

# Cancer in Oregon, 2006



Annual report on cancer incidence and mortality among Oregonians

*Published by the Oregon State Cancer Registry  
December 2009*

# Oregon State Cancer Registry (OSCaR)

---

## OSCaR Staff

**Administration:** Katrina Hedberg, MD, MPH, Oregon State Epidemiologist; Jane Moore, PhD, RD, Program Manager, Health Promotion and Chronic Disease Prevention (HPCDP); Donald Shipley, MS, Program Manager; and Jeffrey Soule, Research Coordinator.

**Research and Surveillance:** Catherine Riddell, Senior Research Analyst; Joan Pliska, RHIT, CTR, Research Analyst; and Alyssa Elting McGuire, Research Analyst/Database Specialist

**Quality Assurance:** Claudia Feight, RHIT, CTR, Quality Assurance/Training Coordinator; Deborah Towell, CTR, Lead Cancer Data Specialist; Becky Gould, CTR, Cancer Data Specialist; LeeLa Coleman, CTR, Cancer Data Specialist; and Nancy Henderson, CTR, Cancer Data Specialist

## 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, 2006: Annual Report on Cancer Incidence and Mortality among Oregonians. Department of Human Services, Oregon Public Health Division, Oregon State Cancer Registry, Portland, Oregon, 2009.

All material in this report is in the public domain and may be reproduced or copied without permission; citation as to source, however, is appreciated.

Photo on front cover taken by photographer Brent Bradley, [www.oregonscenics.com](http://www.oregonscenics.com).

To receive the report in an alternate format, please contact the Oregon State Cancer Registry:

Oregon State Cancer Registry  
Department of Human Services  
Public Health Division  
800 NE Oregon Street, Suite 730  
Portland, OR 97232-2162



Tel: (971) 673-0986  
TTY-Nonvoice (971) 673-0372  
Fax: (971) 673-0996  
E-mail: [oscar.ohd@state.or.us](mailto:oscar.ohd@state.or.us)  
[www.healthoregon.org/oscar](http://www.healthoregon.org/oscar)

---

# Table of Contents

---

Executive Summary .....	1
Introduction .....	3
What's New in 2006.....	4
Cancer Data Overview .....	5
Selected Sites	
All Cancers.....	13
Bladder Cancer.....	17
Brain and CNS Cancer.....	21
Brain and CNS Tumors - Non-Malignant.....	25
Breast Cancer, Female.....	26
Cervical Cancer.....	30
Childhood Cancer .....	34
Colorectal Cancer.....	36
Esophageal Cancer .....	40
Kidney Cancer .....	44
Leukemia .....	48
Liver Cancer (including Intrahepatic Bile Duct).....	52
Lung and Bronchial Cancer .....	56
Lymphoma .....	60
Melanoma .....	64
Oral and Pharyngeal Cancer.....	68
Ovarian Cancer .....	72
Pancreatic Cancer .....	76
Prostate Cancer .....	80
Stomach Cancer .....	84
Thyroid Cancer.....	88
Uterine Cancer .....	92
Table 1: Oregon Incidence Data by Site and Sex, 2002-2006.....	96
Table 2: Oregon Mortality Data by Site and Sex, 2002-2006.....	103
Technical Section	
Data Sources .....	110
Data Quality and Case Completeness .....	112
Epidemiological Measures .....	113
Glossary .....	116
Appendices	
A. List of Reportable Conditions with ICD-9-CM Diagnosis Code and Preferred ICD-O-3 Terminology.....	119
B. Mortality Codes for Cancer Deaths Newly Reportable in 2001.....	120
C. SEER Site Recode for Incidence, ICD-O-3 Definition .....	121
D. SEER Causes of Death Recodes.....	124
E. Site/Histology Recodes Based on International Classification of Childhood Cancer .....	126

---

---

## Executive Summary

### Executive Summary

On an average day in 2006, 55 Oregonians were diagnosed with a reportable cancer, and 20 Oregonians died from it. Altogether, 20,103 reportable cancers were diagnosed in 2006 and added to the registry.

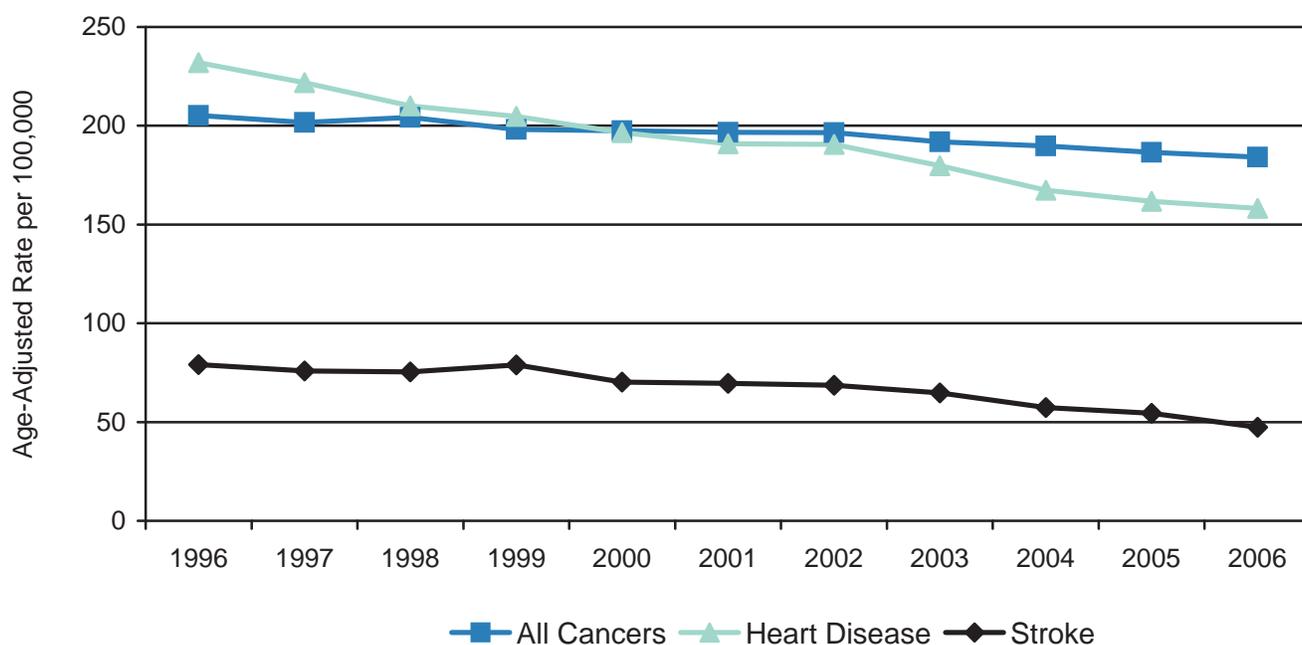
Cancer is the leading cause of death among Oregonians. For state rankings, see <http://www.statecancerprofiles.cancer.gov/index.html>.

The median age at death due to cancer is 72 years compared to a median age at death of 82 for deaths due to heart disease. 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. Cancer leads to twice as many years of potential life lost (YPLL) before age 65 compared with heart disease. In Oregon, cancer is the second leading cause of YPLL for men, following unintentional injuries. For Oregon women, cancer is the leading cause of YPLL. Annually, about 23,000 YPLLs in Oregon are attributable to cancer deaths.

**Breast Cancer is the most common reportable malignancy**, with 2,775 invasive cases diagnosed in women and 16 in men during 2006. 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 higher female breast cancer incidence rates and was 7<sup>th</sup> among the states in 2006. However, the mortality rate due to female breast cancer in Oregon is below

**Leading Causes of Death in Oregon,  
Age-Adjusted Rates, 1996-2006**



that seen nationally, ranking 25<sup>th</sup> in 2006. The trend in breast cancer mortality nationally and in Oregon has been downward since the mid-1980s.

**Prostate Cancer is the 2<sup>nd</sup>** most common reportable malignancy (2,660 invasive cases diagnosed in 2006) and is the 2<sup>nd</sup> most common cause of cancer death among Oregon men. Among states with high quality cancer incidence data, Oregon ranked 36<sup>th</sup> for prostate cancer incidence in 2006 and 17<sup>th</sup> for mortality.

**Lung Cancer is the 3<sup>rd</sup>** most common reportable malignancy, with 2,553 invasive cases diagnosed in 2006. It is also 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 2005, according to death certificate data, tobacco use was implicated in 81% of lung cancer deaths. Lung cancer incidence rates among Oregon men are lower than those seen nationally (ranking 38<sup>th</sup> in 2006). Lung cancer incidence among Oregon women is higher in comparison to other states (ranking 20<sup>th</sup> in 2006).

**Colorectal Cancer is the 4<sup>th</sup>** most common reportable malignancy, with 1,777 invasive cases diagnosed in 2006. It 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. Oregon has a favorable ranking among the states, 40<sup>th</sup> in incidence in 2006 and 44<sup>th</sup> in mortality.

**Melanoma is the 5<sup>th</sup>** most common reportable malignancy with 1,785 invasive cases diagnosed in 2006. Oregon has one of the higher melanoma incidence rates in the nation (ranking 7<sup>th</sup> in 2006), and a higher melanoma mortality rate than the national average (ranking 15<sup>th</sup> in 2006). Sun protection, particularly during childhood, is perhaps the best protective strategy to prevent melanoma.

**Bladder Cancer is the 6<sup>th</sup>** most common invasive malignancy with 819 cases diagnosed in 2006. Oregon's incidence ranked 24<sup>th</sup> among the states in 2006. 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

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 helps cancer control programs identify at-risk populations as well as support epidemiologic studies of risk factors and cancer

etiology. Many such questions are addressed 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 (e.g. through screening mammography) reduces mortality and has a strong influence over whether a woman with breast cancer can be successfully treated.

### **What's New in 2006**

Diagnosis year 2006 marks the 11th year of complete cancer reporting for Oregon. Ten years (1997-2006) of complete data are included in this annual report and state-level annual counts and trends for 2002-2006. For historical data, please review prior reports on our website: [www.healthoregon.org/oscar](http://www.healthoregon.org/oscar). This document is published primarily as a web document.

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

In addition to statewide incidence and mortality data for 42 sites, this year's report includes additional national comparison, regional maps and county-level data on 22 selected sites.

## Cancer Data Overview

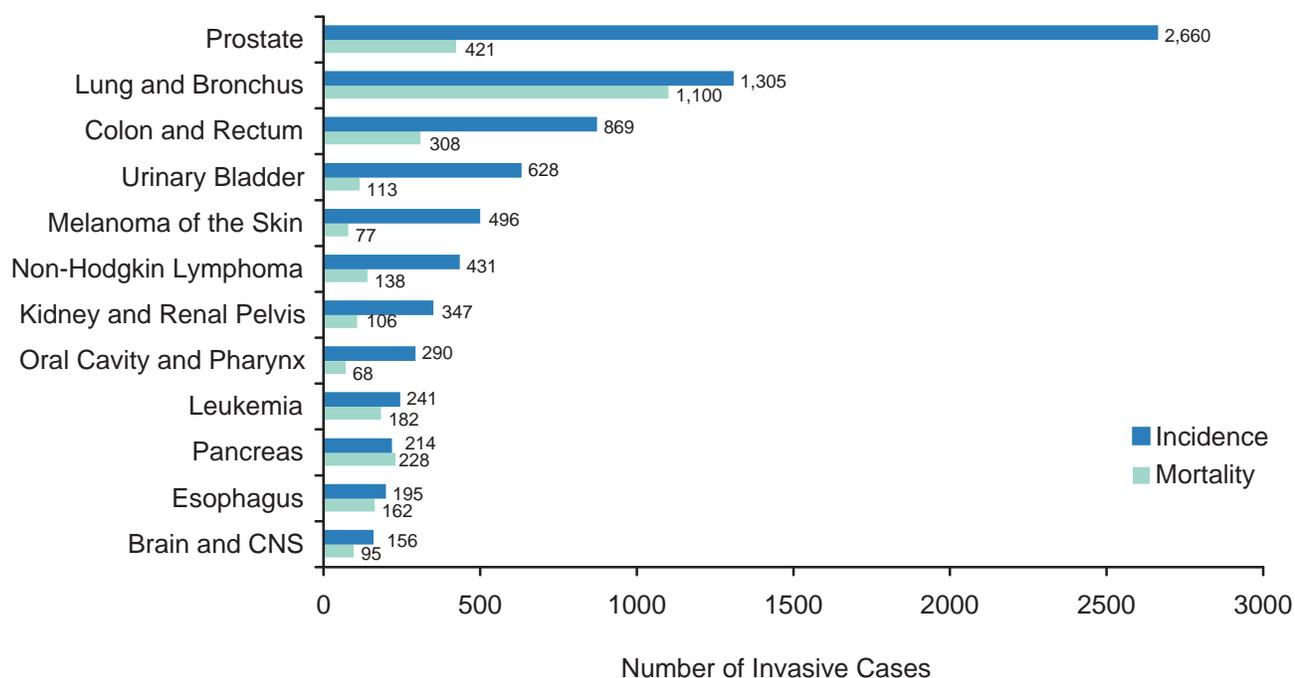
### Cancer Data Overview

During 2006, 20,103 new, reportable cancers were diagnosed among Oregonians; of these, 18,322 were invasive. Also during 2006, 7,401 Oregonians died due to cancer as the underlying cause of death. The 2006 Oregon total cancer mortality rate, 184.1, was 15% above the Healthy People 2010 target of 159.9 deaths per 100,000.

A brief overview of Oregon's 2006 cancer data reveals the following:

1. Although more cancers were reported in women, men had a higher incidence rate of invasive cancers and a higher mortality rate than women.
2. Breast cancers have the highest incidence in Oregon and lung cancers have the highest mortality.
3. 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, pancreatic, and ovarian cancers.
4. Among Oregon males, prostate cancer was the most frequently diagnosed, followed by lung, colorectal, and urinary bladder cancer, and by melanoma. Lung cancer had the highest mortality for males followed by prostate, colorectal, and pancreatic cancer, and by leukemia.
5. Of the 48 states with central registry data meeting national data quality standards in 2006, Oregon males ranked 38th for all-cancer incidence and Oregon females ranked 17th. For state rankings, see <http://www.statecancerprofiles.cancer.gov/incidencerates/index.php>.

**Leading Sites of Cancer Incidence and Mortality,  
Oregon Males, 2006**



## Cancer Data Overview

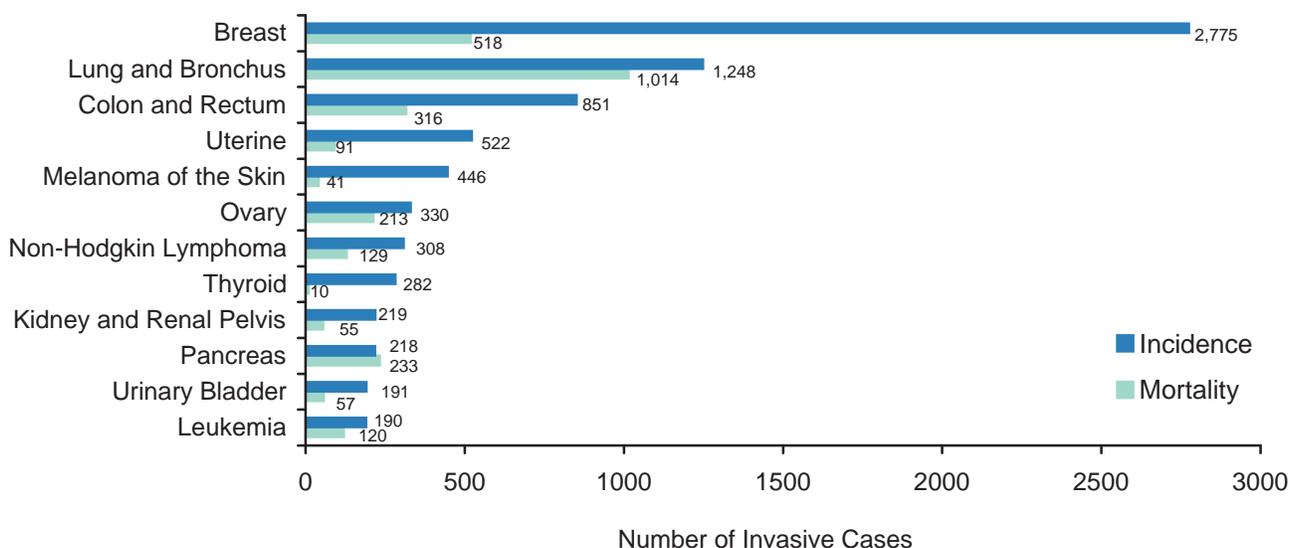
6. Among the 50 states, Oregon males ranked 37th, and Oregon females ranked 16th in all-cancer mortality for 2006. The higher ranking for Oregon females is primarily due to higher rates of lung cancer mortality.

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

### Stage at Diagnosis

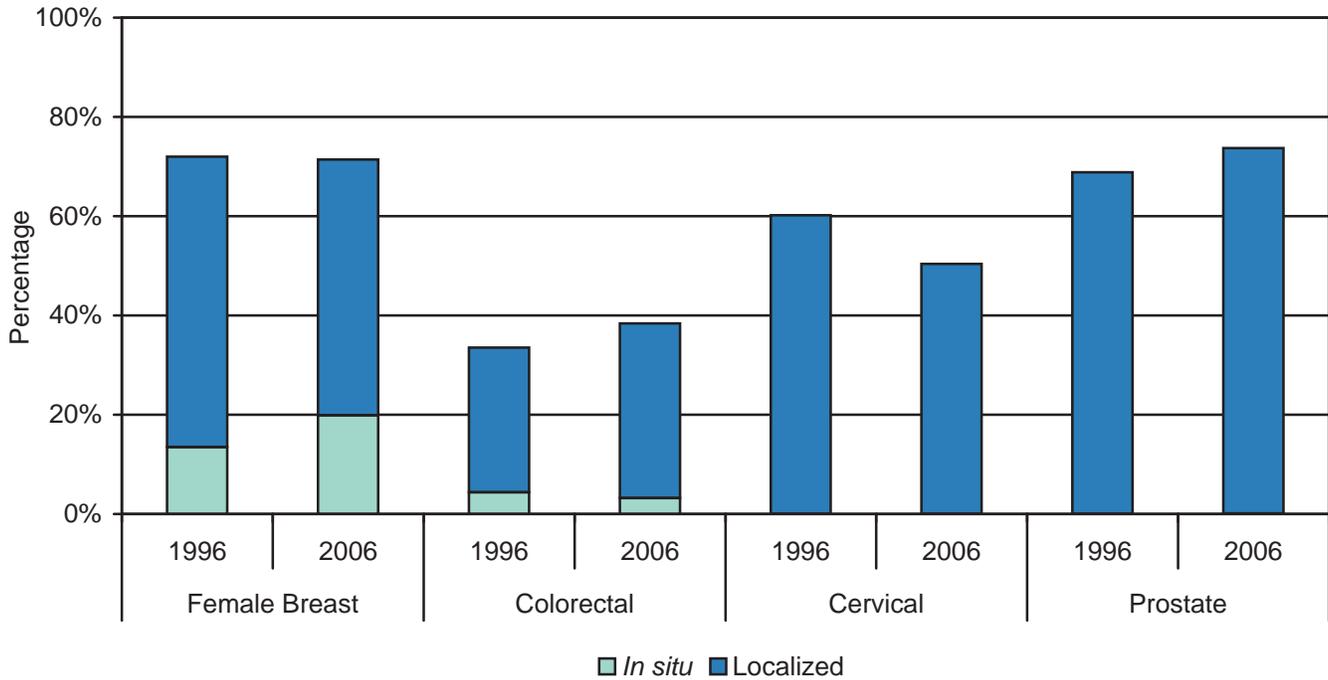
For some cancers, early stage diagnosis is a measure of success for population-based screening efforts. (See figures on opposite page.) From 1996 through 2006, the percentage of early stage diagnoses decreased for cervical cancer. The percentage of early stage diagnoses for colorectal cancers increased, and, though there is no national recommendation for prostate cancer screening, the percentage of early stage prostate cancer diagnoses has also increased. The percentage of female breast cancers diagnosed at an early stage has remained stable.

**Leading Sites of Cancer Incidence and Mortality, Oregon Females, 2006**

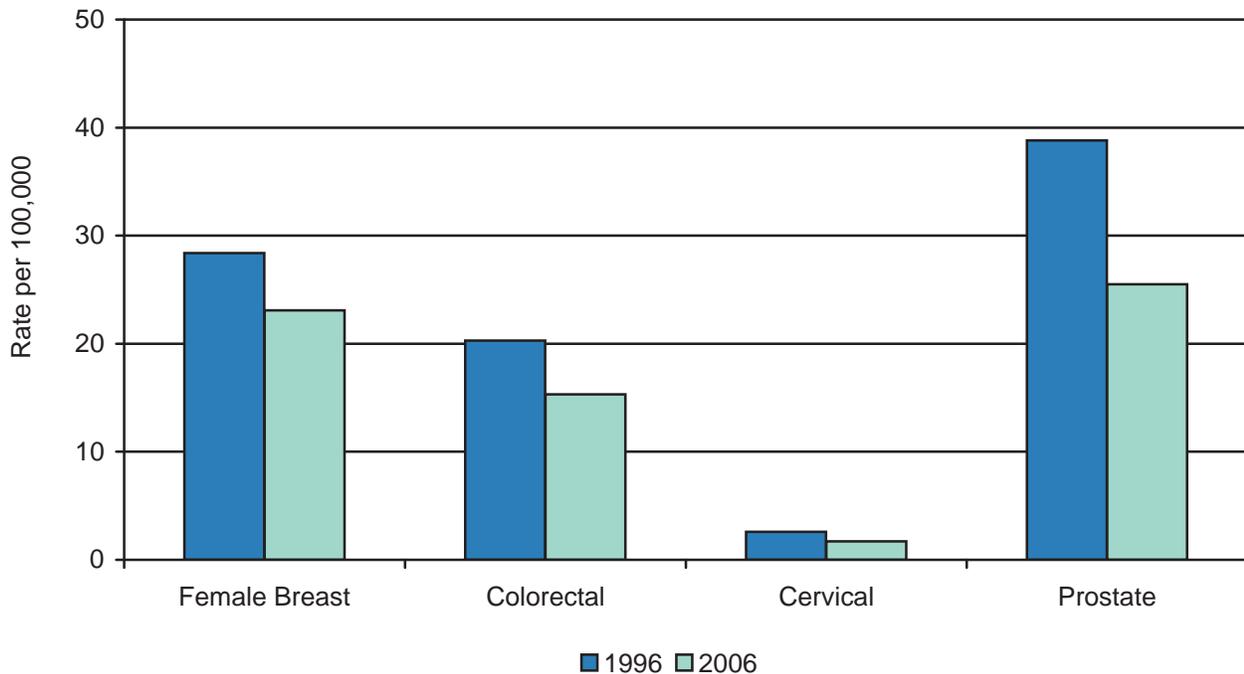


# Cancer Data Overview

**Screenable Cancers Diagnosed at an Early (In situ or Local) Stage, Oregon, 1996 and 2006**



**Screenable Cancers, Age-Adjusted Mortality Rates, Oregon, 1996 and 2006**



## Cancer Data Overview

### Mortality to Incidence (M/I) Ratios, Oregon, 2002-2006

	Total	Male	Female
<b>All Malignant Sites</b>	<b>0.39</b>	<b>0.40</b>	<b>0.39</b>
Pancreas	0.99	1.01	0.96
Esophagus	0.91	0.90	0.97
Liver and Intrahepatic Bile Duct	0.88	0.82	1.02
Myeloma	0.81	0.77	0.86
Lung and Bronchus	0.80	0.82	0.79
Mesothelioma	0.80	0.86	0.60
Ovary	0.75	n/a	0.75
Brain and CNS	0.74	0.77	0.70
Liver	0.72	0.69	0.79
Leukemia	0.69	0.69	0.68
Gallbladder	0.60	0.65	0.58
Stomach	0.57	0.54	0.61
Soft Tissue including Heart	0.46	0.44	0.49
Bones and Joints	0.42	0.54	0.27
Non-Hodgkin Lymphoma	0.39	0.38	0.41
Colorectal	0.36	0.35	0.37
Cervical	0.33	n/a	0.33
Kidney and Renal Pelvis	0.30	0.31	0.28
Larynx	0.29	0.28	0.36
Oral Cavity and Pharynx	0.24	0.22	0.27
Bladder	0.22	0.20	0.27
Small Intestine	0.22	0.20	0.24
Breast	0.17	0.19	0.17
Uterine	0.16	n/a	0.16
Prostate	0.16	0.16	n/a
Hodgkin Lymphoma	0.16	0.16	0.16
Melanoma of the Skin	0.10	0.12	0.07
Eye and Orbit	0.10	0.11	0.08
Testis	0.06	0.06	n/a
Thyroid	0.05	0.09	0.04

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 0.39 for the years 2002-2006. Pancreatic cancer had the worst prognosis with a ratio of 0.99. This was followed by cancer of the esophagus with a ratio of 0.91.

## Cancer Data Overview

### Years of Potential Life Lost (YPLL) by Average Number of Years Lost Annually, Prior to Age 65, Oregon, Years 2002-2006

	Total	Male	Female
All Causes of Death	126,049	79,299	46,750
Accidents and Adverse Effects	24,368	16,985	7,383
All Malignant Cancers	22,285	11,348	10,937
Lung and Bronchus	4,398	2,399	1,999
Breast	2,348	15	2,333
Brain and CNS	1,810	1,059	751
Colorectal	1,657	913	744
Leukemia	1,467	842	625
Lymphoma	1,098	699	399
Pancreas	973	593	380
Liver and Bile Duct	896	610	285
Melanoma of the Skin	724	424	299
Ovary	689	n/a	689
Esophagus	551	460	91
Kidney and Renal Pelvis	497	348	149
Soft Tissue including Heart	459	275	184
Stomach	439	258	181
Cervical	393	n/a	393
Oral Cavity and Pharynx	363	285	78
Bones and Joints	316	224	92
Myeloma	299	193	107
Bladder	239	169	70
Prostate	226	226	n/a
Uterus	192	n/a	192
Testis	179	179	n/a
Diseases of Heart	11,996	8,615	3,381
Suicide and Self-Inflicted Injury	10,590	8,350	2,240
Congenital Anomalies	5,438	2,874	2,565
Chronic Liver Disease and Cirrhosis	3,635	2,339	1,296
Homicide and Legal Intervention	3,620	2,632	988
Diabetes Mellitus	3,276	2,027	1,249
Cerebrovascular Diseases	2,617	1,394	1,223
Chronic Obstructive Pulmonary Disease and Allied Conditions	1,867	987	880
Human Immunodeficiency Virus (HIV)	1,412	1,251	162
Pneumonia and Influenza	1,085	601	483

Data source: Center for Health Statistics

YPLL calculations are rounded to the nearest whole year.

n/a = not applicable

### YPLL

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.

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 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.

Among cancer sites, lung had the highest YPLL for men (2,399) and breast had the highest YPLL for women (2,333). For men, the second highest YPLL was due to brain cancer and for women, it was lung cancer. Colorectal cancer, leukemia, and lymphomas all caused over 1,000 YPLL per year.

## 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.

As seen nationally, African American (AA) men in Oregon have the highest rate of cancer

**Incidence - Five Most Common Cancers  
Percentage of All Cancer Cases by Sex, Race, and Ethnicity  
Oregon (1997 - 2006) vs US (SEER 1997 - 2006)**

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%	20%	Lung and Bronchus	13%	12%
Colon and Rectum	10%	9%	Colon and Rectum	13%	12%
Lymphoma	4%	5%	Lymphoma	4%	4%
Kidney/Renal Pelvis	3%	5%	Kidney/Renal Pelvis	4%	4%
<b>American Indian or Alaska Native Men</b>			<b>American Indian or Alaska Native Women</b>		
Prostate	20%	18%	Lung and Bronchus		
Lung and Bronchus	14%	18%	Prostate		
Colon and Rectum	13%	14%	Colon and Rectum	13%	19%
Kidney/Renal Pelvis	6%	5%	Lung and Bronchus	10%	10%
Stomach	5%	4%	Colon and Rectum	10%	10%
<b>Asian or Pacific Islander Men</b>			<b>Asian or Pacific Islander Women</b>		
Prostate	25%	19%	Prostate		
Lung and Bronchus	15%	14%	Lung and Bronchus	12%	11%
Colon and Rectum	14%	12%	Colon and Rectum	12%	11%
Liver and Bile Duct	6%	11%	Liver and Bile Duct	9%	9%
Stomach	5%	6%	Lymphoma	5%	5%
<b>White Men</b>			<b>White Women</b>		
Prostate	30%	29%	Prostate		
Lung and Bronchus	13%	15%	Lung and Bronchus	12%	14%
Colon and Rectum	10%	10%	Colon and Rectum	11%	10%
Bladder	7%	7%	Bladder	6%	5%
Lymphoma	5%	5%	Melanoma	5%	5%
<b>Hispanic Men</b>			<b>Hispanic Women</b>		
Prostate	29%	24%	Prostate		
Colon and Rectum	11%	11%	Lung and Bronchus		
Lung and Bronchus	9%	8%	Colon and Rectum	9%	8%
Lymphoma	7%	8%	Lung and Bronchus	6%	8%
Kidney/Renal Pelvis	4%	5%	Lymphoma	6%	6%
<b>Non-Hispanic Men</b>			<b>Non-Hispanic Women</b>		
Prostate	31%	29%	Prostate		
Lung and Bronchus	14%	15%	Lung and Bronchus	12%	14%
Colon and Rectum	11%	10%	Colon and Rectum	11%	10%
Bladder	6%	7%	Bladder	6%	6%
Lymphoma	5%	5%	Melanoma	5%	4%

US Incidence Data: SEER\*Stat 6.5.1 database released April 2009. Incidence - SEER 13 Registries Limited-Use, Nov 2008.

Oregon Data: OSCaR 1997-2006.

## Cancer Data Overview

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 Indians/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

**Mortality - Five Most Common Cancers**  
**Percentage of All Cancer Cases by Sex, Race, and Ethnicity**  
**Oregon (1997 - 2006) vs US (SEER 1997 - 2006)**

MEN			WOMEN		
U.S.		OREGON	U.S.		OREGON
<b>African American Men</b>			<b>African American Women</b>		
Lung and Bronchus	31%	32%	Lung and Bronchus	21%	20%
Prostate	16%	15%	Breast	19%	17%
Colon and Rectum	10%	8%	Colon and Rectum	12%	9%
Pancreas	5%	6%	Pancreas	5%	9%
Stomach	4%	4%	Ovary	5%	4%
<b>American Indian or Alaska Native Men</b>			<b>American Indian or Alaska Native Women</b>		
Lung and Bronchus	29%	31%	Lung and Bronchus	24%	33%
Colon and Rectum	10%	12%	Breast	14%	9%
Prostate	8%	7%	Colon and Rectum	9%	9%
Liver and Bile Duct	6%	5%	Pancreas	5%	6%
Kidney/Renal Pelvis	5%	4%	Ovary	5%	5%
<b>Asian or Pacific Islander Men</b>			<b>Asian or Pacific Islander Women</b>		
Lung and Bronchus	26%	24%	Lung and Bronchus	18%	18%
Liver and Bile Duct	12%	18%	Breast	14%	16%
Colon and Rectum	10%	8%	Colon and Rectum	10%	10%
Stomach	7%	7%	Liver and Bile Duct	7%	8%
Prostate	6%	6%	Pancreas	7%	7%
<b>White Men</b>			<b>White Women</b>		
Lung and Bronchus	32%	30%	Lung and Bronchus	26%	28%
Prostate	10%	12%	Breast	15%	15%
Colon and Rectum	10%	9%	Colon and Rectum	10%	10%
Pancreas	5%	5%	Pancreas	6%	6%
Lymphoma	5%	5%	Ovary	6%	6%
<b>Hispanic Men</b>			<b>Hispanic Women</b>		
Lung and Bronchus	21%	23%	Breast	17%	14%
Colon and Rectum	10%	9%	Lung and Bronchus	13%	13%
Prostate	10%	7%	Colon and Rectum	10%	8%
Liver and Bile Duct	7%	7%	Pancreas	6%	7%
Pancreas	6%	7%	Ovary	6%	7%
<b>Non-Hispanic Men</b>			<b>Non-Hispanic Women</b>		
Lung and Bronchus	32%	30%	Lung and Bronchus	25%	27%
Prostate	11%	12%	Breast	16%	15%
Colon and Rectum	10%	9%	Colon and Rectum	11%	10%
Pancreas	5%	5%	Pancreas	6%	6%
Lymphoma	4%	5%	Ovary	5%	6%

US Mortality Data: SEER\*Stat database released May 2009. Underlying mortality data provided by NCHS ([www.cdc.gov/nchs](http://www.cdc.gov/nchs)).  
 Oregon Data: OSCaR 1997-2006

## Cancer Data Overview

---

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 differences in the distribution of cancer incidence by site among racial and ethnic groups. Prostate cancer was the most common cancer for men in Oregon and nationwide (except for American Indian/Alaska Native Oregonians), while breast cancer was the most common cancer for women. However, lung cancers represent a greater burden for American Indian/Alaska Natives and Latinos in Oregon than nationally. Cervical cancer could potentially be eliminated with appropriate, population-based screening and early Human Papilloma Virus (HPV) vaccination, but remains one of the five most common cancers diagnosed among Hispanic women both in Oregon and the nation. Melanoma of the skin has a high incidence for white Oregonians where it is the 5th most common cancer among men and women, but it is not among the five leading cancer sites for whites nationally. In Oregon, there is also a higher incidence of lymphoma among American Indian/Alaska Natives (both men and women), Asian/Pacific Islander men, and African American women than is reported nationally among the same groups.

For Oregon men, lung cancers were the most common cause of cancer death among all racial and ethnic groups. For Oregon women, lung cancers were also the leading cause of cancer death - except among Asian and Pacific

Islanders and among Hispanics, where breast cancers were the leading cause of cancer death.

Some of these differences in mortality 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

### ALL CANCERS - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	20,103	9,804	10,299
<b>RATES</b>			
Oregon Crude Rate (2006)	495.1	502.9	487.4
Oregon Age-adjusted Rate (2006)	456.1	504.6	422.1
US Age-adjusted Rate (2005) <sup>1</sup>	458.4	533.8	405.9
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-1.1	-1.5	-0.9
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	7,401	3,759	3,642
<b>RATES</b>			
Oregon Crude Rate (2006)	200.0	204.3	195.7
Oregon Age-adjusted Rate (2006)	184.1	214.6	163.2
US Age-adjusted Rate (2005) <sup>1</sup>	184.0	226.1	155.3
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-1.8 *	-2.0 *	-1.8 *
<b>PROGNOSIS AND BURDEN</b>			
Prognosis: M/I Ratio (2002-2006)	0.39	0.40	0.39
Burden: YPLL (2002-2006)	22,285	11,348	10,937

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

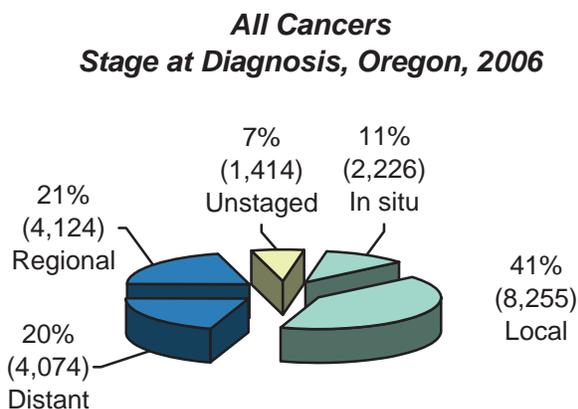
\* Indicates a statistically significant trend.

A total of 20,103 cancers were diagnosed among Oregonians in 2006 and reported to the central registry. Median age at diagnosis was 65. During the same year, 7,401 Oregonians died due to cancer. Median age at death was 72.

Oregon's age-adjusted incidence rate for all invasive cancers in 2006 was 456 cases per 100,000 people, about one cancer per every 200 people. Oregon's age-adjusted mortality rate for all invasive cancers in 2006 was 184 deaths per 100,000, about one death per every 500 people. Based on a life expectancy of 65 years, an average of 22,285 years of life were lost annually due to cancer.

