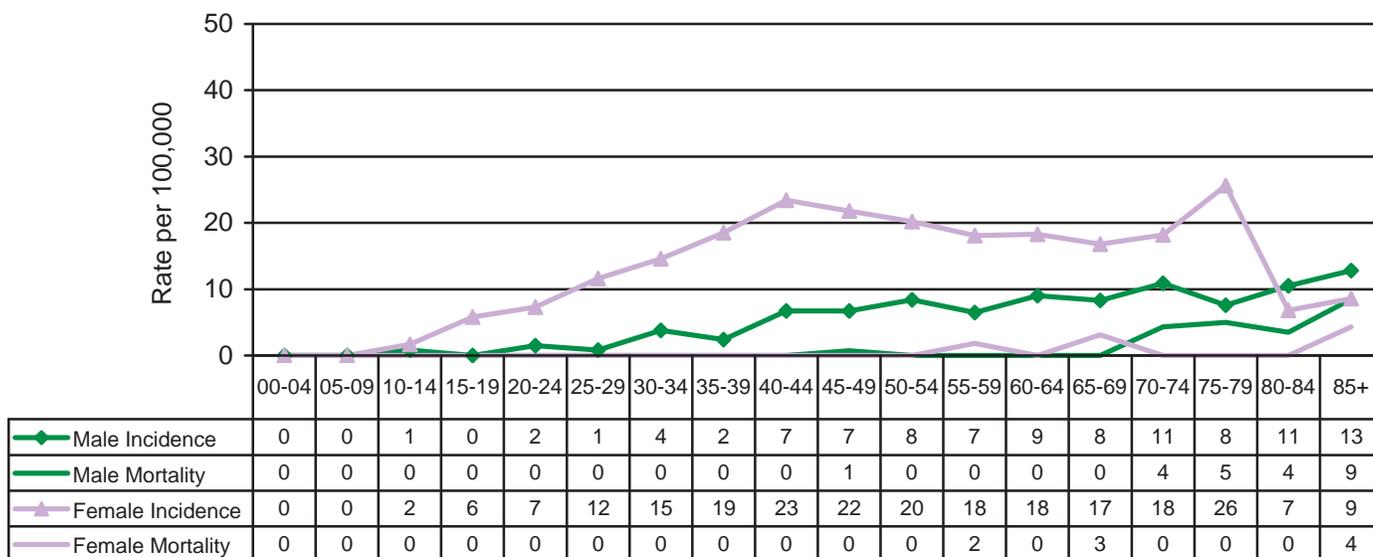
During the period 2000-2004, there were 6 deaths for every 100 thyroid cancer diagnoses. Based on a life expectancy of 65 years, a total of 48 years of life were lost due to early deaths from thyroid cancer.

Regionally, thyroid cancer incidence was highest in eastern Oregon and the northern half of the state, while thyroid mortality was highest in central, eastern and northeastern Oregon. [See Thyroid Cancer maps.](#)

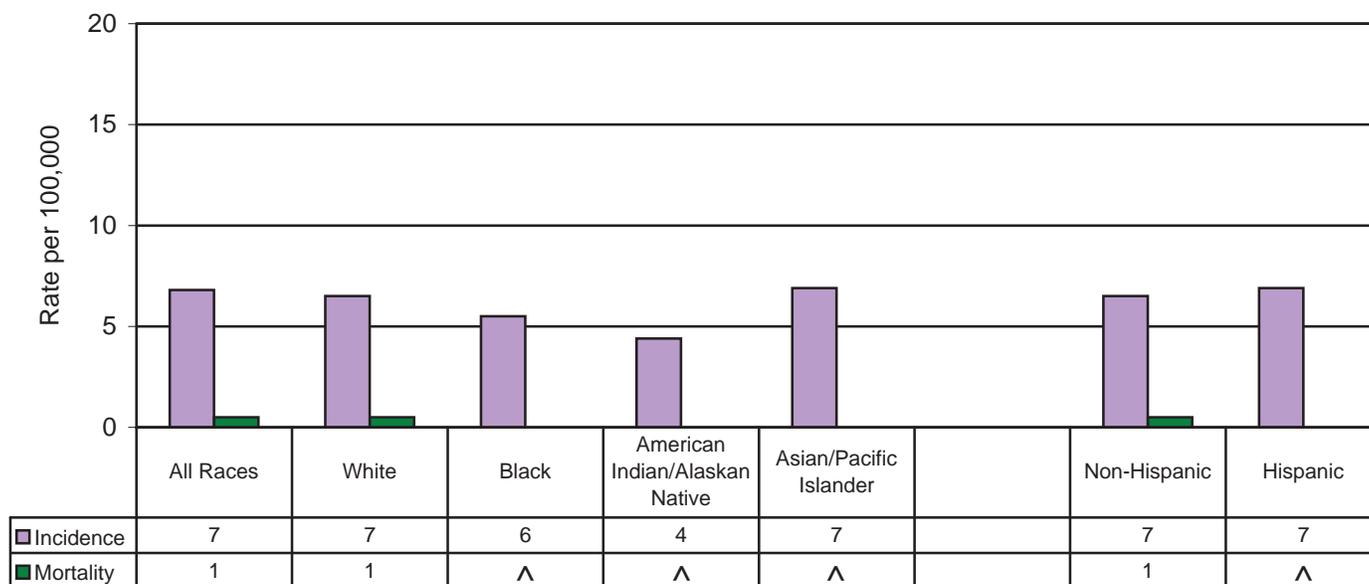


## Thyroid Cancer

**Thyroid Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2004**



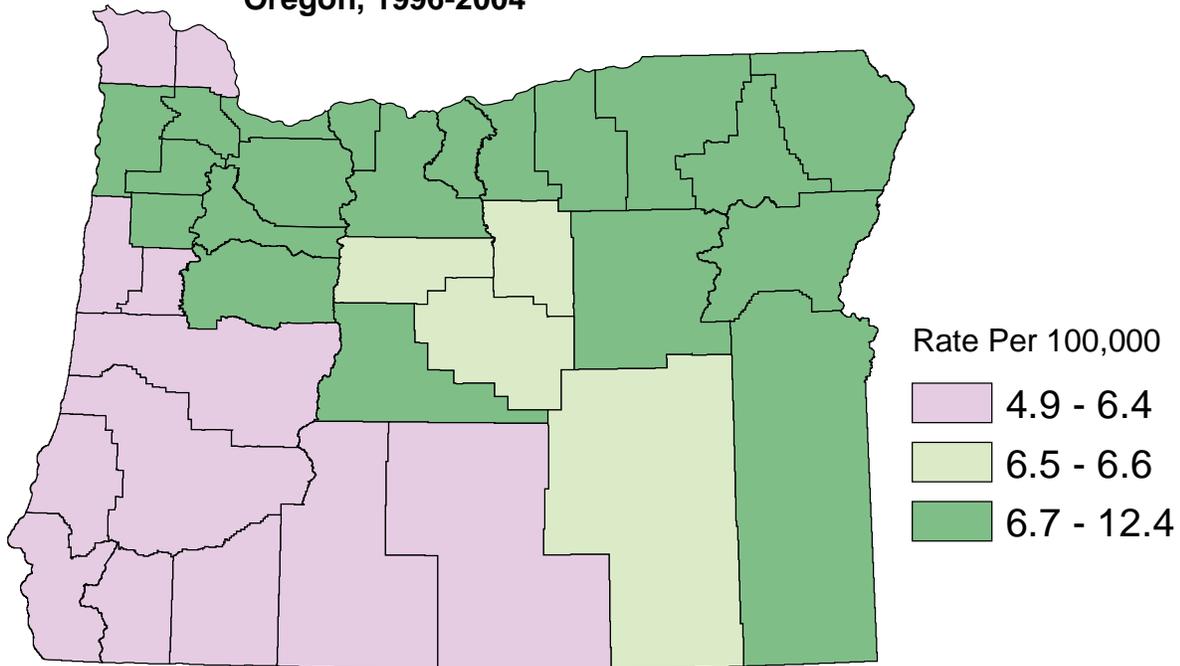
**Thyroid Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



^ Rate not calculated due to instability of small numbers

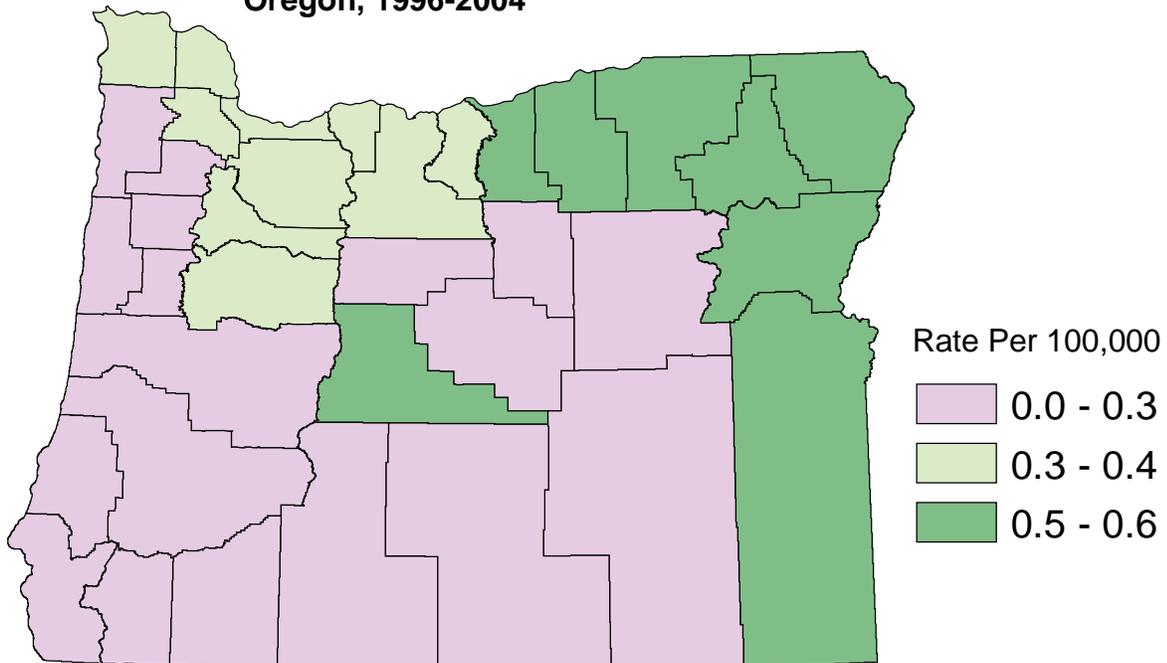
# Thyroid Cancer

**Thyroid Cancer Incidence:  
Oregon, 1996-2004**



Rates have been smoothed to stabilize results from sparsely populated areas.

**Thyroid Cancer Mortality:  
Oregon, 1996-2004**



Rates have been smoothed to stabilize results from sparsely populated areas.

## Thyroid Cancer

**Thyroid Cancer, Incidence and Mortality Rates, by County, 1996-2004 Average**

THYROID Years 1996-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	9-Year Trend APC
<b>STATE</b>	<b>236</b>	<b>6.8</b>	<b>* +5.4</b>	<b>17</b>	<b>0.5</b>	<b>-2.2</b>
Baker	1	^	^	0	^	^
Benton	5	6.2	^	0	^	^
Clackamas	20	5.6	+3.6	2	0.5	^
Clatsop	2	5.6	^	0	^	^
Columbia	2	5.2	^	0	^	^
Coos	3	L 3.9	^	0	^	^
Crook	1	^	^	0	^	^
Curry	1	^	^	0	^	^
Deschutes	14	H 11.4	+3.5	1	^	^
Douglas	7	7.1	^	1	^	^
Gilliam	0	^	^	0	^	^
Grant	1	^	^	0	^	^
Harney	0	^	^	0	^	^
Hood River	1	^	^	0	^	^
Jackson	9	L 4.9	^	1	^	^
Jefferson	0	^	^	0	^	^
Josephine	4	5.2	^	0	^	^
Klamath	6	9.0	^	0	^	^
Lake	0	^	^	0	^	^
Lane	18	L 5.4	* +12.9	1	^	^
Lincoln	3	5.3	^	0	^	^
Linn	7	6.4	^	1	^	^
Malheur	2	8.0	^	0	^	^
Marion	23	H 8.4	+4.5	1	^	^
Morrow	1	^	^	0	^	^
Multnomah	46	6.7	+5.4	3	0.5	^
Polk	6	H 9.6	^	0	^	^
Sherman	1	^	^	0	^	^
Tillamook	2	7.9	^	0	^	^
Umatilla	8	H 12.4	^	0	^	^
Union	2	7.1	^	0	^	^
Wallowa	0	^	^	0	^	^
Wasco	1	^	^	0	^	^
Washington	31	6.9	+3.1	2	0.6	^
Wheeler	0	^	^	0	^	^
Yamhill	6	7.6	^	0	^	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Uterine Cancer

### UTERINE CANCER - FAST FACTS OREGON

	Female
<b>CANCER INCIDENCE</b>	
<b>Total Cancer Cases (2004)</b>	<b>522</b>
<b>RATES (2004)</b>	
Oregon Crude Rate	28.5
Oregon Age-adjusted Rate	25.3
US Age-adjusted Rate <sup>1</sup>	22.8
<b>TRENDS (2000-2004) - APC</b>	
Oregon Annual Trend	+0.2
US Annual Trend <sup>1</sup>	-1.3
<b>CANCER MORTALITY</b>	
<b>Total Cancer Deaths (2004)</b>	<b>78</b>
<b>RATES (2004)</b>	
Oregon Crude Rate	2.2
Oregon Age-adjusted Rate	2.0
US Age-Adjusted Rate <sup>2</sup>	4.1
<b>TRENDS (2000-2004) - APC</b>	
Oregon Annual Trend	*-4.6
US Annual Trend <sup>2</sup>	-0.1
<b>PROGNOSIS AND BURDEN (2000-2004)</b>	
Prognosis: M/I Ratio	0.17
Burden: YPLL	203

Note: Incidence and mortality rates are per 100,000 population, age-adjusted to the 19-age-group 2000 U.S. standard population, and exclude *in situ* cancers.

<sup>1</sup> SEER 17 Registry Data, SEERStat 6.3.5.

<sup>2</sup> US Mortality Public Use Data file, National Center for Health Statistics

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* indicates a statistically significant trend.

In 2004, 522 cancers of the uterus were diagnosed in Oregon women and reported to the central registry. Median age at diagnosis was 62. During the same time period, 78 women died due to uterine cancer. Median age at death was 76.

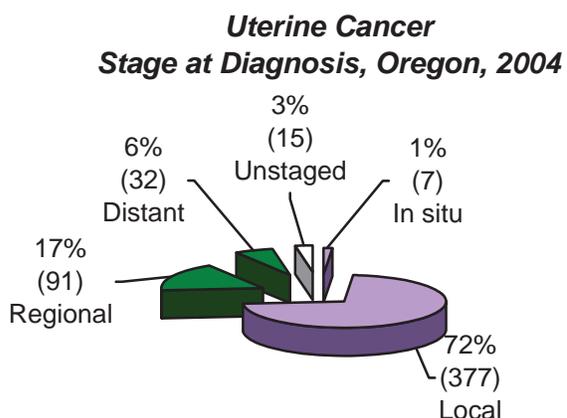
The majority of uterine cancers (73 percent) were diagnosed at the *in situ* or local stage when this cancer is most treatable.

The age-adjusted incidence rate for uterine cancer in 2004 was 25 per 100,000 compared with 23 nationally.

The age-adjusted mortality rate for uterine cancer in 2004 was 2 per 100,000 compared to 4 nationally.

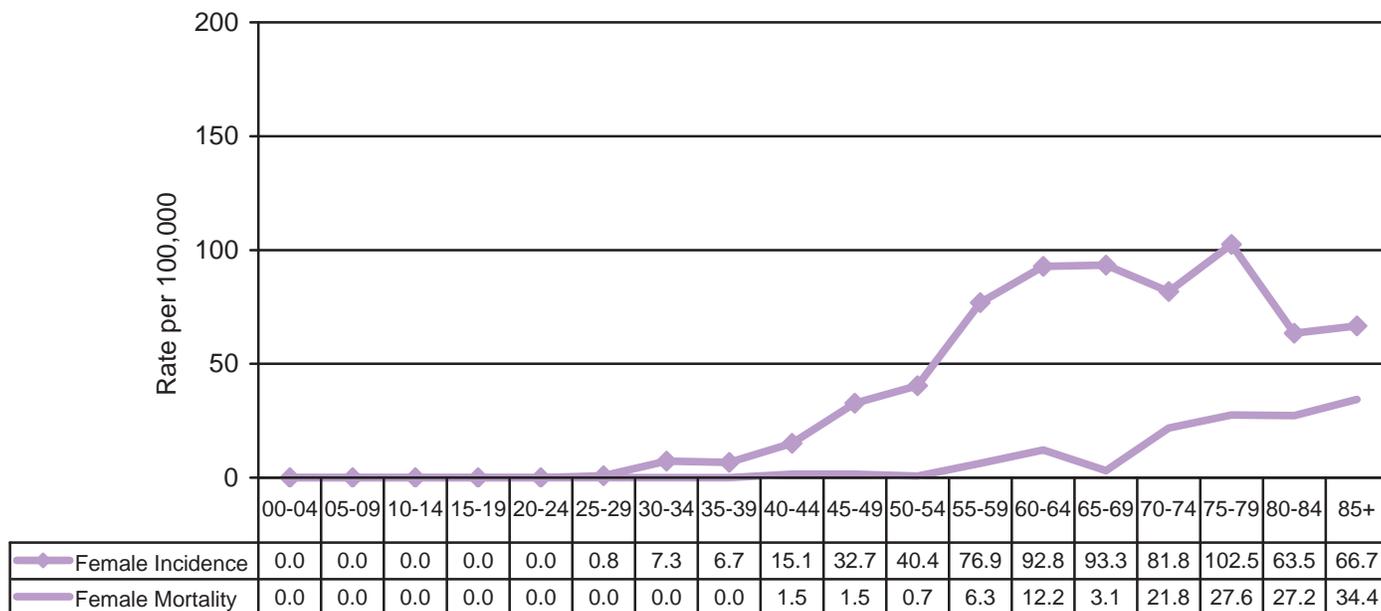
During the period 2000-2004, there were 17 deaths for every 100 uterine cancer diagnoses. Based on a life expectancy of 65 years, a total of 203 years of life were lost due to early deaths from uterine cancer.

Uterine cancer incidence was highest in the north Willamette Valley, the lower Columbia River Gorge, and north central Oregon. Mortality was highest in southeastern Oregon and the north Willamette Valley. [See Uterine Cancer maps.](#)

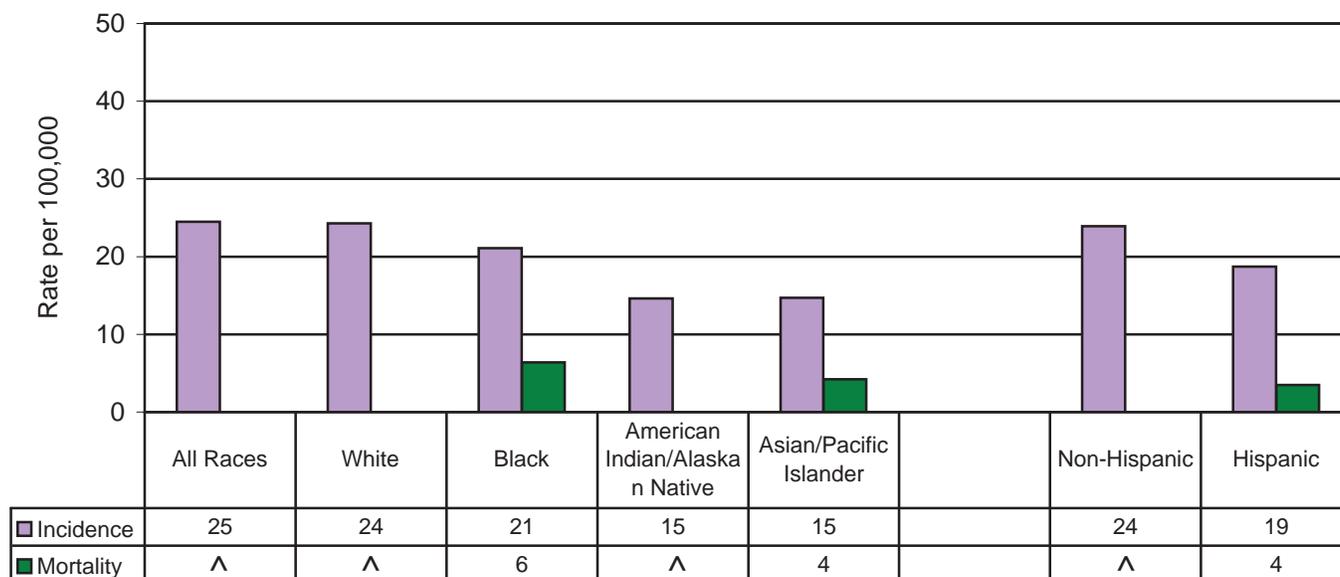


## Uterine Cancer

**Uterine Cancer Incidence and Mortality Rates,  
by Age Group, Oregon, 2004**



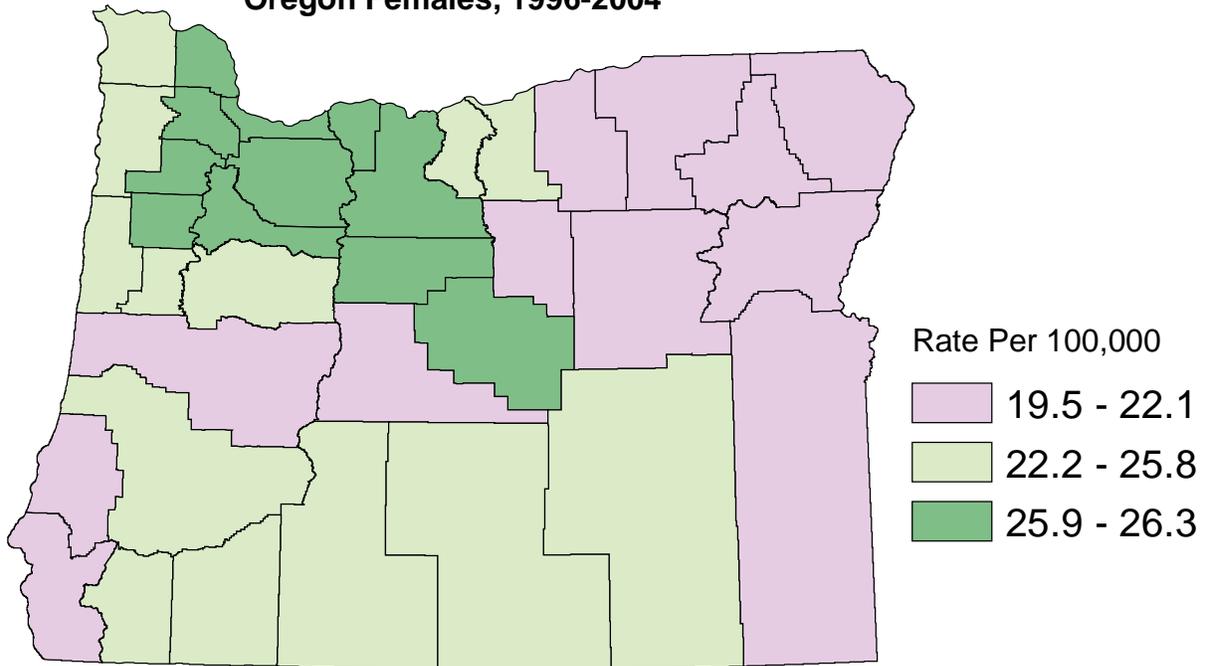
**Uterine Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1996-2004**



^ Rate not calculated due to instability of small numbers

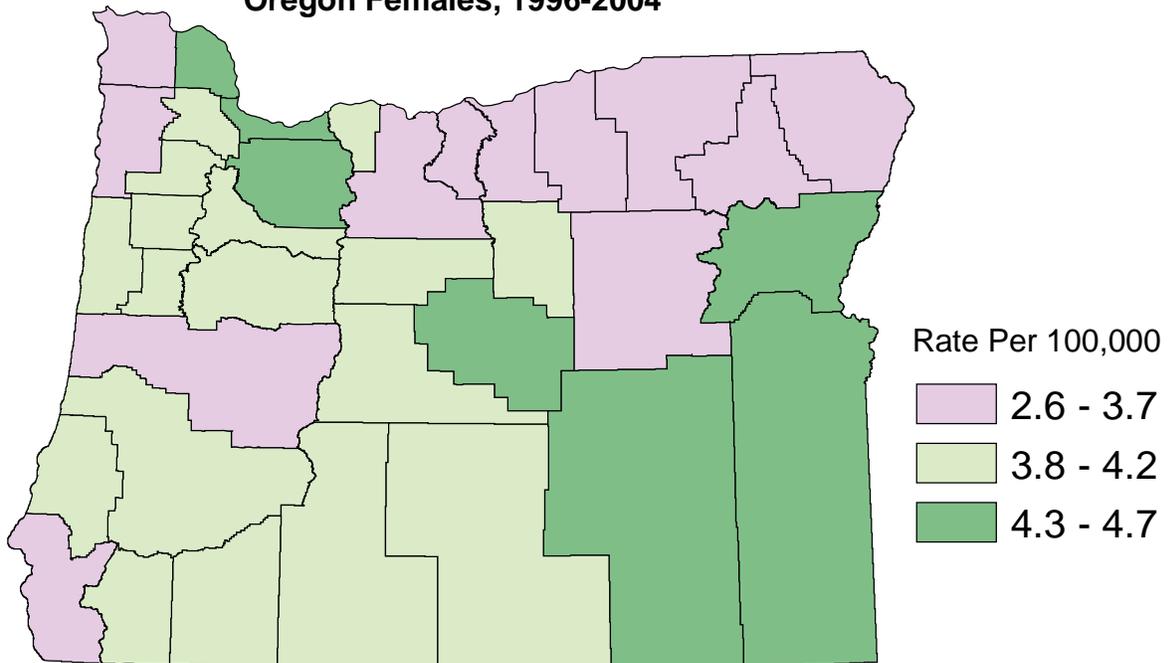
# Uterine Cancer

## Uterine Cancer Incidence: Oregon Females, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Uterine Cancer Mortality: Oregon Females, 1996-2004



Rates have been smoothed to stabilize results from sparsely populated areas.

## Uterine Cancer

**Uterine Cancer Incidence and Mortality Rates, by County, 1996-2004 Average**

UTERUS Years 1996-2004 Oregon Counties	CANCER INCIDENCE			CANCER MORTALITY		
	Invasive Cases Per Year	Age- Adjusted Rate	9-Year Trend APC	Cancer Deaths Per Year	Age- Adjusted Rate	9-Year Trend APC
<b>STATE</b>	<b>464</b>	<b>24.5</b>	<b>-0.5</b>	<b>80</b>	<b>4.0</b>	<b>-2.0</b>
Baker	3	26.2	^	1	^	^
Benton	12	H 32.2	+6.4	2	4.4	^
Clackamas	43	23.2	-0.5	7	3.9	^
Clatsop	6	25.8	^	1	^	^
Columbia	7	29.2	^	1	^	^
Coos	12	27.9	+1.8	3	5.4	^
Crook	3	25.9	^	1	^	^
Curry	4	18.5	^	1	^	^
Deschutes	13	L 19.5	-7.2	3	3.9	^
Douglas	17	25.3	-0.3	3	4.4	^
Gilliam	1	^	^	0	^	^
Grant	1	^	^	0	^	^
Harney	1	^	^	0	^	^
Hood River	2	21.4	^	0	^	^
Jackson	30	25.8	-2.7	5	3.9	^
Jefferson	2	19.2	^	0	^	^
Josephine	14	24.6	+6.0	2	3.7	^
Klamath	10	25.3	^	2	4.2	^
Lake	1	^	^	0	^	^
Lane	40	21.8	-1.7	7	3.5	^
Lincoln	8	22.1	^	1	^	^
Linn	12	20.7	-2.4	3	4.9	^
Malheur	3	19.2	^	1	^	^
Marion	38	25.9	+2.3	7	4.2	^
Morrow	1	^	^	0	^	^
Multnomah	90	26.3	-0.9	17	4.7	+2.4
Polk	9	24.5	^	1	^	^
Sherman	0	^	^	0	^	^
Tillamook	5	26.8	^	0	^	^
Umatilla	8	21.6	^	1	^	^
Union	4	23.5	^	1	^	^
Wallowa	2	40.3	^	0	^	^
Wasco	4	23.6	^	0	^	^
Washington	48	24.1	-0.8	6	3.2	^
Wheeler	0	^	^	0	^	^
Yamhill	12	27.5	+6.3	1	^	^

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. Standard Population.

APC = Annual Percent Change.

Counts may not match Center for Health Statistics data tables due to unknown county of death.

\* Indicates a statistically significant trend (p<.05).

^ Rate/Trend is not calculated due to instability of small numbers.

H= Rate is statistically significantly higher (p<.05).

L = Rate is statistically significantly lower (p<.05).

## Oregon Incidence Data by Site and Sex, 2000-2004

<b>TABLE 1: CANCER INCIDENCE</b>		<b>TOTAL<sup>1</sup></b>		<b>MALE</b>		<b>FEMALE</b>	
by Site, Sex, and Year (2000-2004)		Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend
Primary Sites	Year						
<b>ALL SITES</b>	<b>Annual Average</b>	<b>17,543</b>	<b>480.9</b>	<b>8,926</b>	<b>543.3</b>	<b>8,615</b>	<b>437.1</b>
	5-Year APC Trend		-1.5		-1.7		-1.5
	2000	17,348	493.9	8,787	560.5	8,560	447.8
	2001	17,691	495.7	9,022	563.6	8,667	449.1
	2002	17,633	483.0	8,910	542.7	8,721	442.0
	2003	17,098	459.1	8,682	515.4	8,413	419.3
	<b>2004</b>	<b>17,946</b>	<b>475.0</b>	<b>9,228</b>	<b>537.4</b>	<b>8,717</b>	<b>429.2</b>
<b>BONES AND JOINTS</b>	<b>Annual Average</b>	<b>35</b>	<b>1.0</b>	<b>19</b>	<b>1.1</b>	<b>16</b>	<b>0.9</b>
	5-Year APC Trend		+2.7		+1.7		+2.5
	2000	29	0.8	18	1.0	11	0.6
	2001	33	0.9	15	0.9	18	1.0
	2002	40	1.1	24	1.4	16	0.9
	2003	36	1.0	18	1.1	18	0.9
	<b>2004</b>	<b>35</b>	<b>0.9</b>	<b>19</b>	<b>1.1</b>	<b>16</b>	<b>0.8</b>
<b>BRAIN AND CNS</b>	<b>Annual Average</b>	<b>266</b>	<b>7.4</b>	<b>150</b>	<b>8.8</b>	<b>115</b>	<b>6.1</b>
	5-Year APC Trend		+0.2		-0.9		+1.8
	2000	267	7.6	154	9.3	113	6.1
	2001	250	7.1	142	8.5	108	5.8
	2002	262	7.2	153	8.9	109	5.6
	2003	272	7.5	143	8.1	129	6.9
	<b>2004</b>	<b>277</b>	<b>7.5</b>	<b>160</b>	<b>9.1</b>	<b>117</b>	<b>6.1</b>
<b>Brain</b>	<b>Annual Average</b>	<b>253</b>	<b>7.0</b>	<b>144</b>	<b>8.4</b>	<b>109</b>	<b>5.8</b>
	5-Year APC Trend		+1.2		+0.1		+2.7
	2000	247	7.0	142	8.6	105	5.6
	2001	241	6.8	137	8.3	104	5.6
	2002	247	6.8	148	8.6	99	5.1
	2003	260	7.1	136	7.7	124	6.6
	<b>2004</b>	<b>270</b>	<b>7.3</b>	<b>156</b>	<b>8.9</b>	<b>114</b>	<b>5.9</b>
<b>BREAST</b>	<b>Annual Average</b>	<b>2,728</b>	<b>74.2</b>	<b>15</b>	<b>0.9</b>	<b>2,713</b>	<b>138.8</b>
	5-Year APC Trend		*-3.5		-13.2		-3.2
	2000	2,761	78.2	16	1.1	2,745	145.3
	2001	2,824	78.6	16	1.0	2,808	146.9
	2002	2,792	76.0	19	1.1	2,773	141.9
	2003	2,584	68.7	13	0.8	2,570	128.8
	<b>2004</b>	<b>2,680</b>	<b>70.1</b>	<b>9</b>	<b>^</b>	<b>2,671</b>	<b>131.5</b>
<b>DIGESTIVE SYSTEM</b>	<b>Annual Average</b>	<b>3,046</b>	<b>82.9</b>	<b>1,628</b>	<b>99.8</b>	<b>1,417</b>	<b>69.1</b>
	5-Year APC Trend		-0.7		-0.8		-0.9
	2000	3,049	86.2	1,631	104.8	1,418	71.1
	2001	2,929	81.5	1,582	99.9	1,347	66.9
	2002	3,021	81.9	1,533	93.7	1,488	72.5
	2003	3,099	82.6	1,675	99.9	1,423	68.4
	<b>2004</b>	<b>3,133</b>	<b>82.6</b>	<b>1,721</b>	<b>100.8</b>	<b>1,412</b>	<b>67.3</b>

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. standard population.

APC = Annual Percent Change

<sup>1</sup>Total count may exceed male and female combined due to additional sex coding.

\* Indicates a statistically significant trend.

^ Rate is not calculated for counts <11 due to the instability of rates based on small numbers.

n/a = not applicable

## Oregon Incidence Data by Site and Sex, 2000-2004

<b>TABLE 1: CANCER INCIDENCE</b>		<b>TOTAL<sup>1</sup></b>		<b>MALE</b>		<b>FEMALE</b>	
by Site, Sex, and Year (2000-2004)		Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend
Primary Sites	Year						
<b>Colon and Rectum</b>	<b>Annual Average</b>	<b>1,794</b>	<b>48.8</b>	<b>916</b>	<b>56.6</b>	<b>878</b>	<b>42.6</b>
	<i>5-Year APC Trend</i>		-2.2		-2.3		-2.2
	2000	1,839	52.1	948	61.4	891	44.6
	2001	1,766	49.1	914	58.1	852	42.2
	2002	1,757	47.5	852	52.4	905	43.8
	2003	1,825	48.5	915	55.0	910	43.2
	<b>2004</b>	<b>1,783</b>	<b>46.9</b>	<b>950</b>	<b>56.1</b>	<b>833</b>	<b>39.4</b>
<b>Esophagus</b>	<b>Annual Average</b>	<b>203</b>	<b>5.5</b>	<b>155</b>	<b>9.4</b>	<b>48</b>	<b>2.3</b>
	<i>5-Year APC Trend</i>		-1.9		-0.1		-8.7
	2000	207	5.9	148	9.5	59	3.0
	2001	206	5.8	152	9.5	54	2.6
	2002	191	5.2	155	9.3	36	1.7
	2003	206	5.5	161	9.5	45	2.2
	<b>2004</b>	<b>204</b>	<b>5.4</b>	<b>160</b>	<b>9.4</b>	<b>44</b>	<b>2.1</b>
<b>Gallbladder</b>	<b>Annual Average</b>	<b>37</b>	<b>1.0</b>	<b>9</b>	<b>0.6</b>	<b>28</b>	<b>1.4</b>
	<i>5-Year APC Trend</i>		-2.9		^		-1.5
	2000	35	1.0	9	^	26	1.3
	2001	38	1.0	10	^	28	1.3
	2002	46	1.2	10	^	36	1.8
	2003	30	0.8	6	^	24	1.1
	<b>2004</b>	<b>37</b>	<b>1.0</b>	<b>10</b>	<b>^</b>	<b>27</b>	<b>1.3</b>
<b>Liver and Bile Duct</b>	<b>Annual Average</b>	<b>163</b>	<b>4.4</b>	<b>112</b>	<b>6.5</b>	<b>51</b>	<b>2.6</b>
	<i>5-Year APC Trend</i>		+6.5		+7.3		+4.3
	2000	153	4.3	108	6.6	45	2.3
	2001	132	3.6	83	5.0	49	2.5
	2002	157	4.3	102	5.8	55	2.8
	2003	171	4.6	117	6.6	53	2.8
	<b>2004</b>	<b>200</b>	<b>5.2</b>	<b>148</b>	<b>8.1</b>	<b>52</b>	<b>2.6</b>
<b>Liver</b>	<b>Annual Average</b>	<b>143</b>	<b>3.9</b>	<b>102</b>	<b>5.9</b>	<b>41</b>	<b>2.1</b>
	<i>5-Year APC Trend</i>		*+11.4		+10.9		+12.2
	2000	121	3.4	93	5.6	28	1.4
	2001	109	3.0	73	4.4	36	1.8
	2002	139	3.8	90	5.1	49	2.5
	2003	158	4.2	111	6.3	46	2.4
	<b>2004</b>	<b>187</b>	<b>4.9</b>	<b>141</b>	<b>7.8</b>	<b>46</b>	<b>2.3</b>
<b>Pancreas</b>	<b>Annual Average</b>	<b>392</b>	<b>10.7</b>	<b>197</b>	<b>12.1</b>	<b>195</b>	<b>9.4</b>
	<i>5-Year APC Trend</i>		+1.9		+0.8		+2.3
	2000	349	9.8	179	11.7	170	8.5
	2001	387	10.8	200	12.7	187	9.2
	2002	404	11.0	181	11.2	223	10.7
	2003	408	10.9	223	13.3	185	9.0
	<b>2004</b>	<b>411</b>	<b>10.8</b>	<b>201</b>	<b>11.9</b>	<b>210</b>	<b>9.7</b>

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. standard population.