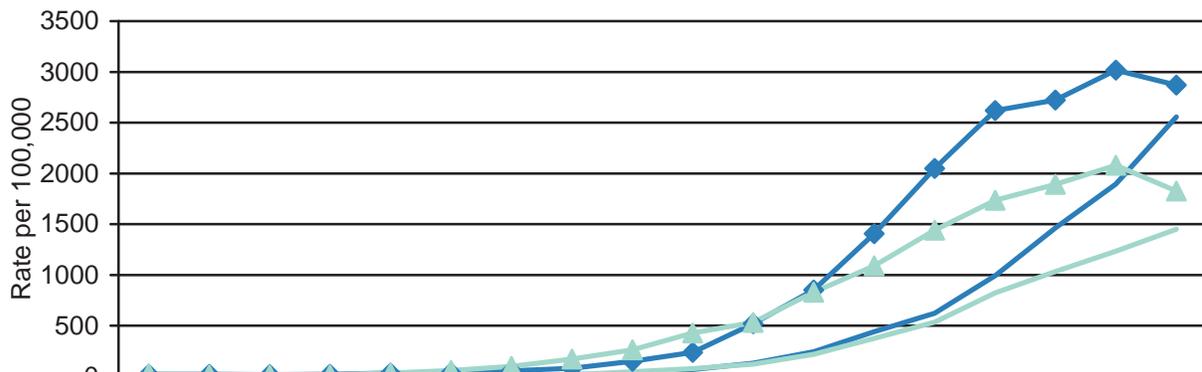
Just over half (52 percent) of the new cancers were diagnosed at the *in situ* or localized stages when cancer is most effectively treated; 41 percent were diagnosed at the regional or distant stage. Another 7 percent had an unknown stage at diagnosis.

During 1997-2006, Columbia, Coos, Deschutes, Douglas, Gilliam, Jackson, and Multnomah counties had cancer incidence significantly higher than the state average, while mortality was significantly higher in Columbia, Coos, Douglas, Josephine, Lincoln and Multnomah counties. Incidence was significantly lower in Grant, Hood River, Jefferson, Lane, Malheur, Tillamook, Umatilla, Washington, Wheeler, and Yamhill counties, while mortality was significantly lower in Benton, Crook, Deschutes, Hood River, Malheur, and Polk counties. There has been a significant decrease in mortality over the 10 year period for the state as a whole. See [All Cancer maps](#).



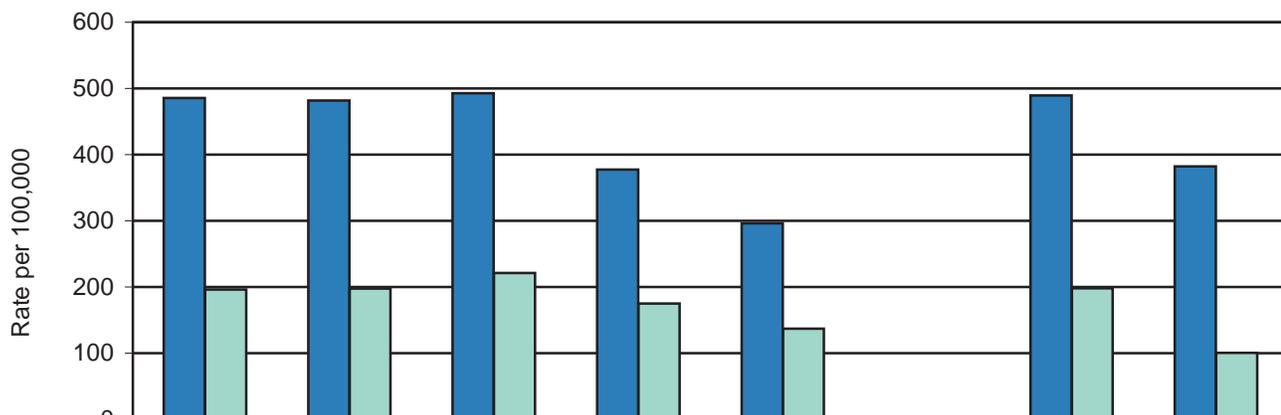
## All Cancers

**All Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2006**



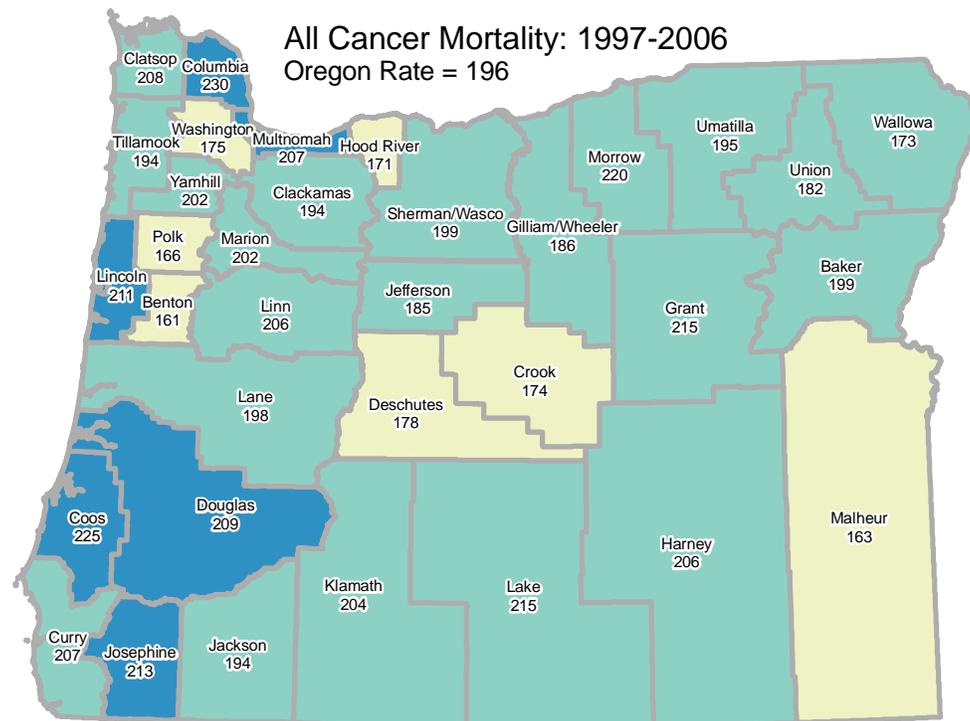
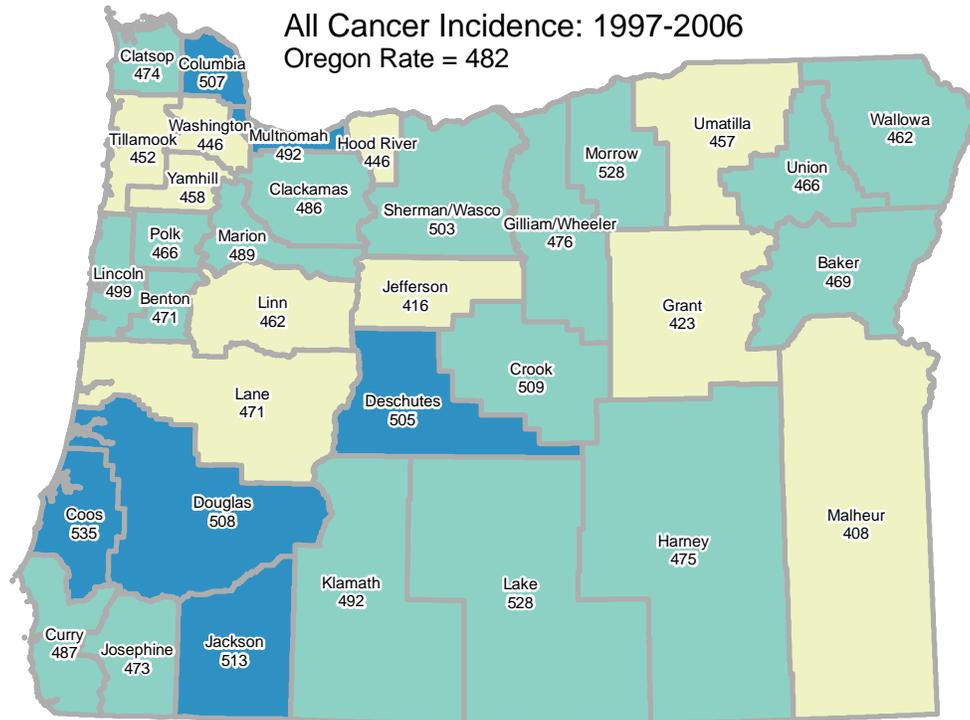
	00-04	05-09	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Male Incidence	21	21	19	22	34	38	57	81	150	237	521	853	1408	2050	2620	2722	3018	2872
Male Mortality	3	1	2	3	7	4	15	18	32	69	131	244	442	623	995	1464	1895	2555
Female Incidence	29	17	14	15	35	61	99	173	263	428	534	830	1090	1442	1736	1894	2080	1827
Female Mortality	2	2	3	3	5	10	13	18	46	77	123	219	375	537	824	1033	1234	1452

**All Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1997-2006**



	All Races	White	Black	American Indian/Alaska Native	Asian or Pacific Islander	Non-Hispanic	Hispanic
Incidence	486	482	493	377	296	489	382
Mortality	196	197	221	175	137	198	101

# All Cancers



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

## All Cancers

### All Cancer Incidence and Mortality by County, 1997-2006: Average Count, Annual Rate, and 10-Year Trend

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>17,499</b>	<b>481.5</b>	<b>-0.5</b>	<b>7,187</b>	<b>196.2</b>	<b>-1.0 *</b>
Baker	110	468.7	-1.7	50	198.6	-2.6
Benton	330	471.2	0.5	113	161.2 L	-0.6
Clackamas	1,695	485.5	-0.4	656	193.6	-1.3 *
Clatsop	207	474.2	0.1	93	207.9	-0.8
Columbia	229	506.9 H	-1.3	100	230.0 H	-0.1
Coos	475	534.7 H	-1.5	208	224.7 H	-1.2
Crook	120	509.0	2.0	41	173.6 L	-2.3
Curry	186	486.6	-0.5	84	207.2	0.1
Deschutes	672	504.6 H	-0.9	233	178.4 L	-1.4 *
Douglas	683	508.2 H	-1.0	293	209.2 H	-1.1
Gilliam	15	573.0 H	1.3	6	210.8	^
Grant	43	423.0 L	-2.0	23	215.3	-3.0
Harney	43	475.3	-0.2	18	205.8	-1.5
Hood River	92	445.6 L	-1.2	36	171.4 L	-2.5
Jackson	1,154	513.3 H	0.7	454	194.2	-0.3
Jefferson	81	416.4 L	-0.1	35	184.7	1.6
Josephine	526	473.3	1.7 *	248	212.8 H	0.1
Klamath	368	492.4	0.3	154	203.9	-1.4
Lake	53	528.4	-0.5	22	215.1	-0.4
Lane	1,657	470.9 L	-0.7	707	197.6	-0.7
Lincoln	319	499.0	-0.5	136	210.6 H	-1.7
Linn	548	462.1	0.4	251	205.6	-0.6
Malheur	134	407.6 L	0.8	56	163.4 L	-1.5
Marion	1,384	488.6	-0.3	583	202.2	-0.6
Morrow	54	527.8	-1.6	22	220.1	-0.8
Multnomah	3,078	491.6 H	-1.1 *	1,284	206.6 H	-0.9 *
Polk	339	466.3	0.7	128	165.8 L	-0.6
Sherman	11	435.0	-0.4	4	142.4	^
Tillamook	157	451.8 L	-0.9	69	193.7	-2.1
Umatilla	322	456.9 L	-1.7	138	194.9	-1.9
Union	131	466.1	0.4	53	182.2	-0.8
Wallowa	47	461.6	-1.6	19	172.7	-5.1 *
Wasco	150	508.8	1.3	63	203.8	-0.9
Washington	1,695	446.3 L	-1.0	633	175.2 L	-1.4 *
Wheeler	10	370.9 L	^	4	163.5	^
Yamhill	383	457.7 L	-0.5	170	201.9	0.3

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.

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

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

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

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

# Bladder Cancer

## BLADDER CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	819	628	191
<b>RATES</b>			
Oregon Crude Rate (2006)	22.1	34.1	10.3
Oregon Age-adjusted Rate (2006)	20.5	35.4	8.5
US Age-adjusted Rate (2005) <sup>1</sup>	21.1	37.1	9.4
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-2.2	-2.3	-3.3
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	170	113	57
<b>RATES</b>			
Oregon Crude Rate (2006)	4.6	6.1	3.1
Oregon Age-adjusted Rate (2006)	4.2	6.8	2.4
US Age-adjusted Rate (2005) <sup>1</sup>	4.3	7.6	2.2
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-4.2	-3.3	-6.3
<b>PROGNOSIS AND BURDEN</b>			
Prognosis: M/I Ratio (2002-2006)	0.22	0.20	0.27
Burden: YPLL (2002-2006)	239	169	70

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* Indicates a statistically significant trend.

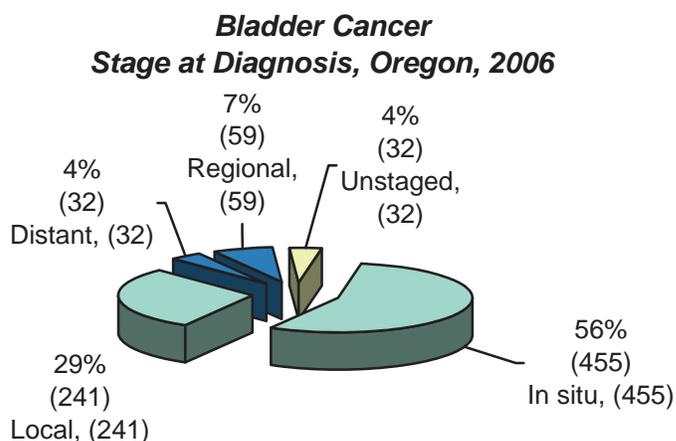
A total of 819 cancers of the urinary bladder were diagnosed among Oregonians in 2006 and reported to the central registry. Median age at diagnosis was 71. During the same year, 170 Oregonians died due to bladder cancer. Median age at death was 78.

In 2006, the age-adjusted incidence rate for bladder cancer was 21 cases per 100,000 people and the age-adjusted mortality rate was 4 per 100,000. Both incidence and mortality were higher among men. Among men, the incidence rate was 35 per 100,000 compared to 9 per 100,000 among women. The age-adjusted mortality rate was 7 per 100,000 for men compared to 2 per 100,000 among women.

Most (85 percent) were diagnosed at the *in situ* or local stage and 11 percent were diagnosed at the regional or distant stage. Another 4 percent were unstaged.

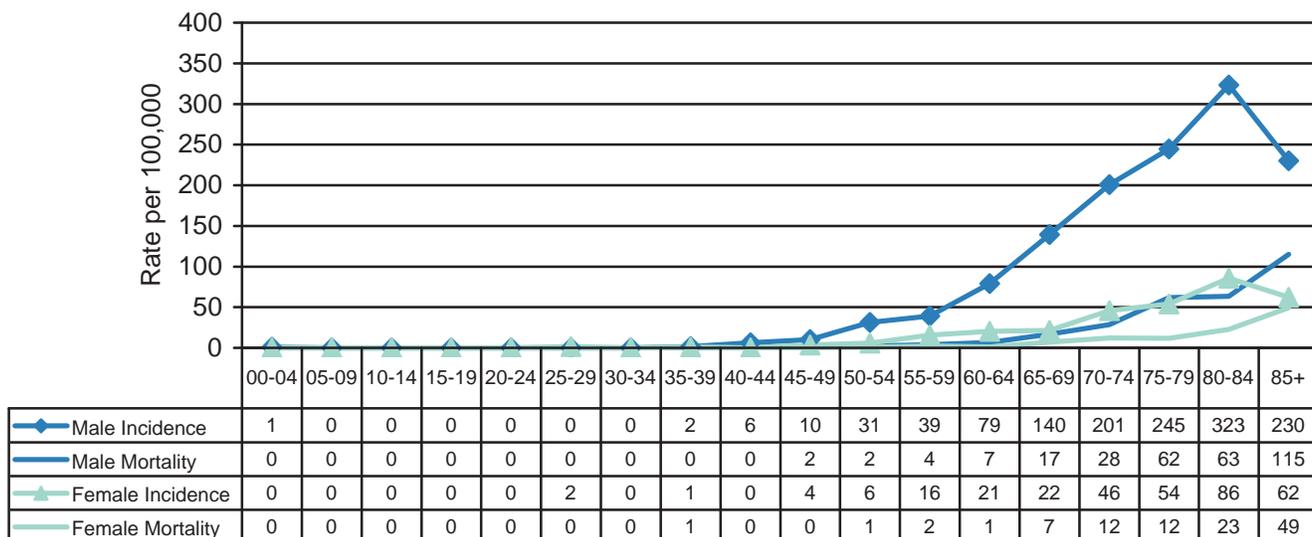
During the period 2002-2006, there were 22 deaths for every 100 new diagnoses of bladder cancer. Based on a life expectancy of 65 years, an average of 239 years of life were lost annually due to bladder cancer deaths before age 65.

Incidence during 1997-2006 was significantly higher than the state average in Coos, Crook, Deschutes and Jackson counties and significantly lower in Washington county. Mortality was significantly higher in Coos county and significantly lower in Polk and Washington counties (P <.05). See *Bladder Cancer maps*.

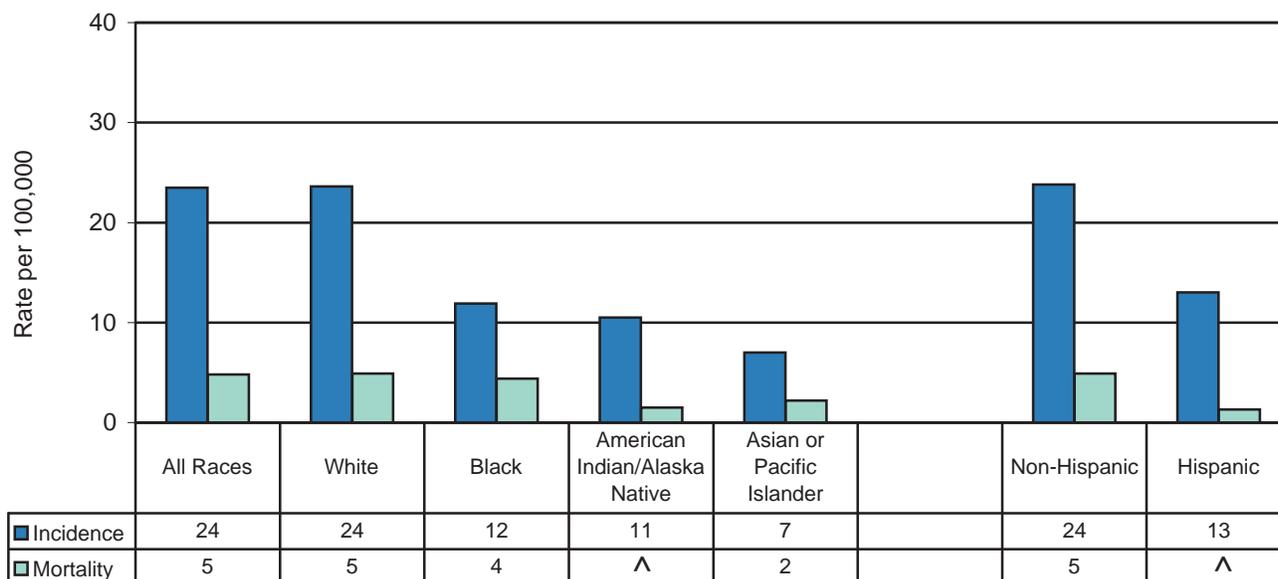


# Bladder Cancer

**Bladder Cancer Incidence and Mortality Rates, by Age Group and Sex, Oregon, 2006**

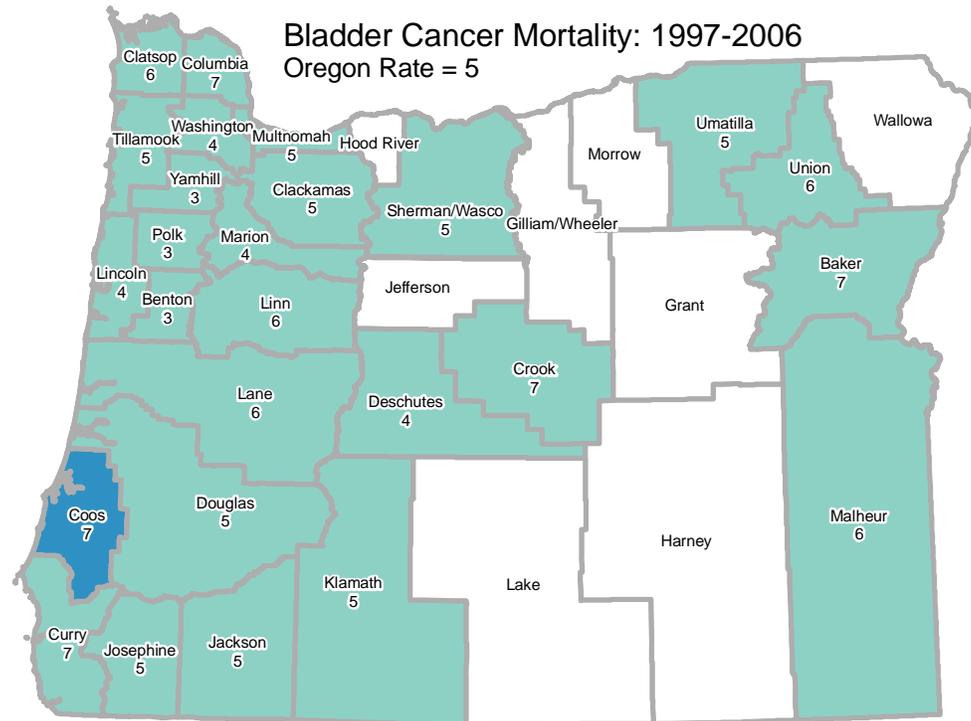
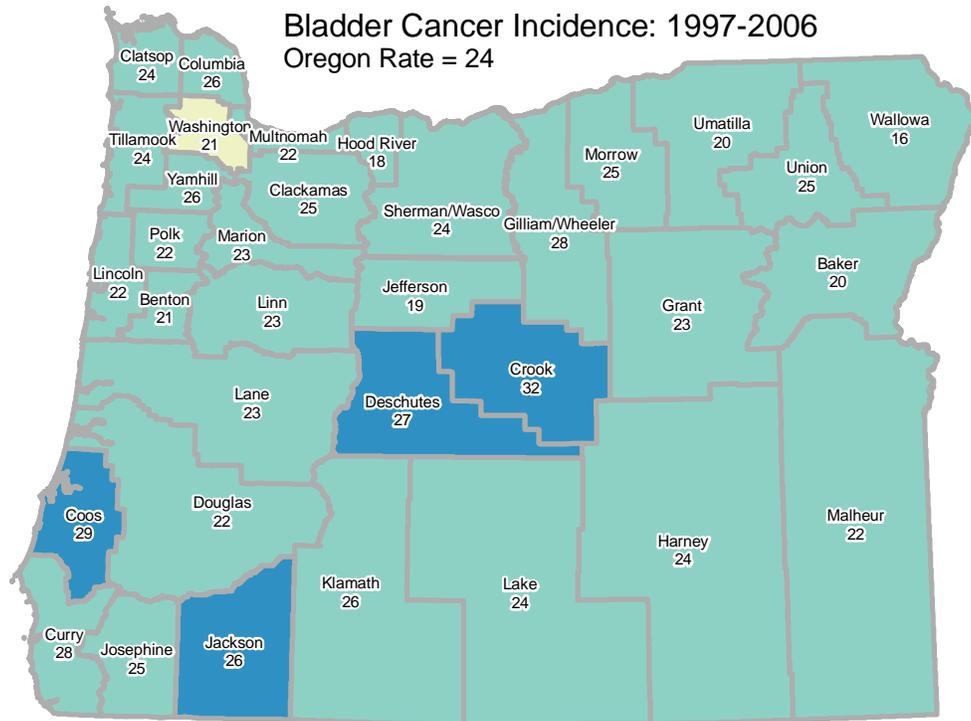


**Bladder Cancer Incidence and Mortality Rates, by Race and Ethnicity, Oregon, 1997-2006**



^ Rate not calculated due to instability of small numbers

# Bladder Cancer



Statistically Higher Than Oregon Rate   
 Similar to Oregon Rate   
 Statistically Lower Than Oregon Rate   
 1-10 Cases

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

## Bladder Cancer

### **Bladder Cancer Incidence and Mortality by County, 1997-2006: Average Count, Annual Rate, and 10-Year Trend**

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>Total</b>	<b>858</b>	<b>23.5</b>	<b>-1.2</b>	<b>180</b>	<b>4.8</b>	<b>0.1</b>
Baker	5	20.2	^	2	6.9	^
Benton	14	20.8	-1.4	2	3.3	^
Clackamas	84	24.6	-3.8 *	17	5.2	1.6
Clatsop	11	24.0	1.1	3	6.3	^
Columbia	12	26.2	-8.9	3	6.5	^
Coos	27	29.2 H	-3.9	7	6.9 H	^
Crook	8	32.4 H	^	2	7.0	^
Curry	12	28.1	-4.3	3	7.4	^
Deschutes	36	27.1 H	1.6	5	3.9	^
Douglas	31	22.2	-2.4	7	4.7	^
Gilliam	1	38.8	^	0	^	^
Grant	2	22.8	^	1	^	^
Harney	2	23.9	^	1	^	^
Hood River	4	18.3	^	0	^	^
Jackson	62	26.4 H	0.7	11	4.5	-4.6
Jefferson	4	19.3	^	1	^	^
Josephine	30	25.3	-1.5	7	5.4	^
Klamath	20	25.6	-0.3	3	4.5	^
Lake	2	23.5	^	1	^	^
Lane	82	23.0	0.2	20	5.6	1.1
Lincoln	15	21.7	-3.5	2	3.6	^
Linn	28	22.8	1.2	7	5.5	^
Malheur	8	22.2	^	2	5.6	^
Marion	66	23.0	-0.1	13	4.4	2.4
Morrow	3	25.4	^	1	^	^
Multnomah	137	22.2	-2.6	30	4.7	0.8
Polk	17	22.5	3.5	3	3.2	^
Sherman	1	^	^	0	^	^
Tillamook	9	23.7	^	2	5.0	^
Umatilla	14	19.6	-2.0	3	4.7	^
Union	7	25.0	^	2	6.1	^
Wallowa	2	16.2	^	1	^	^
Wasco	7	22.9	^	2	4.7	^
Washington	76	21.1 L	-1.7	15	4.1	-0.4
Wheeler	1	^	^	0	0.0	^
Yamhill	21	25.6	0.4	3	3.4	^

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.

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

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

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

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

## Brain and CNS Cancer

### BRAIN AND CNS CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	293	156	137
<b>RATES</b>			
Oregon Crude Rate (2006)	7.9	8.5	7.4
Oregon Age-adjusted Rate (2006)	7.5	8.3	6.9
US Age-adjusted Rate (2005) <sup>1</sup>	6.5	7.7	5.5
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	+0.2	-1.8	3.6
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	175	95	80
<b>RATES</b>			
Oregon Crude Rate (2006)	4.7	5.2	4.3
Oregon Age-adjusted Rate (2006)	4.3	5	3.8
US Age-adjusted Rate (2005) <sup>1</sup>	4.3	5.3	3.5
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-4.3	-3.9	-3.9
<b>PROGNOSIS AND BURDEN</b>			
Prognosis: M/I Ratio (2002-2006)	0.74	0.77	0.70
Burden: YPLL (2002-2006)	1,810	1,059	751

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* Indicates a statistically significant trend.

During 2006, 293 Oregonians were diagnosed with a malignant tumor of the brain or central nervous system. Median age at diagnosis was 52. During the same year, 175 people died of the disease. Median age at death was 62.

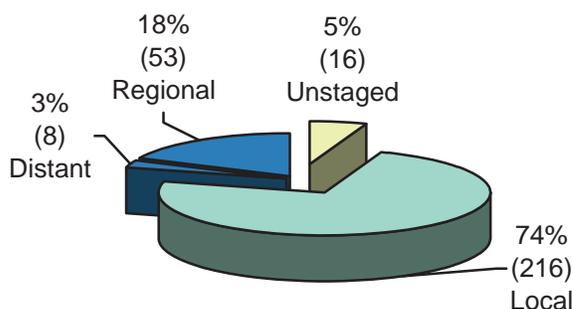
Oregon's 2006 age-adjusted incidence rate for cancer of the brain was 8 per 100,000 while the mortality rate was 4 per 100,000.

Most (74 percent) were diagnosed at a local stage and 21 percent were diagnosed at a regional or distant stage. Another 5 percent were unstaged.

During the five year period 2002-2006, 74 people died of brain cancer for every 100 cases diagnosed.

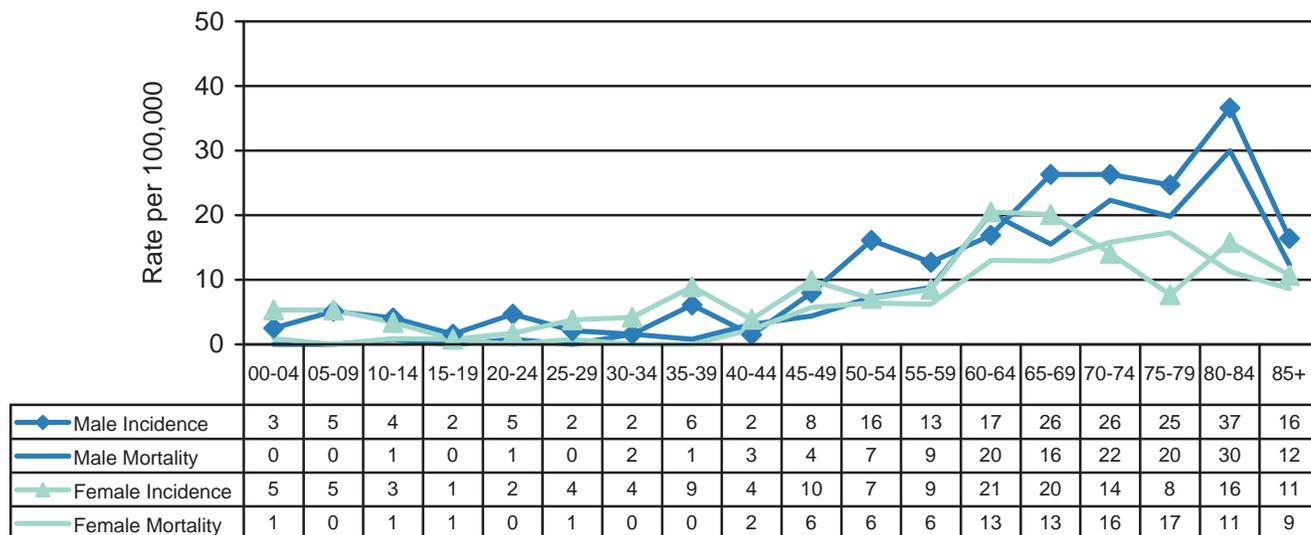
During the period 1997-2006, no county in the state had brain cancer incidence significantly higher or lower than the state rate. And, during the same time period, no county had a rate of mortality that was significantly higher or lower than the state rate. See [Brain Cancer maps](#).

**Brain and CNS Cancer  
Stage at Diagnosis, Oregon, 2006**

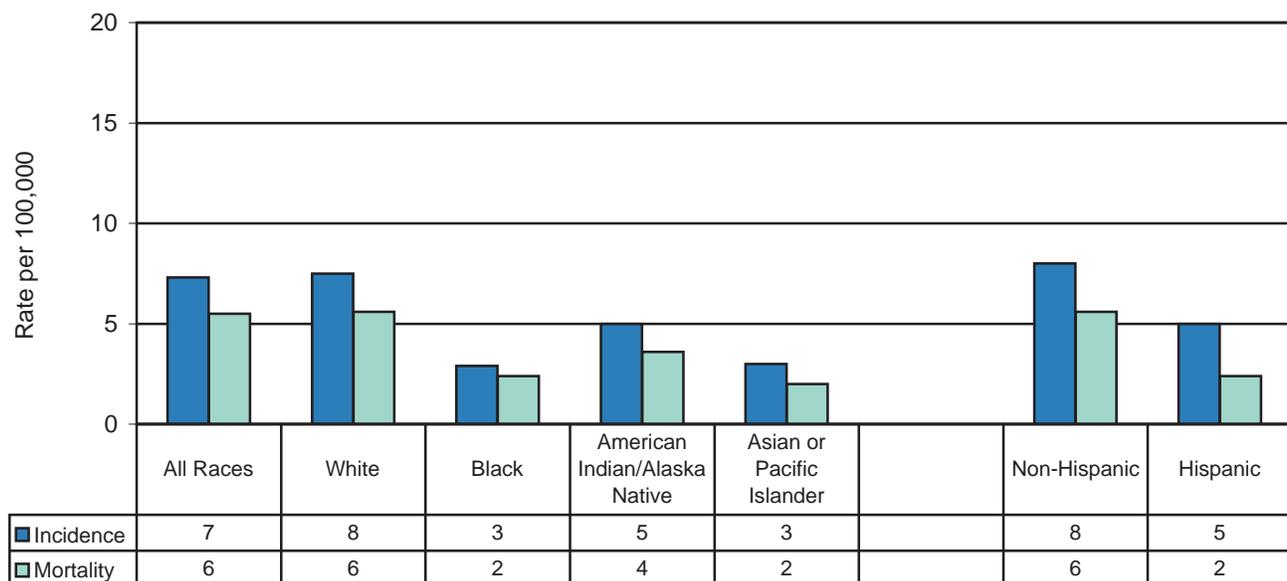


## Brain and CNS Cancer

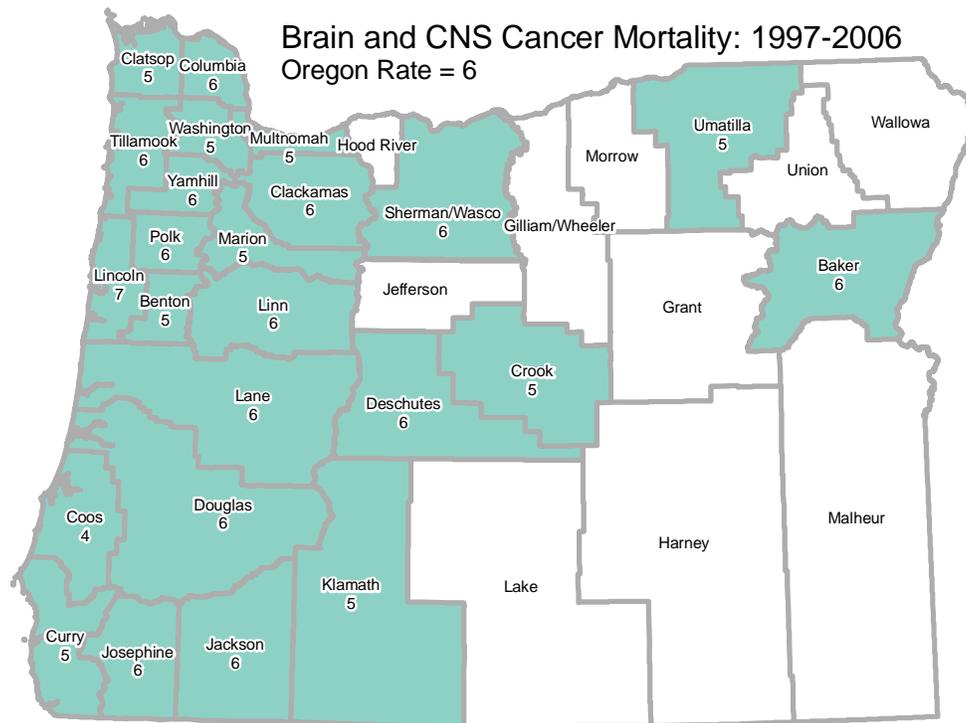
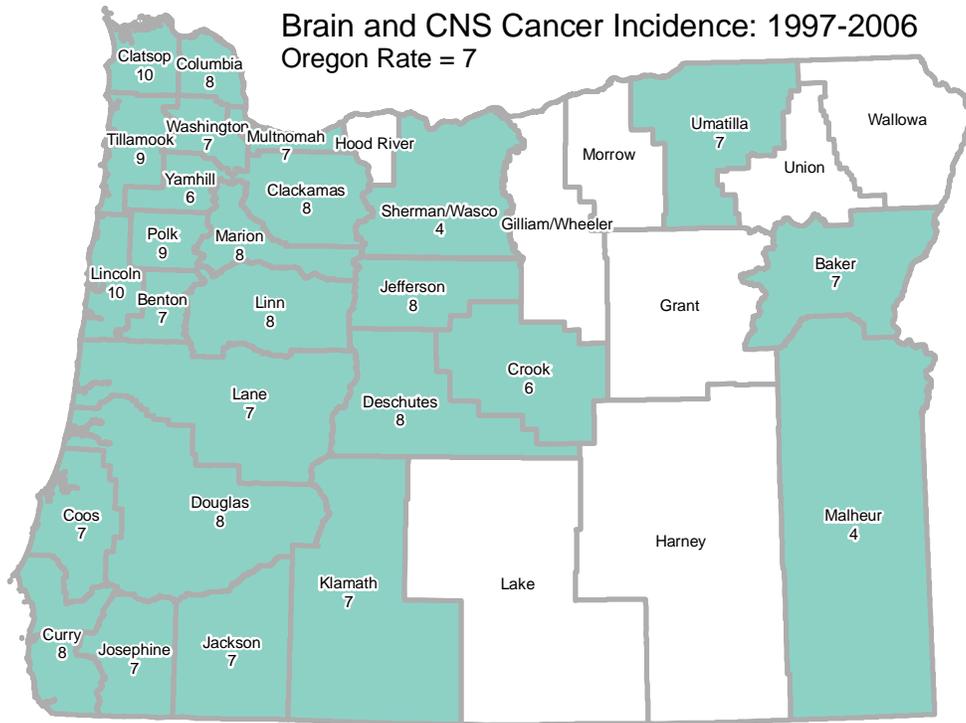
**Brain and CNS Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2006**



**Brain and CNS Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1997-2006**



# Brain and CNS Cancer



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

## Brain and CNS Cancer

**Brain and CNS Cancer Incidence and Mortality by County, 1997-2006:  
Average Count, Annual Rate, and 10-Year Trend**

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>263</b>	<b>7.3</b>	<b>0.0</b>	<b>198</b>	<b>5.5</b>	<b>-1.3</b>
Baker	2	7.3	^	1	5.7	^
Benton	5	6.8	^	4	4.8	^
Clackamas	28	8.1	0.4	21	5.9	-1.1
Clatsop	4	9.9	^	2	5.3	^
Columbia	4	7.9	^	3	6.2	^
Coos	5	6.7	^	4	4.2	^
Crook	1	5.8	^	1	4.7	^
Curry	2	8.1	^	2	4.7	^
Deschutes	10	7.7	^	8	5.6	^
Douglas	9	7.9	^	8	6.1	^
Gilliam	0	^	^	0	^	^
Grant	0	^	^	0	^	^
Harney	0	^	^	0	^	^
Hood River	1	^	^	1	^	^
Jackson	14	6.9	0.3	13	6.1	1.6
Jefferson	2	8.0	^	1	^	^
Josephine	7	7.3	^	6	6.1	^
Klamath	5	6.8	^	3	4.6	^
Lake	1	^	^	1	^	^
Lane	25	7.3	1.0	21	5.9	-1.1
Lincoln	5	9.7	^	4	7.0	^
Linn	8	7.5	^	7	5.8	^
Malheur	1	4.1	^	1	^	^
Marion	23	7.9	-3.0	15	5.4	-1.3
Morrow	1	^	^	1	^	^
Multnomah	46	7.1	1.3	32	5.1	0.5
Polk	6	9.4	^	4	5.9	^
Sherman	0	0.0	^	0	0.0	^
Tillamook	3	9.4	^	2	6.4	^
Umatilla	5	7.4	^	4	5.2	^
Union	1	^	^	1	^	^
Wallowa	0	^	^	0	^	^
Wasco	1	4.1	^	2	5.9	^
Washington	31	7.3	-0.9	22	5.4	-3.1
Wheeler	0	^	^	0	^	^
Yamhill	5	6.3	^	5	5.7	^

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.