APC = Annual Percent Change

<sup>1</sup>Total count may exceed male and female combined due to additional sex coding.

\* Indicates a statistically significant trend.

^ Rate is not calculated for counts <11 due to the instability of rates based on small numbers.

n/a = not applicable

## Oregon Incidence Data by Site and Sex, 2000-2004

<b>TABLE 1: CANCER INCIDENCE</b>		<b>TOTAL<sup>1</sup></b>		<b>MALE</b>		<b>FEMALE</b>	
by Site, Sex, and Year (2000-2004)		Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend
Primary Sites	Year						
<b>Small Intestine</b>	<b>Annual Average</b>	<b>61</b>	<b>1.7</b>	<b>34</b>	<b>2.0</b>	<b>27</b>	<b>1.4</b>
	<i>5-Year APC Trend</i>		+5.6		+6.7		+4.9
	2000	55	1.6	28	1.8	27	1.4
	2001	55	1.5	34	2.1	21	1.1
	2002	61	1.7	32	1.9	29	1.5
	2003	58	1.5	31	1.8	27	1.3
	<b>2004</b>	<b>76</b>	<b>2.0</b>	<b>44</b>	<b>2.6</b>	<b>32</b>	<b>1.6</b>
<b>Stomach</b>	<b>Annual Average</b>	<b>211</b>	<b>5.8</b>	<b>130</b>	<b>8.0</b>	<b>80</b>	<b>4.0</b>
	<i>5-Year APC Trend</i>		-0.8		-2.2		+2.0
	2000	233	6.5	143	9.1	90	4.4
	2001	179	5.0	116	7.3	63	3.2
	2002	213	5.8	129	8.0	84	4.2
	2003	195	5.3	126	7.6	69	3.4
	<b>2004</b>	<b>234</b>	<b>6.2</b>	<b>138</b>	<b>8.1</b>	<b>96</b>	<b>4.7</b>
<b>ENDOCRINE SYSTEM</b>	<b>Annual Average</b>	<b>285</b>	<b>8.0</b>	<b>77</b>	<b>4.4</b>	<b>209</b>	<b>11.5</b>
	<i>5-Year APC Trend</i>		+*6.2		+7.0		+*6.1
	2000	250	7.2	67	4.0	183	10.4
	2001	261	7.4	66	3.9	195	11.0
	2002	271	7.6	73	4.1	198	11.0
	2003	311	8.5	91	5.2	220	11.9
	<b>2004</b>	<b>333</b>	<b>9.1</b>	<b>86</b>	<b>4.8</b>	<b>247</b>	<b>13.3</b>
<b>Thyroid</b>	<b>Annual Average</b>	<b>267</b>	<b>7.4</b>	<b>66</b>	<b>3.8</b>	<b>200</b>	<b>11.1</b>
	<i>5-Year APC Trend</i>		+*5.8		+6.6		+*5.7
	2000	232	6.7	56	3.3	176	10.0
	2001	250	7.1	62	3.6	188	10.6
	2002	254	7.1	61	3.4	193	10.7
	2003	288	7.9	79	4.5	209	11.3
	<b>2004</b>	<b>310</b>	<b>8.4</b>	<b>74</b>	<b>4.1</b>	<b>236</b>	<b>12.8</b>
<b>EYE AND ORBIT</b>	<b>Annual Average</b>	<b>37</b>	<b>1.0</b>	<b>19</b>	<b>1.1</b>	<b>18</b>	<b>1.0</b>
	<i>5-Year APC Trend</i>		-2.6		+1.3		-5.6
	2000	37	1.1	16	1.0	21	1.1
	2001	34	1.0	20	1.2	14	0.7
	2002	46	1.3	23	1.3	23	1.2
	2003	30	0.8	11	0.7	19	1.0
	<b>2004</b>	<b>38</b>	<b>1.0</b>	<b>23</b>	<b>1.3</b>	<b>15</b>	<b>0.7</b>
<b>GENITAL SYSTEM FEMALE</b>	<b>Annual Average</b>	<b>972</b>	<b>49.9</b>	<i>n/a</i>	<i>n/a</i>	<b>972</b>	<b>49.9</b>
	<i>5-Year APC Trend</i>		-3.2		<i>n/a</i>		-3.2
	2000	1,040	55.5	<i>n/a</i>	<i>n/a</i>	1,040	55.5
	2001	953	50.2	<i>n/a</i>	<i>n/a</i>	953	50.2
	2002	936	47.8	<i>n/a</i>	<i>n/a</i>	936	47.8
	2003	955	47.8	<i>n/a</i>	<i>n/a</i>	955	47.8
	<b>2004</b>	<b>976</b>	<b>48.4</b>	<b>n/a</b>	<b>n/a</b>	<b>976</b>	<b>48.4</b>

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. standard population.

APC = Annual Percent Change

<sup>1</sup>Total count may exceed male and female combined due to additional sex coding.

\* Indicates a statistically significant trend.

^ Rate is not calculated for counts <11 due to the instability of rates based on small numbers.

n/a = not applicable

## Oregon Incidence Data by Site and Sex, 2000-2004

<b>TABLE 1: CANCER INCIDENCE</b>		<b>TOTAL<sup>1</sup></b>		<b>MALE</b>		<b>FEMALE</b>	
by Site, Sex, and Year (2000-2004)		Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend
Primary Sites	Year						
<b>Cervix Uteri</b>	<b>Annual Average</b>	<b>129</b>	<b>7.1</b>	<b>n/a</b>	<b>n/a</b>	<b>129</b>	<b>7.1</b>
	<i>5-Year APC Trend</i>		<i>*-10.5</i>		<i>n/a</i>		<i>*-10.5</i>
	2000	152	8.5	n/a	n/a	152	8.5
	2001	144	8.0	n/a	n/a	144	8.0
	2002	131	7.2	n/a	n/a	131	7.2
	2003	116	6.3	n/a	n/a	116	6.3
	<b>2004</b>	<b>102</b>	<b>5.5</b>	<b>n/a</b>	<b>n/a</b>	<b>102</b>	<b>5.5</b>
<b>Ovary</b>	<b>Annual Average</b>	<b>291</b>	<b>14.7</b>	<b>n/a</b>	<b>n/a</b>	<b>291</b>	<b>14.7</b>
	<i>5-Year APC Trend</i>		<i>-5.1</i>		<i>n/a</i>		<i>-5.1</i>
Interpret trend with caution for this site due to changes in ICD-O-3 coding affecting data from 2001 forward.	2000	323	17.1	n/a	n/a	323	17.1
	2001	296	15.3	n/a	n/a	296	15.3
	2002	265	13.3	n/a	n/a	265	13.3
	2003	289	14.2	n/a	n/a	289	14.2
	<b>2004</b>	<b>281</b>	<b>13.8</b>	<b>n/a</b>	<b>n/a</b>	<b>281</b>	<b>13.8</b>
<b>Uterus</b>	<b>Annual Average</b>	<b>474</b>	<b>24.2</b>	<b>n/a</b>	<b>n/a</b>	<b>474</b>	<b>24.2</b>
	<i>5-Year APC Trend</i>		<i>+0.2</i>		<i>n/a</i>		<i>+0.2</i>
	2000	473	25.1	n/a	n/a	473	25.1
	2001	448	23.6	n/a	n/a	448	23.6
	2002	459	23.3	n/a	n/a	459	23.3
	2003	476	23.6	n/a	n/a	476	23.6
	<b>2004</b>	<b>515</b>	<b>25.3</b>	<b>n/a</b>	<b>n/a</b>	<b>515</b>	<b>25.3</b>
<b>GENITAL SYSTEM MALE</b>	<b>Annual Average</b>	<b>2,736</b>	<b>165.8</b>	<b>2,736</b>	<b>165.8</b>	<b>n/a</b>	<b>n/a</b>
	<i>5-Year APC Trend</i>		<i>*-4.5</i>		<i>*-4.5</i>		<i>n/a</i>
	2000	2,812	178.9	2,812	178.9	n/a	n/a
	2001	2,895	180.3	2,895	180.3	n/a	n/a
	2002	2,733	165.7	2,732	165.7	n/a	n/a
	2003	2,539	150.0	2,539	150.0	n/a	n/a
	<b>2004</b>	<b>2,704</b>	<b>155.6</b>	<b>2,704</b>	<b>155.6</b>	<b>n/a</b>	<b>n/a</b>
<b>Prostate</b>	<b>Annual Average</b>	<b>2,597</b>	<b>157.8</b>	<b>2,597</b>	<b>157.8</b>	<b>n/a</b>	<b>n/a</b>
	<i>5-Year APC Trend</i>		<i>*-4.5</i>		<i>*-4.5</i>		<i>n/a</i>
	2000	2,672	170.7	2,672	170.7	n/a	n/a
	2001	2,742	171.6	2,742	171.6	n/a	n/a
	2002	2,594	157.9	2,594	157.9	n/a	n/a
	2003	2,399	142.2	2,399	142.2	n/a	n/a
	<b>2004</b>	<b>2,576</b>	<b>148.5</b>	<b>2,576</b>	<b>148.5</b>	<b>n/a</b>	<b>n/a</b>
<b>Testis</b>	<b>Annual Average</b>	<b>124</b>	<b>6.9</b>	<b>123</b>	<b>6.9</b>	<b>n/a</b>	<b>n/a</b>
	<i>5-Year APC Trend</i>		<i>-3.0</i>		<i>-3.0</i>		<i>n/a</i>
	2000	121	7.0	121	7.0	n/a	n/a
	2001	135	7.6	135	7.6	n/a	n/a
	2002	128	7.2	127	7.2	n/a	n/a
	2003	117	6.5	117	6.5	n/a	n/a
	<b>2004</b>	<b>117</b>	<b>6.5</b>	<b>117</b>	<b>6.5</b>	<b>n/a</b>	<b>n/a</b>

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. standard population.

APC = Annual Percent Change

<sup>1</sup>Total count may exceed male and female combined due to additional sex coding.

\* Indicates a statistically significant trend.

^ Rate is not calculated for counts <11 due to the instability of rates based on small numbers.

n/a = not applicable

## Oregon Incidence Data by Site and Sex, 2000-2004

<b>TABLE 1: CANCER INCIDENCE</b>		<b>TOTAL<sup>1</sup></b>		<b>MALE</b>		<b>FEMALE</b>	
by Site, Sex, and Year (2000-2004)		Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend
Primary Sites	Year						
<b>KAPOSI SARCOMA</b>	<b>Annual Average</b>	<b>11</b>	<b>0.3</b>	<b>9</b>	<b>0.6</b>	<b>1</b>	<b>^</b>
	<i>5-Year APC Trend</i>		^		^		^
	2000	13	0.4	12	0.7	1	^
	2001	9	^	9	^	0	^
	2002	6	^	6	^	0	^
	2003	12	0.3	9	^	3	^
	<b>2004</b>	<b>13</b>	<b>0.4</b>	<b>11</b>	<b>0.6</b>	<b>2</b>	<b>^</b>
<b>LEUKEMIA</b>	<b>Annual Average</b>	<b>399</b>	<b>11.1</b>	<b>226</b>	<b>13.9</b>	<b>172</b>	<b>8.8</b>
	<i>5-Year APC Trend</i>		-6.4		-5.1		-8.4
Interpret trend with	2000	410	11.7	217	14.0	192	9.9
caution for this site due to	2001	466	13.2	262	16.6	204	10.7
changes in ICD-O-3 coding	2002	399	11.1	232	14.3	167	8.5
affecting data from 2001 forward.	2003	349	9.5	206	12.1	143	7.3
	<b>2004</b>	<b>371</b>	<b>10.0</b>	<b>215</b>	<b>12.7</b>	<b>156</b>	<b>7.8</b>
<b>LYMPHOMA</b>	<b>Annual Average</b>	<b>845</b>	<b>23.2</b>	<b>454</b>	<b>27.3</b>	<b>390</b>	<b>19.8</b>
	<i>5-Year APC Trend</i>		+1.3		+2.2		+0.4
Interpret trend with	2000	811	23.1	438	27.6	373	19.5
caution for this site due to	2001	788	22.0	416	25.3	372	19.2
changes in ICD-O-3 coding	2002	855	23.4	450	27.1	405	20.4
affecting data from 2001 forward.	2003	861	23.2	453	26.6	408	20.3
	<b>2004</b>	<b>908</b>	<b>24.0</b>	<b>514</b>	<b>29.8</b>	<b>394</b>	<b>19.3</b>
<b>Hodgkin lymphoma</b>	<b>Annual Average</b>	<b>96</b>	<b>2.7</b>	<b>53</b>	<b>3.0</b>	<b>43</b>	<b>2.4</b>
	<i>5-Year APC Trend</i>		+5.6		+3.0		+9.1
Interpret trend with	2000	89	2.6	54	3.2	35	1.9
caution for this site due to	2001	74	2.1	40	2.3	34	2.0
changes in ICD-O-3 coding	2002	109	3.1	57	3.3	52	2.9
affecting data from 2001 forward.	2003	98	2.7	53	3.0	45	2.5
	<b>2004</b>	<b>109</b>	<b>3.0</b>	<b>60</b>	<b>3.3</b>	<b>49</b>	<b>2.7</b>
<b>Non-Hodgkin lymphoma</b>	<b>Annual Average</b>	<b>749</b>	<b>20.5</b>	<b>401</b>	<b>24.2</b>	<b>347</b>	<b>17.4</b>
	<i>5-Year APC Trend</i>		+0.7		+2.1		-0.8
Interpret trend with	2000	722	20.6	384	24.4	338	17.6
caution for this site due to	2001	714	19.9	376	23.0	338	17.3
changes in ICD-O-3 coding	2002	746	20.4	393	23.8	353	17.5
affecting data from 2001 forward.	2003	763	20.5	400	23.6	363	17.9
	<b>2004</b>	<b>799</b>	<b>21.0</b>	<b>454</b>	<b>26.5</b>	<b>345</b>	<b>16.6</b>
<b>MESOTHELIOMA</b>	<b>Annual Average</b>	<b>44</b>	<b>1.2</b>	<b>37</b>	<b>2.3</b>	<b>7</b>	<b>0.4</b>
	<i>5-Year APC Trend</i>		-5.7		-4.6		-7.2
	2000	47	1.3	38	2.5	9	^
	2001	37	1.1	29	1.9	8	^
	2002	56	1.5	51	3.2	5	^
	2003	52	1.4	40	2.5	12	0.5
	<b>2004</b>	<b>29</b>	<b>0.8</b>	<b>26</b>	<b>1.6</b>	<b>3</b>	<b>^</b>

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. standard population.

APC = Annual Percent Change

<sup>1</sup>Total count may exceed male and female combined due to additional sex coding.

\* Indicates a statistically significant trend.

^ Rate is not calculated for counts <11 due to the instability of rates based on small numbers.

n/a = not applicable

## Oregon Incidence Data by Site and Sex, 2000-2004

<b>TABLE 1: CANCER INCIDENCE</b>		<b>TOTAL <sup>1</sup></b>		<b>MALE</b>		<b>FEMALE</b>	
by Site, Sex, and Year (2000-2004)		Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend
Primary Sites	Year						
<b>MYELOMA</b>	<b>Annual Average</b>	<b>181</b>	<b>4.9</b>	<b>105</b>	<b>6.4</b>	<b>76</b>	<b>3.7</b>
	<i>5-Year APC Trend</i>		-5.7		-5.7		-6.5
	2000	173	4.9	100	6.5	73	3.8
	2001	217	6.0	126	7.8	91	4.5
	2002	199	5.4	111	6.8	88	4.3
	2003	141	3.8	86	5.1	55	2.7
	<b>2004</b>	<b>177</b>	<b>4.6</b>	<b>104</b>	<b>6.0</b>	<b>73</b>	<b>3.4</b>
<b>ORAL CAVITY AND PHARYNX</b>	<b>Annual Average</b>	<b>407</b>	<b>11.0</b>	<b>274</b>	<b>16.0</b>	<b>132</b>	<b>6.7</b>
	<i>5-Year APC Trend</i>		-0.7		-0.9		-1.6
	2000	391	11.1	266	16.5	125	6.5
	2001	410	11.4	271	16.3	139	7.1
	2002	397	10.8	257	15.0	140	7.1
	2003	414	10.9	289	16.2	124	6.2
	<b>2004</b>	<b>422</b>	<b>10.9</b>	<b>288</b>	<b>15.9</b>	<b>134</b>	<b>6.5</b>
<b>RESPIRATORY SYSTEM</b>	<b>Annual Average</b>	<b>2,659</b>	<b>73.5</b>	<b>1,418</b>	<b>87.7</b>	<b>1,241</b>	<b>62.7</b>
	<i>5-Year APC Trend</i>		-1.3		-1.6		-1.0
	2000	2,609	74.5	1,411	91.2	1,198	62.3
	2001	2,686	75.8	1,397	88.0	1,289	66.5
	2002	2,685	74.2	1,454	90.1	1,231	62.2
	2003	2,615	70.9	1,385	83.8	1,230	61.2
	<b>2004</b>	<b>2,699</b>	<b>72.3</b>	<b>1,443</b>	<b>86.0</b>	<b>1,255</b>	<b>61.7</b>
<b>Larynx</b>	<b>Annual Average</b>	<b>112</b>	<b>3.0</b>	<b>88</b>	<b>5.2</b>	<b>23</b>	<b>1.2</b>
	<i>5-Year APC Trend</i>		-0.3		-1.8		+5.0
	2000	113	3.2	89	5.5	24	1.3
	2001	107	3.0	86	5.2	21	1.1
	2002	102	2.8	86	5.2	16	0.8
	2003	120	3.2	94	5.3	26	1.3
	<b>2004</b>	<b>117</b>	<b>3.1</b>	<b>87</b>	<b>5.0</b>	<b>30</b>	<b>1.5</b>
<b>Lung and Bronchus</b>	<b>Annual Average</b>	<b>2,518</b>	<b>69.6</b>	<b>1,312</b>	<b>81.4</b>	<b>1,206</b>	<b>60.9</b>
	<i>5-Year APC Trend</i>		-1.3		-1.7		-1.1
	2000	2,469	70.5	1,306	84.7	1,163	60.5
	2001	2,549	71.9	1,296	81.9	1,253	64.6
	2002	2,550	70.5	1,347	83.7	1,203	60.8
	2003	2,465	67.0	1,273	77.4	1,192	59.4
	<b>2004</b>	<b>2,556</b>	<b>68.6</b>	<b>1,337</b>	<b>79.9</b>	<b>1,218</b>	<b>59.9</b>
<b>SKIN</b>	<b>Annual Average</b>	<b>913</b>	<b>25.1</b>	<b>490</b>	<b>29.0</b>	<b>423</b>	<b>22.7</b>
Excludes Basal and Squamous cell carcinoma	<i>5-Year APC Trend</i>		+1.4		+0.6		+2.0
	2000	869	24.8	455	28.3	414	22.9
	2001	904	25.4	501	30.3	403	22.0
	2002	901	24.7	486	28.8	415	22.2
	2003	851	22.9	463	26.8	388	20.3
	<b>2004</b>	<b>1,039</b>	<b>27.7</b>	<b>546</b>	<b>30.9</b>	<b>493</b>	<b>25.8</b>

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. standard population.

APC = Annual Percent Change

<sup>1</sup>Total count may exceed male and female combined due to additional sex coding.

\* Indicates a statistically significant trend.

^ Rate is not calculated for counts <11 due to the instability of rates based on small numbers.

n/a = not applicable

## Oregon Incidence Data by Site and Sex, 2000-2004

<b>TABLE 1: CANCER INCIDENCE</b>		<b>TOTAL<sup>1</sup></b>		<b>MALE</b>		<b>FEMALE</b>	
by Site, Sex, and Year (2000-2004)		Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend
Primary Sites	Year						
<b>Melanoma of the Skin</b>	<b>Annual Average</b>	<b>860</b>	<b>23.7</b>	<b>460</b>	<b>27.2</b>	<b>400</b>	<b>21.5</b>
	<i>5-Year APC Trend</i>		+1.2		+0.3		+1.9
	2000	820	23.4	429	26.6	391	21.7
	2001	859	24.2	472	28.5	387	21.2
	2002	852	23.3	463	27.3	389	20.8
	2003	794	21.4	428	24.7	366	19.2
	<b>2004</b>	<b>977</b>	<b>26.1</b>	<b>510</b>	<b>28.7</b>	<b>467</b>	<b>24.6</b>
<b>SOFT TISSUE</b>	<b>Annual Average</b>	<b>112</b>	<b>3.1</b>	<b>62</b>	<b>3.7</b>	<b>50</b>	<b>2.7</b>
<i>Includes Heart</i>	<i>5-Year APC Trend</i>		+0.3		+4.2		-5.1
	2000	115	3.3	62	3.9	53	2.9
	2001	102	2.9	44	2.7	58	3.2
	2002	106	2.9	63	3.7	43	2.3
	2003	119	3.2	71	4.1	48	2.5
	<b>2004</b>	<b>119</b>	<b>3.2</b>	<b>69</b>	<b>4.0</b>	<b>50</b>	<b>2.5</b>
<b>URINARY SYSTEM</b>	<b>Annual Average</b>	<b>1,325</b>	<b>36.2</b>	<b>930</b>	<b>57.4</b>	<b>394</b>	<b>19.6</b>
	<i>5-Year APC Trend</i>		+1.5		+0.8		*+3.1
	2000	1,212	34.4	853	54.6	359	18.3
	2001	1,315	36.6	939	59.6	375	19.0
	2002	1,341	36.7	946	58.7	395	19.6
	2003	1,332	35.6	920	55.4	412	20.0
	<b>2004</b>	<b>1,423</b>	<b>37.7</b>	<b>992</b>	<b>59.0</b>	<b>431</b>	<b>20.8</b>
<b>Urinary Bladder</b>	<b>Annual Average</b>	<b>851</b>	<b>23.3</b>	<b>643</b>	<b>40.3</b>	<b>208</b>	<b>10.2</b>
	<i>5-Year APC Trend</i>		-0.7		-0.9		+0.1
	2000	803	22.8	613	39.6	190	9.5
	2001	882	24.6	664	42.9	217	10.8
	2002	866	23.8	654	41.2	212	10.3
	2003	830	22.2	616	37.7	214	10.3
	<b>2004</b>	<b>874</b>	<b>23.2</b>	<b>667</b>	<b>40.3</b>	<b>207</b>	<b>9.9</b>
<b>Kidney and Renal Pelvis</b>	<b>Annual Average</b>	<b>444</b>	<b>12.1</b>	<b>269</b>	<b>16.0</b>	<b>174</b>	<b>8.8</b>
	<i>5-Year APC Trend</i>		*+6.1		*+5.6		*+6.9
	2000	376	10.7	221	13.7	155	8.1
	2001	406	11.3	257	15.5	149	7.7
	2002	446	12.2	277	16.5	169	8.6
	2003	472	12.5	282	16.3	190	9.3
	<b>2004</b>	<b>518</b>	<b>13.6</b>	<b>309</b>	<b>17.6</b>	<b>209</b>	<b>10.3</b>
<b>MISCELLANEOUS SITES</b>	<b>Annual Average</b>	<b>543</b>	<b>14.7</b>	<b>276</b>	<b>17.2</b>	<b>267</b>	<b>12.8</b>
	<i>5-Year APC Trend</i>		+1.7		+2.2		+1.2
	2000	453	12.7	221	14.5	232	11.2
	2001	578	16.0	292	18.8	285	13.9
	2002	587	15.9	297	18.5	289	14.0
	2003	526	14.1	270	16.6	256	12.3
	<b>2004</b>	<b>570</b>	<b>15.0</b>	<b>298</b>	<b>17.8</b>	<b>272</b>	<b>12.9</b>

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. standard population.

APC = Annual Percent Change

<sup>1</sup>Total count may exceed male and female combined due to additional sex coding.

\* Indicates a statistically significant trend.

^ Rate is not calculated for counts <11 due to the instability of rates based on small numbers.

n/a = not applicable

## Oregon Mortality Data by Site and Sex, 2000-2004

<b>TABLE 2: CANCER MORTALITY</b>		<b>TOTAL</b>		<b>MALE</b>		<b>FEMALE</b>	
by Site, Sex, and Year (2000-2004)		Cancer Deaths	Rate/ Current Trend	Cancer Deaths	Rate/ Current Trend	Cancer Deaths	Rate/ Current Trend
Primary Sites	Year						
<b>ALL CAUSES OF DEATH</b>	<b>Annual Average</b>	<b>30,351</b>	<b>808.9</b>	<b>14,901</b>	<b>952.3</b>	<b>15,450</b>	<b>695.1</b>
	<i>5-Year APC Trend</i>		-1.5		-1.7		+1.4
	2000	29,541	824.0	14,491	976.9	15,050	704.0
	2001	30,125	821.7	14,688	964.5	15,437	710.0
	2002	31,081	828.3	15,286	977.4	15,795	710.9
	2003	30,809	802.8	15,163	940.7	15,646	689.0
	<b>2004</b>	<b>30,201</b>	<b>771.8</b>	<b>14,876</b>	<b>907.4</b>	<b>15,325</b>	<b>664.5</b>
<b>ALL MALIGNANT CANCERS</b>	<b>Annual Average</b>	<b>7,233</b>	<b>196.5</b>	<b>3,708</b>	<b>234.7</b>	<b>3,526</b>	<b>171.5</b>
	<i>5-Year APC Trend</i>		*-1.0		*1.5		-0.9
	2000	6,989	197.5	3,584	237.2	3,405	171.2
	2001	7,199	199.7	3,712	240.4	3,487	172.7
	2002	7,334	199.2	3,732	235.1	3,602	174.8
	2003	7,324	194.7	3,748	230.4	3,576	169.8
	<b>2004</b>	<b>7,320</b>	<b>192.1</b>	<b>3,762</b>	<b>228.1</b>	<b>3,558</b>	<b>167.0</b>
<b>BONES AND JOINTS</b>	<b>Annual Average</b>	<b>14</b>	<b>0.4</b>	<b>9</b>	<b>0.5</b>	<b>5</b>	<b>0.2</b>
	<i>5-Year APC Trend</i>		-0.4		^		^
	2000	18	0.5	12	0.7	6	^
	2001	9	^	7	^	2	^
	2002	12	0.3	8	^	4	^
	2003	14	0.4	7	^	7	^
	<b>2004</b>	<b>17</b>	<b>0.5</b>	<b>13</b>	<b>0.7</b>	<b>4</b>	<b>^</b>
<b>BRAIN AND CNS</b>	<b>Annual Average</b>	<b>202</b>	<b>5.5</b>	<b>113</b>	<b>6.6</b>	<b>88</b>	<b>4.5</b>
	<i>5-Year APC Trend</i>		-0.8		-0.3		-2.2
	2000	195	5.5	106	6.5	89	4.7
	2001	194	5.4	109	6.6	85	4.4
	2002	218	5.9	122	7.0	96	4.9
	2003	195	5.3	114	6.6	81	4.1
	<b>2004</b>	<b>207</b>	<b>5.4</b>	<b>116</b>	<b>6.4</b>	<b>91</b>	<b>4.4</b>
<b>BREAST</b>	<b>Annual Average</b>	<b>516</b>	<b>13.9</b>	<b>3</b>	<b>0.2</b>	<b>513</b>	<b>25.3</b>
	<i>5-Year APC Trend</i>		-0.7		^		-0.7
	2000	484	13.7	2	^	482	24.7
	2001	530	14.7	7	^	523	26.5
	2002	503	13.6	2	^	501	24.7
	2003	550	14.5	2	^	548	26.1
	<b>2004</b>	<b>515</b>	<b>13.3</b>	<b>3</b>	<b>^</b>	<b>512</b>	<b>24.1</b>
<b>DIGESTIVE SYSTEM</b>	<b>Annual Average</b>	<b>1,619</b>	<b>43.8</b>	<b>887</b>	<b>55.3</b>	<b>732</b>	<b>34.5</b>
	<i>5-Year APC Trend</i>		+0.1		-1.1		+1.4
	2000	1,533	43.1	842	55.0	691	33.5
	2001	1,628	45.0	904	58.2	724	34.6
	2002	1,609	43.3	899	55.8	710	33.4
	2003	1,656	44.0	885	53.4	771	36.2
	<b>2004</b>	<b>1,670</b>	<b>43.7</b>	<b>907</b>	<b>54.5</b>	<b>763</b>	<b>35.1</b>

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. standard population.

APC = Annual Percent Change

\* Indicates a statistically significant trend.

^ Rate is not calculated for counts <11 due to the instability of rates based on small numbers.

n/a = not applicable

## Oregon Mortality Data by Site and Sex, 2000-2004

<b>TABLE 2: CANCER MORTALITY</b> by Site, Sex, and Year (2000-2004)		<b>TOTAL</b>		<b>MALE</b>		<b>FEMALE</b>	
Primary Sites	Year	Cancer Deaths	Rate/ Current Trend	Cancer Deaths	Rate/ Current Trend	Cancer Deaths	Rate/ Current Trend
<b>Colon and Rectum</b>	<b>Annual Average</b>	<b>664</b>	<b>17.8</b>	<b>338</b>	<b>21.4</b>	<b>326</b>	<b>15.1</b>
	<i>5-Year APC Trend</i>		-2.0		-3.0		-0.5
	2000	629	17.6	314	20.7	315	15.1
	2001	702	19.3	375	24.4	327	15.3
	2002	665	17.8	354	22.4	311	14.4
	2003	685	18.0	316	19.4	369	16.9
	<b>2004</b>	<b>637</b>	<b>16.5</b>	<b>329</b>	<b>20.2</b>	<b>308</b>	<b>13.8</b>
<b>Esophagus</b>	<b>Annual Average</b>	<b>188</b>	<b>5.1</b>	<b>147</b>	<b>9.0</b>	<b>41</b>	<b>1.9</b>
	<i>5-Year APC Trend</i>		+1.0		+0.4		+1.7
	2000	168	4.8	134	8.7	34	1.7
	2001	203	5.6	161	10.1	42	2.0
	2002	186	5.0	137	8.3	49	2.3
	2003	177	4.7	143	8.6	34	1.5
	<b>2004</b>	<b>205</b>	<b>5.5</b>	<b>161</b>	<b>9.6</b>	<b>44</b>	<b>2.2</b>
<b>Gallbladder</b>	<b>Annual Average</b>	<b>22</b>	<b>0.6</b>	<b>5</b>	<b>0.3</b>	<b>16</b>	<b>0.8</b>
	<i>5-Year APC Trend</i>		+0.5		^		+1.9
	2000	18	0.5	3	^	15	0.7
	2001	28	0.8	10	^	18	0.9
	2002	17	0.5	4	^	13	0.6
	2003	23	0.6	4	^	19	0.9
	<b>2004</b>	<b>23</b>	<b>0.6</b>	<b>6</b>	^	<b>17</b>	<b>0.8</b>
<b>Liver and Bile Duct</b>	<b>Annual Average</b>	<b>154</b>	<b>4.2</b>	<b>97</b>	<b>5.8</b>	<b>57</b>	<b>2.8</b>
	<i>5-Year APC Trend</i>		+3.9		+5.6		+1.2
	2000	152	4.3	93	5.8	59	2.9
	2001	128	3.5	77	4.7	51	2.5
	2002	147	3.9	91	5.3	56	2.7
	2003	172	4.6	111	6.3	61	3.1
	<b>2004</b>	<b>171</b>	<b>4.6</b>	<b>115</b>	<b>6.7</b>	<b>56</b>	<b>2.8</b>
<b>Liver</b>	<b>Annual Average</b>	<b>113</b>	<b>3.1</b>	<b>75</b>	<b>4.4</b>	<b>38</b>	<b>1.9</b>
	<i>5-Year APC Trend</i>		+2.8		+3.6		+2.1
	2000	118	3.3	78	4.8	40	2.0
	2001	88	2.4	60	3.7	28	1.4
	2002	107	2.9	67	3.8	40	1.9
	2003	127	3.4	81	4.6	46	2.4
	<b>2004</b>	<b>125</b>	<b>3.3</b>	<b>90</b>	<b>5.2</b>	<b>35</b>	<b>1.7</b>
<b>Pancreas</b>	<b>Annual Average</b>	<b>393</b>	<b>10.7</b>	<b>197</b>	<b>12.3</b>	<b>196</b>	<b>9.4</b>
	<i>5-Year APC Trend</i>		+1.4		-1.0		+3.3
	2000	357	10.1	186	12.2	171	8.4
	2001	397	11.0	195	12.6	202	9.9
	2002	402	10.9	203	12.6	199	9.5
	2003	377	10.1	204	12.4	173	8.3
	<b>2004</b>	<b>430</b>	<b>11.2</b>	<b>196</b>	<b>11.7</b>	<b>234</b>	<b>10.6</b>

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. standard population.

APC = Annual Percent Change

\* Indicates a statistically significant trend.