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

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

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

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

## Brain and CNS Tumors - Non-Malignant

### BRAIN AND CNS TUMORS - NON-MALIGNANT<sup>1</sup> FAST FACTS - OREGON

	Total	Male	Female
<b>NON-MALIGNANT INCIDENCE</b>			
<b>Total Cases (2006)</b>	<b>488</b>	<b>194</b>	<b>294</b>
<b>RATES (2006)</b>			
Oregon Crude Rate	13.2	10.5	15.8
Oregon Age-adjusted Rate	12.3	9.9	14.6
<b>NON-MALIGNANT MORTALITY</b>			
<b>Total Deaths (2006)</b>	<b>18</b>	<b>8</b>	<b>10</b>
<b>RATES (2006)</b>			
Oregon Crude Rate	0.5	0.4	0.6
Oregon Age-adjusted Rate	0.5	0.5	0.5

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, 2004-2005 (2-Year Average)**

State	449				
Baker	2	Harney	1	Morrow	2
Benton	8	Hood River	3	Multnomah	93
Clackamas	52	Jackson	23	Polk	8
Clatsop	7	Jefferson	2	Sherman	0
Columbia	8	Josephine	8	Tillamook	5
Coos	6	Klamath	11	Umatilla	7
Crook	2	Lake	1	Union	3
Curry	1	Lane	25	Wallowa	1
Deschutes	15	Lincoln	4	Wasco	2
Douglas	12	Linn	13	Washington	71
Gilliam	0	Malheur	3	Wheeler	0
Grant	0	Marion	38	Yamhill	12

### **Brain and CNS Tumors, Non-Malignant, by Site Oregon, 2006**

Cerebral Meninges	166	Cerebrum	5
Pituitary Gland	131	Frontal Lobe	3
Acoustic Nerve	59	Brain Stem	3
Meninges, NOS	46	Crainiopharyngeal duct	3
Spinal Cord	21	Occipital Lobe	2
Spinal Meninges	16	Pineal Gland	2
Cerebellum	8	Ventricle, NOS	1
Brain, NOS	7	Overlapping Lesion	1
Temporal Lobe	6	Cauda equina	1
Crainial Nerve, NOS	6	Optic Nerve	1

A total of 352 benign and borderline malignant brain and central nervous system (CNS) tumors were diagnosed and reported in 2006, for an age-adjusted incidence rate of 2.5 per 100,000 people. Of these cases reported as other than malignant, 317 were considered benign and 35 were borderline malignant.

Non-malignant brain and CNS 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, which can cause serious health problems.

The greatest numbers of non-malignant brain and CNS tumors were of the cerebral meninges (166) and acoustic nerve (59).

About three-fifths of non-malignant tumors occurred to females (62 percent). The highest age-specific incidence rate for both men and women was after age 85.

For the years 2004-2006, the incidence of non-malignant brain and CNS tumors was significantly lower than the rest of the state in Lane county while no area of the state had a rate that was significantly higher (P <.05).

## Breast Cancer - Female

### BREAST CANCER, FEMALE - FAST FACTS OREGON

	<i>In situ</i>	<i>Invasive</i>
<b>CANCER INCIDENCE</b>		
<b>Total Cancer Cases (2006)</b>	687	2,775
<b>RATES</b>		
Oregon Crude Rate (2006)	36.9	149.1
Oregon Age-adjusted Rate (2006)	32.7	129.2
US Age-adjusted Rate (2005) <sup>1</sup>	28.4	117.7
<b>TRENDS - APC</b>		
Oregon Annual Trend (2002-2006)	2.6	-1.8
<b>CANCER MORTALITY</b>		
<b>Total Cancer Deaths (2006)</b>		518
<b>RATES</b>		
Oregon Crude Rate (2006)		27.8
Oregon Age-adjusted Rate (2006)		23.1
US Age-adjusted Rate (2005) <sup>1</sup>		24.0
<b>TRENDS - APC</b>		
Oregon Annual Trend (2002-2006)		-3.0
<b>PROGNOSIS AND BURDEN</b>		
Prognosis: M/I Ratio (2002-2006)		0.17
Burden: YPLL (2002-2006)		2,333

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

n/a = not applicable

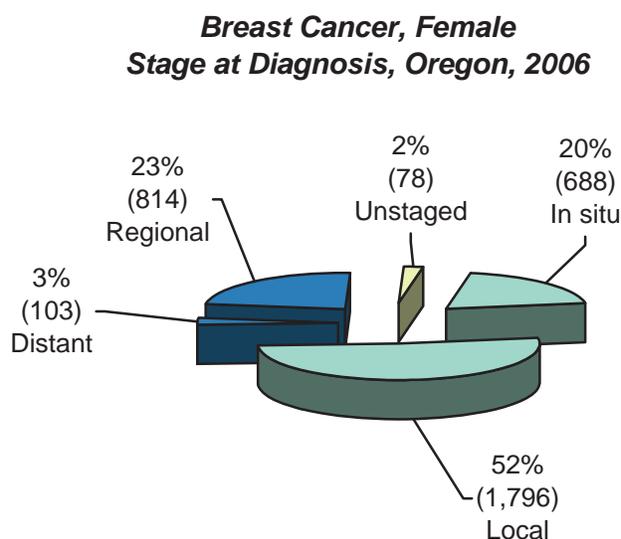
Among Oregon women, 3,462 breast cancers were diagnosed in 2006 and reported to the central registry. Of the 2,775 cancers which were invasive, median age at diagnosis was 63. During the same time period, 518 Oregon women died due to breast cancer at a median age of 68.

There was approximately one death for every six new invasive diagnoses. Based on a life expectancy of 65 years, an average of 2,333 years of life were lost annually among Oregon women due to early deaths from breast cancer.

A large majority (72 percent) of female breast tumors were diagnosed during the *in situ* or local stage, 26 percent were diagnosed at regional or distant stage, and 2 percent were unstaged.

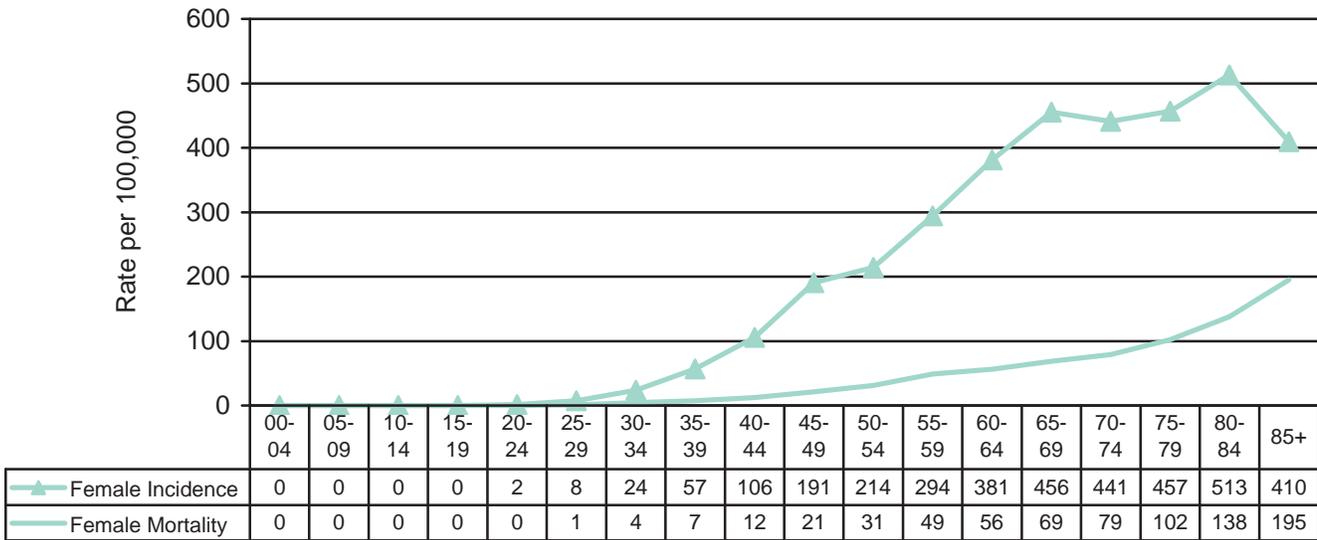
Oregon and Washington consistently rank among the top five states for female breast cancer incidence while having average rates for breast cancer mortality. During the five-year period from 2002-2006, incidence of invasive breast cancer among Oregon women dropped an average of 3.0 percent each year.

During 1997-2006, breast cancer incidence was statistically significantly higher than the state average in Clackamas county and was significantly lower in Grant, Linn, Malheur and Umatilla counties. Yamhill county had significantly higher mortality. During the same time period, Oregon as a whole had a statistically significant decline in both breast cancer incidence and mortality. See [Breast Cancer maps](#).

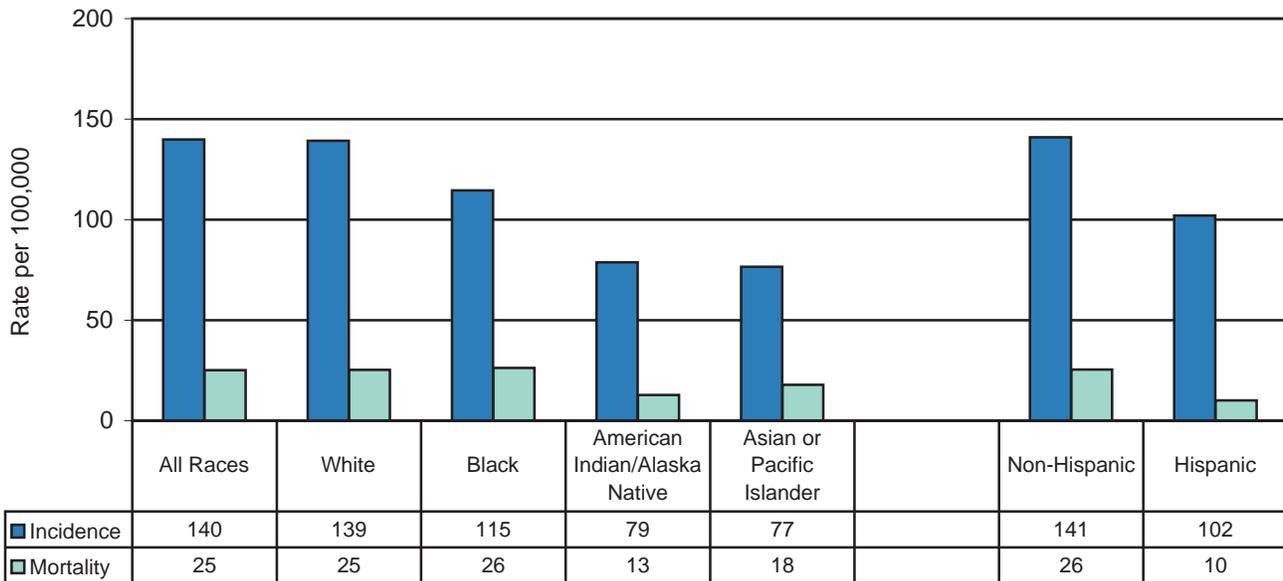


# Breast Cancer - Female

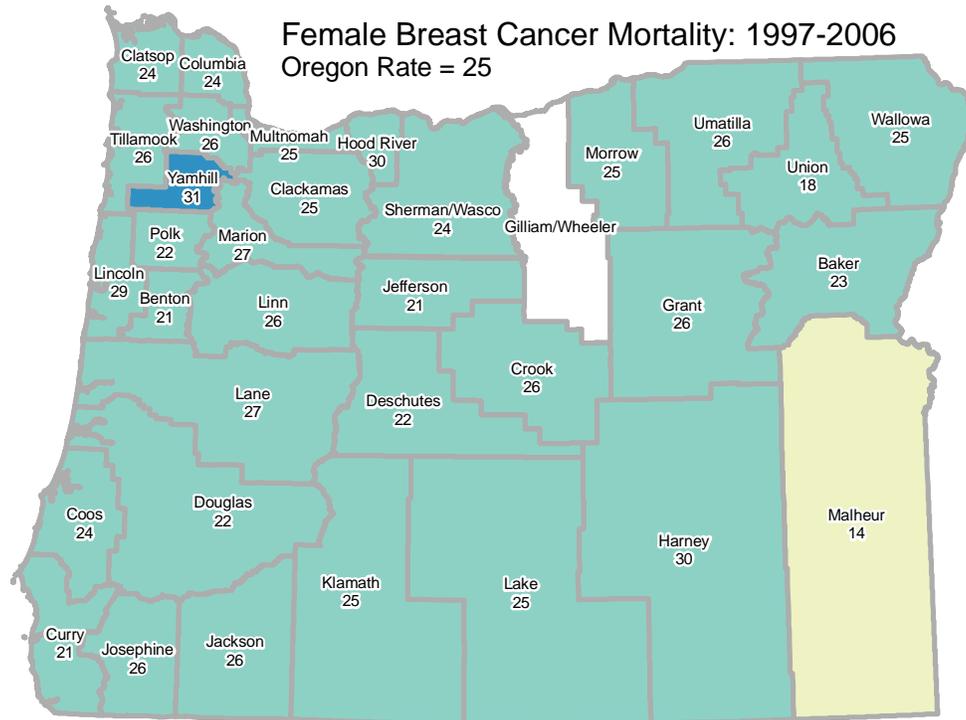
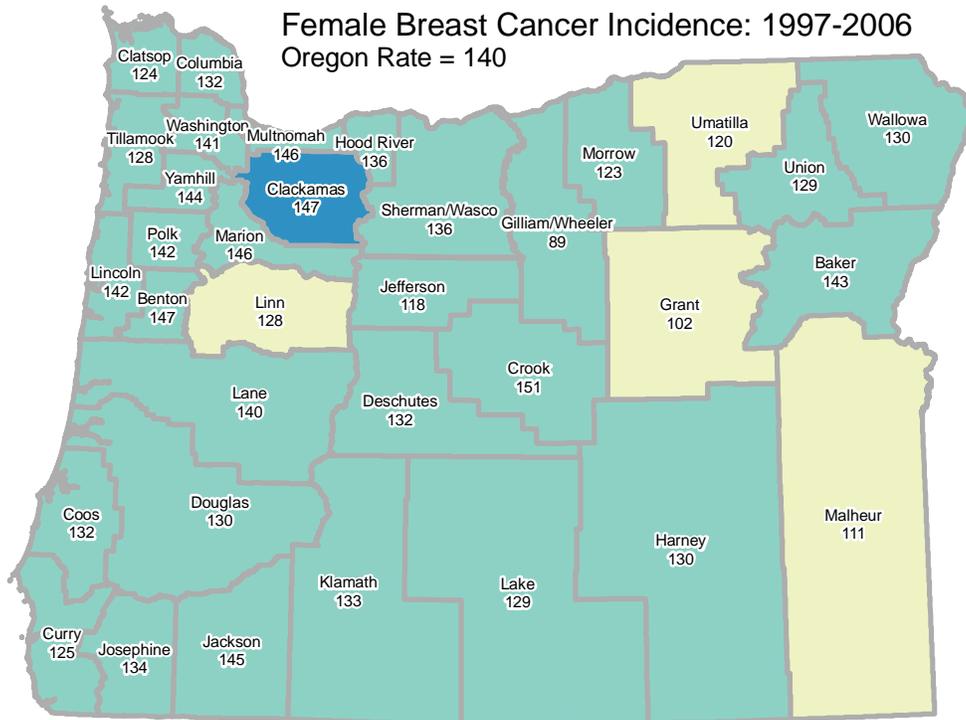
**Breast Cancer, Female, Incidence and Mortality Rates, by Age Group, Oregon, 2006**



**Breast Cancer, Female, Incidence and Mortality Rates, by Race and Ethnicity, Oregon, 1997-2006**



# Breast Cancer - Female



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 females, age-adjusted to the 2000 US Census 19-age-group standard.

## Breast Cancer - Female

### Breast Cancer (Female) Incidence and Mortality by County, 1997-2006: Average Count, Annual Rate, and 10-Year Trend

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>2,721</b>	<b>139.8</b>	<b>-1.8 *</b>	<b>511</b>	<b>25.1</b>	<b>-2.0 *</b>
Baker	17	143.4	-4.7	3	22.8	^
Benton	56	146.9	-0.1	8	21.0	^
Clackamas	284	147.4 H	-1.6	48	24.6	1.7
Clatsop	29	123.8	2.6	6	24.3	^
Columbia	32	132.0	0.5	6	23.6	^
Coos	60	132.4	-3.7 *	12	23.9	-5.5
Crook	18	151.0	2.9	3	26.4	^
Curry	23	124.8	-1.2	4	20.8	^
Deschutes	93	132.4	0.1	16	22.4	-2.2
Douglas	89	130.0	-2.2	16	21.6	1.9
Gilliam	2	118.4	^	1	^	^
Grant	5	101.6 L	^	2	26.4	^
Harney	6	130.1	^	1	29.7	^
Hood River	15	135.6	0.0	4	30.0	^
Jackson	170	144.7	-2.3 *	33	26.5	-3.9
Jefferson	11	117.7	5.6	2	20.9	^
Josephine	76	134.2	-0.2	16	26.1	-0.9
Klamath	50	133.2	-1.9	10	25.0	^
Lake	7	128.7	^	1	25.1	^
Lane	265	140.5	-2.7 *	53	26.8	-3.1
Lincoln	48	142.1	-2.9	10	28.8	^
Linn	79	127.6 L	-4.0 *	17	26.2	-4.4
Malheur	18	111.2 L	0.9	3	14.4 L	^
Marion	223	146.5	-2.8 *	43	26.6	-1.7
Morrow	6	123.2	^	1	24.8	^
Multnomah	504	145.6	-2.1 *	91	25.1	-2.1 *
Polk	55	142.2	-2.4	9	21.7	^
Sherman	2	122.7	^	0	^	^
Tillamook	23	127.8	0.6	5	25.5	^
Umatilla	44	120.4 L	-1.2	10	26.4	^
Union	19	129.1	1.3	3	18.2	^
Wallowa	7	129.9	^	2	25.2	^
Wasco	20	136.9	0.4	4	25.2	^
Washington	303	141.2	-1.7	55	25.5	-2.3
Wheeler	1	^	^	0	^	^
Yamhill	63	144.5	-0.7	15	30.8 H	-3.8

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.

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

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

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

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

# Cervical Cancer

## CERVICAL CANCER - FAST FACTS OREGON

	Female
<b>CANCER INCIDENCE</b>	
<b>Total Cancer Cases (2006)</b>	123
<b>RATES</b>	
Oregon Crude Rate (2006)	6.6
Oregon Age-adjusted Rate (2006)	6.4
US Age-adjusted Rate (2005) <sup>1</sup>	8.1
<b>TRENDS - APC</b>	
Oregon Annual Trend (2002-2006)	-3.1
<b>CANCER MORTALITY</b>	
<b>Total Cancer Deaths (2006)</b>	37
<b>RATES</b>	
Oregon Crude Rate (2006)	2.0
Oregon Age-adjusted Rate (2006)	1.7
US Age-Adjusted Rate (2005) <sup>1</sup>	2.4
<b>TRENDS - APC</b>	
Oregon Annual Trend (2002-2006)	-7.3
<b>PROGNOSIS AND BURDEN</b>	
Prognosis: M/I Ratio (2002-2006)	0.33
Burden: YPLL (2002-2006)	393

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

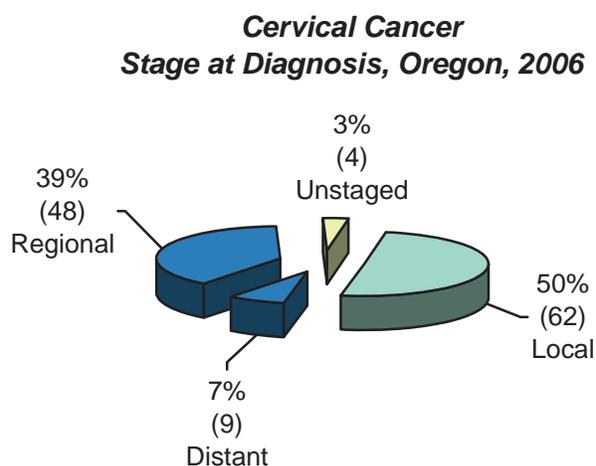
\* Indicates a statistically significant trend.

During 2006, 123 Oregon women were diagnosed with invasive cervical cancer and 37 died of the disease. The incidence rate for cervical cancer was 6.4 per 100,000 women, 21 percent lower than the 2005 national rate of 8.1 per 100,000. The mortality rate was 1.7 deaths per 100,000 women, 30 percent lower than the 2005 national rate (2.4). In Oregon, median age at diagnosis was 49 and median age at death was 60.

The majority of cervical cancer cases are now diagnosed at the *in situ* stage which is not reportable. 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, although, since the vaccine does not cover viral subtypes currently responsible for 30% of cervical cancer, continued Pap testing is recommended.

During 1997-2006, African American and Asian/Pacific Islander Oregon women had cervical cancer incidence rates, which were significantly higher than the rates for white women. Latina Oregonians had incidence rates which were significantly higher than the rates for non-Latina women. Cervical cancer mortality was significantly higher for African American women compared to the rate for all Oregon women.

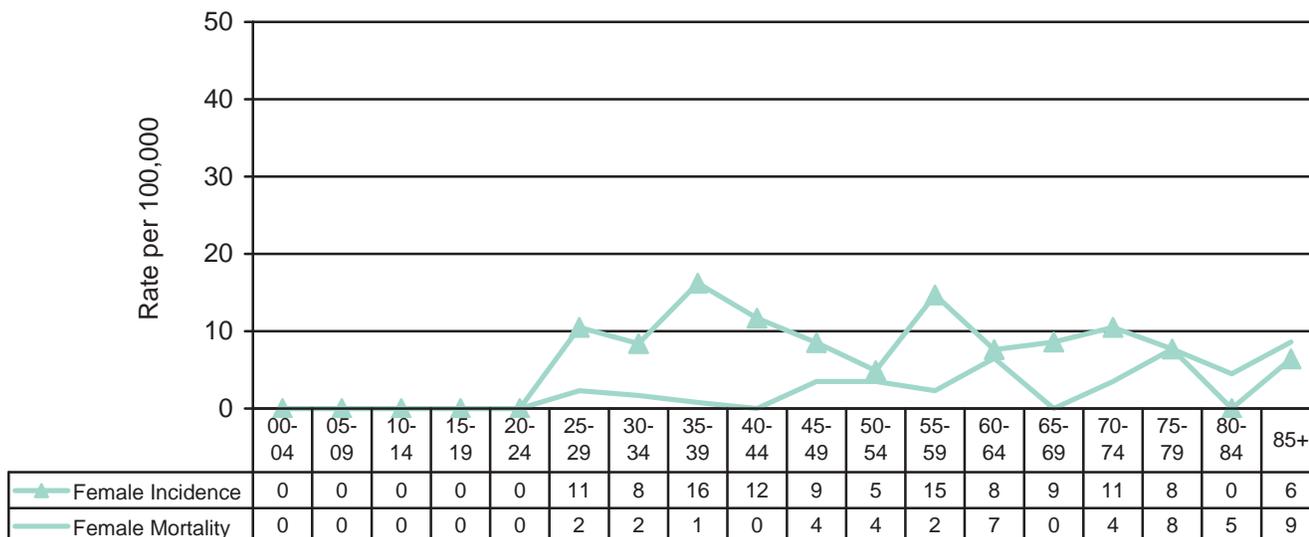
During the same 1997-2006 period, the decline in incidence was statistically significant for Multnomah county with an average annual percentage change of -10 percent, and for Oregon as a whole an average annual percent change of -5 percent.



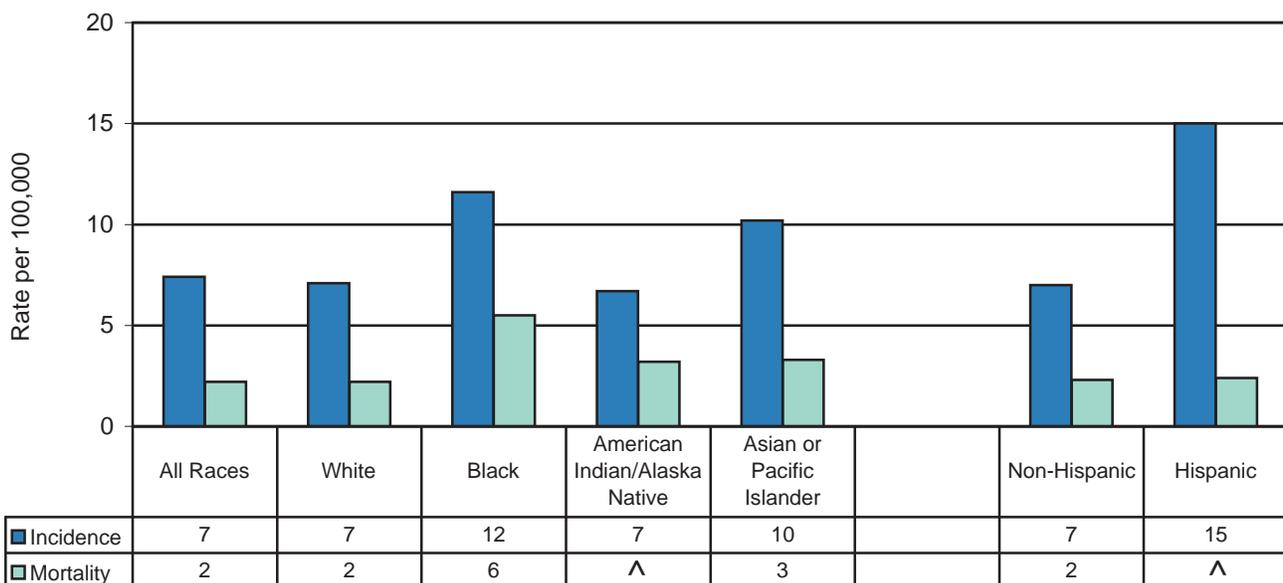
Total does not equal 100% due to rounding

# Cervical Cancer

**Cervical Cancer, Incidence and Mortality Rates, by Age Group, Oregon, 2006**

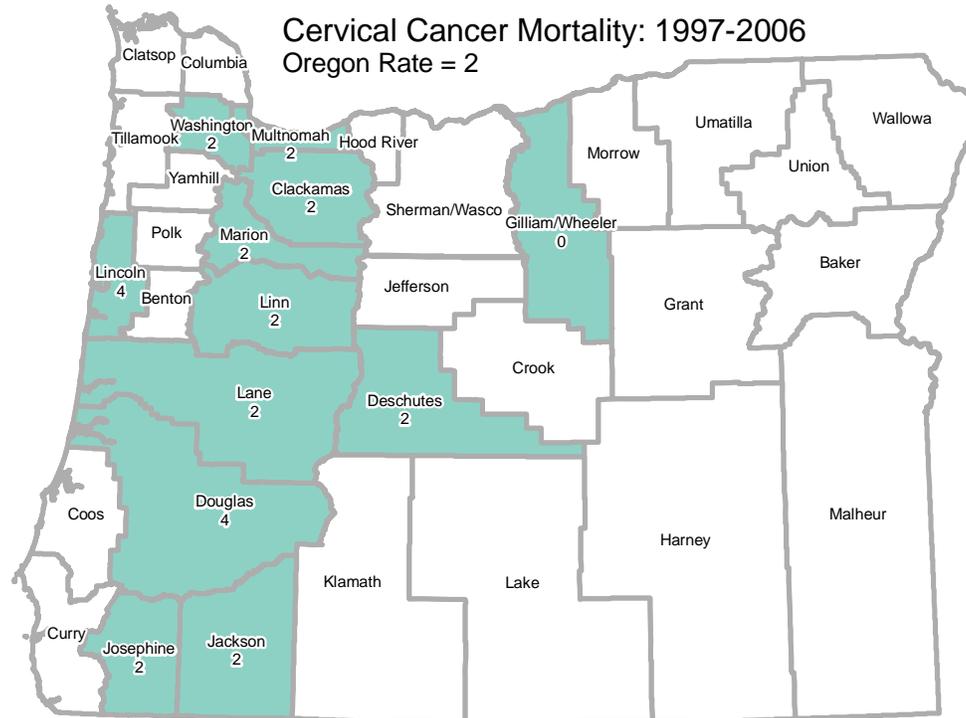
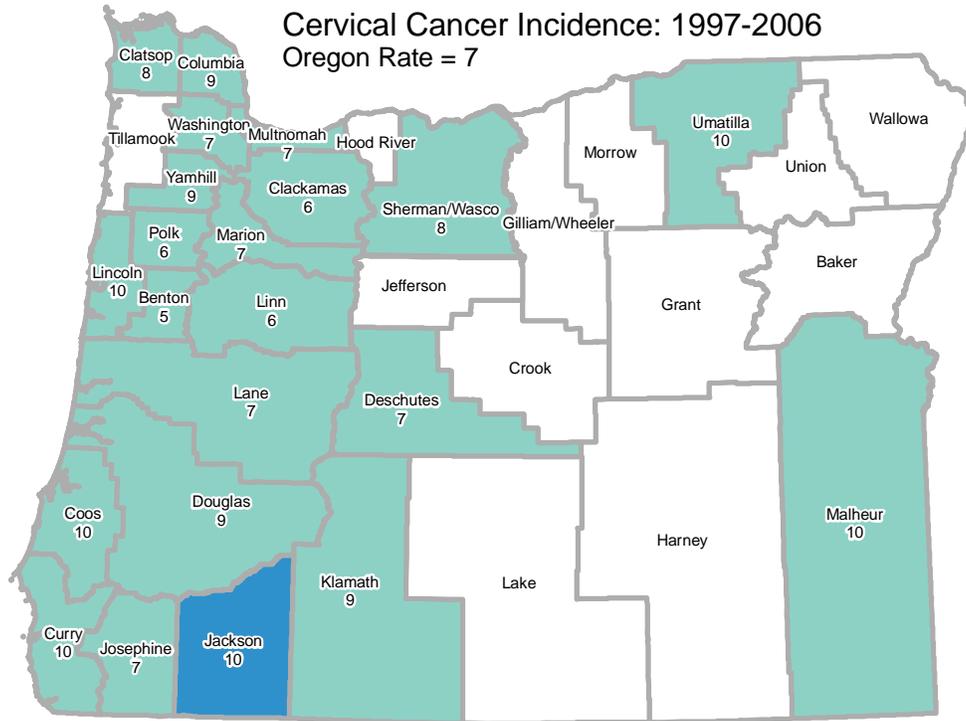


**Cervical Cancer Incidence and Mortality Rates, by Race and Ethnicity, Oregon, 1997-2006**



^ Rate not calculated due to instability of small numbers

# Cervical Cancer



Statistically Higher Than Oregon Rate   
 Similar to Oregon Rate   
 Statistically Lower Than Oregon Rate   
 1-10 Cases

Rates shown are number of cases per 100,000 females, age-adjusted to the 2000 US Census 19-age-group standard.

## Cervical Cancer

**Cervical Cancer Incidence and Mortality by County, 1997-2006:  
Average Count, Annual Rate, and 10-Year Trend**

CERVICAL 1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>134</b>	<b>7.4</b>	<b>-5.2 *</b>	<b>41</b>	<b>2.1</b>	<b>-4.3</b>
Baker	1	^	^	0	^	^
Benton	2	4.5	^	1	^	^
Clackamas	11	5.9	-0.3	4	1.9	^
Clatsop	1	8.2	^	1	^	^
Columbia	2	8.9	^	0	^	^
Coos	4	10.1	^	1	^	^
Crook	1	^	^	0	^	^
Curry	1	9.7	^	1	^	^
Deschutes	4	6.8	^	1	1.6	^
Douglas	5	9.1	^	2	3.5	^
Gilliam	0	^	^	0	0.0	^
Grant	0	^	^	0	^	^
Harney	0	^	^	0	^	^
Hood River	1	^	^	0	^	^
Jackson	10	10.2 H	^	2	2.2	^
Jefferson	0	^	^	0	^	^
Josephine	3	7.1	^	1	2.3	^
Klamath	3	9.0	^	1	^	^
Lake	0	^	^	0	^	^
Lane	12	6.9	1.2	3	1.6	^
Lincoln	3	9.8	^	1	4.4	^
Linn	4	6.3	^	1	1.9	^
Malheur	1	10.2	^	1	^	^
Marion	10	7.0	^	3	2.2	^
Morrow	1	^	^	0	^	^
Multnomah	26	7.4	-10.0 *	8	2.2	^
Polk	2	6.3	^	1	^	^
Sherman	0	^	^	0	0.0	^
Tillamook	1	^	^	1	^	^
Umatilla	4	10.4	^	1	^	^
Union	1	^	^	0	^	^
Wallowa	0	^	^	0	0.0	^
Wasco	1	8.0	^	1	^	^
Washington	16	6.8	-2.0	4	1.8	^
Wheeler	0	0.0	^	0	0.0	^
Yamhill	4	9.2	^	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.