^ Rate is not calculated for counts <11 due to the instability of rates based on small numbers.

n/a = not applicable

## Oregon Mortality Data by Site and Sex, 2000-2004

<b>TABLE 2: CANCER MORTALITY</b>		<b>TOTAL</b>		<b>MALE</b>		<b>FEMALE</b>	
by Site, Sex, and Year (2000-2004)		Cancer	Rate/ Current Trend	Cancer	Rate/ Current Trend	Cancer	Rate/ Current Trend
Primary Sites	Year	Deaths	Trend	Deaths	Trend	Deaths	Trend
<b>Small Intestine</b>	<b>Annual Average</b>	<b>12</b>	<b>0.3</b>	<b>5</b>	<b>0.3</b>	<b>7</b>	<b>0.4</b>
	<i>5-Year APC Trend</i>		+17.0		^		^
	2000	9	^	2	^	7	^
	2001	7	^	3	^	4	^
	2002	13	0.4	5	^	8	^
	2003	18	0.5	7	^	11	0.5
	<b>2004</b>	<b>14</b>	<b>0.4</b>	<b>8</b>	<b>^</b>	<b>6</b>	<b>^</b>
<b>Stomach</b>	<b>Annual Average</b>	<b>120</b>	<b>3.3</b>	<b>70</b>	<b>4.3</b>	<b>51</b>	<b>2.4</b>
	<i>5-Year APC Trend</i>		-1.4		-5.8		+4.4
	2000	130	3.6	77	5.1	53	2.5
	2001	100	2.8	59	3.9	41	2.0
	2002	128	3.5	79	4.9	49	2.4
	2003	122	3.3	68	4.1	54	2.6
	<b>2004</b>	<b>122</b>	<b>3.2</b>	<b>65</b>	<b>3.8</b>	<b>57</b>	<b>2.7</b>
<b>ENDOCRINE SYSTEM</b>	<b>Annual Average</b>	<b>31</b>	<b>0.9</b>	<b>15</b>	<b>1.0</b>	<b>16</b>	<b>0.8</b>
	<i>5-Year APC Trend</i>		-3.4		+5.9		-10.9
	2000	34	1.0	15	1.0	19	1.0
	2001	30	0.8	13	0.8	17	0.8
	2002	36	1.0	18	1.1	18	0.9
	2003	23	0.6	11	0.7	12	0.5
	<b>2004</b>	<b>34</b>	<b>0.9</b>	<b>20</b>	<b>1.3</b>	<b>14</b>	<b>0.7</b>
<b>Thyroid</b>	<b>Annual Average</b>	<b>17</b>	<b>0.5</b>	<b>7</b>	<b>0.4</b>	<b>10</b>	<b>0.5</b>
	<i>5-Year APC Trend</i>		-3.6		^		^
	2000	15	0.4	6	^	9	^
	2001	17	0.5	3	^	14	0.7
	2002	21	0.6	8	^	13	0.7
	2003	17	0.4	8	^	9	^
	<b>2004</b>	<b>14</b>	<b>0.4</b>	<b>8</b>	<b>^</b>	<b>6</b>	<b>^</b>
<b>EYE AND ORBIT</b>	<b>Annual Average</b>	<b>3</b>	<b>0.1</b>	<b>2</b>	<b>^</b>	<b>1</b>	<b>^</b>
	<i>5-Year APC Trend</i>		^		^		^
	2000	3	^	1	^	2	^
	2001	0	^	0	^	0	^
	2002	9	^	6	^	3	^
	2003	2	^	2	^	0	^
	<b>2004</b>	<b>2</b>	<b>^</b>	<b>2</b>	<b>^</b>	<b>0</b>	<b>^</b>
<b>GENITAL SYSTEM FEMALE</b>	<b>Annual Average</b>	<b>352</b>	<b>17.2</b>	<b>n/a</b>	<b>n/a</b>	<b>352</b>	<b>17.2</b>
	<i>5-Year APC Trend</i>		-1.1		n/a		-1.1
	2000	340	17.4	n/a	n/a	340	17.4
	2001	358	18.0	n/a	n/a	358	18.0
	2002	358	17.7	n/a	n/a	358	17.7
	2003	328	15.5	n/a	n/a	328	15.5
	<b>2004</b>	<b>376</b>	<b>17.6</b>	<b>n/a</b>	<b>n/a</b>	<b>376</b>	<b>17.6</b>

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. standard population.

APC = Annual Percent Change

\* Indicates a statistically significant trend.

^ Rate is not calculated for counts <11 due to the instability of rates based on small numbers.

n/a = not applicable

## Oregon Mortality Data by Site and Sex, 2000-2004

<b>TABLE 2: CANCER MORTALITY</b>		<b>TOTAL</b>		<b>MALE</b>		<b>FEMALE</b>	
by Site, Sex, and Year (2000-2004)		Cancer	Rate/ Current Trend	Cancer	Rate/ Current Trend	Cancer	Rate/ Current Trend
Primary Sites	Year	Deaths	Trend	Deaths	Trend	Deaths	Trend
<b>Cervix Uteri</b>	<b>Annual Average</b>	<b>41</b>	<b>2.1</b>	<b>n/a</b>	<b>n/a</b>	<b>41</b>	<b>2.1</b>
	<i>5-Year APC Trend</i>		-7.3		n/a		-7.3
	2000	36	2.0	n/a	n/a	36	2.0
	2001	51	2.7	n/a	n/a	51	2.7
	2002	45	2.4	n/a	n/a	45	2.4
	2003	43	2.1	n/a	n/a	43	2.1
	<b>2004</b>	<b>29</b>	<b>1.5</b>	<b>n/a</b>	<b>n/a</b>	<b>29</b>	<b>1.5</b>
<b>Ovary</b>	<b>Annual Average</b>	<b>209</b>	<b>10.2</b>	<b>n/a</b>	<b>n/a</b>	<b>209</b>	<b>10.2</b>
	<i>5-Year APC Trend</i>		+1.0		n/a		+1.0
	2000	202	10.3	n/a	n/a	202	10.3
	2001	199	10.0	n/a	n/a	199	10.0
	2002	212	10.4	n/a	n/a	212	10.4
	2003	186	8.8	n/a	n/a	186	8.8
	<b>2004</b>	<b>244</b>	<b>11.3</b>	<b>n/a</b>	<b>n/a</b>	<b>244</b>	<b>11.3</b>
<b>Uterus</b>	<b>Annual Average</b>	<b>81</b>	<b>3.9</b>	<b>n/a</b>	<b>n/a</b>	<b>81</b>	<b>3.9</b>
	<i>5-Year APC Trend</i>		*-4.5		n/a		*-4.5
	2000	86	4.3	n/a	n/a	86	4.3
	2001	83	4.1	n/a	n/a	83	4.1
	2002	79	3.8	n/a	n/a	79	3.8
	2003	77	3.6	n/a	n/a	77	3.6
	<b>2004</b>	<b>78</b>	<b>3.6</b>	<b>n/a</b>	<b>n/a</b>	<b>78</b>	<b>3.6</b>
<b>GENITAL SYSTEM MALE</b>	<b>Annual Average</b>	<b>431</b>	<b>28.9</b>	<b>431</b>	<b>28.9</b>	<b>n/a</b>	<b>n/a</b>
	<i>5-Year APC Trend</i>		*-3.7		*-3.7		n/a
	2000	428	30.4	428	30.4	n/a	n/a
	2001	442	30.4	442	30.4	n/a	n/a
	2002	448	30.1	448	30.1	n/a	n/a
	2003	422	27.5	422	27.5	n/a	n/a
	<b>2004</b>	<b>415</b>	<b>26.4</b>	<b>415</b>	<b>26.4</b>	<b>n/a</b>	<b>n/a</b>
<b>Prostate</b>	<b>Annual Average</b>	<b>422</b>	<b>28.4</b>	<b>422</b>	<b>28.4</b>	<b>n/a</b>	<b>n/a</b>
	<i>5-Year APC Trend</i>		*-3.8		*-3.8		n/a
	2000	420	29.9	420	29.9	n/a	n/a
	2001	434	30.0	434	30.0	n/a	n/a
	2002	435	29.4	435	29.4	n/a	n/a
	2003	415	27.1	415	27.1	n/a	n/a
	<b>2004</b>	<b>406</b>	<b>25.9</b>	<b>406</b>	<b>25.9</b>	<b>n/a</b>	<b>n/a</b>
<b>Testis</b>	<b>Annual Average</b>	<b>8</b>	<b>0.4</b>	<b>8</b>	<b>0.4</b>	<b>n/a</b>	<b>n/a</b>
	<i>5-Year APC Trend</i>		^		^		n/a
	2000	7	^	7	^	n/a	n/a
	2001	6	^	6	^	n/a	n/a
	2002	12	0.7	12	0.7	n/a	n/a
	2003	6	^	6	^	n/a	n/a
	<b>2004</b>	<b>7</b>	^	<b>7</b>	^	<b>n/a</b>	<b>n/a</b>

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. standard population.

APC = Annual Percent Change

\* Indicates a statistically significant trend.

^ Rate is not calculated for counts <11 due to the instability of rates based on small numbers.

n/a = not applicable

## Oregon Mortality Data by Site and Sex, 2000-2004

<b>TABLE 2: CANCER MORTALITY</b>		<b>TOTAL</b>		<b>MALE</b>		<b>FEMALE</b>	
by Site, Sex, and Year (2000-2004)		Cancer	Rate/ Current	Cancer	Rate/ Current	Cancer	Rate/ Current
Primary Sites	Year	Deaths	Trend	Deaths	Trend	Deaths	Trend
<b>LEUKEMIA</b>	<b>Annual Average</b>	<b>272</b>	<b>7.4</b>	<b>155</b>	<b>9.8</b>	<b>117</b>	<b>5.6</b>
	<i>5-Year APC Trend</i>		-2.4		-1.3		-3.0
	2000	268	7.6	150	9.9	118	5.7
	2001	280	7.8	154	9.9	126	6.2
	2002	274	7.5	163	10.5	111	5.4
	2003	268	7.1	150	9.4	118	5.6
	<b>2004</b>	<b>268</b>	<b>7.0</b>	<b>156</b>	<b>9.5</b>	<b>112</b>	<b>5.2</b>
<b>LYMPHOMA</b>	<b>Annual Average</b>	<b>330</b>	<b>8.9</b>	<b>174</b>	<b>11.0</b>	<b>156</b>	<b>7.4</b>
	<i>5-Year APC Trend</i>		-1.5		+0.9		-5.1
	2000	316	8.9	163	11.0	153	7.6
	2001	346	9.5	172	11.2	174	8.4
	2002	320	8.6	164	10.3	156	7.3
	2003	340	9.0	181	11.0	159	7.4
	<b>2004</b>	<b>327</b>	<b>8.5</b>	<b>188</b>	<b>11.6</b>	<b>139</b>	<b>6.2</b>
<b>Hodgkin Lymphoma</b>	<b>Annual Average</b>	<b>15</b>	<b>0.4</b>	<b>8</b>	<b>0.5</b>	<b>7</b>	<b>0.4</b>
	<i>5-Year APC Trend</i>		-5.4		^		^
	2000	17	0.5	7	^	10	^
	2001	12	0.3	7	^	5	^
	2002	18	0.5	10	^	8	^
	2003	17	0.4	6	^	11	0.5
	<b>2004</b>	<b>11</b>	<b>0.3</b>	<b>8</b>	^	<b>3</b>	^
<b>Non-Hodgkin Lymphoma</b>	<b>Annual Average</b>	<b>315</b>	<b>8.5</b>	<b>166</b>	<b>10.5</b>	<b>149</b>	<b>7.0</b>
	<i>5-Year APC Trend</i>		-1.3		+0.9		-4.7
	2000	299	8.4	156	10.5	143	7.0
	2001	334	9.2	165	10.8	169	8.2
	2002	302	8.1	154	9.7	148	6.8
	2003	323	8.6	175	10.6	148	6.9
	<b>2004</b>	<b>316</b>	<b>8.2</b>	<b>180</b>	<b>11.1</b>	<b>136</b>	<b>6.0</b>
<b>MESOTHELIOMA</b>	<b>Annual Average</b>	<b>43</b>	<b>1.2</b>	<b>36</b>	<b>2.3</b>	<b>7</b>	<b>0.4</b>
ICD-10 only	<i>5-Year APC Trend</i>		-6.1		-3.5		^
	2000	46	1.3	36	2.4	10	^
	2001	52	1.5	44	2.8	8	^
	2002	28	0.8	22	1.4	6	^
	2003	50	1.3	43	2.7	7	^
	<b>2004</b>	<b>38</b>	<b>1.0</b>	<b>33</b>	<b>2.0</b>	<b>5</b>	^
<b>MYELOMA</b>	<b>Annual Average</b>	<b>146</b>	<b>4.0</b>	<b>81</b>	<b>5.1</b>	<b>66</b>	<b>3.1</b>
	<i>5-Year APC Trend</i>		+1.8		+0.3		+3.6
	2000	124	3.5	70	4.6	54	2.7
	2001	136	3.7	81	5.2	55	2.6
	2002	173	4.7	87	5.5	86	4.2
	2003	159	4.3	95	5.9	64	3.0
	<b>2004</b>	<b>139</b>	<b>3.6</b>	<b>70</b>	<b>4.3</b>	<b>69</b>	<b>3.1</b>

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. standard population.

APC = Annual Percent Change

\* Indicates a statistically significant trend.

^ Rate is not calculated for counts <11 due to the instability of rates based on small numbers.

n/a = not applicable

## Oregon Mortality Data by Site and Sex, 2000-2004

<b>TABLE 2: CANCER MORTALITY</b>		<b>TOTAL</b>		<b>MALE</b>		<b>FEMALE</b>	
by Site, Sex, and Year (2000-2004)		Cancer	Rate/ Current Trend	Cancer	Rate/ Current Trend	Cancer	Rate/ Current Trend
Primary Sites	Year	Deaths	Trend	Deaths	Trend	Deaths	Trend
<b>ORAL CAVITY AND PHARYNX</b>	<b>Annual Average</b>	<b>98</b>	<b>2.7</b>	<b>60</b>	<b>3.7</b>	<b>38</b>	<b>1.8</b>
	<i>5-Year APC Trend</i>		-3.5		-5.8		-1.2
	2000	91	2.6	62	4.0	29	1.4
	2001	115	3.2	68	4.2	47	2.4
	2002	98	2.7	60	3.7	38	1.8
	2003	93	2.5	54	3.2	39	1.8
	<b>2004</b>	<b>94</b>	<b>2.5</b>	<b>58</b>	<b>3.4</b>	<b>36</b>	<b>1.7</b>
<b>RESPIRATORY SYSTEM</b>	<b>Annual Average</b>	<b>2,102</b>	<b>57.9</b>	<b>1,121</b>	<b>70.3</b>	<b>981</b>	<b>48.8</b>
	<i>5-Year APC Trend</i>		-1.3		-1.9		-1.1
	2000	2,122	60.5	1,141	75.0	981	50.5
	2001	2,032	57.2	1,089	69.7	943	48.1
	2002	2,109	58.1	1,101	69.0	1,008	50.0
	2003	2,122	57.1	1,144	70.0	978	47.5
	<b>2004</b>	<b>2,123</b>	<b>56.6</b>	<b>1,129</b>	<b>67.9</b>	<b>994</b>	<b>48.0</b>
<b>Larynx</b>	<b>Annual Average</b>	<b>40</b>	<b>1.1</b>	<b>29</b>	<b>1.8</b>	<b>11</b>	<b>0.5</b>
	<i>5-Year APC Trend</i>		+0.2		-4.1		+9.3
	2000	36	1.0	26	1.7	10	^
	2001	40	1.1	31	2.0	9	^
	2002	46	1.3	35	2.1	11	0.6
	2003	35	0.9	29	1.7	6	^
	<b>2004</b>	<b>43</b>	<b>1.1</b>	<b>26</b>	<b>1.5</b>	<b>17</b>	<b>0.8</b>
<b>Lung and Bronchus</b>	<b>Annual Average</b>	<b>2,052</b>	<b>56.5</b>	<b>1,086</b>	<b>68.1</b>	<b>966</b>	<b>48.0</b>
	<i>5-Year APC Trend</i>		-1.4		-1.9		-1.2
	2000	2,078	59.3	1,112	73.1	966	49.7
	2001	1,981	55.7	1,052	67.3	929	47.3
	2002	2,057	56.7	1,061	66.5	996	49.4
	2003	2,069	55.7	1,104	67.6	965	46.9
	<b>2004</b>	<b>2,074</b>	<b>55.3</b>	<b>1,099</b>	<b>66.2</b>	<b>975</b>	<b>47.1</b>
<b>SKIN</b>	<b>Annual Average</b>	<b>151</b>	<b>4.1</b>	<b>98</b>	<b>6.0</b>	<b>53</b>	<b>2.6</b>
Excludes basal and squamous cell carcinoma	<i>5-Year APC Trend</i>		0.0		-0.4		+1.3
	2000	146	4.1	93	5.9	53	2.7
	2001	142	3.9	97	6.0	45	2.1
	2002	155	4.2	98	6.0	57	2.8
	2003	159	4.2	108	6.3	51	2.4
	<b>2004</b>	<b>152</b>	<b>3.9</b>	<b>94</b>	<b>5.6</b>	<b>58</b>	<b>2.7</b>
<b>Melanoma of the Skin</b>	<b>Annual Average</b>	<b>119</b>	<b>3.2</b>	<b>76</b>	<b>4.6</b>	<b>43</b>	<b>2.1</b>
	<i>5-Year APC Trend</i>		+1.0		+1.3		+0.6
	2000	107	3.0	63	3.9	44	2.3
	2001	118	3.2	83	5.0	35	1.7
	2002	123	3.3	77	4.8	46	2.3
	2003	127	3.4	85	4.8	42	2.0
	<b>2004</b>	<b>120</b>	<b>3.1</b>	<b>74</b>	<b>4.4</b>	<b>46</b>	<b>2.2</b>

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. standard population.

APC = Annual Percent Change

\* Indicates a statistically significant trend.

^ Rate is not calculated for counts <11 due to the instability of rates based on small numbers.

n/a = not applicable

## Oregon Mortality Data by Site and Sex, 2000-2004

<b>TABLE 2: CANCER MORTALITY</b>		<b>TOTAL</b>		<b>MALE</b>		<b>FEMALE</b>	
by Site, Sex, and Year (2000-2004)		Cancer	Rate/ Current	Cancer	Rate/ Current	Cancer	Rate/ Current
Primary Sites	Year	Deaths	Trend	Deaths	Trend	Deaths	Trend
<b>SOFT TISSUE</b>	<b>Annual Average</b>	<b>51</b>	<b>1.4</b>	<b>27</b>	<b>1.6</b>	<b>24</b>	<b>1.2</b>
Includes heart	<i>5-Year APC Trend</i>		+2.8		+8.8		-4.7
	2000	47	1.3	23	1.5	24	1.2
	2001	47	1.3	23	1.4	24	1.2
	2002	52	1.4	23	1.4	29	1.5
	2003	51	1.4	30	1.8	21	1.0
	<b>2004</b>	<b>56</b>	<b>1.5</b>	<b>34</b>	<b>2.0</b>	<b>22</b>	<b>1.1</b>
<b>URINARY SYSTEM</b>	<b>Annual Average</b>	<b>347</b>	<b>9.3</b>	<b>234</b>	<b>14.9</b>	<b>114</b>	<b>5.3</b>
	<i>5-Year APC Trend</i>		+0.1		-0.5		+0.5
	2000	328	9.2	219	14.6	109	5.4
	2001	328	9.0	233	15.5	95	4.5
	2002	379	10.2	242	15.3	137	6.4
	2003	346	9.1	231	14.4	115	5.3
	<b>2004</b>	<b>356</b>	<b>9.2</b>	<b>244</b>	<b>14.8</b>	<b>112</b>	<b>5.1</b>
<b>Kidney and Renal Pelvis</b>	<b>Annual Average</b>	<b>152</b>	<b>4.1</b>	<b>96</b>	<b>5.9</b>	<b>56</b>	<b>2.7</b>
	<i>5-Year APC Trend</i>		-1.6		-0.8		-2.7
	2000	156	4.4	95	6.0	61	3.1
	2001	137	3.8	92	5.9	45	2.2
	2002	165	4.4	101	6.0	64	3.0
	2003	143	3.8	91	5.6	52	2.4
	<b>2004</b>	<b>158</b>	<b>4.1</b>	<b>101</b>	<b>6.0</b>	<b>57</b>	<b>2.6</b>
<b>Urinary Bladder</b>	<b>Annual Average</b>	<b>186</b>	<b>5.0</b>	<b>132</b>	<b>8.6</b>	<b>54</b>	<b>2.5</b>
	<i>5-Year APC Trend</i>		+1.4		-0.3		+3.4
	2000	164	4.6	118	8.2	46	2.2
	2001	183	4.9	136	9.2	47	2.1
	2002	200	5.4	133	8.7	67	3.1
	2003	190	5.0	134	8.4	56	2.5
	<b>2004</b>	<b>191</b>	<b>4.9</b>	<b>138</b>	<b>8.5</b>	<b>53</b>	<b>2.4</b>
<b>MISCELLANEOUS SITES</b>	<b>Annual Average</b>	<b>545</b>	<b>14.7</b>	<b>272</b>	<b>17.4</b>	<b>274</b>	<b>12.7</b>
	<i>5-Year APC Trend</i>		-2.7		-1.4		-3.2
Interpret trend with	2000	570	16.0	273	18.3	297	14.1
caution for this category due to	2001	530	14.6	269	17.6	261	12.3
changes in coding affecting	2002	553	14.8	269	17.2	284	13.1
data from 2001 forward.	2003	546	14.4	269	17.0	277	12.6
	<b>2004</b>	<b>528</b>	<b>13.8</b>	<b>278</b>	<b>17.3</b>	<b>250</b>	<b>11.5</b>

Rates are per 100,000 and age-adjusted to the 19-age-group 2000 U.S. standard population.

APC = Annual Percent Change

\* Indicates a statistically significant trend.

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n/a = not applicable

To understand the data provided in *Cancer in Oregon*, it is important to understand the sources of data, collection methods, data quality, and the significance of reported measures. The following provides background for understanding and interpreting the data contained in this report.

### DATA SOURCES

#### Oregon Incidence Data

All cancer incidence data were obtained directly from the Oregon State Cancer Registry (OSCaR). Reportable diagnoses include all malignant neoplasms diagnosed beginning January 1, 1996, that are *in situ* or invasive with the following exceptions: basal and squamous cell carcinoma of the skin (except of genitalia), and carcinoma *in situ* of the cervix. In addition, beginning with cases diagnosed January 1, 2004, benign tumors of the brain and central nervous system also became reportable, though they are not included in total incidence counts. (See Appendix A—Reportable Incidence Cases.)

By law, all reportable cancers and benign brain and CNS tumors diagnosed or treated in Oregon must be reported to OSCaR by the patient's physician. In practice, most of the cases included in this report were reported by hospital cancer registrars, who are trained to collect and report cases according to national standards. Since cancer reporting started in 1996, 89 percent of new cancer diagnoses have come from hospitals, 9 percent from physician offices, and 1 percent from review of death certificates. The remaining cases were identified by interstate data exchange, review of pathology reports from laboratories, and by autopsy. Many of the physician office cases were initially identified through follow-up on laboratory reports and death certificates. The majority of cancer diagnoses reported to

OSCaR are the first primary cancer diagnosed for the patient. However, nearly 20% of the cancer diagnoses occur in individuals with a previous cancer. Incidence rates are calculated using the total number of new invasive primary cancers (and *in situ* bladder cancers) diagnosed in a specific time period as the numerator and the population as the denominator.

Cancer data presented in this report follow nationally accepted standards for groupings of site categories for analysis. Cancer groupings for analysis are classified using the National Cancer Institute's SEER Program SEER Site Recodes. (See Appendix D—SEER Causes of Death Recodes.) The majority of neoplasms are grouped by the site in which they originate. Neoplasms of the lymphatic, hematopoietic, and reticuloendothelial systems, however, are grouped by their histologies (leukemias, lymphomas, etc.) and not by the primary site where they occurred. Melanoma of the skin is a combination of both anatomic site and histological type.

#### Oregon Mortality Data

All cancer mortality data were obtained from the Center for Health Statistics (CHS) death certificate database. CHS is the state's repository for all vital records and is a major information source for vital statistics and health survey data about Oregonians. Because of different age groups used in age-adjusting, mortality rates in this report are not comparable to rates published by CHS.

Beginning with deaths occurring in 1999, cause of death has been classified using the tenth revision of the International Classification of Disease (ICD-10). The ICD-10 system is closely compatible with the ICD-Oncology (ICD-O) system used for reporting cancer cases, based on

site of origin, whereas the ICD-9 system was not. (See Appendix B–Mortality Codes for Cancer Deaths Newly Reportable in 2001 used in this report and a comparison of ICD-9 and ICD-10.)

For mortality years 1996-1998, the ICD-9 codes did not directly match ICD-O codes. Therefore, discrepancies exist for those years between Oregon's Center for Health Statistics (CHS) counts and the mortality counts reported in this publication. Beginning in 1999, with the change to ICD-10 coding, mortality coding matches exactly for most sites. However, since 2001, the Registry includes newly reportable cancers which are excluded from the CHS cancer counts: polycythaemia vera, refractory anemia and other myelodysplastic syndromes, chronic myeloproliferative disease, and essential thrombocythaemia. (See Appendix B–Mortality Codes for Cancer Deaths Newly Reportable in 2001 for complete list of these causes of death; for further information see *Comparability of Cause of Death Between ICD-9 and ICD-10: Preliminary Estimates in National Vital Statistics Report*, Vol. 49, No. 2, May 18, 2001, Anderson, Minino, Hoyert, Rosenberg.)

### **Oregon Population Data**

Population denominators used to calculate Oregon incidence and mortality rates are from the Population Estimates Branch of the US Census Bureau. Denominator data for 1996-1999 are based on the State and County Characteristics Population Estimates from the US Census. Denominator data for 2000-2004 were based on the National Center for Health Statistics (NCHS) estimates of the July 1, 2000-July 1, 2004, United States resident population from the Bridged-race Vintage 2004 postcensal population estimate by year, county, single-year of age, bridged-race, Hispanic origin, and sex prepared under a

collaborative arrangement with the US Census Bureau 2006. Bridged population is available on the Internet at: [www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm](http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm).

Beginning with the 2000 US Census, Census data have been collected with multiple race fields. Cancer registry data continued to be reported as single race. It is essential to have comparable numerator data (cancer counts) and denominator data (population counts) to calculate rates. Therefore, population data for the year 2000 and forward are from the 2000 US Census bridged data which uses allocation probabilities developed by NCHS to assign the Census's multiple race variables and 31 race categories to a single-race variable with four race categories. See the NCHS website at [www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm](http://www.cdc.gov/nchs/about/major/dvs/popbridge/popbridge.htm) for specific information about the bridging methodology.

### **Oregon Screening Data**

Cancer screening data were obtained from the Behavioral Risk Factor Surveillance System (BRFSS) maintained by Oregon's Center for Health Statistics. BRFSS is an ongoing random-digit-dialed telephone survey of adults concerning health-related behaviors. Information is used to guide health promotion and disease prevention programs. BRFSS includes questions on health behavior risk factors such as seat belt use, diet, weight control, tobacco and alcohol use, physical exercise, preventive health screening, and use of preventive and other health care services. For further information on the BRFSS, see [www.dhs.state.or.us/dhs/ph/chs/brfs/brfss.shtml](http://www.dhs.state.or.us/dhs/ph/chs/brfs/brfss.shtml).

### **National Data**

National incidence data were calculated from the Surveillance, Epidemiology, and End

Results (SEER) Program's SEER\*Stat Database: Incidence - SEER 17 Regs Limited-Use, Nov 2006 Sub (2000-2004) - Total U.S., 1969-2004 Counties, National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released April 2007, based on the November 2006 submission. Further information on the SEER program is available at [www.seer.cancer.gov](http://www.seer.cancer.gov).

National mortality data were calculated using the Surveillance, Epidemiology, and End Results (SEER) Program's SEER\*Stat Database: Mortality - All Cause of Death, Public-Use With State, Total U.S. (1969-2004), National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released April 2007. Underlying mortality data were provided by NCHS. For further information on NCHS mortality data, see [www.cdc.gov/nchs](http://www.cdc.gov/nchs).

National incidence rankings were obtained from the U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 2003 Incidence and Mortality*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2006, available at: <http://apps.nccd.cdc.gov/uscs/>. Mortality rankings were obtained from profiles generated by the National Cancer Institute's State Cancer Profiles available at: [//statecancerprofiles.cancer.gov/](http://statecancerprofiles.cancer.gov/).

### DATA QUALITY AND CASE COMPLETENESS

#### Internal Data Review

When OSCaR receives reports, they are closely reviewed and edited for quality control. The accuracy and usability of OSCaR data has increased through efforts on several different

levels. Registry operations and linkage projects including monthly linkage with vital statistics death information help ensure that Registry data are reviewed and corrected on many levels.

**Audits.** OSCaR conducts random facility audits of reporting hospitals and facilities across the state to assess quality and completeness of data maintained in the central registry. Hospitals are divided into groups for random selection based on hospital size. In addition, the Registry audits case-reporting completeness from hospitals anytime there is a reduction in case reporting.

**Case Completeness.** Identifying missed cases through review of pathology reports and death certificates is part of normal Registry procedure. In addition, through data sharing agreements, neighboring states supply records for Oregon residents diagnosed out of state.

**Death Clearance.** Death clearance is a death certificate review process used to identify additional cases by comparing cancer cases identified from the death certificate file with cases in the Registry file. Deaths due to cancers that have not been reported to the Registry are investigated by contacting the physician who certified the death. After physician inquiry is completed, cases found through the death certificate that still do not have a physician report are classified as death certificate only (DCO) cases. Cases for which a response and full report are received are classified as physician office reports. Deaths due to cancer diagnosed prior to the Registry's starting date, January 1, 1996, are not added to the Registry.

Full death clearance procedures were not necessary during the first few years of Registry operation since most cancer deaths were due to cancers diagnosed prior to 1996. Initially, death

clearance was performed only for selected cancer sites that have low short-term survival: esophagus, liver, lung, pancreas, stomach, multiple myeloma, and unknown cancers. In 1999, death certificate review procedures were expanded to include all cancer sites. Typically, cancer cases identified by death certificate are those with a poor prognosis, often diagnosed at distant stage or that are not staged due to the patient's poor health.

Due to increased review, more death certificate only cases were identified from 1999 to present. DCO cases differ from other cases due to increased severity of the disease but are categorized unknown stage due to lack of staging information.

**Linkages.** One notable data quality effort has been correcting race misclassification for American Indian/Alaskan Native (AI/AN) patients. Through a cooperative effort between the Oregon State Cancer Registry and the Northwest Portland Area Indian Health Board (NPAIHB), a linkage is done annually with local tribal cancer registry data to determine if AI/AN have been misclassified as another race. One-fourth of the AI/AN cases currently in the OSCaR database were identified through data linkages.

### External Data Review

Federal funding requires that OSCaR be audited by an outside agency every five years to assess the quality and completeness of registry data. In July 2003, Macro International Inc. conducted an audit of OSCaR data. The audit estimated OSCaR's overall case completeness rate at 98.9%, and the overall data accuracy rate for 13 essential data elements at 96.0%. OSCaR was commended for exceeding national standards for both outcomes.

The North American Association of Central Cancer Registries (NAACCR) annually reviews cancer registries for their ability to produce complete, accurate, and timely data. The NAACCR certification program recognizes registries that meet the highest standards with a Gold or Silver Certification. OSCaR data for diagnosis year 2004 received Gold Certification. OSCaR has received certification for every year of complete data. Additional information about NAACCR certification is available on the NAACCR website at [www.naacr.org](http://www.naacr.org).

## EPIDEMIOLOGICAL MEASURES

### Cancer Counts

All reportable malignancies and non-malignant brain and CNS tumors diagnosed among Oregon residents are reported to OSCaR. Cases are categorized based on the International Classification of Diseases for Oncology (ICD-O) and are presented using the Surveillance, Epidemiology, and End Results (SEER) Program SEERSite recodes.

Cancer counts represent the number of primary cancers reported to OSCaR, not the number of persons with cancer. People diagnosed with more than one primary tumor count as more than one "case". About 20% of the cases reported to OSCaR occur in a person who has already been diagnosed with another cancer.

The number of cancers is reported in two ways – total cancers and invasive cancers. With the exception of *in situ* bladder cancers, the invasive cancer category excludes *in situ* cancers. The total cancer category includes all cancers, regardless of stage at diagnosis, with the exception of *in situ* cervical cancer and basal and squamous cell

carcinoma of the non-genital skin since they are not reported to the Registry.

Total count may exceed sum of male and female counts due to the inclusion in the total of persons identified in case reports as hermaphrodites and transsexuals.

### Cancer Rates

In analyzing Oregon's cancer data, we looked at various measures commonly used in epidemiologic studies of cancer. One measure is a rate. Rates help compare the burden of disease across populations of various sizes.

Incidence rates provide information on the frequency with which cancers occur in the population. Only invasive cancers (and *in situ* bladder cancers) are included in rate calculations. The mortality rate describes the frequency of deaths due to invasive (and *in situ* bladder) cancer. All rates in this report are per 100,000 population. Rates based on counts of fewer than 11 cases are considered unstable and are not displayed in tables.

**Crude Rates.** Crude rates are used when a summary measurement of burden is needed and there is no need to adjust for age. Since cancer risk is very dependent upon age, age-adjusted rates are more useful for comparison among regions, time periods, etc. Crude rates are not included in the tables in the annual report but are still reported for individual sites in the Fast Facts sections.

The following denominators were used to calculate crude rates:

**Oregon's Population by Year**

Year	Total	Male	Female
1996	3,247,111	1,604,527	1,642,584
1997	3,304,469	1,634,309	1,670,160
1998	3,352,449	1,659,190	1,693,259
1999	3,393,941	1,681,715	1,712,226
2000	3,430,707	1,701,604	1,729,103
2001	3,472,629	1,723,589	1,749,040
2002	3,520,355	1,748,055	1,772,300
2003	3,559,596	1,768,478	1,791,118
2004	3,594,586	1,786,769	1,807,817

**Age-Adjusted Rates.** Age-adjusted rates are calculated to allow comparisons between two different populations with different age distributions. Age-adjusted rates are expressed as events per 100,000 individuals per year. All age-adjusted rates in this report are calculated using the Year 2000 Standard Population with 19 age groups (<1, 1-4, 5-9, 10-14, 15-19, 20-24...85+).

### Cancer Trends

All trend data should be interpreted with caution. Over the years, changes in coding and collection standards have occurred, which affect the comparability of the data. In 1999, the national change from ICD-9 classification to ICD-10 changed how cause of death is recorded and how cancer mortality data correlate with cancer incidence data. In 2001, major changes affecting coding for staging and cancer reporting came into effect for cases collected by cancer registries nationwide.

Trends were calculated using two-year averages of the age-adjusted rates as endpoints. The trends are used to compare general Oregon trends with national trends based on direction (increase or decrease) and slope (rapid or slow change). This

trend analysis is intended to describe broad, temporal changes of cancer rates in Oregon.

Trends are affected by a number of factors including the following:

- improved reporting from hospitals,
- recent increases in treatment at outpatient facilities,
- changes in reporting requirements,
- changes in coding instructions,
- changes in demographic characteristics of underlying populations,
- random variation, and
- true changes in the cancer burden.

All trends are based on rates per 100,000 population that are age-adjusted to the 19-age-group Year 2000 Standard Population (Census P25-1130, <http://seer.cancer.gov/stdpopulations/19ages.proportions.html>).

### Geographic Comparisons

**County Comparisons.** This report compares incidence and mortality rates by county. These analyses may help target screening and educational efforts. Because some counties with small populations only have a few cases reported, rates for those counties are unstable and must be interpreted with caution.

**Regional Comparisons.** Regional maps depict “smoothed” or fitted county rates and should not be used to evaluate individual county rates. Data smoothing is a statistical technique intended to limit the influence of randomness in data. Through this process, cancer rates are interpolated or “borrowed” from neighboring areas to stabilize results for less populated areas.

The statistical algorithm used for the regional maps is a weighted, median-based method intended for non-point, spatial data called “head-banging”. The observed rate for each county is compared to the median rates of neighboring counties. The county rates are weighted by population size to ensure that statistically stable rates are not modified based on rates from sparsely populated counties. Please see [//srab.cancer.gov/headbang/](http://srab.cancer.gov/headbang/) for additional information.

This process stabilizes rates for counties with low population density to allow potential geographic patterns to emerge. Maps in this report show the regional rates broken into three quantiles.

It is important to recognize that multiple factors influence geographic variation in cancer rates. Despite the multitude of factors influencing cancer variation by region, these maps may be used to suggest regions to target screening and prevention programs or to expand treatment facilities.