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

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

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

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

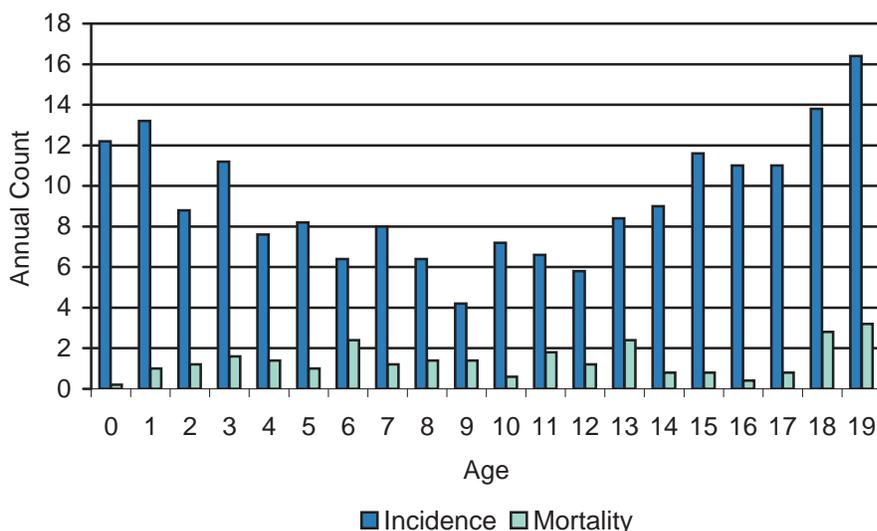
# Childhood Cancer

## CHILDHOOD CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	<b>213</b>	<b>116</b>	<b>97</b>
Ages 0-14	152	80	72
Ages 15-19	61	36	25
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	<b>22</b>	<b>11</b>	<b>11</b>
Ages 0-14	15	7	8
Ages 15-19	7	4	3

During 2002-2006, an average of 144 Oregonians under 18 were diagnosed with cancer per year: an average of 76 males and 68 females. The annual incidence rate was 59 new cases per 1,000,000 Oregonians under age 18. (Because of lower incidence rates, childhood cancers are calculated per 1,000,000 children under 18.)

**Childhood Cancers, Ages 0-19, Average Annual Incidence and Mortality, Oregon, 2002-2006**



Leukemia was the most common diagnosis with an average of 43 newly diagnosed cases per year, for a rate of 15 new cases per 1,000,000. An average of 28 tumors of the central nervous system and 23 lymphomas were diagnosed each year.

During the same 2002-2006 time period, an average of 23 children died per year: 12 males and 11 females. The mortality rate was 7 deaths per 1,000,000 children.

## Childhood Cancer

### **Average Annual Counts of Childhood Cancers by Sex and Age Group, Oregonians Age 0-19, 2002-2006**

	SEX			AGE			
	Total	Male	Female	<5	06-10	11-14	15-19
<b>Total</b>	<b>187</b>	<b>100</b>	<b>87</b>	<b>53</b>	<b>33</b>	<b>37</b>	<b>64</b>
I Leukemias, myeloproliferative & myelodysplastic diseases	45	25	19	19	10	9	6
II Lymphomas and reticuloendothelial neoplasms	30	18	11	3	3	8	16
II(a) Hodgkin lymphomas	15	8	8	0	0	4	11
II(b) Non-Hodgkin lymphomas (except Burkitt lymphoma)	10	7	2	1	2	3	4
III CNS and misc intracranial and intraspinal neoplasms	40	21	20	11	10	9	10
IV Neuroblastoma and other peripheral nervous cell tumors	7	4	3	6	1	0	0
V Retinoblastoma	3	2	1	2	0	0	0
VI Renal tumors	6	2	3	3	2	0	0
VII Hepatic tumors	2	1	1	2	0	0	1
VIII Malignant bone tumors	6	4	2	0	1	1	4
VIII(a) Osteosarcomas	3	2	0	0	0	1	2
VIII(c) Ewing tumor and related sarcomas of bone	3	1	1	0	1	0	1
IX Soft tissue and other extraosseous sarcomas	14	6	8	4	2	3	5
X Germ cell & trophoblastic tumors & neoplasms of gonads	14	10	5	2	1	3	8
XI Other malignant epithelial neoplasms and melanomas	16	5	11	0	2	4	10
XII Other and unspecified malignant neoplasms	0	0	0	0	0	0	0

### **Rates of Childhood Cancer Incidence by Sex and Age Group, Oregonians Age 0-19, 2002-2006**

	SEX			AGE			
	Total	Male	Female	<5	06-10	11-14	15-19
<b>Total</b>	<b>19.6</b>	<b>20.4</b>	<b>18.8</b>	<b>23.4</b>	<b>14.3</b>	<b>15.1</b>	<b>25.9</b>
I Leukemias, myeloproliferative & myelodysplastic diseases	4.7	5.2	4.2	8.4	4.5	3.7	2.6
II Lymphomas and reticuloendothelial neoplasms	3.1	3.7	2.4	1.2	1.2	3.4	6.3
II(a) Hodgkin lymphomas	1.6	1.5	1.6	0.1	0.2	1.6	4.5
II(b) Non-Hodgkin lymphomas (except Burkitt lymphoma)	1.0	1.5	0.5	0.4	0.7	1.4	1.5
III CNS and misc intracranial and intraspinal neoplasms	4.3	4.2	4.3	5.0	4.5	3.7	3.9
IV Neuroblastoma and other peripheral nervous cell tumors	0.7	0.8	0.6	2.7	0.3	0.0	0.0
V Retinoblastoma	0.3	0.3	0.2	1.1	0.1	0.0	0.0
VI Renal tumors	0.6	0.5	0.7	1.4	0.9	0.1	0.1
VII Hepatic tumors	0.3	0.2	0.3	0.7	0.1	0.0	0.2
VIII Malignant bone tumors	0.6	0.8	0.4	0.2	0.3	0.5	1.5
VIII(a) Osteosarcomas	0.3	0.4	0.1	0.0	0.0	0.2	0.8
VIII(c) Ewing tumor and related sarcomas of bone	0.3	0.3	0.3	0.2	0.3	0.2	0.5
IX Soft tissue and other extraosseous sarcomas	1.4	1.2	1.7	1.7	1.0	1.1	2.0
X Germ cell & trophoblastic tumors & neoplasms of gonads	1.5	1.9	1.0	0.7	0.6	1.1	3.4
XI Other malignant epithelial neoplasms and melanomas	1.7	1.0	2.4	0.2	0.8	1.5	4.2
XII Other and unspecified malignant neoplasms	0.0	0.1	0.0	0.2	0.0	0.0	0.0

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

# Colorectal Cancer

## COLORECTAL CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	1,777	899	878
<b>RATES</b>			
Oregon Crude Rate (2006)	46.5	47.2	45.7
Oregon Age-adjusted Rate (2006)	42.9	48.2	38.2
US Age-adjusted Rate (2005) <sup>1</sup>	48.3	56.4	41.9
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-2.6	-2.2	-3.3 *
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	624	308	316
<b>RATES</b>			
Oregon Crude Rate (2006)	16.9	16.7	17.0
Oregon Age-adjusted Rate (2006)	15.3	17.2	13.7
US Age-adjusted Rate (2005) <sup>1</sup>	17.4	21.0	14.6
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-3.8 *	-5.6 *	-2.3
<b>PROGNOSIS AND BURDEN</b>			
Prognosis: M/I Ratio (2002-2006)	0.36	0.35	0.37
Burden: YPLL (2002-2006)	1,657	913	744

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* Indicates a statistically significant trend.

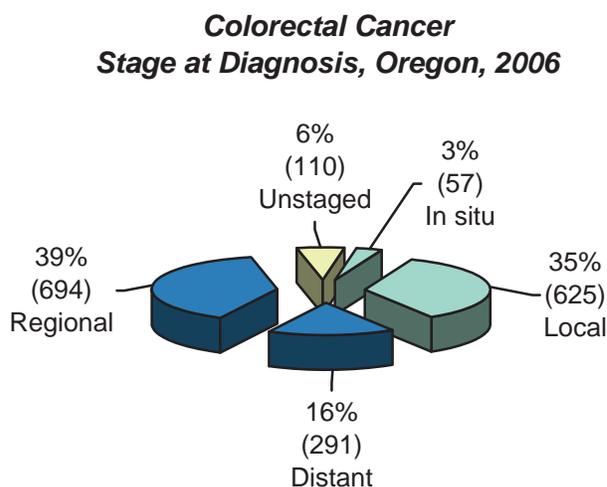
During 2006, 1,777 colorectal cancers were diagnosed in Oregon. Median age at diagnosis was 69. During the same time period, 624 Oregonians died due to colorectal cancer. Median age at death was 73. The age-adjusted annual rate of new colorectal cancers in 2006 was 43 per 100,000 and the age-adjusted mortality rate was 15 per 100,000.

Nearly two in five (38 percent) of the colorectal cancer cases were diagnosed at the localized stage when colorectal cancer can be effectively treated, and 55 percent were diagnosed at the regional or distant stage.

Colorectal cancer is the second leading cause of cancer death in Oregon. During the years 2002-2006, there was one death for every three colorectal cancer diagnoses. Based on a life expectancy of 65 years, an average of 1,657 years of life were lost annually due to early deaths from colorectal cancer.

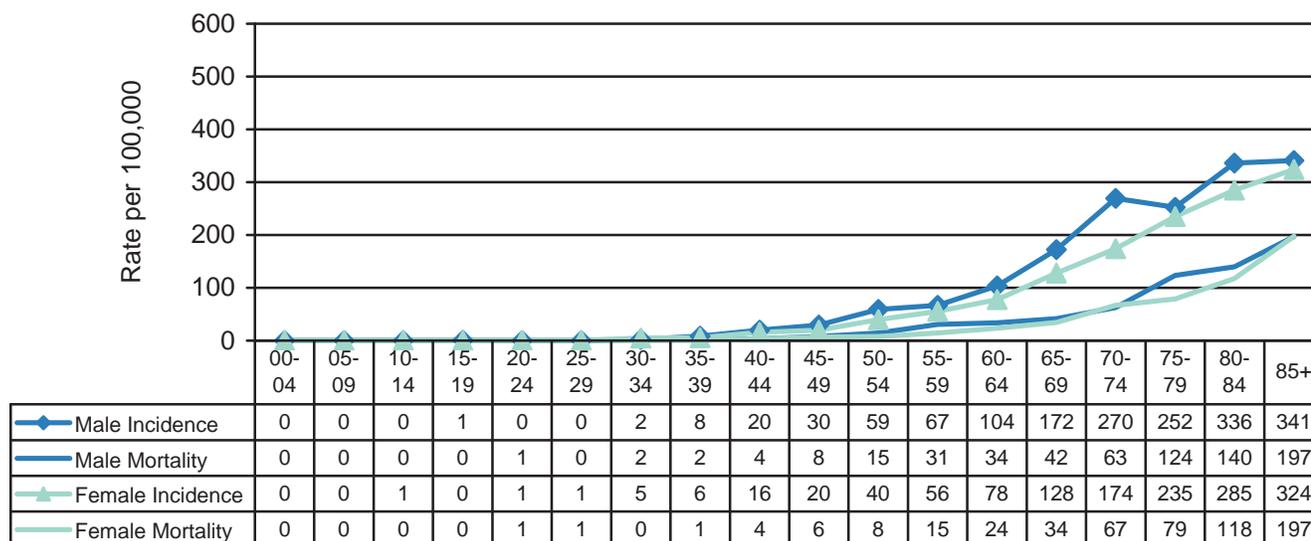
During 1997-2006, colorectal cancer incidence was significantly higher for African American than for white Oregonians. There was no significant difference in mortality rates.

During the same 1997-2006 period, compared to Oregon as a whole, colorectal cancer incidence was significantly higher in Lincoln, Marion, and Morrow counties and significantly lower in Lane and Washington counties. Mortality was significantly higher in Clatsop, Marion, and Union compared to the state as a whole and significantly lower in Lane and Washington counties ( $P < .05$ ). See [Colorectal Cancer maps](#).

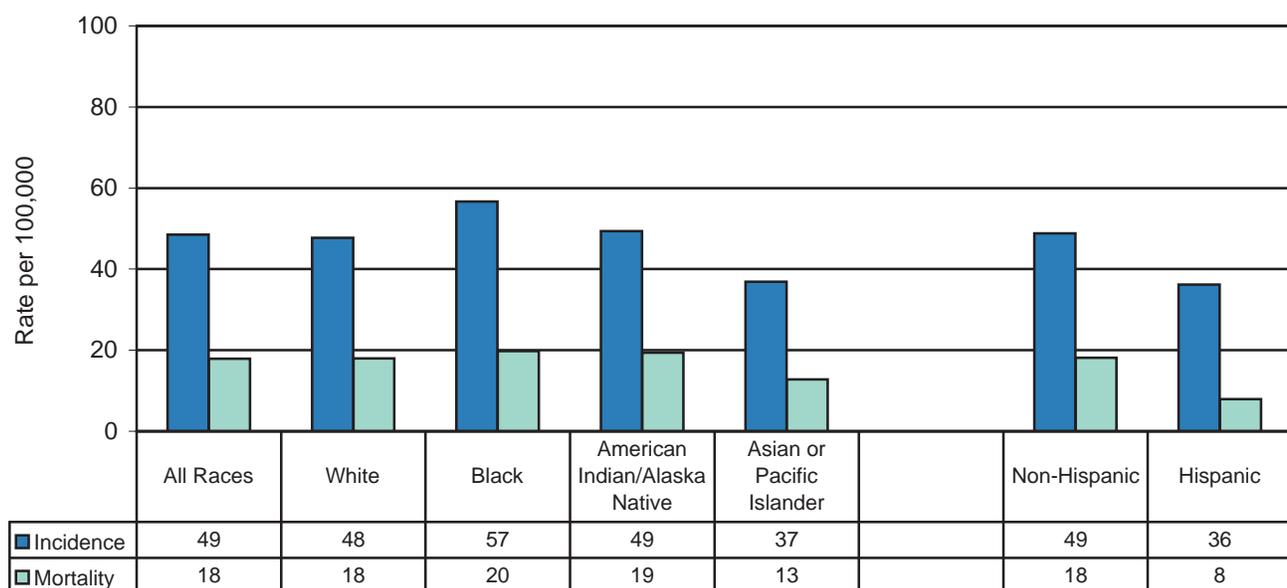


## Colorectal Cancer

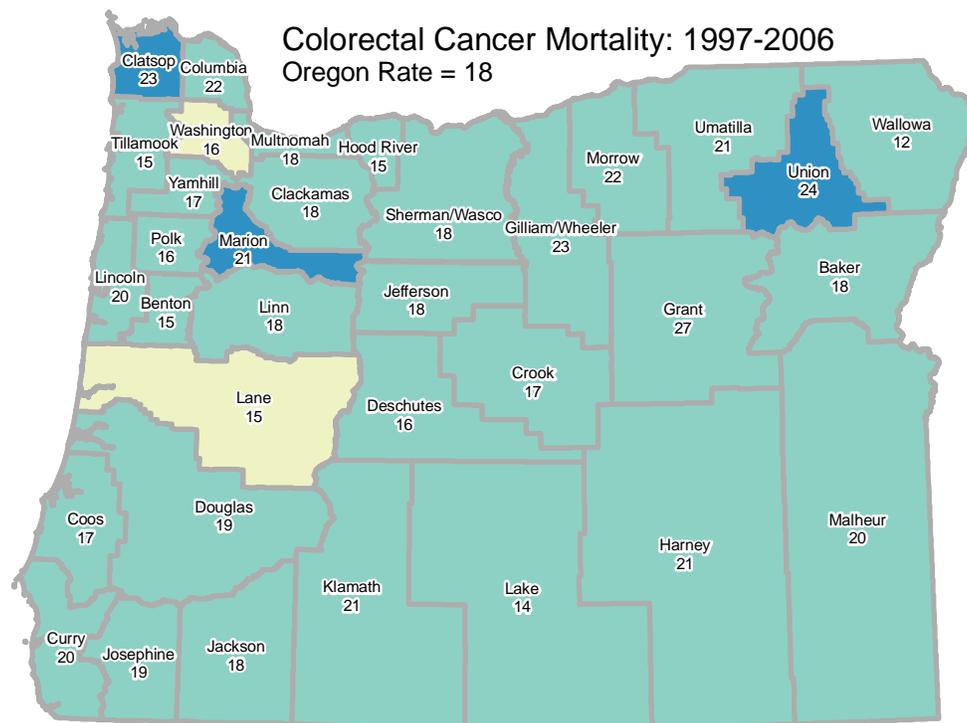
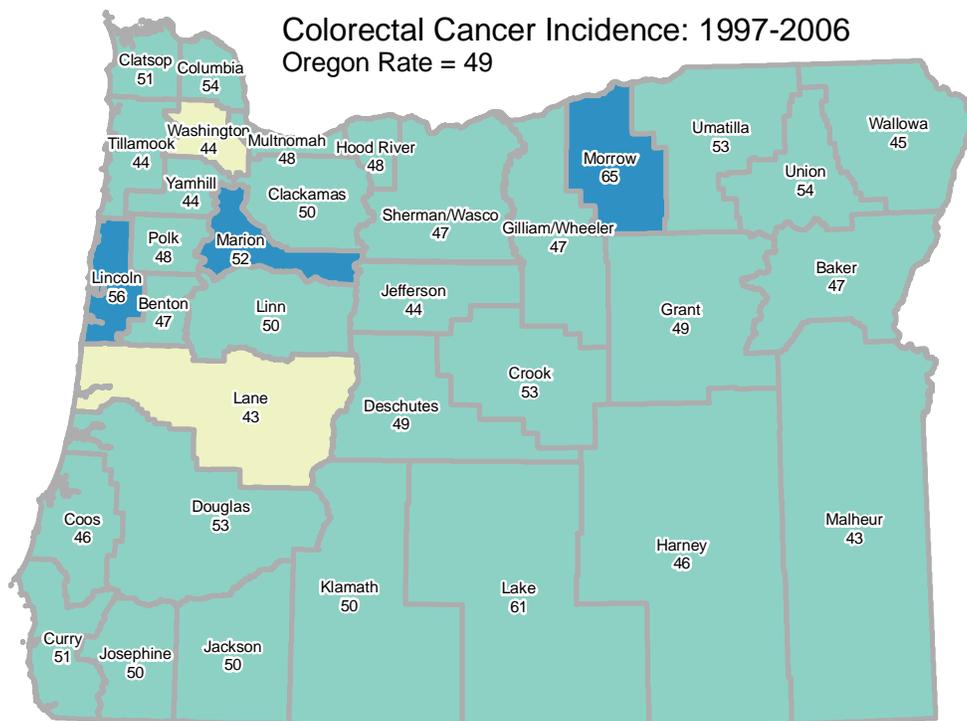
**Colorectal Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2006**



**Colorectal Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1997-2006**



# Colorectal Cancer



Statistically Higher Than Oregon Rate   
 Similar to Oregon Rate   
 Statistically Lower Than Oregon Rate   
 1-10 Cases

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

## Colorectal Cancer

**Colorectal Cancer Incidence and Mortality by County, 1997-2006:  
Average Count, Annual Rate, and 10-Year Trend**

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>1,775</b>	<b>48.5</b>	<b>-1.5 *</b>	<b>662</b>	<b>17.9</b>	<b>-2.6 *</b>
Baker	12	46.7	-6.4	5	18.3	^
Benton	33	46.9	-2.3	11	14.8	-4.4
Clackamas	172	50.2	-0.3	61	17.9	-2.5 *
Clatsop	23	51.3	0.9	11	23.2 H	-2.0
Columbia	24	54.4	-5.7 *	9	21.6	^
Coos	43	46.2	-3.5	17	17.3	0.3
Crook	13	52.8	1.4	4	16.8	^
Curry	21	50.9	-3.6	8	20.1	^
Deschutes	64	48.8	-2.7	21	16.4	-5.1*
Douglas	73	53.0	-0.2	27	19.3	0.3
Gilliam	2	62.1	^	1	^	^
Grant	5	49.2	^	3	26.9	^
Harney	4	46.0	^	2	20.9	^
Hood River	10	47.6	^	3	14.6	^
Jackson	117	50.5	-2.3	42	17.8	-3.1
Jefferson	8	43.8	^	3	18.3	^
Josephine	57	49.6	0.5	23	19.0	-2.3
Klamath	38	50.3	2.1	16	20.7	2.3
Lake	6	60.7	^	2	14.2	^
Lane	155	43.3 L	-1.5	54	15.1 L	-2.7
Lincoln	37	56.4 H	0.4	13	19.9	-0.3
Linn	61	50.0	-1.8	23	18.1	-4.1
Malheur	15	42.7	-1.5	7	19.9	^
Marion	150	52.4 H	-1.4	61	20.9 H	-2.5
Morrow	7	65.2 H	^	2	21.8	^
Multnomah	299	48.1	-1.6	114	18.2	-1.5*
Polk	37	48.2	0.4	13	15.7	0.8
Sherman	1	^	^	0	0.0	^
Tillamook	16	44.3	-4.3	5	14.7	^
Umatilla	37	53.2	-3.7	15	20.8	-4.1 *
Union	16	54.2	-2.7	7	24.2 H	^
Wallowa	5	45.4	^	1	12.4	^
Wasco	15	48.7	2.0	6	18.7	^
Washington	163	44.5 L	-2.1	58	16.0 L	-4.2 *
Wheeler	1	^	^	0	^	^
Yamhill	38	44.5	-1.1	14	16.7	-0.9

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.

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

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

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

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

# Esophageal Cancer

## ESOPHAGEAL CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	245	196	49
<b>RATES</b>			
Oregon Crude Rate (2006)	6.6	10.6	2.6
Oregon Age-adjusted Rate (2006)	6.1	10.8	2.2
US Age-adjusted Rate (2005) <sup>1</sup>	4.9	8.5	1.9
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	3.2	2.7	5.3
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	209	162	47
<b>RATES</b>			
Oregon Crude Rate (2006)	5.6	8.8	2.5
Oregon Age-adjusted Rate (2006)	5.1	9.0	2.0
US Age-Adjusted Rate (2005) <sup>1</sup>	4.4	7.9	1.7
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	+1.2	+1.8	+0.3
<b>PROGNOSIS AND BURDEN</b>			
Prognosis: M/I Ratio (2002-2006)	0.91	0.90	0.97
Burden: YPLL (2002-2006)	551	460	91

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* Indicates a statistically significant trend.

In 2006, 245 esophageal cancers were diagnosed to Oregonians and reported to the Oregon central registry. Median age at diagnosis was 69. During the same time period, 209 Oregonians died due to esophageal cancer. Median age at death was 72.

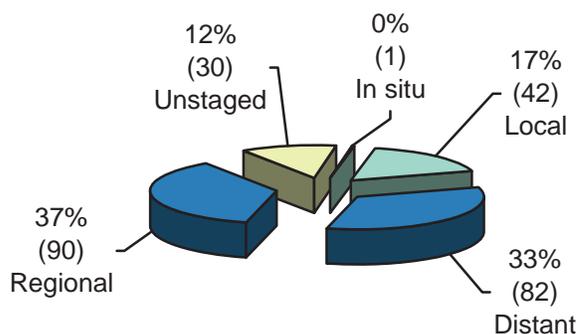
Incidence and mortality from esophageal cancer were higher for men. Among men, incidence was 11 per 100,000 while among women incidence was 2 per 100,000. Mortality was 9 per 100,000 and 2 per 100,000 women.

About 17 percent of esophageal cancers were diagnosed at the *in situ* or local stage and 49 percent were diagnosed at the regional or distant stage.

During the period 2002-2006, there were 91 deaths for every 100 diagnoses of esophageal cancer. Based on a life expectancy of 65 years, an average of 551 years of life were lost annually due to early deaths from esophageal cancer.

The incidence trend increased significantly in Washington county and Oregon as a whole ( $P < .05$ ). See [Esophageal Cancer maps](#).

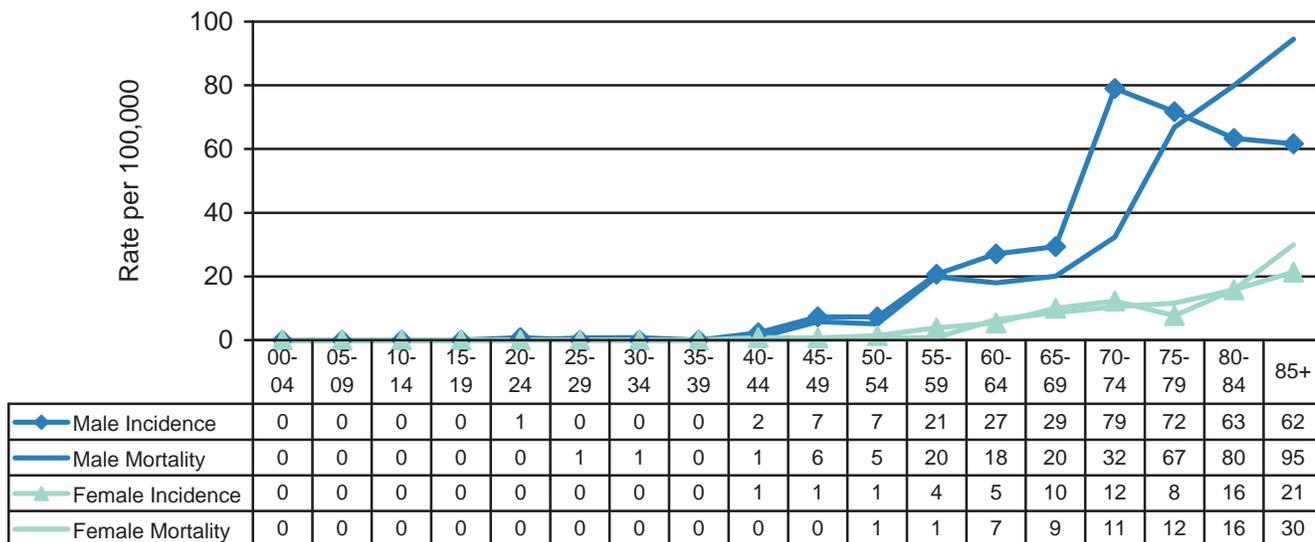
### Esophageal Cancer Stage at Diagnosis, Oregon, 2006



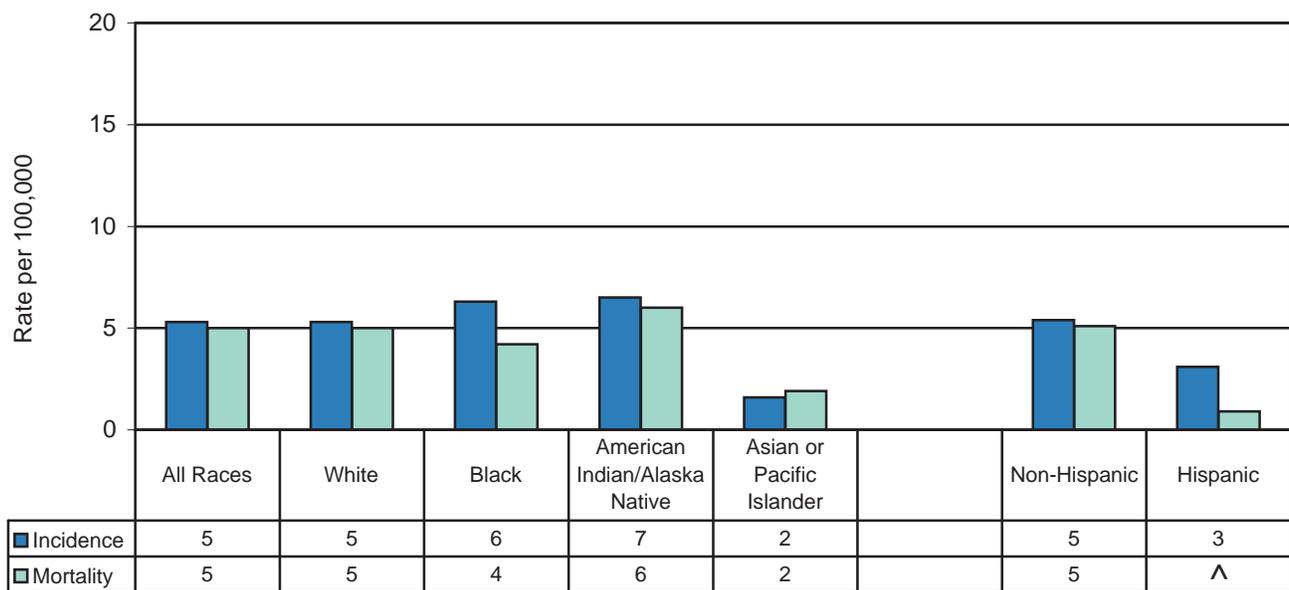
Total does not equal 100% due to rounding

# Esophageal Cancer

**Esophageal Cancer Incidence and Mortality Rates, by Age Group and Sex, Oregon, 2006**

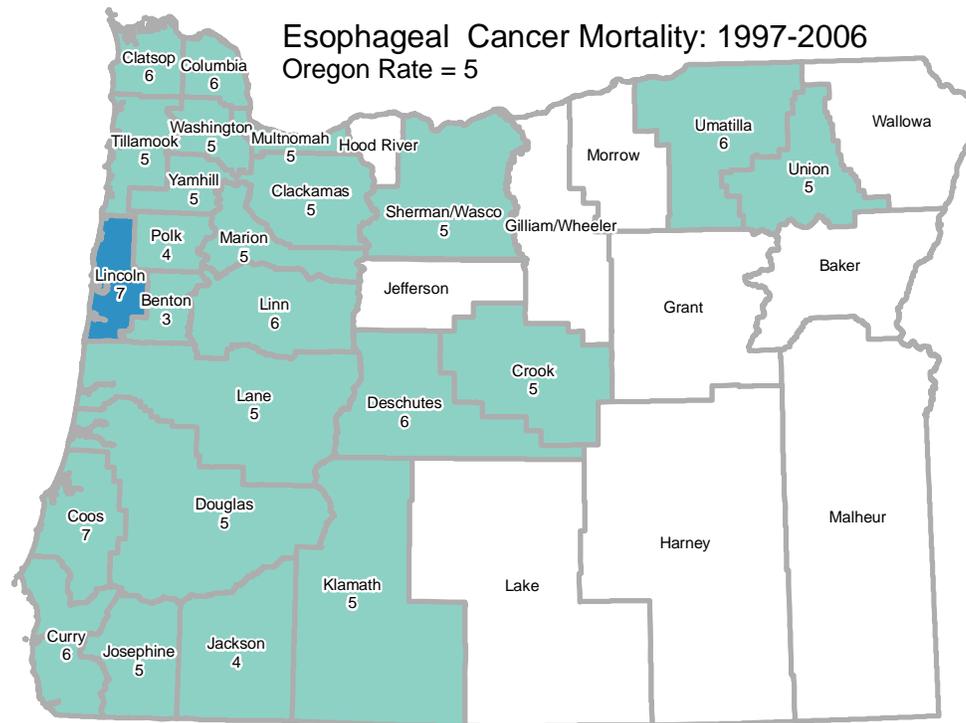
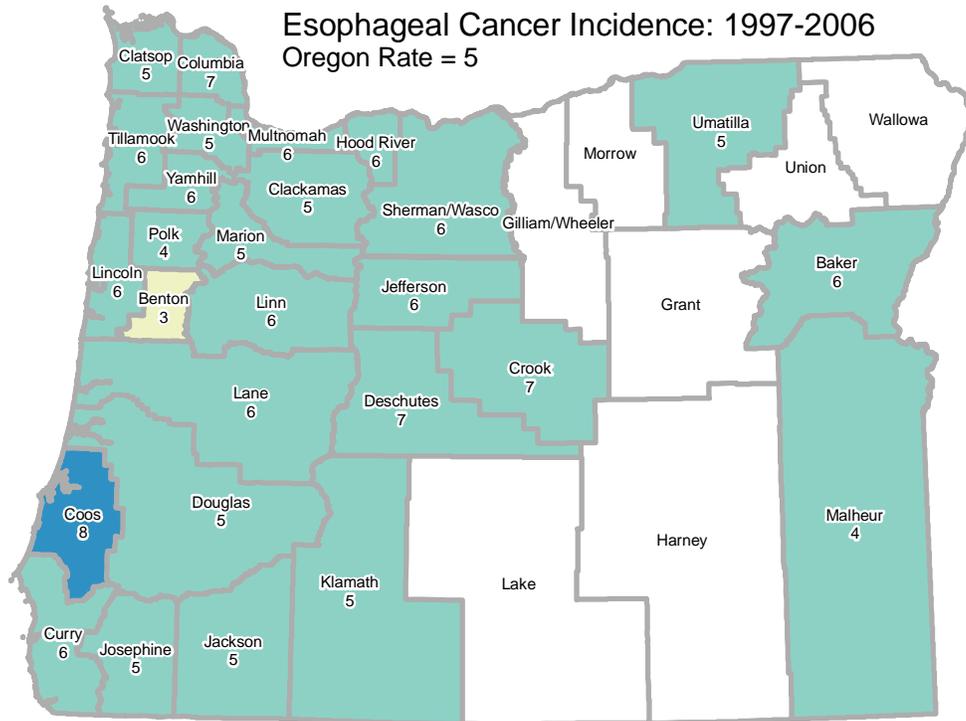


**Esophageal Cancer Incidence and Mortality Rates, by Race and Ethnicity, Oregon, 1997-2006**



^ Rate not calculated due to instability of small numbers

# Esophageal Cancer



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

# Esophageal Cancer

## Esophageal Cancer Incidence and Mortality by County, 1997-2006: Average Count, Annual Rate, and 10-Year Trend

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>195</b>	<b>5.3</b>	<b>2.4 *</b>	<b>182</b>	<b>5.0</b>	<b>1.4</b>
Baker	1	5.5	^	1	^	^
Benton	2	3.3 L	^	2	3.4	^
Clackamas	17	5.0	0.4	16	4.7	3.0
Clatsop	2	4.9	^	3	5.7	^
Columbia	3	6.6	^	3	6.1	^
Coos	7	7.7 H	^	6	6.7	^
Crook	2	6.7	^	1	4.6	^
Curry	2	6.1	^	2	5.9	^
Deschutes	9	6.6	^	8	5.9	^
Douglas	8	5.4	^	7	5.1	^
Gilliam	0	^	^	0	0.0	^
Grant	1	^	^	0	^	^
Harney	0	^	^	0	^	^
Hood River	1	5.9	^	1	^	^
Jackson	12	5.2	3.2	9	4.1	^
Jefferson	1	5.6	^	1	^	^
Josephine	6	4.9	^	6	5.0	^
Klamath	4	5.3	^	4	4.9	^
Lake	1	^	^	0	^	^
Lane	20	5.5	0.6	19	5.3	1.0
Lincoln	4	6.4	^	5	7.2 H	^
Linn	7	5.6	^	7	5.5	^
Malheur	1	3.7	^	1	0.0	^
Marion	14	4.8	2.7	14	4.7	0.5
Morrow	1	^	^	1	0.0	^
Multnomah	35	5.6	2.4	31	5.0	2.2
Polk	3	4.3	^	3	3.6	^
Sherman	0	0.0	^	0	0.0	^
Tillamook	2	5.8	^	2	4.9	^
Umatilla	4	5.2	^	4	5.7	^
Union	1	^	^	1	4.7	^
Wallowa	0	^	^	1	0.0	^
Wasco	2	6.4	^	2	5.1	^
Washington	18	4.8	8.2 *	18	4.9	1.6
Wheeler	0	0.0	^	0	0.0	^
Yamhill	5	5.9	^	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.