In addition to random variation, the following are also responsible for regional variation of cancer rates:

**Population Demographics.** Some cancers have different rates among different racial or ethnic groups. For example, breast cancer rates are generally higher in white women and prostate cancer rates are generally higher in black men. Therefore, racial makeup of an area should be considered when evaluating regional differences.

**Screening.** In areas with higher cancer screening rates, more cancers will be diagnosed. For several cancers, notably cervical, breast, and colorectal, a higher percentage of early stage diagnoses associated with higher screening rates can result in a more favorable prognosis for these cancers.

Comparing both incidence and mortality rates is important to gain a more complete picture of regional cancer differences.

**Reporting.** Although OSCaR has a total case completeness rate of over 95%, cancer reporting may differ by region in terms of completeness and type of report source (hospital vs. physician office).

### Software

All incidence and mortality counts were generated using the National Cancer Institute's Surveillance, Epidemiology, and End Results Program's SEER\*Stat software version 6.3.6, March 16, 2007 release, available at: [www.seer.cancer.gov/seerstat/](http://www.seer.cancer.gov/seerstat/). Data were formatted for SEER\*Stat using SEER\*Prep version 2.3.6 released by the National Cancer Institute May 2006 and available at: [www.seer.cancer.gov/seerprep/](http://www.seer.cancer.gov/seerprep/). Smoothed rates for regional maps were created using a weighted median-based smoothing algorithm calculated by Headbang software version 3.0, May 2003 release, available from the National Cancer Institute at: [www.srab.gov/headbang/](http://www.srab.gov/headbang/). Trends were calculated using age-adjusted rates and annual percent change (APC). APC is calculated by fitting a weighted, least-squares regression line to the natural logarithm of the rates using year as a regression variable.

### Glossary

**Age.** The age of the patient is in completed years at the time of diagnosis or death.

**Age-Adjusted Rate.** The age-adjusted rate is "the rate that would occur if the observed age-specific rates were present in a population with an age distribution equal to that of a standard population." (Anderson RN, Rosenberg HM. Age

standardization of death rates: Implementation of the Year 2000 Standard. National Vital Statistics Reports; vol. 47 no. 3. Hyattsville, Maryland: National Center for Health Statistics, 1998.) Since cancer rates vary with age and populations vary with respect to their age distribution, cancer incidence and mortality rates are age-adjusted to allow comparison of rates. In this report, age-adjusted rates are calculated by the direct method, multiplying age-specific rates by the age distribution of the 2000 United States Standard Population with 19 age groups.

**Age-Specific Rate.** The age-specific rate is the average annual rate per 100,000 population for a specific age group.

**Annual Percent Change.** The Annual Percent Change (APC), or trend, is the average percent change in the annual rate among years for the time period analyzed. This is calculated using SEER methodology.

**Benign.** A benign tumor has abnormal growth without cancerous behavior. It is non-malignant. A benign tumor can be life threatening because of rapid growth or its location.

**Childhood Cancer.** This report includes all cancers occurring in individuals under the age of 20 in the section on childhood cancer. Children's cancer rates are usually expressed per 1,000,000 population. The International Classification of Childhood Cancer (ICCC), which emphasizes tumor morphology, is used for defining tumors occurring in children.

**Confidence Interval.** Confidence intervals show range of random variation. When two confidence intervals do not overlap, the two rates are considered statistically significantly different and the difference between the two rates is more than that

expected by random chance. However, with a 95% confidence interval, we expect that five times out of 100, the differences will occur by chance. With 36 counties and 20 cancer sites, we might see as many as 36 instances where the rate for a county is statistically significantly different from the state rate just by chance. Confidence intervals were calculated using SEER methodology.

**Crude Rate.** The crude rate is the number of events in the population, without regard to the age distribution of the population.

**ICD-9.** The Ninth Revision of the International Classification of Diseases. Mortality data for years 1996-1998 are recorded using ICD-9. This classification system is not directly compatible with the ICD-O classification system used for cancer reporting.

**ICD-10.** The 10th Revision of the International Classification of Diseases. Mortality data recording converted to ICD-10 beginning with death year 1999. This classification system mirrors the ICD-O system used for cancer reporting.

**ICD-O3.** ICD-03 is the Third Edition of the International Classification of Diseases for Oncology, a variation of the ICD system specifically designed for cancer coding. Cancer incidence is reported to the Registry using the ICD-O system. The ICD-10 cancer site classifications closely follow this system.

**Incidence.** Cancer incidence is the annual or average annual count of new invasive cancers and *in situ* bladder cancers. Cancer incidence is the number of new diagnoses and not the same as the number of Oregonians living with cancer.

**Malignant.** A tumor made up of cancer cells of a type that can spread to other parts of the body.

**Metastatic/Distant.** The most advanced stage of a cancer in which cells from the original tumor break away, travel to other parts of the body, and continue to grow. Although the cancer has spread to an additional site or sites, it is still named after the original site of the tumor. These cancers are classified as late-stage cancers.

**Mortality.** Cancer mortality is the annual or average annual number of deaths due to cancer.

**M/I Ratio.** The M/I (mortality-to-incidence) ratio provides a measure of disease severity. The M/I ratio is the number of deaths divided by the number of invasive incidence cases for a specified cancer during a specific time period. The higher the value, the poorer the prognosis for that cancer. It is possible to have an M/I Ratio exceed 1.0 if the number of deaths for a population is greater than the number of new diagnoses during the specific time period.

**NAACCR (North American Association of Central Cancer Registries).** NAACCR is a professional organization that develops and promotes uniform data standards for cancer registration; provides education and training; certifies population-based registries; aggregates and publishes data from central cancer registries; and promotes the use of cancer surveillance data and systems for cancer control and epidemiologic research, public health programs, and patient care to reduce the burden of cancer in North America.

**NPCR (National Program of Cancer Registries).** NPCR was established at the Centers for Disease Control and Prevention by the passage of Public Law 102-515. NPCR collects information on cancer cases from registries covering 96% of the nation's population.

## Technical Section

**Prevalence.** Cancer prevalence is the rate or number of people in a specific population living with cancer.

**Primary Site.** The primary site is the human organ or system in which the malignancy originates.

**Race.** In this report, race consists of one variable with four race categories: black, American Indian/Alaskan Native, Asian/Pacific Islander, and white.

**SEER (Surveillance, Epidemiology, and End Results).** The National Cancer Institute provides information on cancer incidence and survival in the United States through the SEER program.

**Stage at Diagnosis.** Stage at diagnosis describes how far a tumor has spread from its site of origin at the time of diagnosis. The cancer stages, in order of severity and spread, are *in situ*, localized, regional, and distant. Local, regional and distant stages are considered invasive. A number of cancers are also reported as unstaged (unknown stage at diagnosis). Except for *in situ* bladder cancer, *in situ* cancers are not included in the calculation of incidence rates. All reported cancers are included in the calculation of stage at diagnosis.

<b>Distant</b>	A tumor that has spread by direct extension beyond the immediately adjacent organs or tissues, and/or metastasized to distant lymph nodes or other distant tissues.
<b>Unstaged</b>	Insufficient information available to determine the stage of disease at diagnosis.

**YPLL.** The years of potential life lost (YPLL) index measures years before a specific age that a person dying prematurely would otherwise have contributed to society. In this report, years of potential life is indexed to age 65. For example, a person dying of cancer at age 35 would have a YPLL at age 65 of 30 years.

<b><i>In Situ</i></b>	A tumor that fulfills all microscopic criteria for malignancy, but does not invade or penetrate surrounding tissue.
<b>Localized</b>	A tumor that is invasive but remains restricted to the organ of origin.
<b>Regional</b>	A tumor that has spread by direct extension to immediately adjacent organs or tissues and/or metastasized (spread through the blood stream) to regional lymph nodes, but appears to have spread no further.

## Appendices

### A. Reportable List of Incidence Cases with ICD-9-CM Diagnosis Code, and Preferred ICD-0-3 Terminology

Reportable cases (with diagnosis date 2004 or later) include all invasive and *in situ* malignant neoplasms and specified benign neoplasms of the brain and CNS as listed below:

<u>ICD-9-CM</u>	<u>Terminology</u>
140.0 – 208.9	Malignant neoplasms (primary and secondary diagnosis)
225.0	Benign neoplasm of brain
225.1	Benign neoplasm of cranial nerves
225.2	Benign neoplasm of cerebral meninges; cerebral meningioma
225.3	Benign neoplasm of spinal cord, cauda equina
225.4	Benign neoplasm of spinal meninges; spinal meningioma
225.8	Benign neoplasm of other specified sites of nervous system
225.9	Benign neoplasm of nervous system, part unspecified
227.3	Benign neoplasm of pituitary, craniopharyngeal duct, craniobuccal pouch, hypophysis, Rathke's pouch, sella turcica
227.4	Benign neoplasm of pineal gland, pineal body
230.0 – 234.9	Carcinoma <i>in situ</i> (excludes 232-skin* and 233.1-cervix uteri*)
237.0	Neoplasm of uncertain behavior of pituitary gland and craniopharyngeal duct
237.1	Neoplasm of uncertain behavior of pineal gland
237.5	Neoplasm of uncertain behavior of brain and spinal cord
237.6	Neoplasm of uncertain behavior of meninges; NOS, cerebral, spinal
237.70	Neurofibromatosis, Unspecified von Recklinghausen's Disease
237.71	Neurofibromatosis, Type One von Recklinghausen's Disease
237.72	Neurofibromatosis, Type Two von Recklinghausen's Disease
237.9	Neoplasm of uncertain behavior of other and unspecified parts of the nervous system; cranial nerves
238.4	Polycythemia vera
238.6	Solitary plasmacytoma, extramedullary plasmacytoma
238.7	Other lymphatic and hematopoietic tissue diseases: Chronic myeloproliferative disease Myelosclerosis with myeloid metaplasia Essential thrombocythemia Refractory cytopenia with multilineage dysplasia Myelodysplastic syndrome with 5q syndrome Therapy-related myelodysplastic syndrome
239.0 – 239.9**	Neoplasms of unspecified nature
273.2	Gamma heavy chain disease; Franklin disease
273.3	Waldenstrom's macroglobulinemia
284.9	Refractory anemia without sideroblasts, Refractory anemia, unspecified
285.0	Refractory anemia with ringed sideroblasts, Refractory anemia with excess blasts, Refractory anemia with excess blasts in transformation
288.3	Hypereosinophilic Syndrome
289.8	Acute myelofibrosis

Note: Reportable diagnoses include VIN III, VAIN III, AIN III, juvenile astrocytoma, pilocytic astrocytoma, and piloid astrocytoma. Prior to 2004, benign tumors of the brain and central nervous system were not reportable

\*Exclusions: Basal / squamous cell carcinoma of skin, except of the genitalia, and *in situ* carcinoma of the cervix uteri and PIN III are not reportable.

\*\*Code 237.71 and Codes 239.0 – 239.9 may not be reportable, however, these diagnoses may indicate a reportable condition and should be reviewed.

**B. Mortality Codes for Cancer Deaths  
Newly Reportable in 2001**

ICD-9	ICD-O Histology (Site C42.1)	ICD-10	Added to Miscellaneous Mortality Category
238.4 207.1	9950/3	D45.0	Polycythemia vera
284.9 238.7	9980/3 9982/3 9983/3 9984/3 9985/3 9986/3 9987/3 9989/3	D46.0	Myelodysplastic syndrome
238.7	9960/3 9961/3	D47.1	Chronic myeloproliferative disease (myelofibrosis with myeloid metaplasia, myeloproliferative disease, NOS, myelosclerosis (megakaryocytic) with myeloid metaplasia)
238.7	9962/3	D47.3	Essential (hemorrhagic) thrombocytopenia (idiopathic hemorrhagic thrombocytopenia)

## Appendices

### C. 'SEER Site Recode for Incidence, ICD-O-3 Definition

Site Group	ICD-O-3 Site	ICD-O-3 Histology (Type)	SEER Site Recode	
<b>Oral Cavity and Pharynx</b>				
Lip	C000-C009	excluding 9590-9989, 9050-9055, 9140	20010	
Tongue	C019-C029		20020	
Salivary Gland	C079-C089		20030	
Floor of Mouth	C040-C049		20040	
Gum and Other Mouth	C030-C039, C050-C059, C060-C069		20050	
Nasopharynx	C110-C119		20060	
Tonsil	C090-C099		20070	
Oropharynx	C100-C109		20080	
Hypopharynx	C129, C130-C139		20090	
Other Oral Cavity and Pharynx	C140, C142-C148		20100	
<b>Digestive System</b>				
Esophagus	C150-C159		excluding 9590-9989, 9050-9055, 9140	21010
Stomach	C160-C169			21020
Small Intestine	C170-C179	21030		
Colon and Rectum				
Colon excluding Rectum				
Cecum	C180	excluding 9590-9989, 9050-9055, 9140	21041	
Appendix	C181		21042	
Ascending Colon	C182		21043	
Hepatic Flexure	C183		21044	
Transverse Colon	C184		21045	
Splenic Flexure	C185		21046	
Descending Colon	C186		21047	
Sigmoid Colon	C187		21048	
Large Intestine, NOS	C188-C189, C260		21049	
Rectum and Rectosigmoid Junction				
Rectosigmoid Junction	C199	excluding 9590-9989, 9050-9055, 9140	21051	
Rectum	C209		21052	
Anus, Anal Canal and Anorectum	C210-C212, C218		21060	
Liver and Intrahepatic Bile Duct				
Liver	C220	excluding 9590-9989, 9050-9055, 9140	21071	
Intrahepatic Bile Duct	C221		21072	
Gallbladder	C239		21080	
Other Biliary	C240-C249		21090	
Pancreas	C250-C259		21100	
Retroperitoneum	C480		21110	
Peritoneum, Omentum and Mesentery	C481-C482		21120	
Other Digestive Organs	C268-C269, C488		21130	

## Appendices

### C. 'SEER Site Recode for Incidence, ICD-O-3 Definition (Continued)

Site Group	ICD-O-3 Site	ICD-O-3 Histology (Type)	SEER Site Recode
<b>Respiratory System</b>			
Nose, Nasal Cavity and Middle Ear	C300-C301, C310-C319	excluding 9590-9989, 9050-9055, 9140	22010
Larynx	C320-C329		22020
Lung and Bronchus	C340-C349		22030
Pleura	C384		22050
Trachea, Mediastinum and Other Respiratory Organs	C339, C381-C383, C388, C390, C398, C399		22060
<b>Bones and Joints</b>	C400-C419	excluding 9590-9989, 9050-9055, 9140	23000
<b>Soft Tissue including Heart</b>	C380, C470-C479, C490-C499	excluding 9590-9989, 9050-9055, 9140	24000
<b>Skin excluding Basal and Squamous</b>			
Melanoma of the Skin	C440-C449	8720-8790	25010
Other Non-Epithelial Skin	C440-C449	excluding 8000-8005, 8010-8045, 8050-8084, 8090-8110, 8720-8790, 9590-9989, 9050-9055, 9140	25020
<b>Breast</b>	C500-C509	excluding 9590-9989, 9050-9055, 9140	26000
<b>Female Genital System</b>			
Cervix Uteri	C530-C539	excluding 9590-9989, 9050-9055, 9140	27010
Corpus and Uterus, NOS			
Corpus Uteri	C540-C549	excluding 9590-9989, 9050-9055, 9140	27020
Uterus, NOS	C559		27030
Ovary	C569		27040
Vagina	C529		27050
Vulva	C510-C519		27060
Other Female Genital Organs	C570-C589		27070
<b>Male Genital System</b>			
Prostate	C619	excluding 9590-9989, 9050-9055, 9140	28010
Testis	C620-C629		28020
Penis	C600-C609		28030
Other Male Genital Organs	C630-C639		28040
<b>Urinary System</b>			
Urinary Bladder	C670-C679	excluding 9590-9989, 9050-9055, 9140	29010
Kidney and Renal Pelvis	C649, C659		29020
Ureter	C669		29030
Other Urinary Organs	C680-C689		29040
<b>Eye and Orbit</b>	C690-C699	excluding 9590-9989, 9050-9055, 9140	30000
<b>Brain and Other Nervous System</b>			
Brain	C710-C719	excluding 9530-9539, 9590-9989, 9050-9055, 9140	31010
Cranial Nerves Other Nervous System	C710-C719	9530-9539	31040
	C700-C709, C720-C729	excluding 9590-9989, 9050-9055, 9140	
<b>Endocrine System</b>			
Thyroid	C739	excluding 9590-9989, 9050-9055, 9140	32010
Other Endocrine including Thymus	C379, C740-C749, C750-C759		32020

## Appendices

### C. 'SEER Site Recode for Incidence, ICD-O-3 Definition (Continued)

Site Group	ICD-O-3 Site	ICD-O-3 Histology (Type)	SEER Site Recode
<b>Lymphoma</b>			
Hodgkin Lymphoma			
Hodgkin - Nodal	C024, C098-C099, C111, C142, C379, C422, C770-C779	9650-9667	33011
Hodgkin - Extranodal	All other sites		33012
Non-Hodgkin Lymphoma			
NHL - Nodal	C024, C098, C099, C111, C142, C379, C422, C770-C779	9590-9596, 9670-9671, 9673, 9675, 9678-9680, 9684, 9687, 9689-9691, 9695, 9698-9702, 9705, 9708-9709, 9714-9719, 9727-9729, 9823, 9827	33041
NHL - Extranodal	All sites except C024, C098-C099, C111, C142, C379, C422, C770-C779	9590-9596, 9670-9671, 9673, 9675, 9678-9680, 9684, 9687, 9689-9691, 9695, 9698-9702, 9705, 9708-9709, 9714-9719, 9727-9729	33042
<b>Myeloma</b>			
		9731-9732, 9734	34000
<b>Leukemia</b>			
Lymphocytic Leukemia			
Acute Lymphocytic Leukemia		9826, 9835-9837	35011
Chronic Lymphocytic Leukemia	C420, C421, C424	9823	35012
Other Lymphocytic Leukemia		9820, 9832-9834, 9940	35013
Myeloid and Monocytic Leukemia			
Acute Myeloid Leukemia		9840, 9861, 9866, 9867, 9871-9874, 9895-9897, 9910, 9920	35021
Acute Monocytic Leukemia		9891	35031
Chronic Myeloid Leukemia		9863, 9875, 9876, 9945, 9946	35022
Other Myeloid/Monocytic Leukemia		9860, 9930	35023
Other Leukemia			
Other Acute Leukemia		9801, 9805, 9931	35041
Aleukemic, subleukemic and NOS		9733, 9742, 9800, 9831, 9870, 9948, 9963, 9964	35043
	C420, C421, C424	9827	
<b>Mesothelioma</b>			
		9050-9055	36010
<b>Kaposi Sarcoma</b>			
		9140	36020
<b>Miscellaneous</b>			
		9740-9741, 9750-9758, 9760-9769, 9950, 9960-9962, 9970, 9975, 9980, 9982-9987, 9989	
	C760-C768, C809	excluding 9590-9989, 9050-9055, 9140	37000
	C420-C424		
	C770-C779		
Invalid	Site or histology code not within valid range or site code not found in this table.		99999

The values of SEER site recode variables are based on the primary site and histology data fields submitted to SEER by the registries. The site recode variables define the major cancer sites that are commonly used in the reporting of cancer incidence data. For example, there is a section of the SEER Cancer Statistics Review for each major site corresponding to groupings in a site recode variable. The site recode variables are added to the SEER databases as a convenience for researchers.