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

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

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

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

# Kidney Cancer

## KIDNEY CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	578	354	224
<b>RATES</b>			
Oregon Crude Rate (2006)	15.3	18.9	11.8
Oregon Age-adjusted Rate (2006)	13.8	18.2	10.1
US Age-adjusted Rate (2005) <sup>1</sup>	14.5	19.6	10.4
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	3.7	4.0	2.8
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	161	106	55
<b>RATES</b>			
Oregon Crude Rate (2006)	4.4	5.8	3.0
Oregon Age-adjusted Rate (2006)	4.0	5.9	2.5
US Age-Adjusted Rate (2005) <sup>1</sup>	4.1	5.9	2.7
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-2.7	-1.0	-5.4
<b>PROGNOSIS AND BURDEN</b>			
Prognosis: M/I Ratio (2002-2006)	0.30	0.31	0.28
Burden: YPLL (2002-2006)	497	348	149

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

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).

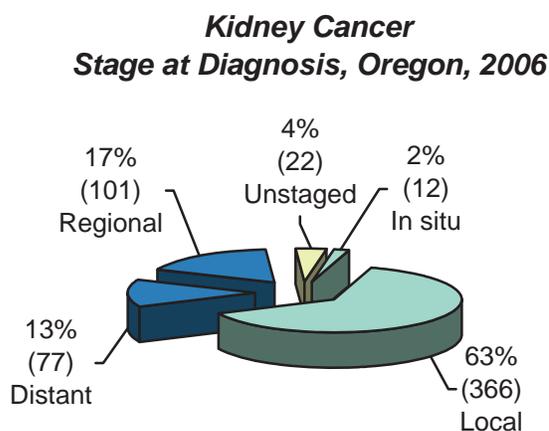
In 2006, 578 kidney cancers were diagnosed in Oregonians and reported to the central registry. Median age at diagnosis was 63. During the same time period, 161 Oregonians died from the cancer. Median age at death was 71. Nearly one in three (65 percent) were diagnosed at the local or *in situ* stage.

The age-adjusted incidence rate of cancer of the kidney in 2006 was 14 per 100,000. Among men, the incidence rate was 18 per 100,000 and among women the rate was 6 per 100,000.

The age-adjusted mortality rate for cancer of the kidney in 2006 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.

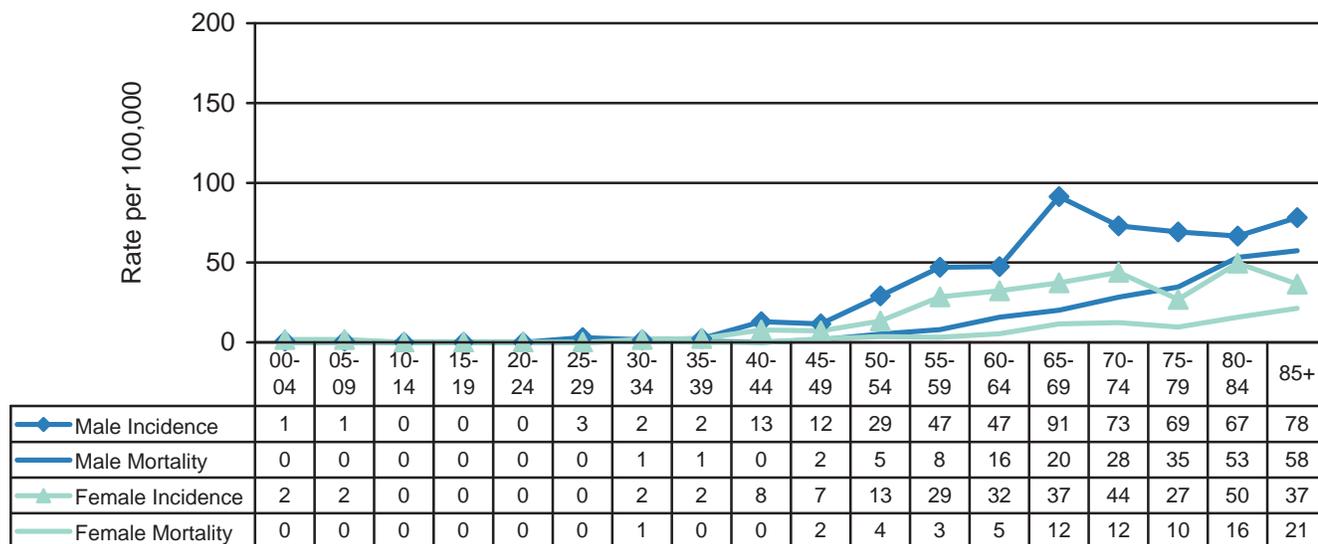
During the period 2002-2006, there were 30 deaths for every 100 diagnoses. Based on a life expectancy of 65 years, a total of 497 years of life were lost annually due to early deaths from kidney cancer.

Incidence of kidney cancer was significantly higher in Coos county and no area was significantly lower (P < .05). There was no area with significantly higher or lower mortality rates. See [Kidney Cancer maps](#).

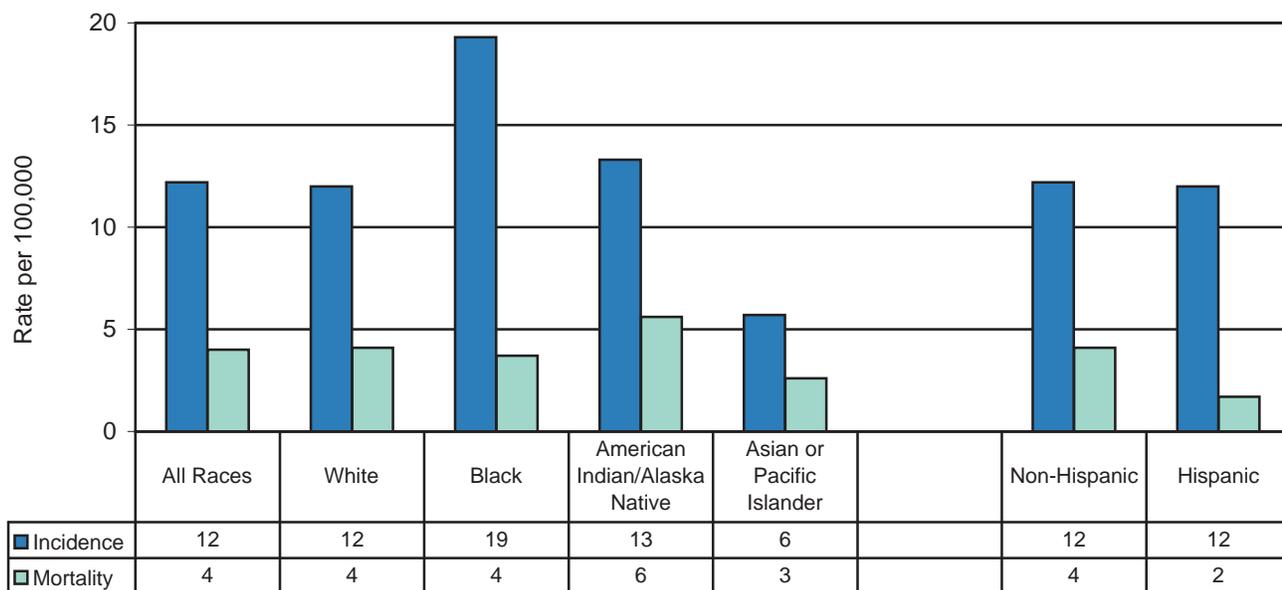


# Kidney Cancer

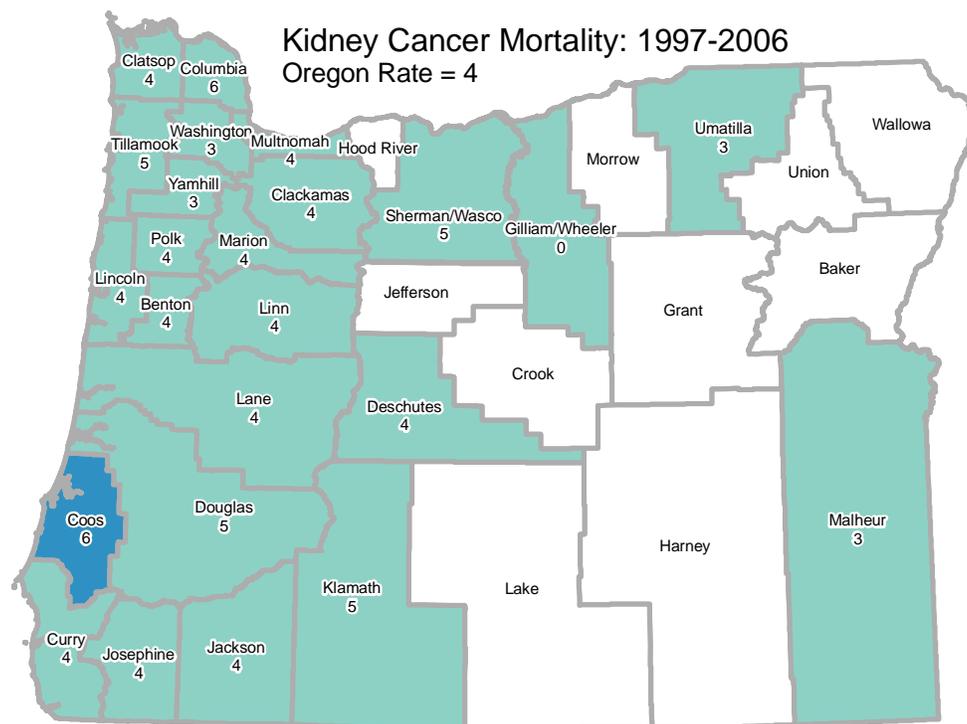
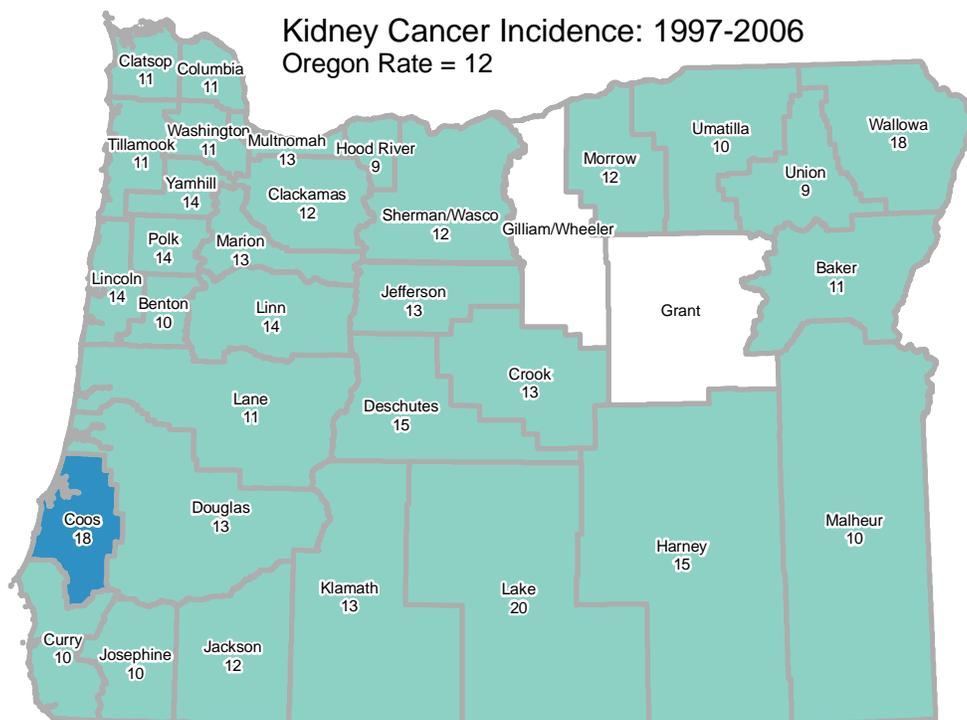
**Kidney Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2006**



**Kidney Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1997-2006**



# Kidney Cancer



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

# Kidney Cancer

## **Kidney Cancer Incidence and Mortality by County, 1997-2006: Average Count, Annual Rate, and 10-Year Trend**

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>445</b>	<b>12.2</b>	<b>3.9 *</b>	<b>149</b>	<b>4.0</b>	<b>-1.0</b>
Baker	3	10.8	^	1	^	^
Benton	7	10.1	^	3	4.3	^
Clackamas	44	12.3	4.6 *	15	4.2	2.4
Clatsop	5	11.3	^	2	3.8	^
Columbia	5	10.7	^	3	5.7	^
Coos	15	17.7 H	-0.2	5	6.0 H	^
Crook	3	13.1	^	1	^	^
Curry	4	9.8	^	2	4.1	^
Deschutes	19	14.5	9.2 *	5	4.0	^
Douglas	18	13.0	0.3	6	4.5	^
Gilliam	0	^	^	0	0.0	^
Grant	1	^	^	0	^	^
Harney	1	14.5	^	0	^	^
Hood River	2	9.2	^	1	^	^
Jackson	26	11.6	7.9*	9	3.7	^
Jefferson	3	13.2	^	1	^	^
Josephine	11	10.2	4.2	5	4.0	^
Klamath	9	12.8	^	4	4.5	^
Lake	2	20.2	^	1	^	^
Lane	40	11.3	3.6	15	4.1	-0.6
Lincoln	9	13.6	^	3	4.3	^
Linn	16	13.5	14.0 *	5	4.0	^
Malheur	4	10.3	^	1	3.2	^
Marion	38	13.3	4.9	13	4.4	0.0
Morrow	1	11.5	^	1	^	^
Multnomah	78	12.5	1.5	25	4.0	-3.0
Polk	10	14.3	^	3	3.5	^
Sherman	1	^	^	0	0.0	^
Tillamook	4	10.5	^	2	4.9	^
Umatilla	7	10.1	^	2	2.8	^
Union	2	8.5	^	1	^	^
Wallowa	2	18.0	^	1	^	^
Wasco	3	11.2	^	2	5.5	^
Washington	43	11.0	1.8	12	3.4	-0.7
Wheeler	0	^	^	0	0.0	^
Yamhill	11	13.7	6.7 *	3	3.4	^

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.

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

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

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

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

# Leukemia

## LEUKEMIA - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	431	241	190
<b>RATES</b>			
Oregon Crude Rate (2006)	11.6	13.1	10.2
Oregon Age-adjusted Rate (2006)	11.1	13.6	9.1
US Age-adjusted Rate (2005) <sup>1</sup>	11.6	14.9	9.1
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	0.3	-1.0	2.2
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	302	182	120
<b>RATES</b>			
Oregon Crude Rate (2006)	8.2	9.9	6.4
Oregon Age-adjusted Rate (2006)	7.6	10.7	5.3
US Age-Adjusted Rate (2005) <sup>1</sup>	7.2	9.7	5.4
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	1.1	1.2	-0.4
<b>PROGNOSIS AND BURDEN</b>			
Prognosis: M/I Ratio (2002-2006)	0.69	0.69	0.68
Burden: YPLL (2002-2006)	1,467	842	625

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

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 blood cells to be produced and enter the bloodstream.

In 2006, a total of 431 Oregonians were diagnosed with leukemia and reported to the central registry. Median age at diagnosis was 60. During the same time period, 302 Oregonians died due to leukemia. Median age at death was 71.

The age-adjusted annual incidence rate for leukemia in 2006 was 11 per 100,000. The age-adjusted mortality rate among men was 14 per 100,000 and among women was 9 per 100,000.

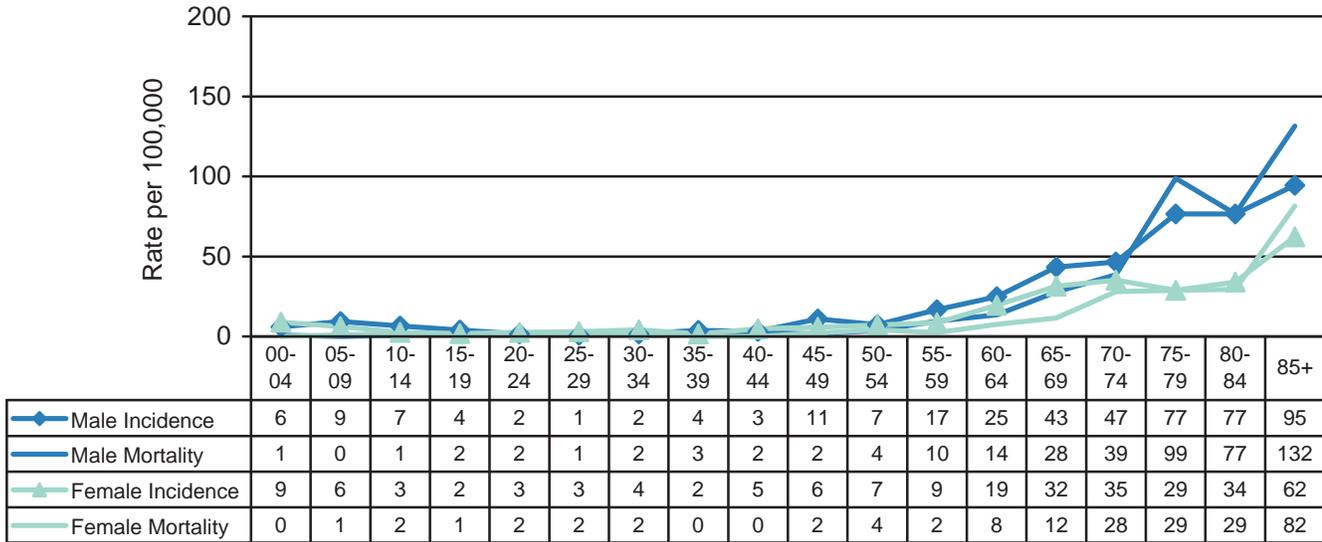
The age-adjusted mortality rate for leukemia in 2006 was 8 per 100,000. Among men, the rate was 11 per 100,000 and among women the rate was 5 per 100,000.

During the period 2002-2006, the mortality to incidence ratio was 69 deaths for every hundred new diagnoses. Based on a life expectancy of 65 years, a total of 1,467 years of potential life were lost annually due to early deaths from leukemia.

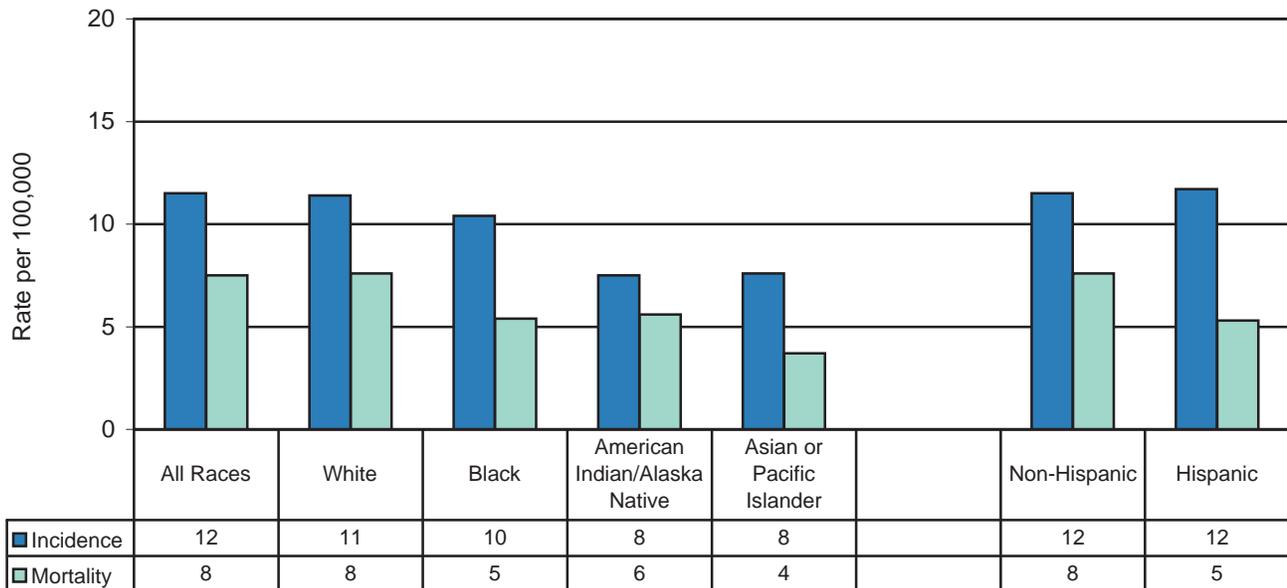
Leukemia incidence was significantly lower in Josephine and Lincoln counties, while mortality was significantly lower in Lincoln county ( $P < .05$ ). See *Leukemia Maps*.

# Leukemia

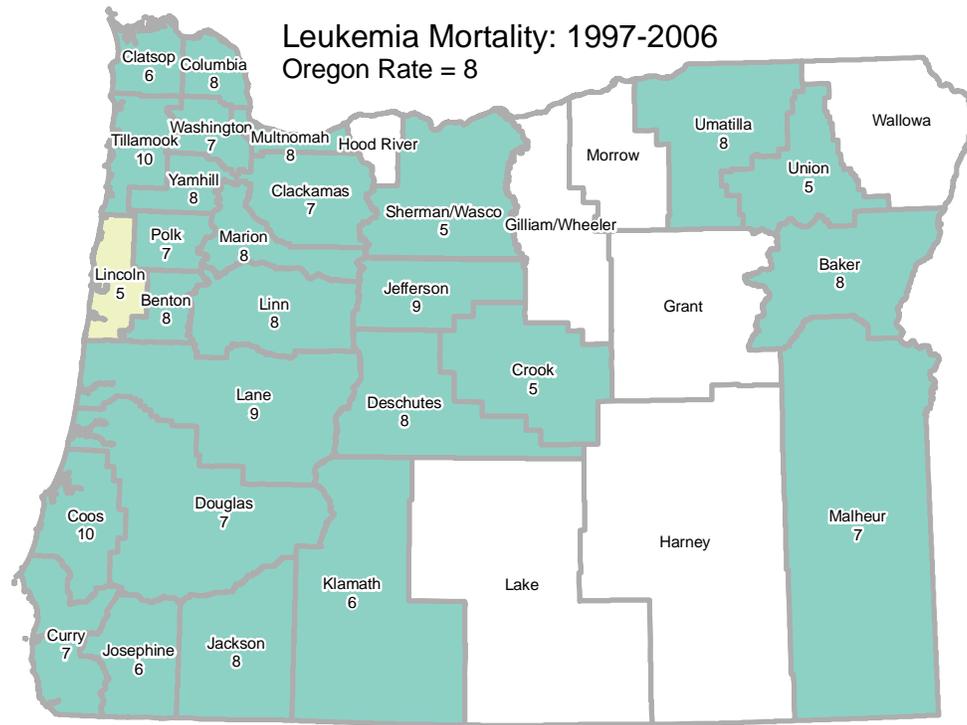
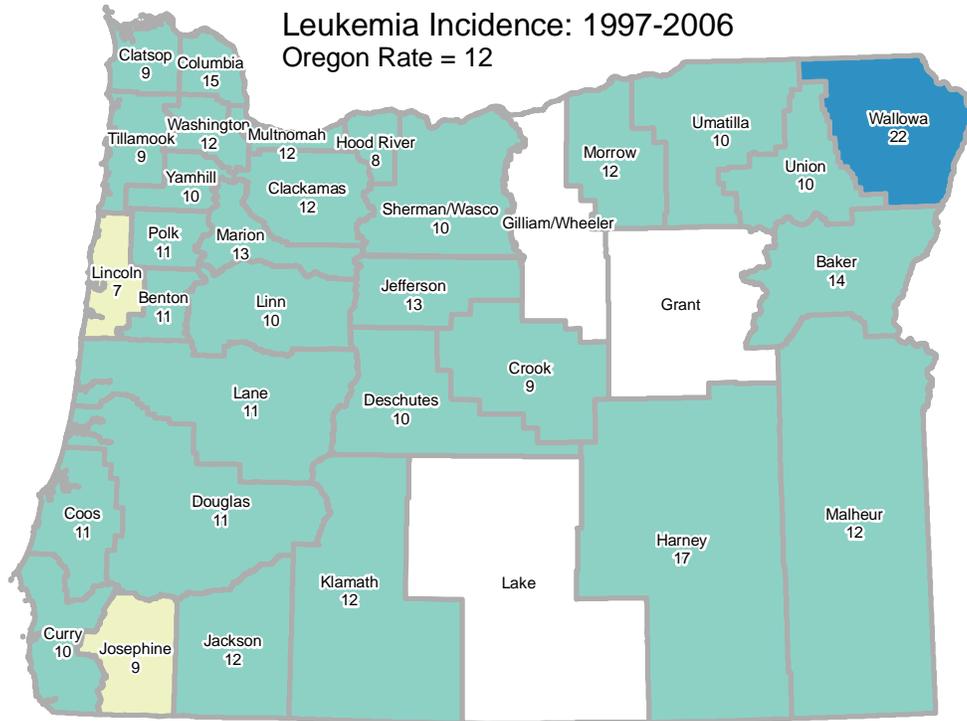
**Leukemia Incidence and Mortality Rates, by Age Group and Sex, Oregon, 2006**



**Leukemia Incidence and Mortality Rates, by Race and Ethnicity, Oregon, 1997-2006**



# Leukemia



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

# Leukemia

## Leukemia Incidence and Mortality by County, 1997-2006: Average Count, Annual Rate, and 10-Year Trend

LEUKEMIA 1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>413</b>	<b>11.5</b>	<b>-0.8</b>	<b>275</b>	<b>7.5</b>	<b>-0.6</b>
Baker	3	14.0	^	2	7.9	^
Benton	8	11.1	^	6	8.3	^
Clackamas	42	12.1	-3.3	25	7.4	-3.9
Clatsop	4	8.8	^	2	5.5	^
Columbia	7	15.0	^	3	7.5	^
Coos	10	11.3	^	9	9.7	^
Crook	2	9.0	^	1	5.3	^
Curry	4	9.5	^	3	7.1	^
Deschutes	12	9.5	-2.7	10	7.5	^
Douglas	15	11.3	3.0	10	6.9	^
Gilliam	1	^	^	0	^	^
Grant	1	^	^	1	^	^
Harney	1	16.7	^	1	^	^
Hood River	2	8.4	^	1	^	^
Jackson	27	11.9	0.8	19	8.1	0.1
Jefferson	2	12.6	^	2	9.3	^
Josephine	9	8.9 L	^	7	5.9	^
Klamath	9	12.1	^	4	5.8	^
Lake	1	^	^	1	^	^
Lane	39	11.1	2.4	31	8.5	-2.5
Lincoln	5	7.4 L	^	3	4.7 L	^
Linn	12	10.1	-1.8	10	8.1	5.5
Malheur	4	11.8	^	3	7.2	^
Marion	36	12.5	-2.8	23	7.9	0.4
Morrow	1	11.9	^	1	^	^
Multnomah	78	12.4	-1.7	49	7.7	-1.3
Polk	8	11.1	^	6	7.4	^
Sherman	0	^	^	0	^	^
Tillamook	3	9.1	^	3	9.5	^
Umatilla	7	10.2	^	5	7.7	^
Union	3	10.3	^	2	5.0	^
Wallowa	2	21.5 H	^	0	^	^
Wasco	3	10.4	^	1	4.4	^
Washington	46	11.8	-1.3	27	7.2	-1.8
Wheeler	0	^	^	0	^	^
Yamhill	9	10.3	^	6	7.5	^

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.

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

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

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

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

## Liver Cancer (including Intrahepatic Bile Duct)

### LIVER CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	216	146	70
<b>RATES</b>			
Oregon Crude Rate (2006)	5.8	7.9	3.8
Oregon Age-adjusted Rate (2006)	5.2	7.4	3.2
US Age-adjusted Rate (2005) <sup>1</sup>	5.8	9.0	3.1
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	4.2	4.8	2.3
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	142	103	39
<b>RATES</b>			
Oregon Crude Rate (2006)	3.8	5.6	2.1
Oregon Age-adjusted Rate (2006)	3.4	5.2	1.7
US Age-Adjusted Rate (2005) <sup>1</sup>	5.3	7.8	3.2
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	2.4	2.9	0.7
<b>PROGNOSIS AND BURDEN</b>			
Prognosis: M/I Ratio (2002-2006)	0.88	0.82	1.02
Burden: YPLL (2002-2006)	896	610	285

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* Indicates a statistically significant trend.

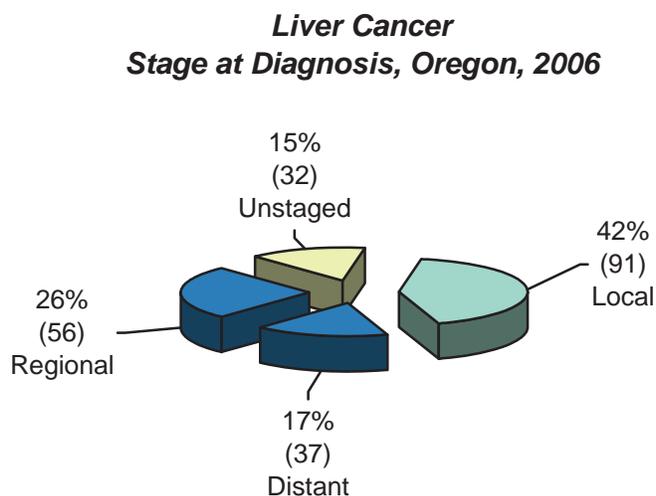
In 2006, 216 liver cancers were diagnosed among Oregon residents and reported to the central registry. Median age at diagnosis was 63. During the same time period, 142 Oregonians died due to liver cancer. Median age at death was 66.

Incidence and mortality were higher among men. The age-adjusted incidence among men was 7 per 100,000 and among women was 3 per 100,000. The age-adjusted mortality rate was 5 per 100,000 among men and 2 per 100,000 among women.

Forty two percent of the new liver cancers were diagnosed at the local stage and forty three percent were diagnosed at the regional or distant stage. Another 15 percent were unstaged.

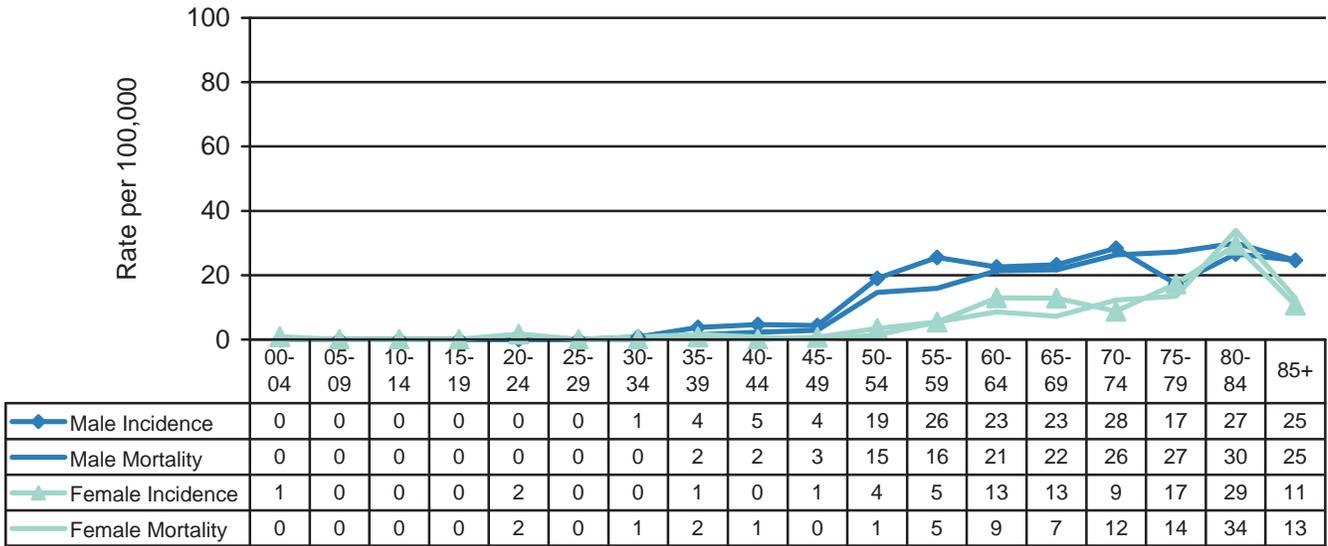
During the period 2002-2006, the mortality to incidence ratio was 0.88. Based on a life expectancy of 65 years, a total of 896 years of life were lost annually due to early deaths from liver cancer.

Liver cancer incidence was significantly higher in Coos, Curry, and Multnomah counties and statistically lower in Deschutes county. Curry and Multnomah counties had significantly higher mortality ( $P < .05$ ). See [Liver Cancer maps](#).

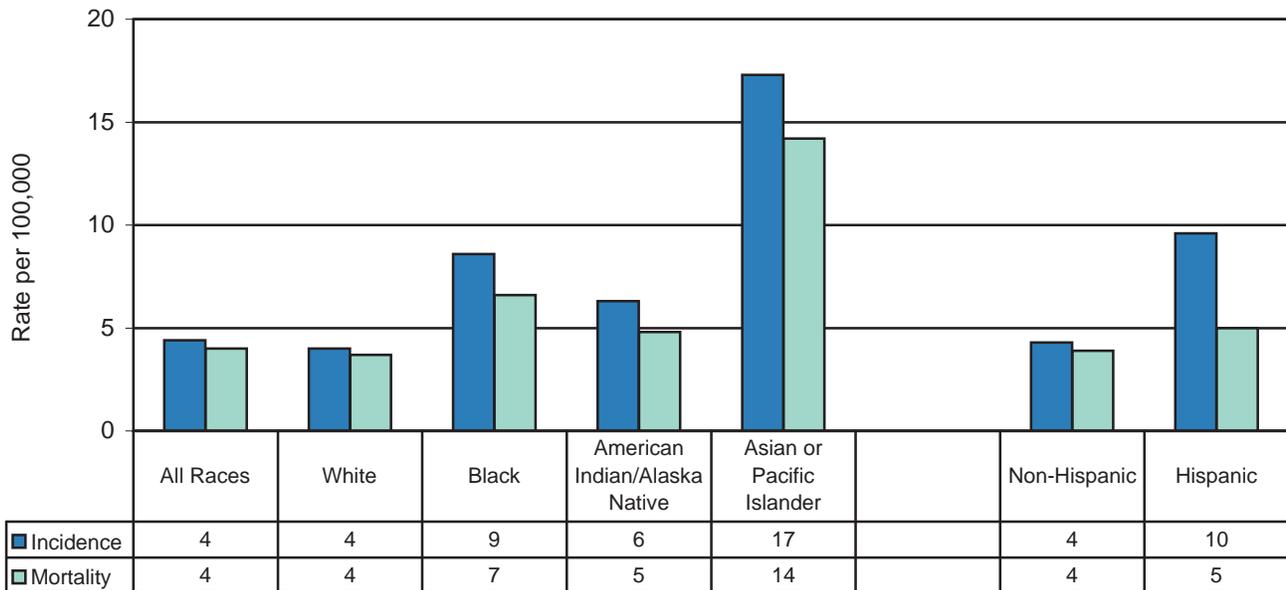


## Liver Cancer (including Intrahepatic Bile Duct)

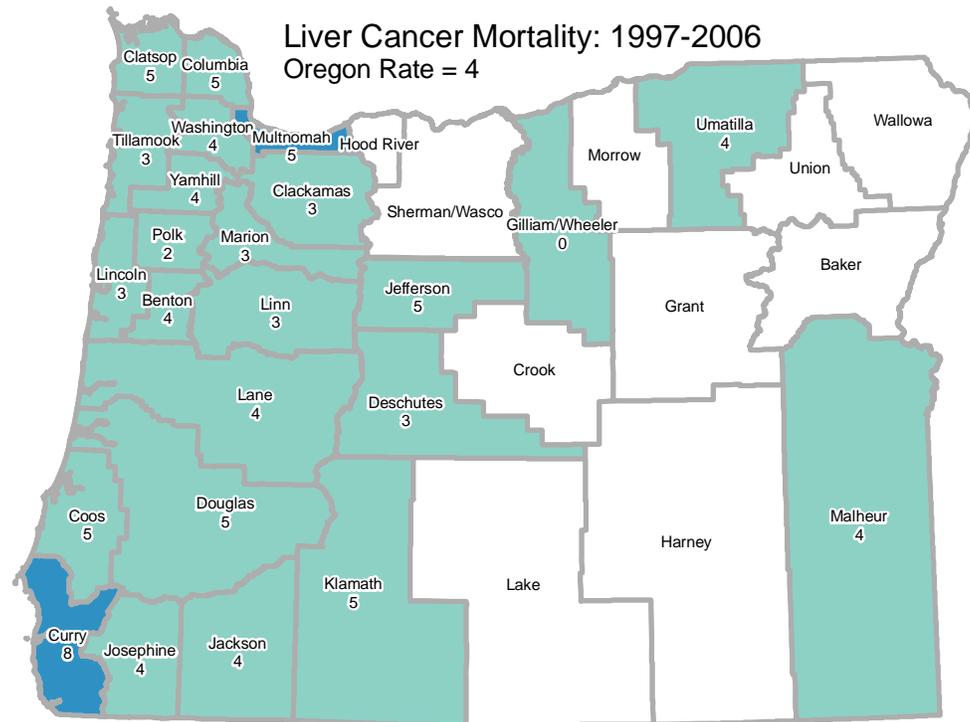
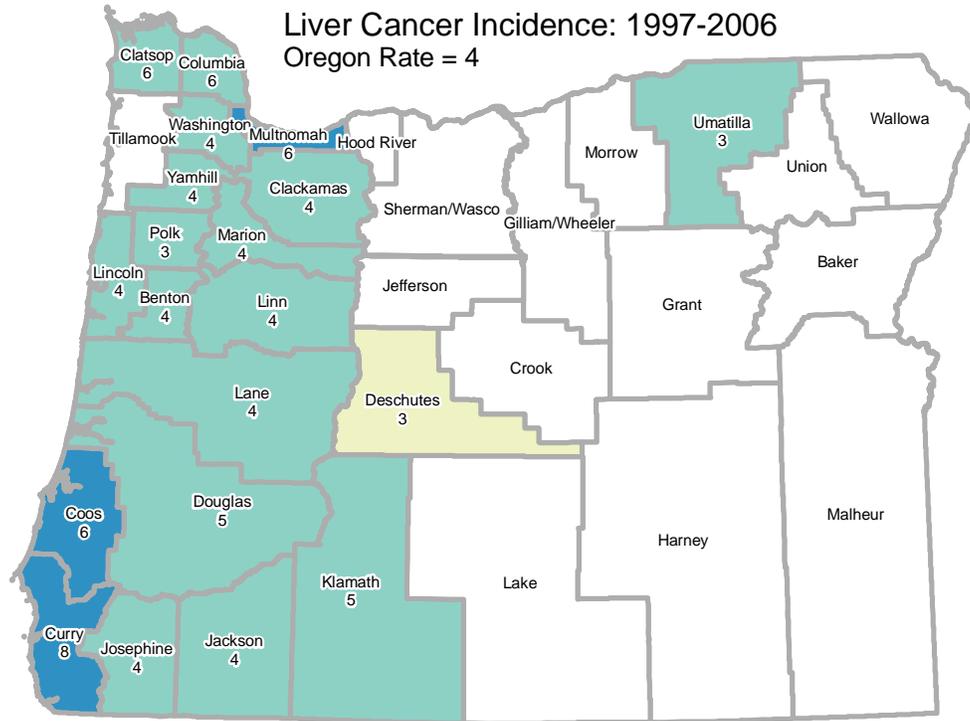
**Liver Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2006**



**Liver Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1997-2006**



# Liver Cancer (including Intrahepatic Bile Duct)



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

## Liver Cancer (including Intrahepatic Bile Duct)

**Liver Cancer Incidence and Mortality by County, 1997-2006:  
Average Count, Annual Rate, and 10-Year Trend**

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>163</b>	<b>4.4</b>	<b>5.8 *</b>	<b>145</b>	<b>4.0</b>	<b>4.9 *</b>
Baker	1	^	^	1	^	^
Benton	3	3.7	^	3	4.3	^
Clackamas	13	3.8	5.3 *	12	3.4	^
Clatsop	2	5.6	^	2	5.0	^
Columbia	3	5.6	^	2	5.2	^
Coos	5	6.3 H	^	4	4.7	^
Crook	1	^	^	0	^	^
Curry	3	7.8 H	^	3	8.1 H	^
Deschutes	4	2.8 L	^	4	2.8	^
Douglas	7	5.1	^	6	4.6	^
Gilliam	0	0.0	^	0	0.0	^
Grant	0	^	^	0	^	^
Harney	0	^	^	0	^	^
Hood River	1	^	^	1	^	^
Jackson	9	3.9	^	9	3.8	^
Jefferson	1	^	^	1	5.2	^
Josephine	5	4.4	^	5	4.1	^
Klamath	3	4.5	^	4	4.9	^
Lake	0	^	^	0	^	^
Lane	14	4.0	0.3	13	3.7	-0.2
Lincoln	3	3.8	^	2	2.9	^
Linn	5	4.2	^	4	2.9	^
Malheur	1	^	^	1	4.2	^
Marion	12	4.1	11.6 *	10	3.4	^
Morrow	1	^	^	1	0.0	^
Multnomah	41	6.4 H	6.9 *	33	5.3 H	5.2*
Polk	2	3.0	^	2	2.4	^
Sherman	0	0.0	^	0	0.0	^
Tillamook	1	^	^	1	2.8	^
Umatilla	2	3.2	^	3	3.5	^
Union	1	^	^	1	^	^
Wallowa	0	^	^	1	^	^
Wasco	1	^	^	1	3.2	^
Washington	16	4.1	9.7 *	13	3.5	12.7*
Wheeler	0	^	^	0	0.0	^
Yamhill	3	3.9	^	3	3.9	^

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.

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

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

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

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

# Lung and Bronchial Cancer

## LUNG AND BRONCHIAL CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	2,555	1,306	1,249
<b>RATES</b>			
Oregon Crude Rate (2006)	69.0	70.9	67.1
Oregon Age-adjusted Rate (2006)	64.4	73.2	57.9
US Age-adjusted Rate (2005) <sup>1</sup>	67.7	84.6	55.2
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-1.8	-2.5	-1.1
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	2,114	1,100	1,014
<b>RATES</b>			
Oregon Crude Rate (2006)	57.1	59.8	54.5
Oregon Age-adjusted Rate (2006)	53.4	62.8	46.5
US Age-Adjusted Rate (2005) <sup>1</sup>	52.8	69.4	40.6
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-1.3 *	-1.2	-1.5
<b>PROGNOSIS AND BURDEN</b>			
Prognosis: M/I Ratio (2002-2006)	0.80	0.82	0.79
Burden: YPLL (2002-2006)	4,398	2,399	1,999

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* Indicates a statistically significant trend.

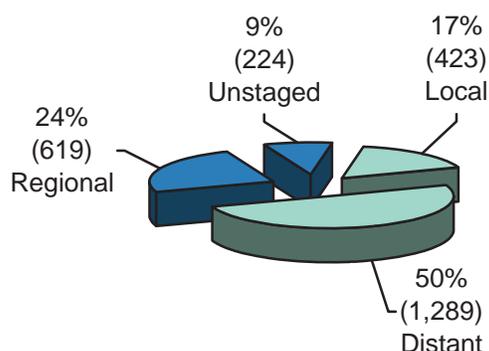
Among Oregon residents, 2,555 lung cancers were diagnosed in 2006 and reported to the central registry. Median age at diagnosis was 70. During the same time period, 2,114 Oregonians died due to lung cancer. Median age at death was 72. Based on a life expectancy of 65 years, a total of 4,398 years of life are lost annually due to early deaths from lung cancer.

Lung cancer is the leading cause of cancer death in Oregon and according to data from Oregon death certificates, 81 percent of lung cancer deaths are tobacco related. Though between 1996 and 2006 there was a 41 percent decline in smoking, there is an estimated latency period of 30 years between beginning to smoke and the onset of lung cancer.

During 1997-2006, lung cancer incidence was significantly higher for African American and American Indian/Alaska Native Oregonians than for white Oregonians.

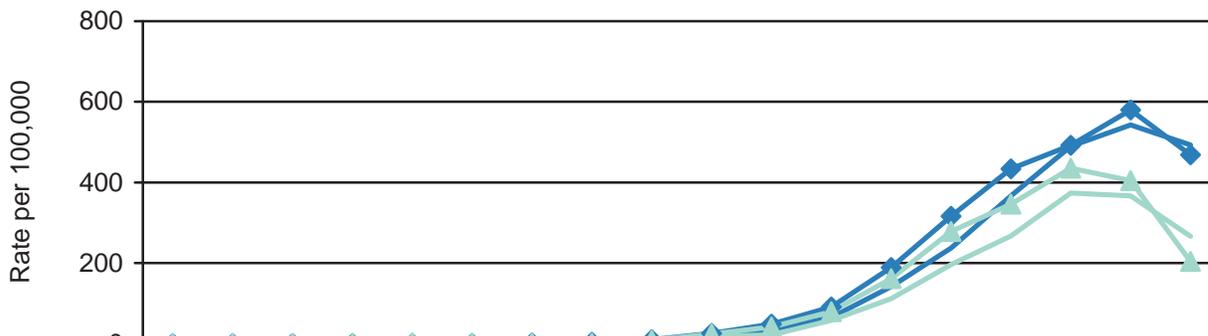
Lung cancer incidence and mortality was significantly higher in Columbia, Coos, Douglas, Josephine, Lincoln, and Multnomah. (Current smoking rates are significantly higher than the state as a whole in Columbia, Coos, Douglas, and Lincoln.) During the same time period, Douglas, Klamath, and Washington counties had statistically significant declines in lung cancer incidence and Wasco had a statistically significant increase. Douglas, Multnomah, and Washington counties had statistically significant declines in mortality. See [Lung Cancer maps](#).

### Lung and Bronchial Cancer Stage at Diagnosis, Oregon, 2006



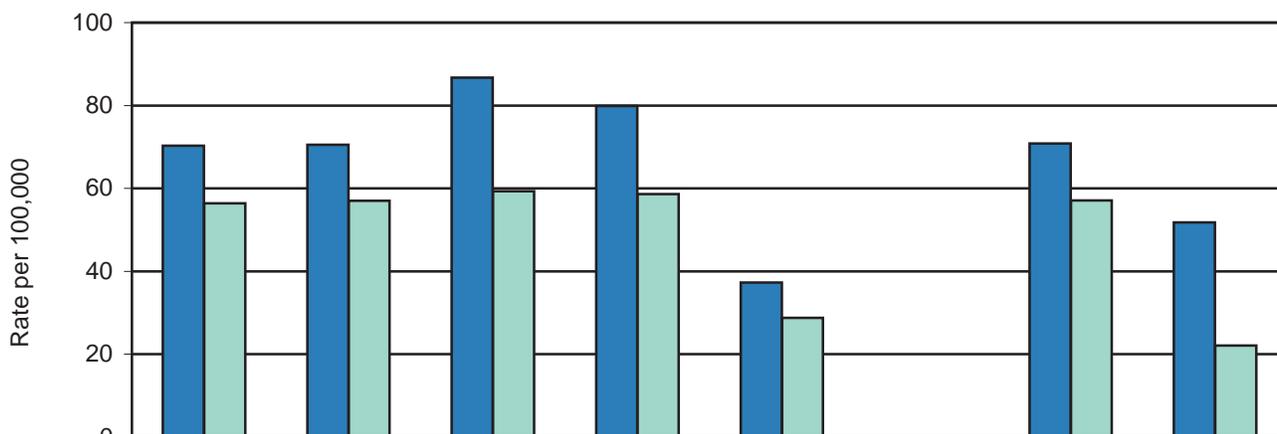
## Lung and Bronchial Cancer

**Lung and Bronchial Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2006**



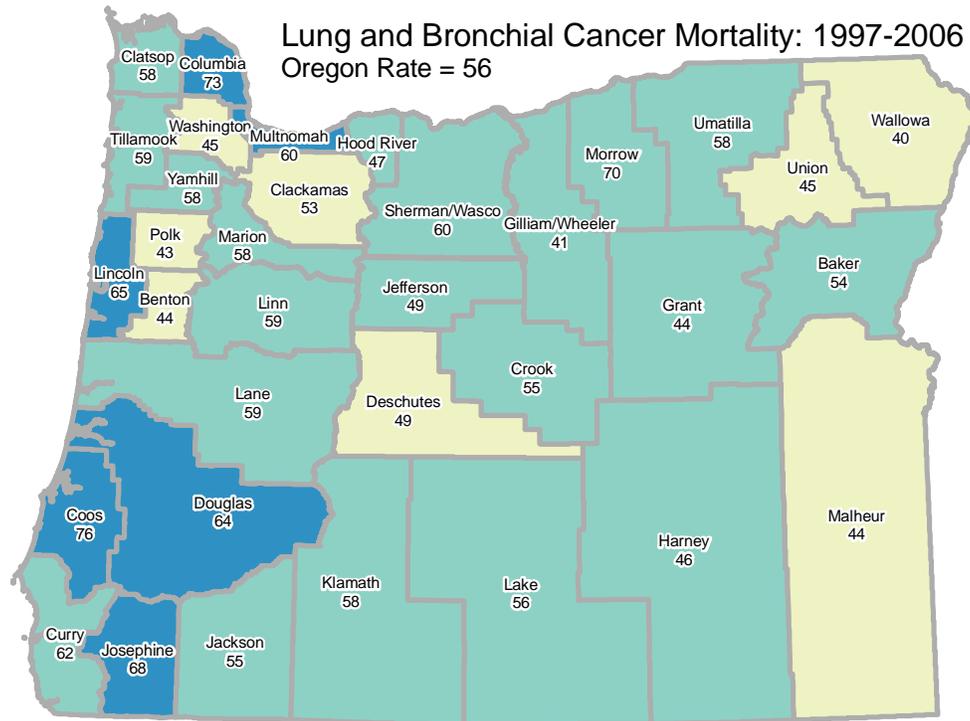
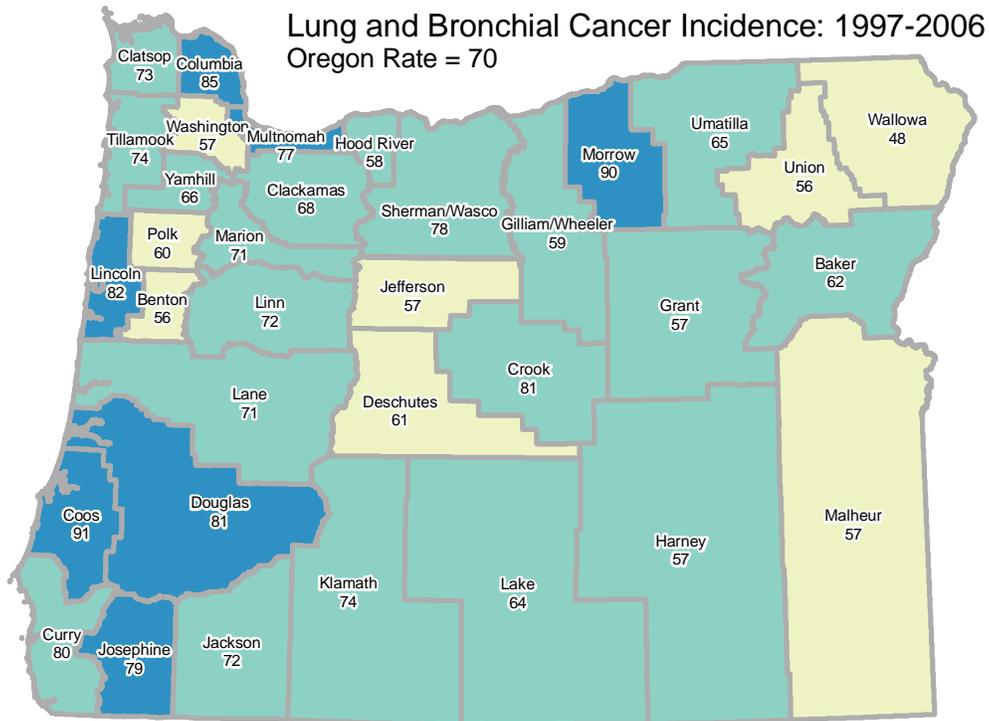
	00-04	05-09	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
◆ Male Incidence	0	0	0	0	0	0	2	3	9	25	48	91	188	316	434	492	580	468
■ Male Mortality	0	0	0	0	0	0	1	2	5	16	35	65	141	237	367	490	543	493
▲ Female Incidence	0	0	0	0	2	1	1	1	8	23	41	79	161	278	346	436	405	204
● Female Mortality	0	0	0	0	0	0	0	4	5	18	21	57	111	196	267	374	366	266

**Lung and Bronchial Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1997-2006**



	All Races	White	Black	American Indian/Alaska Native	Asian or Pacific Islander	Non-Hispanic	Hispanic
■ Incidence	70	71	87	80	37	71	52
■ Mortality	56	57	59	59	29	57	22

# Lung and Bronchial Cancer



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

## Lung and Bronchial Cancer

**Lung and Bronchial Cancer Incidence and Mortality by County, 1997-2006:  
Average Count, Annual Rate, and 10-Year Trend**

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>2,540</b>	<b>70.3</b>	<b>-0.9 *</b>	<b>2,046</b>	<b>56.4</b>	<b>-1.2 *</b>
Baker	15	61.7	2.6	13	53.6	-2.2
Benton	38	55.5 L	-1.1	30	43.8 L	0.0
Clackamas	232	68.4	-0.7	178	52.8 L	-1.2
Clatsop	32	72.9	-0.8	26	58.5	-1.6
Columbia	38	84.9 H	-1.4	32	72.9 H	-0.2
Coos	84	91.1 H	-2.0	72	76.5 H	-2.3
Crook	20	80.9	0.2	13	55.2	-1.5
Curry	33	79.9	2.2	26	62.2	-2.6
Deschutes	81	60.7 L	-1.7	65	49.2 L	-0.1
Douglas	114	80.6 H	-2.7 *	91	64.2 H	-2.5 *
Gilliam	2	61.1	^	1	^	^
Grant	6	57.4	^	5	44.0	^
Harney	5	56.7	^	4	46.3	^
Hood River	12	58.2	-3.2	10	47.3	1.7
Jackson	167	72.5	-0.8	129	55.3	-0.3
Jefferson	12	57.2 L	0.5	10	48.7	^
Josephine	92	79.0 H	1.2	80	67.8 H	2.2
Klamath	57	74.3	-4.0 *	45	58.1	-2.7
Lake	7	64.0	^	6	55.8	^
Lane	249	70.6	0.4	209	59.1	-0.6
Lincoln	54	82.3 H	-0.1	43	64.8 H	0.6
Linn	87	72.5	1.5	72	59.2	0.7
Malheur	19	57.4 L	-0.5	15	44.0	-6.3
Marion	198	70.6	-1.1	164	58.0	-0.7
Morrow	9	89.6 H	^	7	70.3	^
Multnomah	460	76.6 H	-0.3	364	60.4 H	-1.1 *
Polk	44	60.2 L	0.3	32	42.9 L	-2.0
Sherman	2	57.3	^	1	53.1	^
Tillamook	27	73.6	-1.4	21	58.8	-0.9
Umatilla	45	64.9	-3.0	41	57.7	-2.0
Union	16	56.4 L	-1.8	13	45.4 L	-3.8
Wallowa	5	48.5 L	^	4	40.0 L	^
Wasco	24	80.2	3.7 *	19	60.3	2.1
Washington	199	56.6 L	-2.2 *	159	45.4 L	-3.0*
Wheeler	2	59.5	^	1	49.4	^
Yamhill	55	66.3	-2.4	48	57.6	-0.3

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.

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

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

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

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

# Lymphoma

## LYMPHOMA - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	851	487	364
<b>RATES</b>			
Oregon Crude Rate (2006)	23.0	26.5	19.6
Oregon Age-adjusted Rate (2006)	21.4	26.4	17.2
US Age-adjusted Rate (2005) <sup>1</sup>	21.8	26.0	18.4
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-1.7	-0.7	-2.7
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	282	145	137
<b>RATES</b>			
Oregon Crude Rate (2006)	7.6	7.9	7.4
Oregon Age-adjusted Rate (2006)	7.0	8.2	6.1
US Age-Adjusted Rate (2005) <sup>1</sup>	7.3	9.3	5.9
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-4.6	-5.2	-3.4
<b>PROGNOSIS AND BURDEN</b>			
Prognosis: M/I Ratio (2002-2006)	0.36	0.35	0.37
Burden: YPLL (2002-2006)	1,098	699	399

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

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, 851 cases of lymphoma were diagnosed in 2006 and reported to the central registry. Median age at diagnosis was 62. During the same time period, 282 Oregonians died due to lymphoma. Median age at death was 73.

The age-adjusted incidence of lymphoma in 2006 was 21 cases per 100,000 people. Among men, incidence was 26 per 100,000 and among women 17 per 100,000.

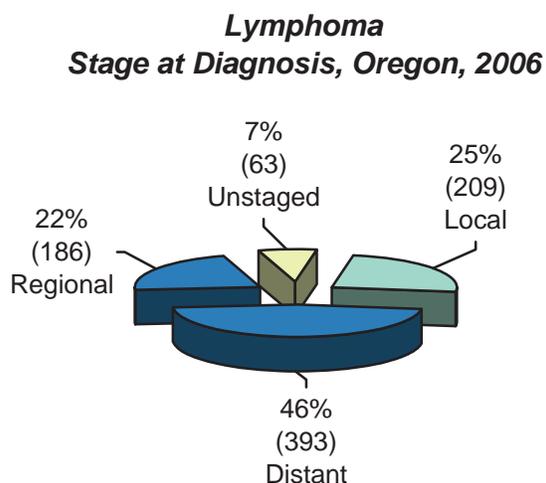
The age-adjusted mortality rate due to lymphoma was 7 per 100,000.

Among men, the mortality rate was 8 per 100,000 and among women 6 per 100,000.

During the period 2002-2006, the mortality to incidence ratio was 0.36, meaning there was about one death for every three new lymphoma diagnoses. Based on a life expectancy of 65 years, a total of 1,098 years of life were lost annually due to early deaths from lymphoma.

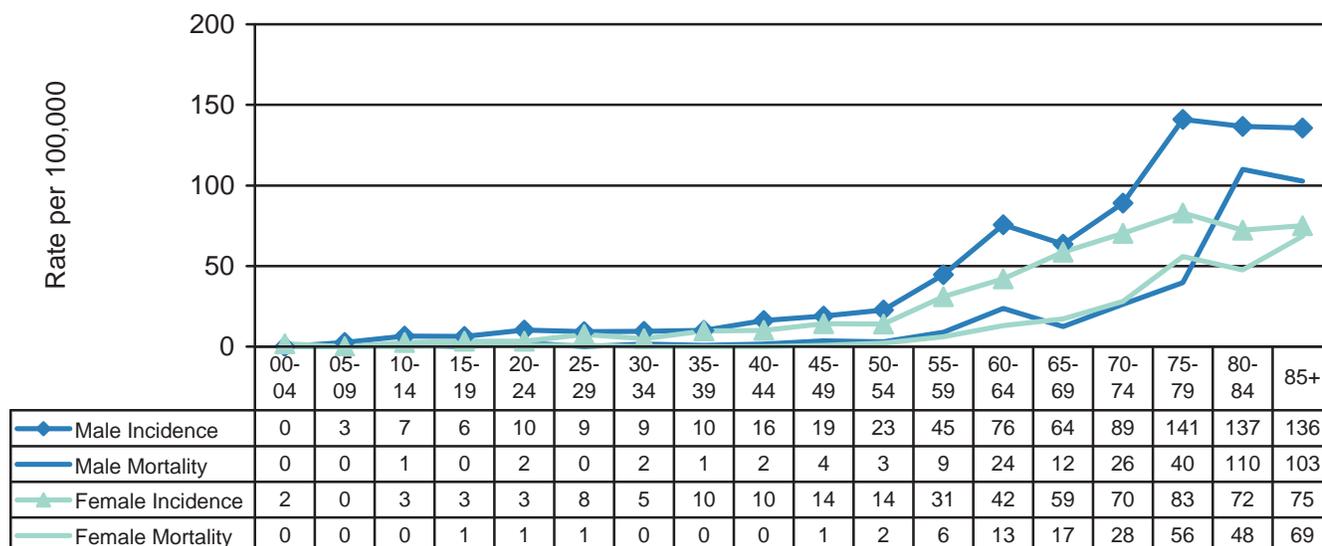
During 1997-2006, there was a significant increase in new cases of lymphoma in Jackson county and significantly higher incidence during the overall period (though there was a decrease in mortality). Elsewhere, there were significant declines in lymphoma mortality statewide and in Douglas and Multnomah counties.

Lymphoma incidence was significantly higher in Jackson county and mortality was not significantly different in any portion of the state. See [Lymphoma maps](#).

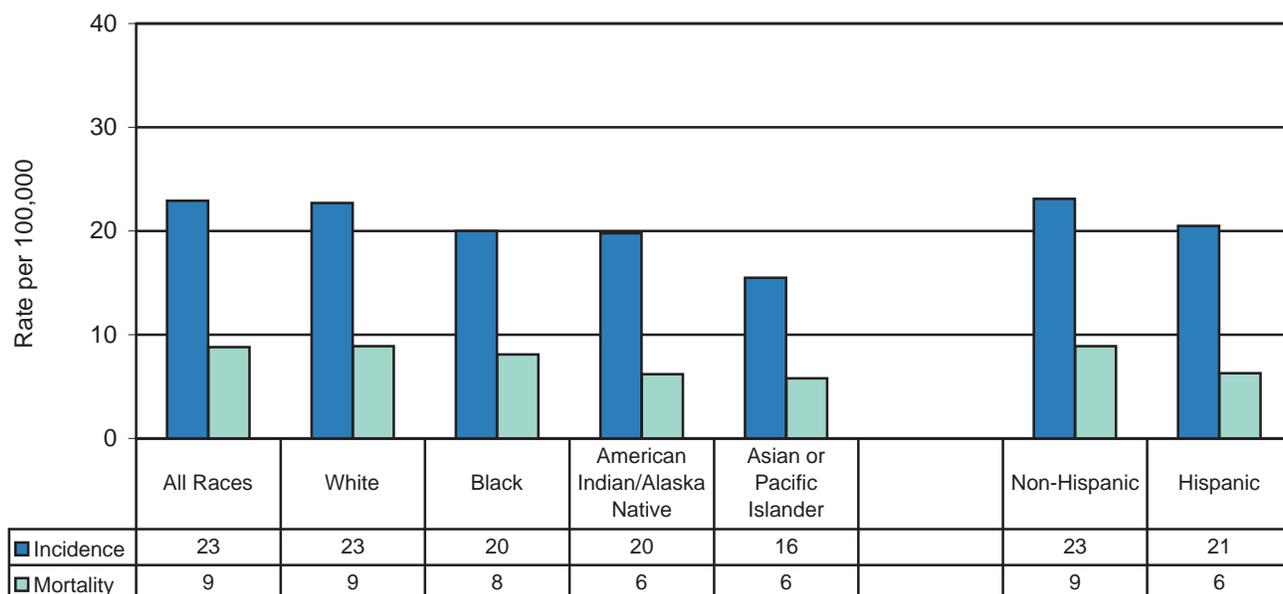


# Lymphoma

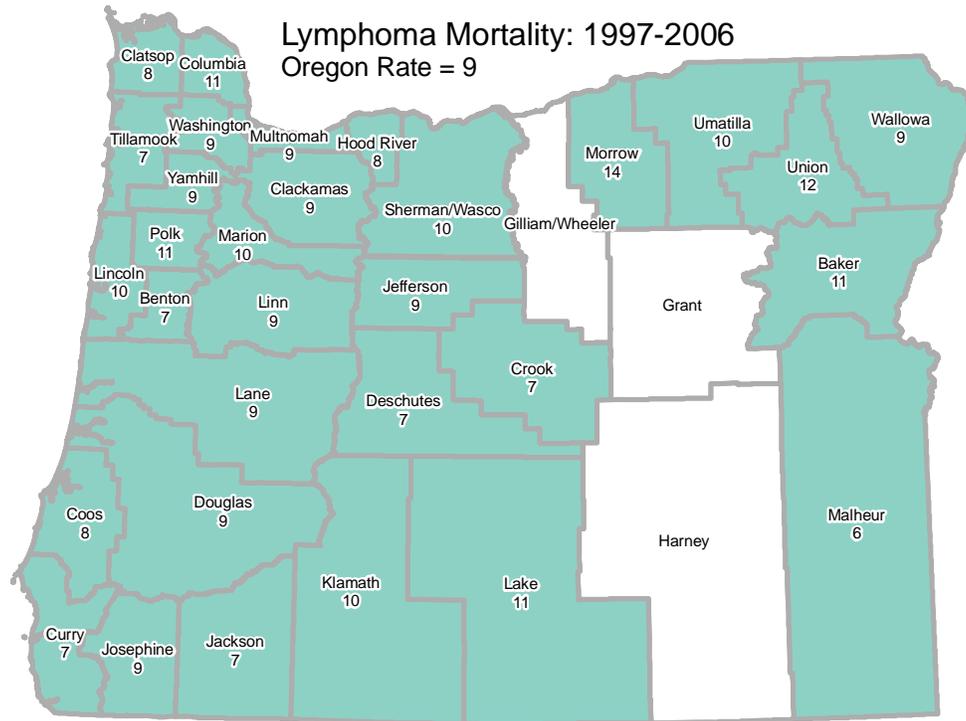
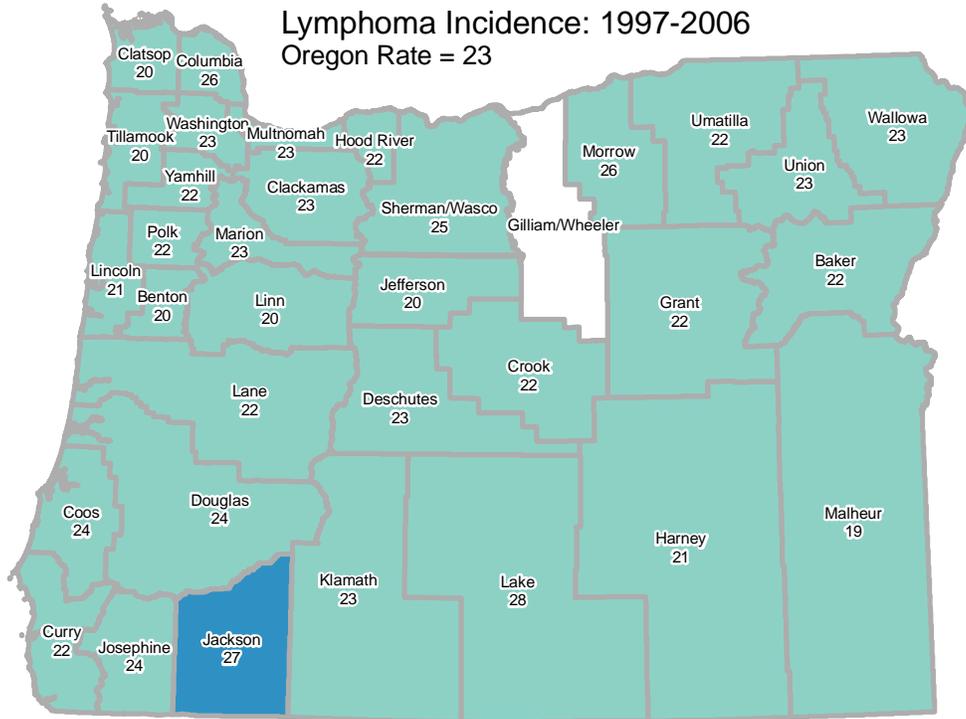
**Lymphoma Incidence and Mortality Rates, by Age Group and Sex, Oregon, 2006**



**Lymphoma Incidence and Mortality Rates, by Race and Ethnicity, Oregon, 1997-2006**



# Lymphoma



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

# Lymphoma

## Lymphoma Incidence and Mortality by County, 1997-2006: Average Count, Annual Rate, and 10-Year Trend

LYMPHOMA 1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>830</b>	<b>22.9</b>	<b>0.5</b>	<b>325</b>	<b>8.8</b>	<b>-2.4*</b>
Baker	5	22.3	^	3	10.9	^
Benton	14	20.1	-3.2	5	6.8	^
Clackamas	79	22.6	-1.3	31	9.2	-2.9
Clatsop	9	19.8	^	4	8.2	^
Columbia	12	25.7	-6.0	5	11.4	^
Coos	20	24.3	3.5	7	8.4	^
Crook	5	22.0	^	2	7.1	^
Curry	7	21.5	^	3	6.8	^
Deschutes	30	23.1	2.0	9	7.2	^
Douglas	31	23.9	0.8	12	8.9	-7.8*
Gilliam	1	^	^	0	^	^
Grant	2	21.6	^	1	^	^
Harney	2	21.3	^	1	^	^
Hood River	5	21.9	^	2	8.2	^
Jackson	60	27.2 H	4.6*	17	7.4	-0.5
Jefferson	4	19.6	^	2	9.2	^
Josephine	25	23.7	2.6	10	8.9	^
Klamath	17	23.0	5.5	8	10.4	^
Lake	3	28.5	^	1	10.6	^
Lane	77	22.0	1.7	30	8.5	-1.5
Lincoln	13	21.2	0.0	7	10.4	^
Linn	24	20.2	4.8	11	9.0	-2.6
Malheur	6	19.4	^	2	6.0	^
Marion	66	23.0	0.9	28	9.6	0.6
Morrow	3	25.6	^	1	13.8	^
Multnomah	148	23.0	-1.4	58	9.1	-4.4*
Polk	16	21.9	0.3	8	10.8	^
Sherman	0	^	^	0	^	^
Tillamook	7	20.2	^	3	6.9	^
Umatilla	16	22.4	4.9	7	9.6	^
Union	6	22.6	^	3	11.6	^
Wallowa	2	23.4	^	1	10.3	^
Wasco	8	26.0	^	3	10.3	^
Washington	91	23.1	-0.5	32	9.0	-1.8
Wheeler	0	^	^	0	0.0	^
Yamhill	19	22.2	4.6	8	8.9	^

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.

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

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

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

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

## Melanoma of the Skin

### MELANOMA OF THE SKIN - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	1,785	947	838
<b>RATES</b>			
Oregon Crude Rate (2006)	25.5	27.0	24.0
Oregon Age-adjusted Rate (2006)	23.6	26.7	21.6
US Age-adjusted Rate (2005) <sup>1</sup>	18.5	23.2	15.1
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	1.9	1.3	2.2
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	118	77	41
<b>RATES</b>			
Oregon Crude Rate (2006)	3.2	4.2	2.2
Oregon Age-adjusted Rate (2006)	3.0	4.3	2.0
US Age-adjusted Rate (2005) <sup>1</sup>	2.7	4.0	1.8
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-3.1 *	-2.1	-4.5
<b>PROGNOSIS AND BURDEN</b>			
Prognosis: M/I Ratio (2002-2006)	0.10	0.12	0.07
Burden: YPLL (2002-2006)	724	424	299

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

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, 1,785 melanomas were diagnosed in 2006 and reported to the central registry. Median age at diagnosis was 60. During the same time period, 118 Oregonians died due to melanoma. Median age at death for all skin cancers was 66.

The age-adjusted incidence rate of melanoma in 2006 was 24 per 100,000. Among men, the incidence rate was 27 per 100,000 and among women the rate was 22 per 100,000. The age-adjusted mortality rate of melanoma in 2006 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.

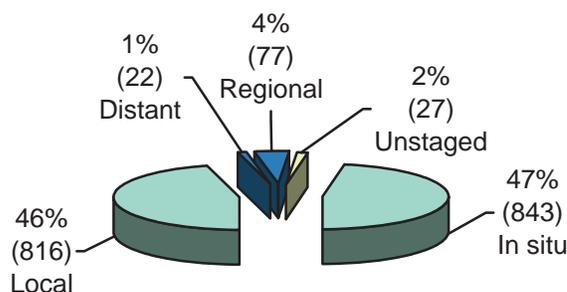
Most melanomas (93 percent) were diagnosed at the *in situ* or local stage.

During the period 2002-2006, there were 10 deaths for every 100 melanoma diagnoses. Based on a life expectancy of 65 years, an average of 724 years of life were lost annually due to early deaths from melanoma.

Melanoma incidence and mortality were significantly higher for whites than Oregonians of all other races.