## Appendices

### D. SEER Causes of Death Recodes

Cancer Causes of Death	ICD-9 - 1996-1998	ICD-10 - 1999+	Recode
<b>All Malignant Cancers</b>	140-208, 238.6	C00-C97	--
<b>Oral Cavity and Pharynx</b>			
Lip	140	C00	20010
Tongue	141	C01-C02	20020
Salivary Gland	142	C07-C08	20030
Floor of Mouth	144	C04	20040
Gum and Other Mouth	143, 145	C03, C05-C06	20050
Nasopharynx	147	C11	20060
Tonsil	146.0-146.2	C09	20070
Oropharynx	146.3-146.9	C10	20080
Hypopharynx	148	C12-C13	20090
Other Oral Cavity and Pharynx	149	C14	20100
<b>Digestive System</b>			
Esophagus	150	C15	21010
Stomach	151	C16	21020
Small Intestine	152	C17	21030
<b>Colon and Rectum</b>			
Colon excluding Rectum	153, 159.0	C18, C26.0	21040
Rectum and Rectosigmoid Junction	154.0-154.1	C19-C20	21050
Anus, Anal Canal and Anorectum	154.2-154.3, 154.8	C21	21060
<b>Liver and Intrahepatic Bile Duct</b>			
Liver	155.0, 155.2	C22.0, C22.2-C22.4, C22.7, C22.9	21071
Intrahepatic Bile Duct	155.1	C22.1	21072
Gallbladder	156	C23	21080
Other Biliary	156.1-156.2, 156.8-156.9	C24	21090
Pancreas	157	C25	21100
Retroperitoneum	158	C48.0	21110
Peritoneum, Omentum and Mesentery	158.8-158.9	C45.1, C48.1-C48.2	21120
Other Digestive Organs	159.8-159.9	C26.8-C26.9, C48.8	21130
<b>Respiratory System</b>			
Nose, Nasal Cavity and Middle Ear	160	C30-C31	22010
Larynx	161	C32	22020
Lung and Bronchus	162.2-162.5, 162.8-162.9	C34	22030
Pleura	163	C38.4, C45.0	22050
Trachea, Mediastinum and Other Respiratory Organs	162.0, 164.2-164.3, 164.8-164.9, 165	C33, C38.1-C38.3, C38.8, C39	22060
Bones and Joints	170	C40-C41	23000
Soft Tissue Include Heart	164.1, 171	C47, C49, C38.0, C45.2	24000
<b>Skin excluding Basal and Squamous</b>			
Melanoma of the Skin	172	C43	25010
Other Non-Epithelial Skin	173	C44, C46	25020
Breast	174-175	C50	26000
<b>Female Genital System</b>			
Cervix Uteri	180	C53	27010
<b>Corpus and Uterus, NOS</b>			
Corpus Uteri	182	C54	27020
Uterus, NOS	179	C55	27030

## Appendices

### D. SEER Causes of Death Recodes (Continued)

Cancer Causes of Death	ICD-9 - 1996-1998	ICD-10 - 1999+	Recode
Ovary	183	C56	27040
Vagina	184	C52	27050
Vulva	184.1-184.4	C51	27060
Other Female Genital Organs	181, 183.2-183.5, 183.8-183.9, 184.8-184.9	C57-C58	27070
<b>Male Genital System</b>			
Prostate	185	C61	28010
Testis	186	C62	28020
Penis	187.1-187.4	C60	28030
Other Male Genital Organs	187.5-187.9	C63	28040
<b>Urinary System</b>			
Urinary Bladder	188	C67	29010
Kidney and Renal Pelvis	189.0-189.1	C64-C65	29020
Ureter	189.2	C66	29030
Other Urinary Organs	189.3-189.4, 189.8-189.9	C68	29040
Eye and Orbit	190	C69	30000
Brain and Other Nervous System	191, 192	C70, C71, C72	31010
<b>Endocrine System</b>			
Thyroid	193	C73	32010
Other Endocrine including Thymus	164.0, 194	C37, C74-C75	32020
<b>Lymphoma</b>			
Hodgkin Lymphoma	201	C81	33010
Non-Hodgkin Lymphoma	200, 202.0-202.2, 202.8-202.9	C82-C85, C96.3	33040
Myeloma	203.0, 238.6	C90.0, C90.2	34000
<b>Leukemia</b>			
<b>Lymphocytic Leukemia</b>			
Acute Lymphocytic Leukemia	204	C91.0	35011
Chronic Lymphocytic Leukemia	204.1	C91.1	35012
Other Lymphocytic Leukemia	202.4, 204.2, 204.8-204.9	C91.2-C91.4, C91.7, C91.9	35013
<b>Myeloid and Monocytic Leukemia</b>			
Acute myeloid	205.0, 207.0, 207.2	C92.0, C92.4-C92.5, C94.0, C94.2	35021
Acute Monocytic Leukemia	206	C93.0	35031
Chronic Myeloid Leukemia	205.1	C92.1	35022
Other Myeloid/Monocytic Leukemia	205.2-205.3, 205.8-205.9, 206.1-206.2, 206.8-206.9	C92.2-C92.3, C92.7, C92.9, C93.1-C93.2, C93.7, C93.9	35023
<b>Other Leukemia</b>			
Other Acute Leukemia	208	C94.4, C94.5, C95.0	35041
Aleukemic, subleukemic and NOS	203.1, 207.1, 207.8, 208.1-208.2, 208.8-208.9	C90.1, C91.5, C94.1, C94.3, C94.7, C95.1, C95.2, C95.7, C95.9	35043
Mesothelioma	N/A	C45	36010
Kaposi Sarcoma	N/A	C46	36020
Miscellaneous Malignant Cancer	159.1, 195-199, 202.3, 202.5-202.6, 203.8	C26.1, C45.7+, C45.9+, C76-C80, C88, C96.0-C96.2, C96.7, C96.9, C97	37000
In Situ, Benign or Unknown Behavior Neoplasms	210-237, 238.0-238.5, 238.7-238.9, 239	D00-D48	38000

## Appendices

### E. Site/Histology Recodes Based on Classification of Childhood Cancer

Site Group	ICD-O-3 Histology (Type)	ICD-O-2/3	Recode
<b>I Leukemias, myeloproliferative diseases, and myelodysplastic diseases</b>			
(a) Lymphoid leukemias	9820, 9823, 9826, 9827, 9831-9837, 9940, 9948	C000-C809	11
(b) Acute myeloid leukemias	9840, 9861, 9866, 9867, 9870-9874, 9891, 9895-9897, 9910, 9920, 9931	C000-C809	12
(c) Chronic myeloproliferative diseases	9863, 9875, 9876, 9950, 9960-9964	C000-C809	13
(d) Myelodysplastic syndrome and other myeloproliferative diseases	9945, 9946, 9975, 9980, 9982-9987, 9989	C000-C809	14
(e) Unspecified and other specified leukemias	9800, 9801, 9805, 9860, 9930	C000-C809	15
<b>II Lymphomas and reticuloendothelial neoplasms</b>			
(a) Hodgkin lymphomas	9650-9655, 9659, 9661-9665, 9667	C000-C809	21
(b) Non-Hodgkin lymphomas (except Burkitt lymphoma)	9591, 9670, 9671, 9673, 9675, 9678-9680, 9684, 9689-9691, 9695, 9698-9702, 9705, 9708, 9709, 9714, 9716-9719, 9727-9729, 9731-9734, 9760-9762, 9764-9769, 9970	C000-C809	22
(c) Burkitt lymphoma	9687	C000-C809	23
(d) Miscellaneous lymphoreticular neoplasms	9740-9742, 9750, 9754-9758	C000-C809	24
(e) Unspecified lymphomas	9590, 9596	C000-C809	25
<b>III CNS and miscellaneous intracranial and intraspinal neoplasms</b>			
(a) Ependymomas and choroid plexus tumor	9383, 9390-9394	C000-C809	31
(b) Astrocytomas	9380	C723	32
	9384, 9400-9411, 9420, 9421-9424, 9440-9442	C000-C809	32
(c) Intracranial and intraspinal embryonal tumors	9470-9474, 9480, 9508	C000-C809	33
	9501-9504	C700-C729	33
(d) Other gliomas	9380	C700-C722, C724-C729, C751, C753	34
	9381, 9382, 9430, 9444, 9450, 9451, 9460	C000-C809	34
(e) Other specified intracranial and intraspinal neoplasms	8270-8281, 8300, 9350-9352, 9360-9362, 9412, 9413, 9492, 9493, 9505-9507, 9530-9539, 9582	C000-C809	35
(f) Unspecified intracranial and intraspinal neoplasms	8000-8005	C700-C729, C751-C753	36
<b>IV Neuroblastoma and other peripheral nervous cell tumors</b>			
(a) Neuroblastoma and ganglioneuroblastoma	9490, 9500	C000-C809	41
(b) Other peripheral nervous cell tumors	8680-8683, 8690-8693, 8700, 9520-9523	C000-C809	42
	9501-9504	C000-C699, C739-C768, C809	42

## Appendices

### E. Site/Histology Recodes Based on Classification of Childhood Cancer (Continued)

Site Group	ICD-O-3 Histology (Type)	ICD-O-2/3	Recode
<b>V Retinoblastoma</b>	9510-9514	C000-C809	50
<b>VI Renal tumors</b>			
(a) Nephroblastoma and other nonepithelial renal tumors	8959, 8960, 8964-8967 8963, 9364	C000-C809 C649	61 61
(b) Renal carcinomas	8010-8041, 8050-8075, 8082, 8120-8122, 8130-8141, 8143, 8155, 8190-8201, 8210, 8211, 8221-8231, 8240, 8241, 8244-8246, 8260-8263, 8290, 8310, 8320, 8323, 8401, 8430, 8440, 8480-8490, 8504, 8510, 8550, 8560-8576 8311, 8312, 8316-8319, 8361	C649 C000-C809	62 62
(c) Unspecified malignant renal tumors	8000-8005	C649	63
<b>VII Hepatic tumors</b>			
(a) Hepatoblastoma	8970	C000-C809	71
(b) Hepatic carcinomas	8010-8041, 8050-8075, 8082, 8120-8122, 8140, 8141, 8143, 8155, 8190-8201, 8210, 8211, 8230, 8231, 8240, 8241, 8244-8246, 8260-8264, 8310, 8320, 8323, 8401, 8430, 8440, 8480-8490, 8504, 8510, 8550, 8560-8576 8160-8180	C220, C221 C000-C809	72 72
(c) Unspecified malignant hepatic tumors	8000-8005	C220, C221	73
<b>VIII Malignant bone tumors</b>			
(a) Osteosarcomas	9180-9187, 9191-9195, 9200	C400-C419, C760-C768, C809	81
(b) Chondrosarcomas	9210, 9220, 9240 9221, 9230, 9241-9243	C400-C419, C760-C768, C809 C000-C809	82 82
(c) Ewing tumor and related sarcomas of bone	9260 9363-9365	C400-C419, C760-C768, C809 C400-C419	83 83
(d) Other specified malignant bone tumors	8810, 8811, 8823, 8830 8812, 9250, 9261, 9262, 9270-9275, 9280-9282, 9290, 9300-9302, 9310-9312, 9320-9322, 9330, 9340-9342, 9370-9372	C400-C419 C000-C809	84 84
(e) Unspecified malignant bone tumors	8000-8005, 8800, 8801, 8803-8805	C400-C419	85
<b>IX Soft tissue and other extrasosseous sarcomas</b>			
(a) Rhabdomyosarcomas	8900-8905, 8910, 8912, 8920, 8991	C000-C809	91
(b) Fibrosarcomas, peripheral nerve sheath tumors, and other fibrous neoplasms	8810, 8811, 8813-8815, 8821, 8823, 8834-8835 8820, 8822, 8824-8827, 9150, 9160, 9491, 9540-9571, 9580	C000-C399, C440-C768, C809 C000-C809	92 92

## Appendices

### E. Site/Histology Recodes Based on Classification of Childhood Cancer (Continued)

Site Group	ICD-O-3 Histology (Type)	ICD-O-2/3	Recode
(c) Kaposi sarcoma	9140	C000-C809	93
(d) Other specified soft tissue sarcomas	8587, 8710-8713, 8806, 8831-8833, 8836, 8840-8842, 8850-8858, 8860-8862, 8870, 8880, 8881, 8890-8898, 8921, 8982, 8990, 9040-9044, 9120-9125, 9130-9133, 9135, 9136, 9141, 9142, 9161, 9170-9175, 9231, 9251, 9252, 9373, 9581	C000-C809	94
	8830	C000-C399, C440-C768, C809	94
	8963	C000-C639, C659-C699, C739-C768, C809	94
	9180, 9210, 9220, 9240	C490-C499	94
	9260	C000-C399, C470-C759	94
	9364	C000-C399, C470-C639, C659-C699, C739-C768, C809	94
	9365	C000-C399, C470-C639, C659-C768, C809	94
(e) Unspecified soft tissue sarcomas	8800-8805	C000-C399, C440-C768, C809	95
<b>X Germ cell tumors, trophoblastic tumors, and neoplasms of gonads</b>			
(a) Intracranial and intraspinal germ cell tumors	9060-9065, 9070-9072, 9080-9085, 9100, 9101	C700-C729, C751-C753	101
(b) Malignant extracranial and extragonadal germ cell tumors	9060-9065, 9070-9072, 9080-9085, 9100-9105	C000-C559, C570-C619, C630-C699, C739-C750, C754-C768, C809	102
(c) Malignant gonadal germ cell tumors	9060-9065, 9070-9073, 9080-9085, 9090, 9091, 9100, 9101	C569, C620-C629	103
(d) Gonadal carcinomas	8010-8041, 8050-8075, 8082, 8120-8122, 8130-8141, 8143, 8190-8201, 8210, 8211, 8221-8241, 8244-8246, 8260-8263, 8290, 8310, 8313, 8320, 8323, 8380-8384, 8430, 8440, 8480-8490, 8504, 8510, 8550, 8560-8573, 9000, 9014, 9015	C569, C620-C629	104
	8441-8444, 8450, 8451, 8460-8473	C000-C809	104

## Appendices

### E. Site/Histology Recodes Based on Classification of Childhood Cancer (Continued)

Site Group	ICD-O-3 Histology (Type)	ICD-O-2/3	Recode
(e) Other and unspecified malignant gonadal tumors	8590-8671	C000-C809	105
	8000-8005	C569, C620-C629	105
<b>XI Other malignant epithelial neoplasms and malignant melanomas</b>			
(a) Adrenocortical carcinomas	8370-8375	C000-C809	111
(b) Thyroid carcinomas	8010-8041, 8050-8075, 8082, 8120-8122, 8130-8141, 8190, 8200, 8201, 8211, 8230, 8231, 8244-8246, 8260-8263, 8290, 8310, 8320, 8323, 8430, 8440, 8480, 8481, 8510, 8560-8573	C739	112
	8330-8337, 8340-8347, 8350	C000-C809	112
(c) Nasopharyngeal carcinomas	8010-8041, 8050-8075, 8082, 8083, 8120-8122, 8130-8141, 8190, 8200, 8201, 8211, 8230, 8231, 8244-8246, 8260-8263, 8290, 8310, 8320, 8323, 8430, 8440, 8480, 8481, 8500-8576	C110-C119	113
(d) Malignant melanomas	8720-8780, 8790	C000-C809	114
(e) Skin carcinomas	8010-8041, 8050-8075, 8078, 8082, 8090-8110, 8140, 8143, 8147, 8190, 8200, 8240, 8246, 8247, 8260, 8310, 8320, 8323, 8390-8420, 8430, 8480, 8542, 8560, 8570-8573, 8940, 8941	C440-C449	115
(f) Other and unspecified carcinomas	8010-8084, 8120-8157, 8190-8264, 8290, 8310, 8313-8315, 8320-8325, 8360, 8380-8384, 8430-8440, 8452-8454, 8480-8586, 8588-8589, 8940, 8941, 8983, 9000, 9010-9016, 9020, 9030	C000-C109, C129-C218, C239-C399, C480-C488, C500-C559, C570-C619, C630-C639, C659-C729, C750-C768, C809	116
<b>XII Other and unspecified malignant neoplasms</b>			
(a) Other specified malignant tumors	8930-8936, 8950, 8951, 8971-8981, 9050-9055, 9110	C000-C809	121
	9363	C000-C399, C470-C759	121
(b) Other unspecified malignant tumors	8000-8005	C000-C218, C239-C399, C420-C559, C570-C619, C630-C639, C659-C699, C739-C750, C754-C809	122
<b>Not Classified by ICCC or in situ</b>			999