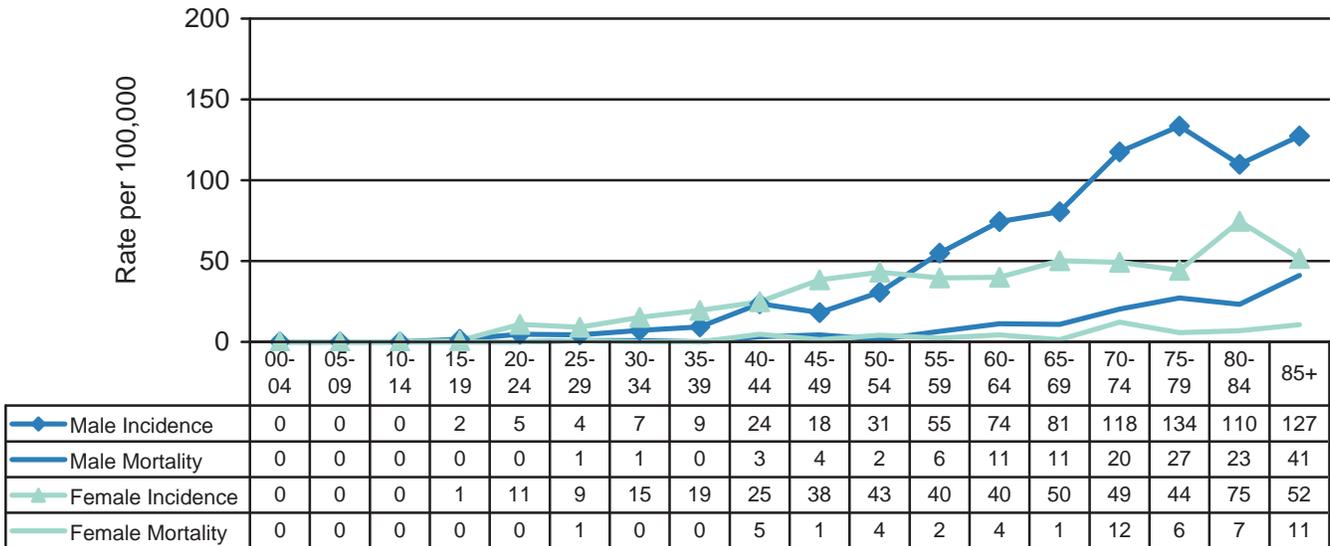
Trends for 1997-2006 show statistically significant increases in incidence at the state level and in Douglas, Josephine, and Polk counties. Regionally, melanoma incidence was significantly higher in Clackamas, Coos, Deschutes, Douglas, and Jackson and significantly lower in Clatsop, Jefferson, Klamath, Linn, Malheur, Umatilla, and Yamhill counties. See [Melanoma maps](#).

### Melanoma of the Skin Stage at Diagnosis, Oregon, 2006

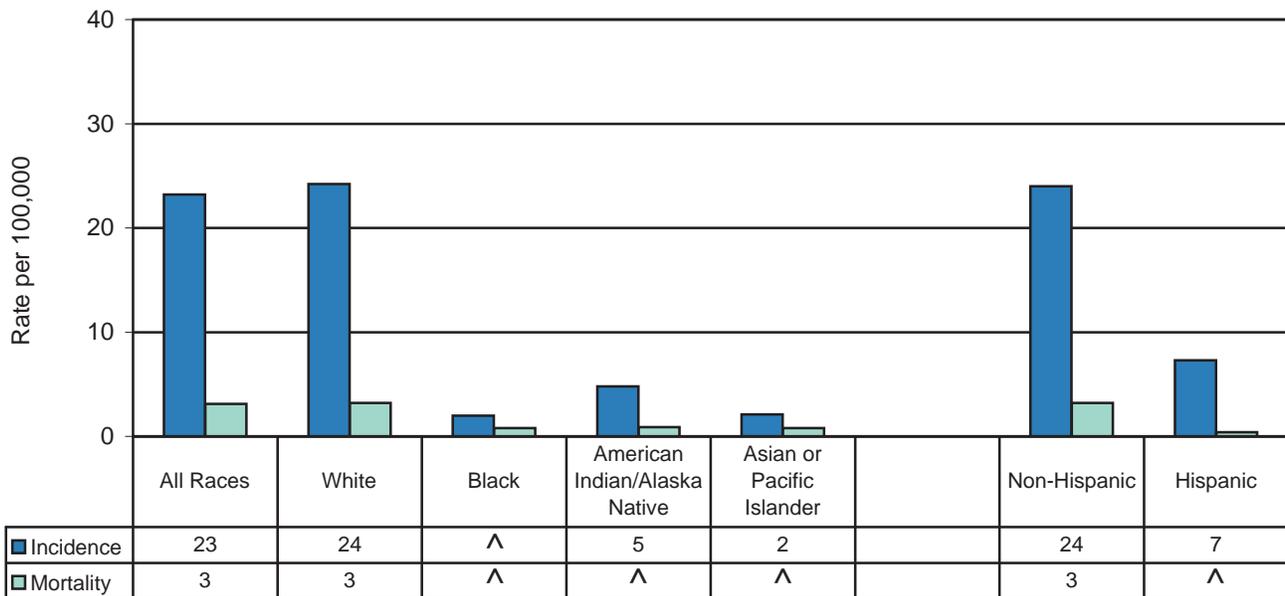


# Melanoma of the Skin

**Melanoma of the Skin Incidence and Mortality Rates, by Age Group and Sex, Oregon, 2006**

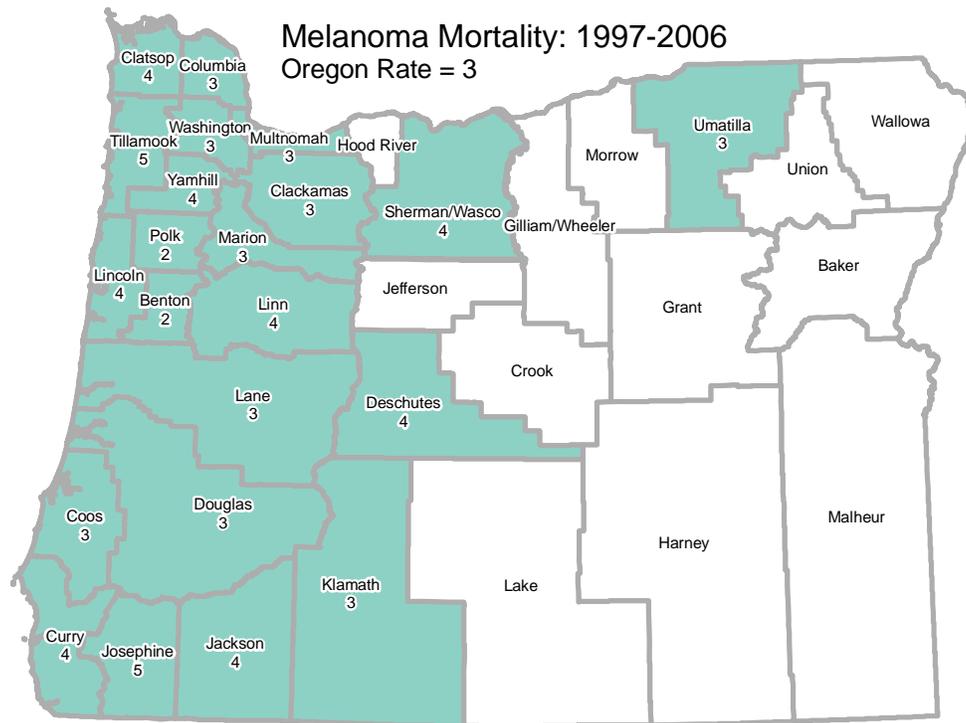
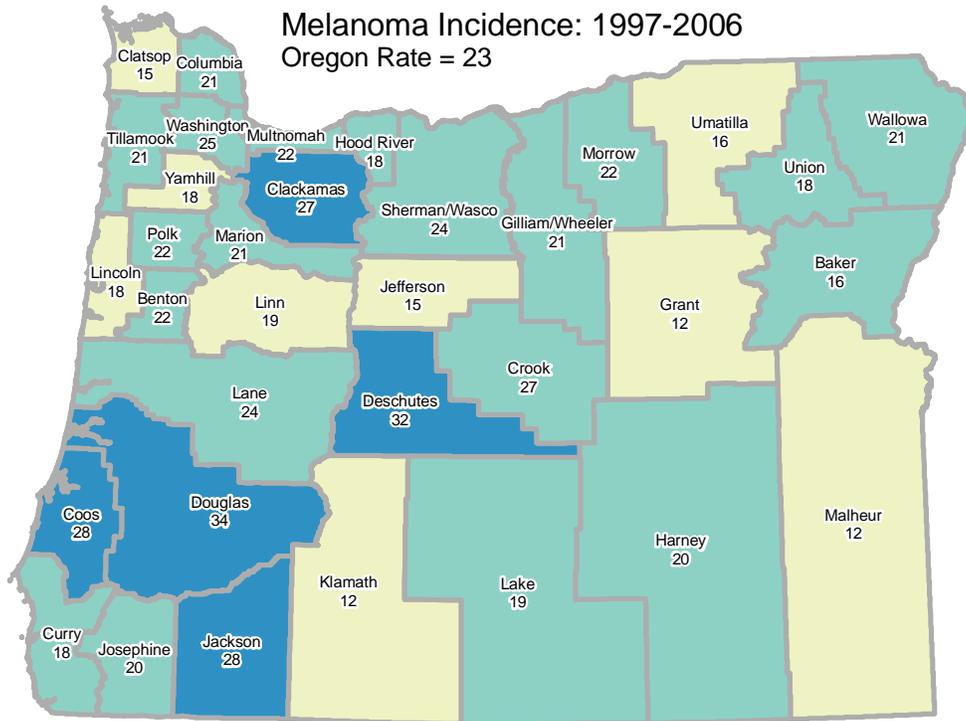


**Melanoma of the Skin Incidence and Mortality Rates, by Race and Ethnicity, Oregon, 1997-2006**



^ Rate not calculated due to instability of small numbers

# Melanoma of the Skin



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

## Melanoma of the Skin

### Melanoma Incidence and Mortality by County, 1997-2006: Average Count, Annual Rate, and 10-Year Trend

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>841</b>	<b>23.2</b>	<b>2.5 *</b>	<b>115</b>	<b>3.1</b>	<b>0.0</b>
Baker	3	16.3	^	0	^	^
Benton	16	21.8	11.2 *	1	2.0	^
Clackamas	97	26.8 H	2.5	11	3.2	-3.1
Clatsop	6	15.3 L	^	2	3.7	^
Columbia	10	21.2	^	1	2.9	^
Coos	23	28.2 H	-3.6	3	3.4	^
Crook	6	26.8	^	1	^	^
Curry	6	18.5	^	1	4.1	^
Deschutes	42	32.0 H	1.2	5	4.1	^
Douglas	41	34.3 H	4.7 *	4	2.8	^
Gilliam	1	^	^	0	^	^
Grant	1	12.4	^	1	^	^
Harney	2	20.0	^	0	^	^
Hood River	4	18.5	^	0	^	^
Jackson	58	28.0 H	4.0	8	3.7	^
Jefferson	3	14.9 L	^	1	^	^
Josephine	19	19.9	3.4 *	5	4.6	^
Klamath	9	12.1 L	^	2	2.5	^
Lake	2	18.8	^	1	^	^
Lane	82	23.7	-3.6	11	3.2	2.9
Lincoln	10	18.4	^	2	3.9	^
Linn	22	18.7 L	0.6	4	3.5	^
Malheur	4	11.8 L	^	1	^	^
Marion	60	21.1	5.6	9	3.1	^
Morrow	2	22.3	^	1	^	^
Multnomah	147	22.0	1.9	18	2.8	-0.6
Polk	15	21.9	9.1 *	2	2.3	^
Sherman	0	^	^	0	^	^
Tillamook	7	21.1	^	2	5.4	^
Umatilla	11	15.8 L	0.3	2	2.5	^
Union	5	17.7	^	1	^	^
Wallowa	2	20.9	^	0	^	^
Wasco	7	25.0	^	1	4.6	^
Washington	105	25.1	2.4	11	2.9	-2.2
Wheeler	0	^	^	0	0.0	^
Yamhill	16	18.5 L	6.4	3	3.5	^

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.

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

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

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

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

# Oral and Pharyngeal Cancer

## ORAL AND PHARYNGEAL CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	430	296	134
<b>RATES</b>			
Oregon Crude Rate (2006)	11.3	15.8	6.9
Oregon Age-adjusted Rate (2006)	10.2	15.2	5.9
US Age-adjusted Rate (2005) <sup>1</sup>	10.3	15.5	5.9
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-2.4	-0.8	-5.9
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	95	68	27
<b>RATES</b>			
Oregon Crude Rate (2006)	2.6	3.7	1.5
Oregon Age-adjusted Rate (2006)	2.3	3.7	1.2
US Age-Adjusted Rate (2005) <sup>1</sup>	2.5	3.8	1.4
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-1.7	2.3	-8.7
<b>PROGNOSIS AND BURDEN</b>			
Prognosis: M/I Ratio (2002-2006)	0.24	0.22	0.27
Burden: YPLL (2002-2006)	363	285	78

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

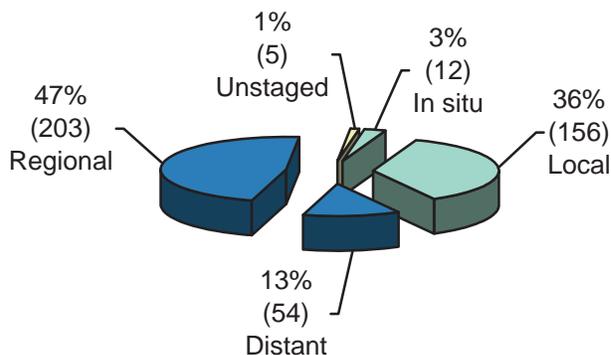
APC = Average Annual Percent Change.

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, 2006



Among Oregon residents, 430 cancers of the mouth and pharynx were diagnosed in 2006 and reported to the central registry. Median age at diagnosis was 63. During the same time period, 95 Oregonians died due to oropharyngeal cancer. Median age at death was 69.

The age-adjusted incidence rate of oropharyngeal cancer in 2006 was 10 per 100,000. Among men, the incidence rate was 15 per 100,000 and among women the rate was 6 per 100,000. The age-adjusted mortality rate of oropharyngeal cancer in 2006 was 2 per 100,000. Among men, the mortality rate was 4 per 100,000 and among women the rate was 1 per 100,000.

Nearly two-fifths (39 percent) were diagnosed at the *in situ* or local stage.

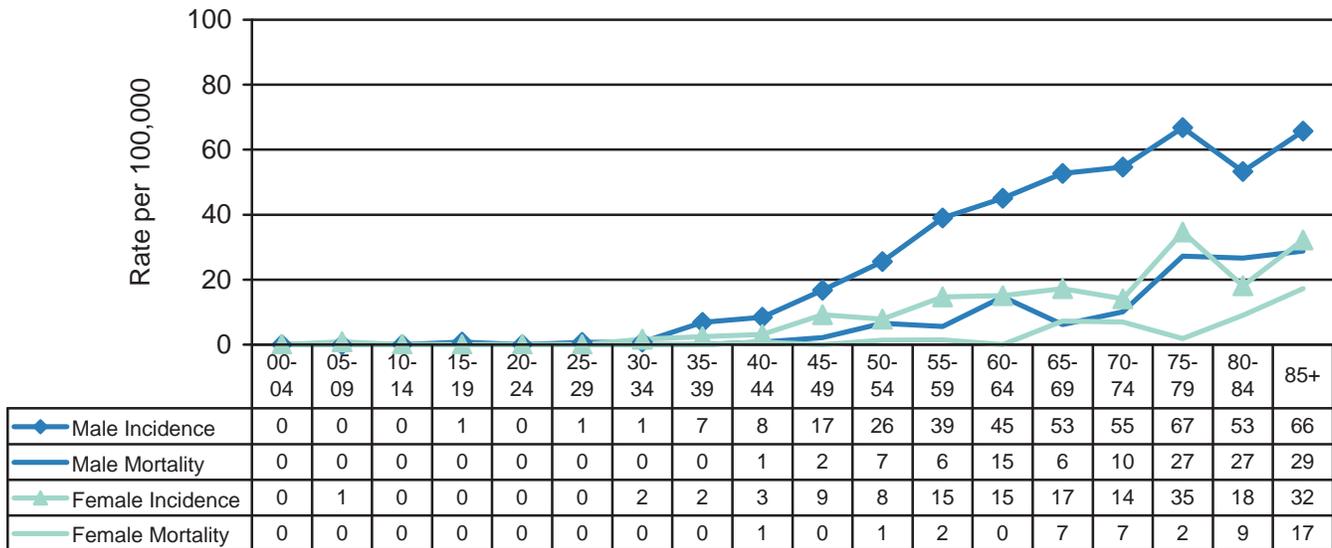
During the period 2002-2006, there were 24 deaths for every 100 diagnoses of invasive oropharyngeal cancer. Based on a life expectancy of 65 years, an average of 363 years of life were lost annually due to early deaths from oropharyngeal cancer.

For the state as a whole, the 10-year-trends for oropharyngeal cancer incidence and mortality are significantly decreasing.

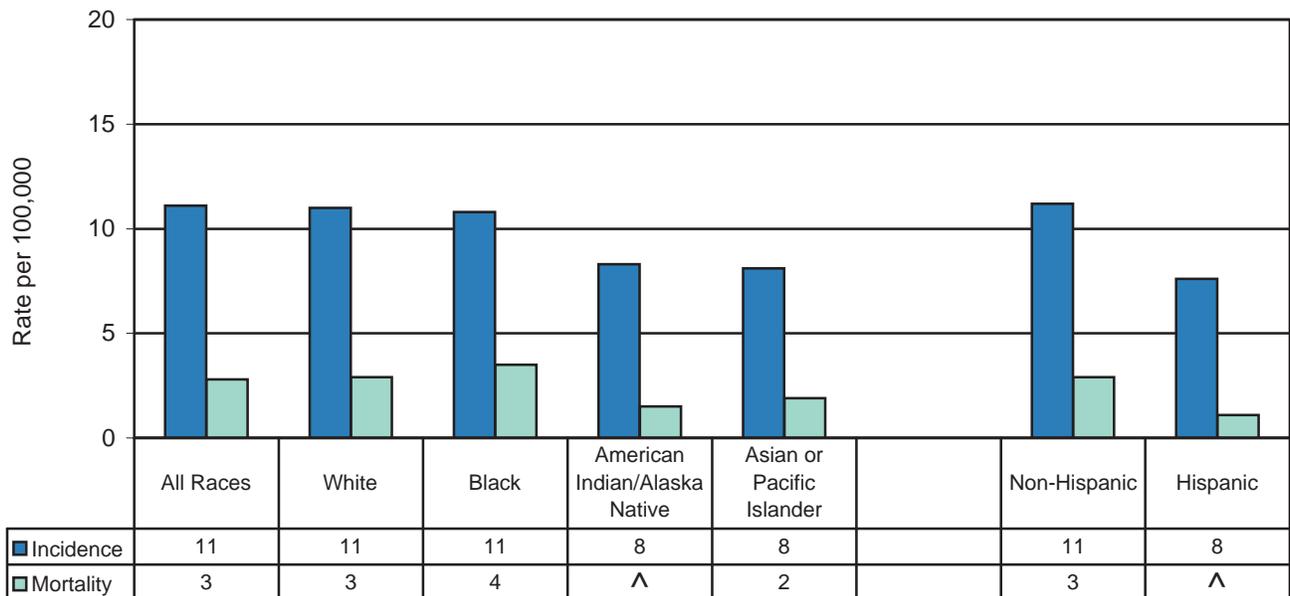
Oropharyngeal incidence and mortality rates were significantly higher in Coos and Multnomah counties. See [Oropharyngeal Cancer maps](#).

# Oral and Pharyngeal Cancer

**Oral and Pharyngeal Cancer Incidence and Mortality Rates,  
by Age Group and Sex, Oregon, 2006**

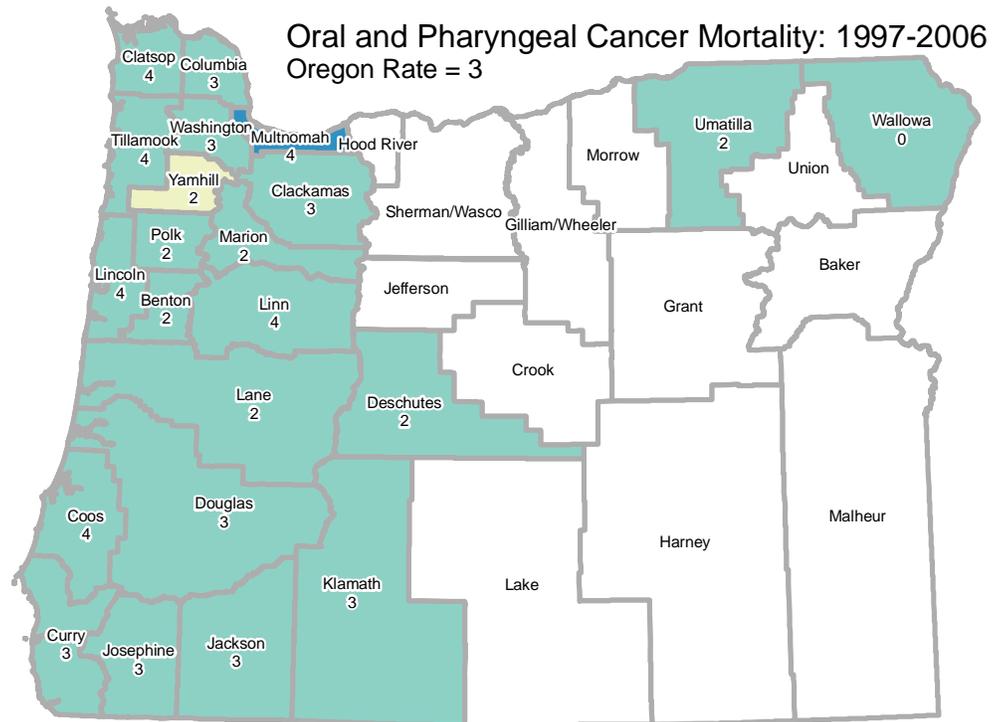
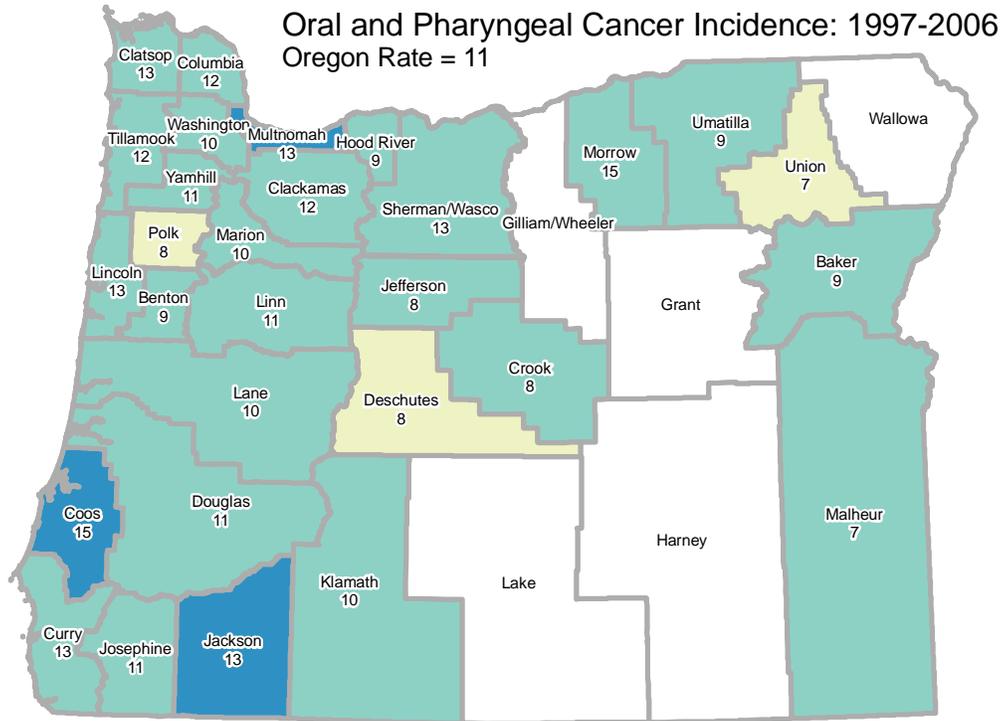


**Oral and Pharyngeal Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1997-2006**



^ Rate not calculated due to instability of small numbers

# Oral and Pharyngeal Cancer



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

## Oral and Pharyngeal Cancer

**Oral and Pharyngeal Cancer Incidence and Mortality by County, 1997-2006:  
Average Count, Annual Rate, and 10-Year Trend**

ORAL/PHARYNGEAL 1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>406</b>	<b>11.1</b>	<b>-1.8 *</b>	<b>104</b>	<b>2.8</b>	<b>-4.3 *</b>
Baker	2	9.1	^	1	^	^
Benton	6	8.9	^	2	2.4	^
Clackamas	42	11.7	0.7	11	3.1	-4.9
Clatsop	6	12.6	^	2	3.9	^
Columbia	6	12.3	^	1	3.1	^
Coos	13	14.9 H	-2.4	4	4.2	^
Crook	2	8.0	^	0	^	^
Curry	5	12.5	^	1	3.1	^
Deschutes	11	8.1 L	-2.9	3	2.2	^
Douglas	15	10.9	-6.5	4	3.0	^
Gilliam	0	^	^	0	0.0	^
Grant	1	^	^	0	^	^
Harney	1	^	^	0	^	^
Hood River	2	9.4	^	1	^	^
Jackson	29	12.9 H	-0.1	7	3.0	^
Jefferson	2	8.0	^	0	^	^
Josephine	12	10.8	0.7	4	3.3	^
Klamath	8	10.4	^	3	3.3	^
Lake	1	^	^	0	^	^
Lane	37	10.4	-1.7	8	2.3	^
Lincoln	8	13.4	^	2	3.7	^
Linn	13	11.3	-1.7	4	3.5	^
Malheur	2	7.4	^	1	^	^
Marion	29	10.3	-1.5	6	2.1	^
Morrow	2	15.3	^	0	^	^
Multnomah	83	13.0 H	-3.2 *	23	3.6 H	-4.3
Polk	6	8.0 L	^	2	2.2	^
Sherman	0	^	^	0	0.0	^
Tillamook	4	12.0	^	1	3.8	^
Umatilla	6	8.6	^	2	2.4	^
Union	2	6.7 L	^	1	^	^
Wallowa	0	^	^	0	0.0	^
Wasco	4	13.5	^	0	^	^
Washington	39	10.0	-4.4	9	2.6	^
Wheeler	0	^	^	0	^	^
Yamhill	9	10.7	^	1	1.5 L	^

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.

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

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

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

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

# Ovarian Cancer

## OVARIAN CANCER - FAST FACTS OREGON

	<i>Female</i>
<b>CANCER INCIDENCE</b>	
<b>Total Cancer Cases (2006)</b>	331
<b>RATES</b>	
Oregon Crude Rate (2006)	17.7
Oregon Age-adjusted Rate (2006)	15.4
US Age-adjusted Rate (2005) <sup>1</sup>	12.4
<b>TRENDS - APC</b>	
Oregon Annual Trend (2002-2006)	0.7
<b>CANCER MORTALITY</b>	
<b>Total Cancer Deaths (2006)</b>	213
<b>RATES</b>	
Oregon Crude Rate (2006)	11.4
Oregon Age-adjusted Rate (2006)	9.6
US Age-adjusted Rate (2005) <sup>1</sup>	8.6
<b>TRENDS - APC</b>	
Oregon Annual Trend (2002-2006)	-0.7
<b>PROGNOSIS AND BURDEN</b>	
Prognosis: M/I Ratio (2002-2006)	0.75
Burden: YPLL (2002-2006)	689

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

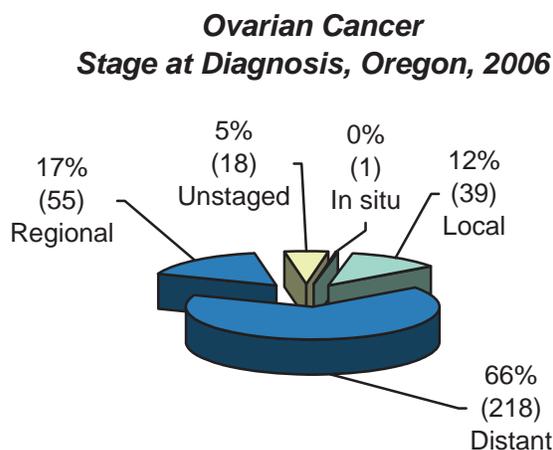
\* Indicates a statistically significant trend.

Among Oregon women, 331 ovarian cancers were diagnosed in 2006 and reported to the central registry. Median age at diagnosis was 63. During the same time period, 213 Oregonians died due to ovarian cancer. Median age at death was 70.

The age-adjusted incidence rate of ovarian cancer in 2006 was 15 per 100,000 compared to a national rate in 2005 of 12. The age-adjusted mortality rate for ovarian cancer in 2006 was 10 per 100,000 compared to the 2005 national rate of 9.

Most ovarian cancers (85 percent) were diagnosed at the regional or distant stage.

During the period 2002-2006, there were 75 deaths for every 100 diagnoses of invasive ovarian cancer. Based on a life expectancy of 65 years, an average of 689 years of life were lost annually due to early deaths from ovarian cancer. See [Ovarian Cancer maps](#).

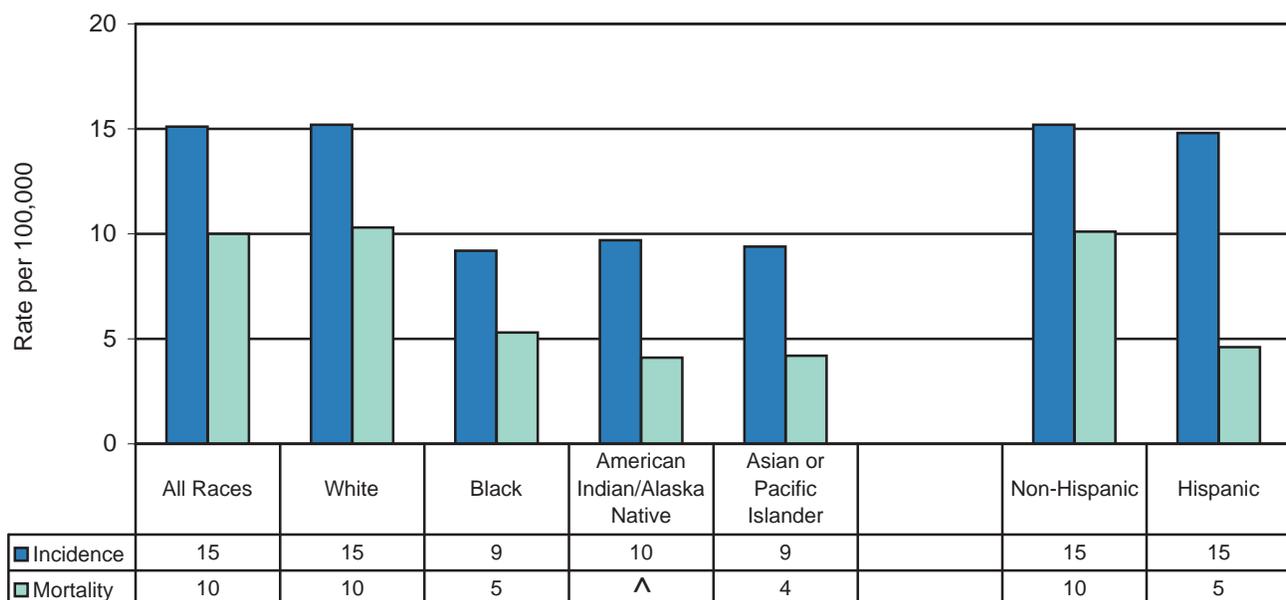


# Ovarian Cancer

**Ovarian Cancer Incidence and Mortality Rates,  
by Age Group, Oregon, 2006**

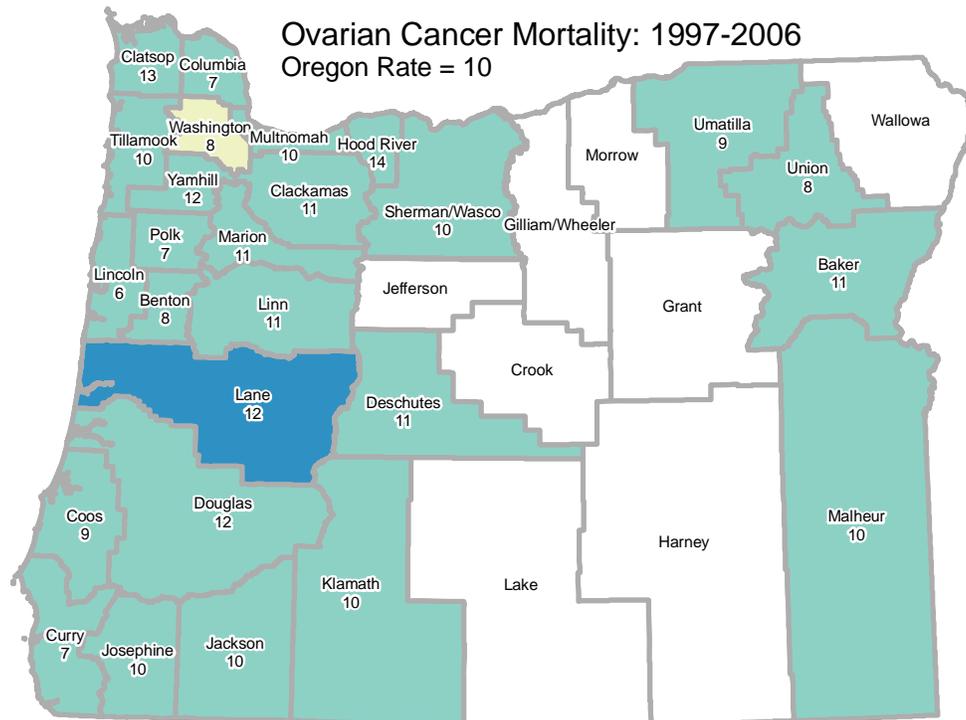
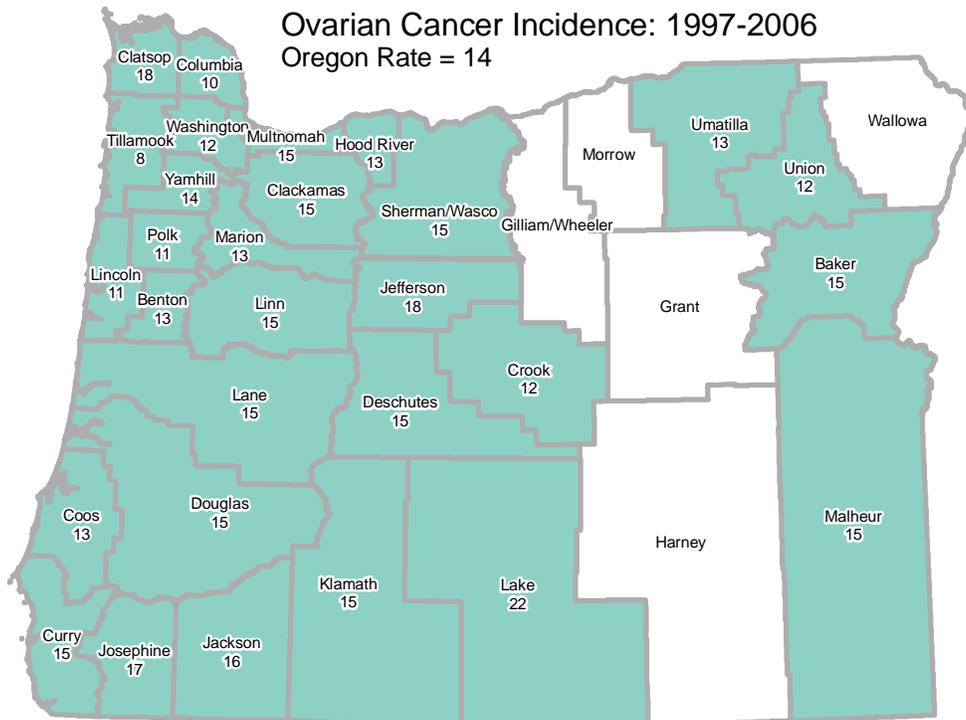


**Ovarian Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1997-2006**



^ Rate not calculated due to instability of small numbers

# Ovarian Cancer



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 females, age-adjusted to the 2000 US Census 19-age-group standard.

## Ovarian Cancer

**Ovarian Cancer Incidence and Mortality by County, 1997-2006:  
Average Count, Annual Rate, and 10-Year Trend**

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>277</b>	<b>14.1</b>	<b>-0.2</b>	<b>204</b>	<b>10.0</b>	<b>-0.1</b>
Baker	2	14.5	^	1	10.7	^
Benton	5	13.1	^	3	8.2	^
Clackamas	29	14.9	1.3	21	10.9	0.5
Clatsop	4	18.2	^	3	13.1	^
Columbia	2	9.7	^	2	7.4	^
Coos	6	13.2	^	5	8.8	^
Crook	1	12.2	^	1	^	^
Curry	3	14.7	^	2	7.1	^
Deschutes	10	14.8	^	8	10.8	^
Douglas	10	14.7	^	9	11.5	^
Gilliam	0	^	^	0	^	^
Grant	1	^	^	1	^	^
Harney	1	^	^	1	^	^
Hood River	2	13.2	^	2	13.5	^
Jackson	19	15.5	-0.1	13	10.3	0.2
Jefferson	2	18.4	^	1	^	^
Josephine	10	16.9	^	6	10.0	^
Klamath	6	15.3	^	4	9.8	^
Lake	1	21.6	^	1	^	^
Lane	29	15.2	1.3	24	12.1	0.6
Lincoln	4	11.4	^	2	6.4	^
Linn	9	15.2	^	7	11.0	^
Malheur	3	15.1	^	2	9.8	^
Marion	20	13.2	-4.3	18	11.1	-2.8
Morrow	1	^	^	1	^	^
Multnomah	51	14.5	0.1	35	9.7	1.1
Polk	4	10.8	^	3	6.9	^
Sherman	0	0.0	^	0	0.0	^
Tillamook	2	8.4	^	2	9.6	^
Umatilla	5	12.7	^	3	8.7	^
Union	2	12.1	^	1	7.8	^
Wallowa	0	^	^	0	^	^
Wasco	3	15.9	^	2	10.7	^
Washington	26	12.0	1.8	18	8.2	-4.6
Wheeler	0	^	^	0	^	^
Yamhill	6	13.6	^	6	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.

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

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

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

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

# Pancreatic Cancer

## PANCREATIC CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	435	216	219
<b>RATES</b>			
Oregon Crude Rate (2006)	11.7	11.6	11.7
Oregon Age-adjusted Rate (2006)	10.9	12.0	9.9
US Age-adjusted Rate (2005) <sup>1</sup>	11.3	12.8	10.0
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-0.5	-0.9	-0.1
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	461	228	233
<b>RATES</b>			
Oregon Crude Rate (2006)	12.5	12.4	12.5
Oregon Age-adjusted Rate (2006)	11.5	12.8	10.5
US Age-adjusted Rate (2005) <sup>1</sup>	10.8	12.4	9.4
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	+1.7	+0.1	+3.4
<b>PROGNOSIS AND BURDEN</b>			
Prognosis: M/I Ratio (2002-2006)	0.99	1.01	0.96
Burden: YPLL (2002-2006)	973	593	380

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* Indicates a statistically significant trend.

Among Oregonians, 435 pancreatic cancers were diagnosed in 2006 and reported to the central registry. Median age at diagnosis was 71. During the same time period, 461 Oregonians died due to pancreatic cancer. Median age at death was 72.

Among men and women in 2006, the age-adjusted incidence rate for pancreatic cancer was 11 per 100,000. The age-adjusted mortality rate for pancreatic cancer in 2006 was 12 per 100,000.

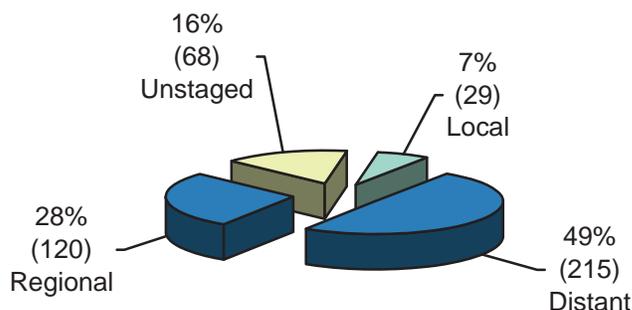
The majority (77 percent) of pancreatic cancers were diagnosed at the regional or distant stage, 7 percent were diagnosed at the local stage, and 16 percent were unstaged.

During the period 2002-2006, there were 99 deaths for every 100 pancreatic diagnoses. Based on a life expectancy of 65 years, an average of 973 years of life were lost annually due to early deaths from pancreatic cancer.

During 1997-2006, incidence and mortality were significantly higher for African American Oregonians than for all Oregonians.

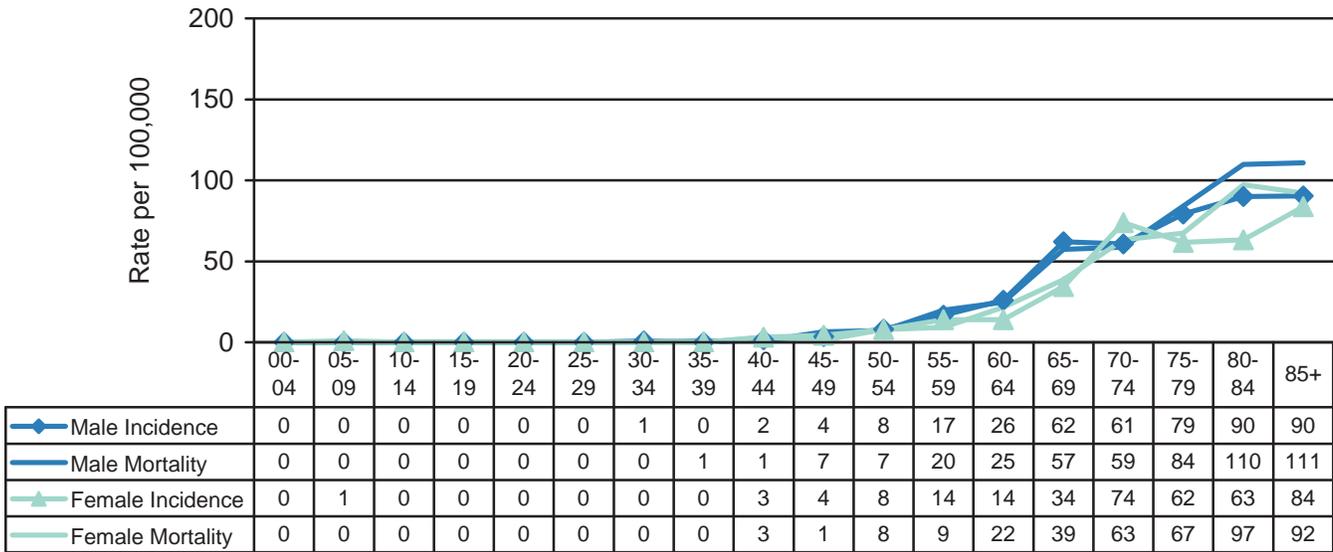
During the same 1997-2006 period, mortality was significantly higher in Harney and Lane counties, Oregon and Jackson county experienced a significantly increasing trend in mortality. See [Pancreatic Cancer maps](#).

**Pancreatic Cancer  
Stage at Diagnosis, Oregon, 2006**

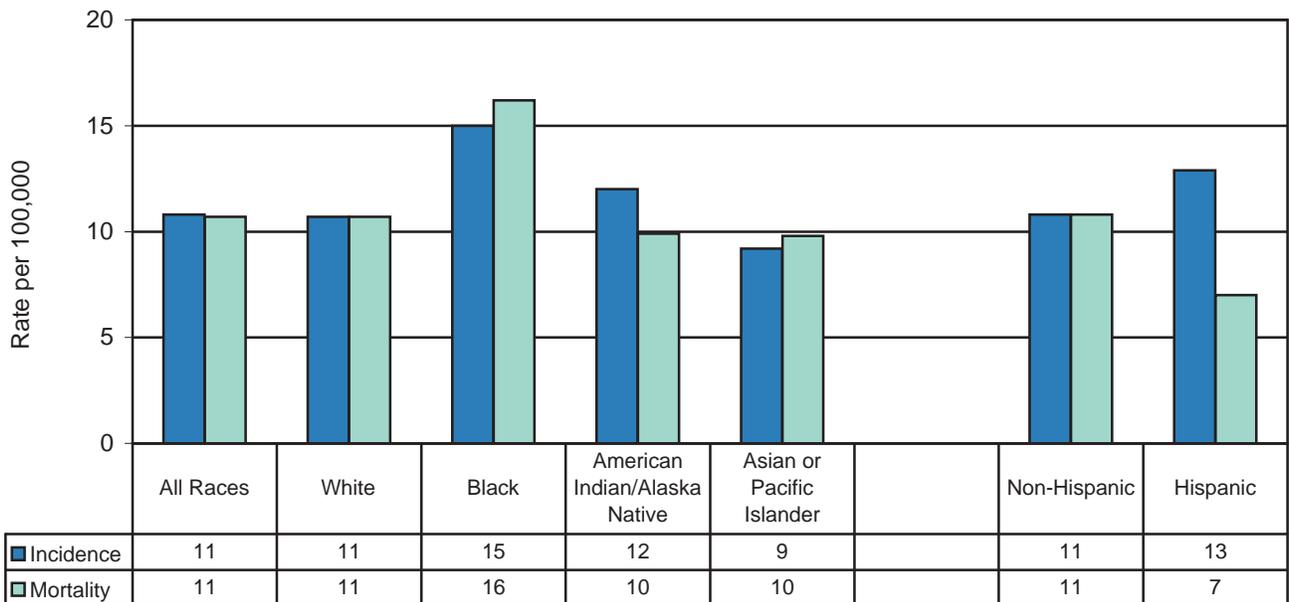


# Pancreatic Cancer

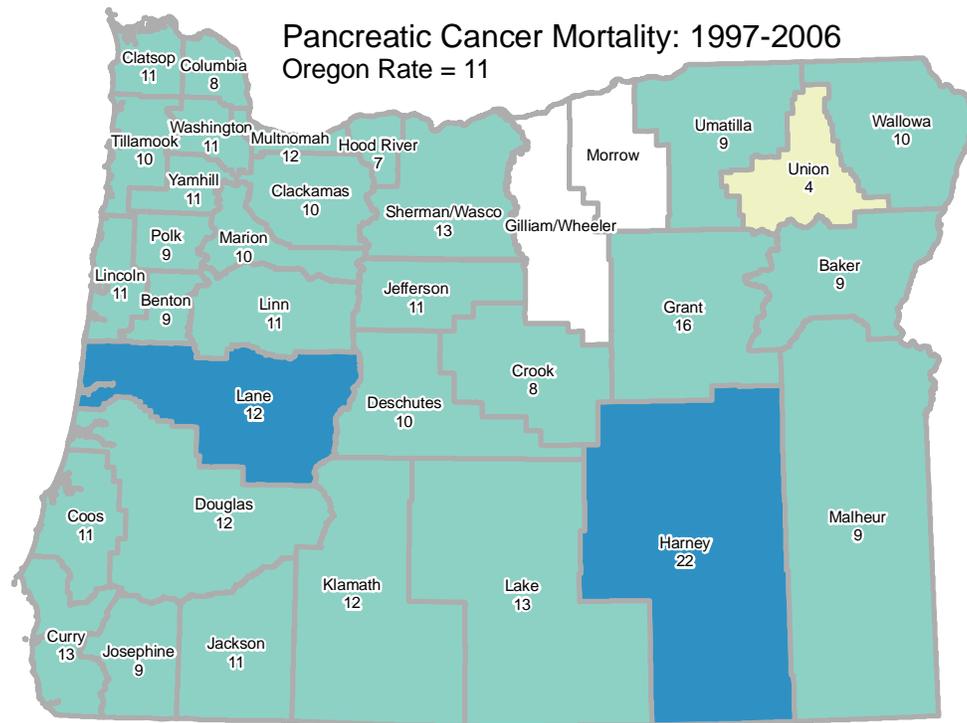
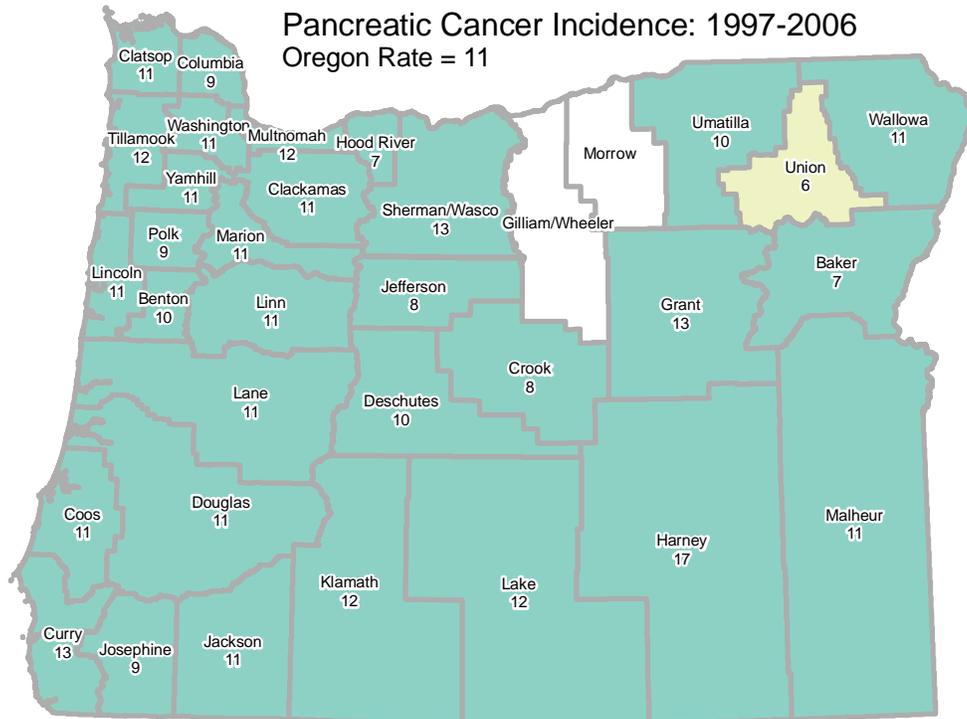
**Pancreatic Cancer Incidence and Mortality Rates, by Age Group and Sex, Oregon, 2006**



**Pancreatic Cancer Incidence and Mortality Rates, by Race and Ethnicity, Oregon, 1997-2006**



# Pancreatic Cancer



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases ■

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

## Pancreatic Cancer

### **Pancreatic Cancer Incidence and Mortality by County, 1997-2006: Average Count, Annual Rate, and 10-Year Trend**

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>395</b>	<b>10.8</b>	<b>1.1</b>	<b>392</b>	<b>10.7</b>	<b>1.2 *</b>
Baker	2	7.3	^	2	8.5	^
Benton	7	10.4	8.2	6	9.0	^
Clackamas	37	10.7	2.7	36	10.4	0.8
Clatsop	5	11.0	^	5	10.6	^
Columbia	4	8.6	^	3	7.7	^
Coos	10	10.6	-4.2	10	11.0	^
Crook	2	8.2	0.7	2	7.7	^
Curry	5	12.7	6.0	5	12.6	^
Deschutes	13	9.8	1.3	13	9.8	1.4
Douglas	15	10.9	-2.9	16	11.6	-1.6
Gilliam	0	^	^	0	^	^
Grant	1	12.7	^	2	15.7	^
Harney	2	17.4	^	2	21.9 H	^
Hood River	1	6.8	^	2	7.2	^
Jackson	27	11.4	4.0	25	10.6	6.1 *
Jefferson	2	7.9	^	2	10.6	^
Josephine	10	8.7	4.1	10	8.9	^
Klamath	9	11.9	-1.5	9	11.9	^
Lake	1	12.3	^	1	13.3	^
Lane	40	11.3	3.7	44	12.4 H	1.4
Lincoln	7	11.2	-2.1	7	10.5	^
Linn	13	10.8	5.1	13	10.9	3.3
Malheur	4	10.5	6.3	3	8.7	^
Marion	30	10.6	-1.4	29	10.2	-2.2
Morrow	1	^	^	1	^	^
Multnomah	74	12.0	0.5	73	11.8	0.5
Polk	7	9.3	0.5	7	8.5	^
Sherman	0	^	^	0	^	^
Tillamook	4	12.2	-2.1	4	10.2	^
Umatilla	7	9.7	-5.5	7	9.2	^
Union	2	6.3 L	^	1	4.3	^
Wallowa	1	10.5	^	1	^	^
Wasco	4	14.2	-1.0	4	13.6	^
Washington	38	10.7	0.6	37	10.5	0.5
Wheeler	0	^	^	0	^	^
Yamhill	9	10.8	-2.4	9	10.7	^

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.

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

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

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

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

# Prostate Cancer

## PROSTATE CANCER - FAST FACTS OREGON

Male

### CANCER INCIDENCE

**Total Cancer Cases (2006)** 2,661

#### RATES

Oregon Crude Rate (2006) 144.6  
Oregon Age-adjusted Rate (2006) 142.2  
US Age-adjusted Rate (2005)<sup>1</sup> 142.4

#### TRENDS - APC

Oregon Annual Trend (2002-2006) -2.1

### CANCER MORTALITY

**Total Cancer Deaths (2006)** 421

#### RATES

Oregon Crude Rate (2006) 22.9  
Oregon Age-adjusted Rate (2006)<sup>1</sup> 25.5  
US Age-adjusted Rate (2005)<sup>1</sup> 24.5

#### TRENDS - APC

Oregon Annual Trend (2002-2006) -3.2 \*

### PROGNOSIS AND BURDEN

Prognosis: M/I Ratio (2002-2006) 0.16

Burden: YPLL (2002-2006) 226

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

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, 2,661 prostate cancers were diagnosed in 2006. Median age at invasive diagnosis was 68. During the same time period, 421 Oregon men died due to prostate cancer. Median age at death was 79. The age-adjusted annual rate for new prostate cancers was 142 per 100,000 and the age-adjusted mortality rate was 26 per 100,000.

The majority of prostate cancers (74 percent) were diagnosed at the local or *in situ* stage.

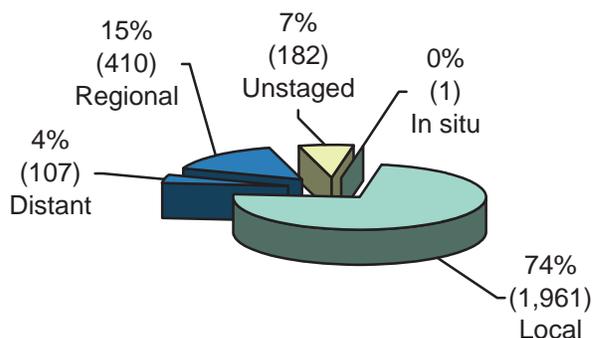
Incidence and mortality rates for prostate cancer were significantly higher among African American Oregonians than all Oregonians.

During the period 2002-2006, there was approximately one death for every six new prostate cancer diagnoses. Based on a life expectancy of 65 years, an average of 226 years of life were lost annually due to early deaths from prostate cancer.

During 1997-2006, prostate cancer incidence was significantly higher in Benton, Coos, Deschutes, Hood River, Jackson, Union, and Wasco counties and significantly lower in Clackamas, Josephine, Malheur, Multnomah, Tillamook, Washington, and Yamhill counties. Prostate cancer mortality was significantly lower in Deschutes county. See [Prostate Cancer maps](#).

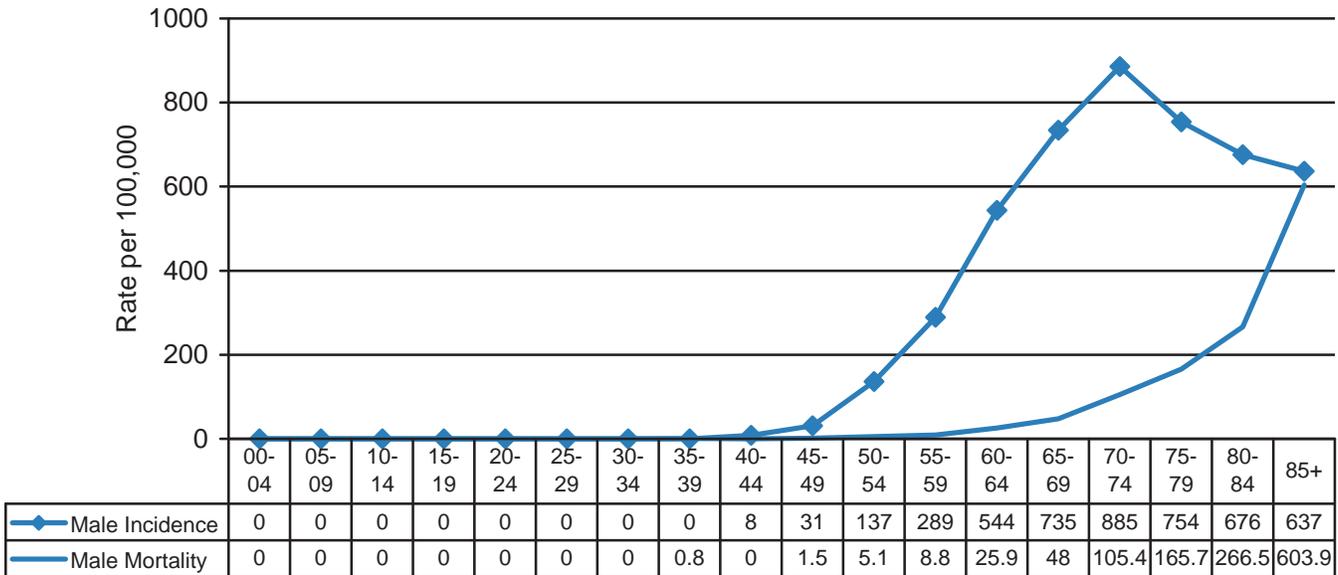
The 10-year incidence trend declined significantly in Baker, Curry, Douglas, Multnomah, Umatilla, and Washington counties. The 10-year mortality trend declined significantly for Oregon as a whole and Jackson and Linn counties.

**Prostate Cancer  
Stage at Diagnosis, Oregon, 2006**

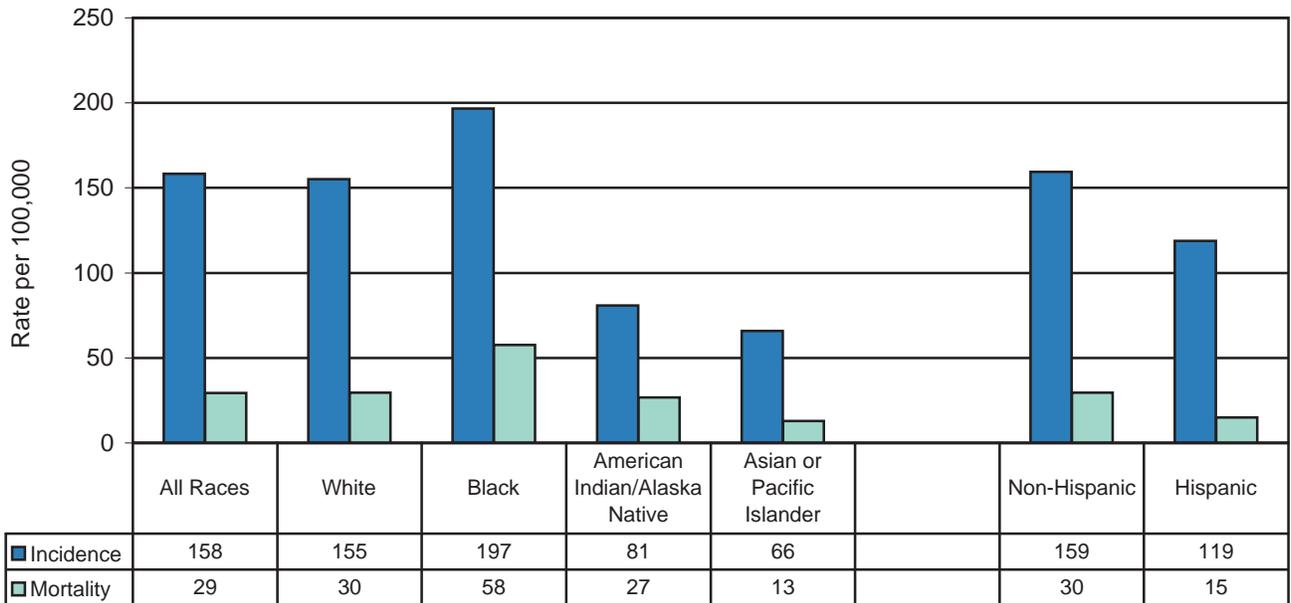


# Prostate Cancer

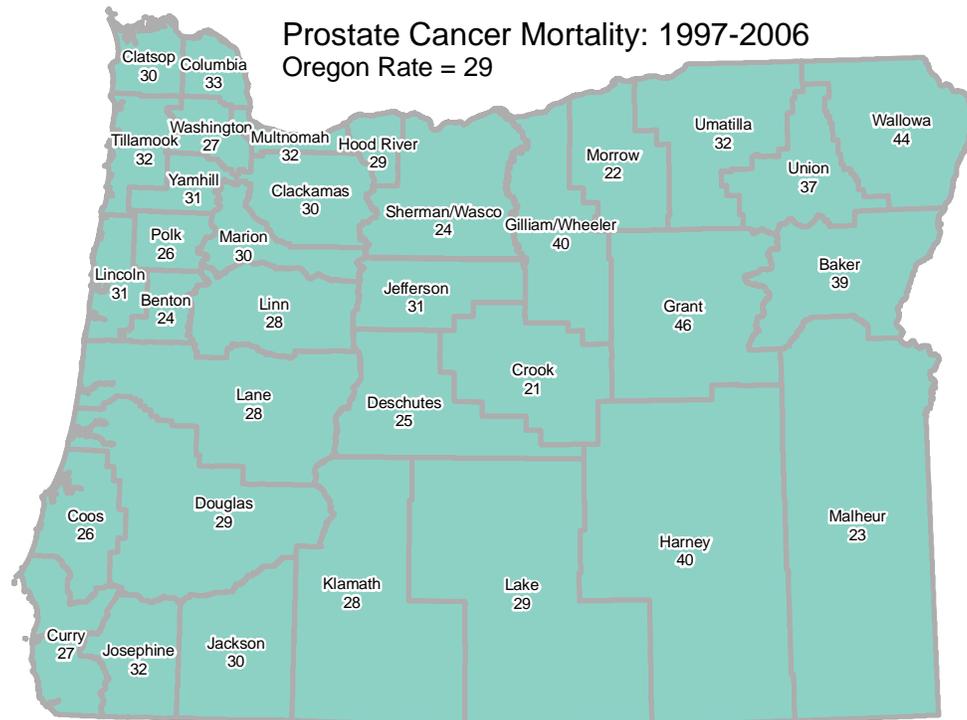
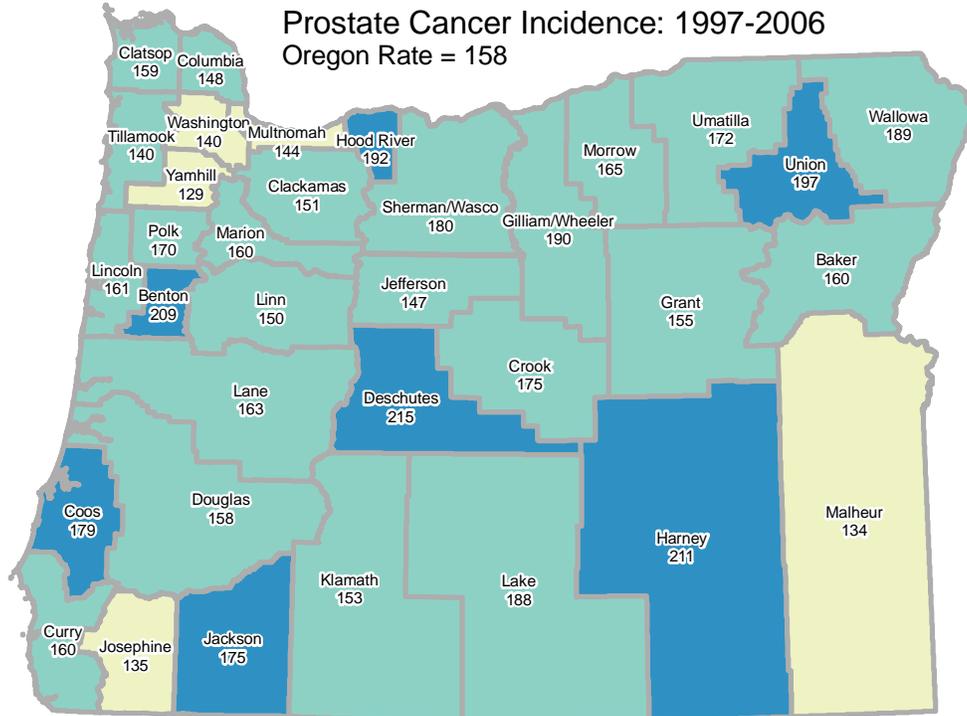
**Prostate Cancer Incidence and Mortality Rates, by Age Group, Oregon, 2006**



**Prostate Cancer Incidence and Mortality Rates, by Race and Ethnicity, Oregon, 1997-2006**



# Prostate Cancer



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

## Prostate Cancer

### Prostate Cancer Incidence and Mortality by County, 1997-2006: Average Count, Annual Rate, and 10-Year Trend

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>2,594</b>	<b>158.4</b>	<b>-1.8</b>	<b>433</b>	<b>29.4</b>	<b>-3.9 *</b>
Baker	19	160.0	-7.5 *	4	38.8	^
Benton	64	208.5 H	1.3	7	24.5	^
Clackamas	238	151.4	-2.7	38	30.5	-2.6
Clatsop	32	159.0	0.4	6	30.0	^
Columbia	32	147.5	-3.8	6	32.7	^
Coos	78	178.8 H	0.3	11	26.5	-6.9
Crook	20	175.3	-0.3	2	20.6	^
Curry	32	159.8	-5.0 *	6	27.3	^
Deschutes	139	214.5 H	-4.3	14	24.8	-3.1
Douglas	105	158.2	-5.3 *	18	29.1	-6.3
Gilliam	3	225.6	^	0	^	^
Grant	8	154.7	^	2	45.9	^
Harney	10	210.7	^	1	40.3	^
Hood River	18	192.3 H	-2.2	3	28.9	^
Jackson	184	174.8 H	1.5	31	30.3	-5.4 *
Jefferson	15	147.4	-5.1	3	31.4	^
Josephine	74	134.9 L	2.8	17	31.7	-2.8
Klamath	56	152.5	-0.6	9	27.6	^
Lake	10	187.9	^	1	28.7	^
Lane	260	163.4	-2.5	41	28.1	-3.8
Lincoln	49	160.8	-1.5	8	30.8	^
Linn	82	149.9	-0.1	15	27.6	-8.4 *
Malheur	21	133.5 L	1.0	3	22.6	^
Marion	197	159.6	0.4	35	29.9	-0.6
Morrow	9	164.8	^	1	^	^
Multnomah	375	144.1 L	-2.9 *	74	32.3	-3.2
Polk	55	170.0	2.6	9	26.4	^
Sherman	2	156.1	^	0	^	^
Tillamook	24	140.4	2.1	5	32.3	^
Umatilla	56	172.2	-5.9 *	9	32.4	^
Union	26	197.1 H	-3.4	4	36.9	^
Wallowa	10	188.8	^	2	43.6	^
Wasco	26	182.8 H	-0.5	3	23.4	^
Washington	219	139.5 L	-3.5 *	35	26.8	-0.4
Wheeler	2	151.3	^	1	^	^
Yamhill	48	129.0 L	-3.3	11	30.8	-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.

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

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

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

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

# Stomach Cancer

## STOMACH CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	213	123	90
<b>RATES</b>			
Oregon Crude Rate (2006)	5.6	6.5	4.7
Oregon Age-adjusted Rate (2006)	5.1	6.6	3.9
US Age-adjusted Rate (2005) <sup>1</sup>	6.7	9.4	4.6
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-2.7	-4.5	-1.3
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	113	60	53
<b>RATES</b>			
Oregon Crude Rate (2006)	3.1	3.3	2.8
Oregon Age-adjusted Rate (2006)	2.8	3.5	2.4
US Age-adjusted Rate (2005) <sup>1</sup>	3.8	5.2	2.7
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-5.3 *	-6.9	-2.2
<b>PROGNOSIS AND BURDEN</b>			
Prognosis: M/I Ratio (2002-2006)	0.57	0.54	0.61
Burden: YPLL (2002-2006)	439	258	181

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* Indicates a statistically significant trend.

In 2006, 213 stomach cancers were diagnosed in Oregon. Median age at diagnosis was 69. During the same time period, 113 Oregonians died due to stomach cancers. Median age at death was 73. The age-adjusted incidence rate of stomach cancer in 2006 was 5 per 100,000. Among men, the incidence rate was 7 per 100,000 and among women the rate was 4 per 100,000. The age-adjusted mortality rate for stomach cancer in 2006 was 3 per 100,000.

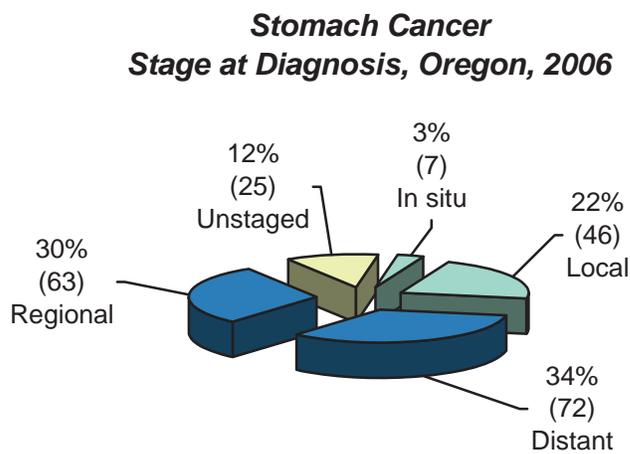
Most stomach cancers (64 percent) were diagnosed at a regional or distant stage, while 22 percent were local or *in situ*.

During the period 2002-2006, there were 57 deaths for every 100 diagnoses. Based on a life expectancy of 65 years, an average of 439 years of life were lost annually due to early deaths from stomach cancer.

During 1997-2006, stomach cancer incidence rates were significantly higher in Oregon among Asian and Pacific Islanders, African Americans, and Latinos. Stomach cancer mortality was significantly higher among African American and Asian and Pacific Islanders.

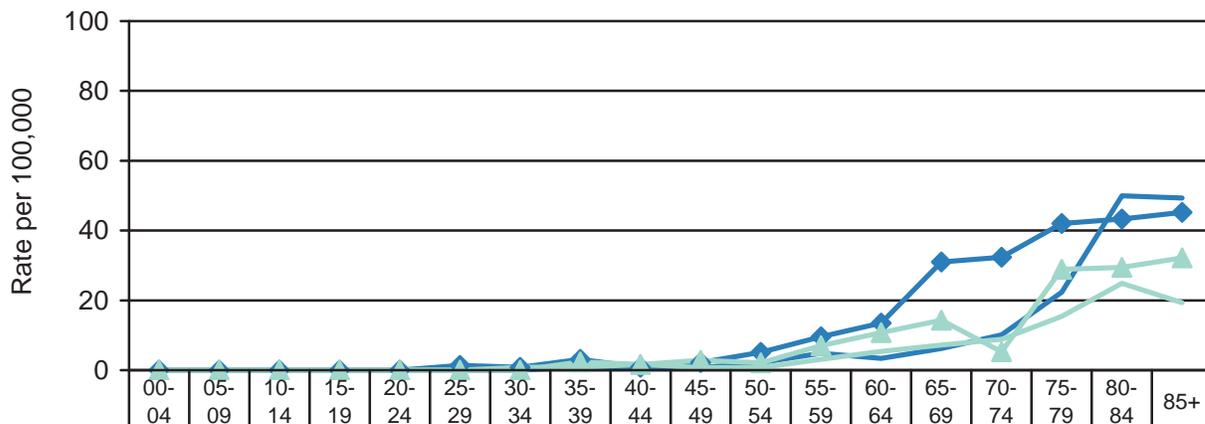
During the same 1997-2006 period, stomach cancer incidence was significantly higher in Multnomah county. Mortality was significantly higher in Columbia, Multnomah, and Union counties, and significantly lower in Deschutes county. See [Stomach Cancer maps](#).

For the state, the 10-year mortality trend was significantly downward, with an average annual decline of 3.1 percent.



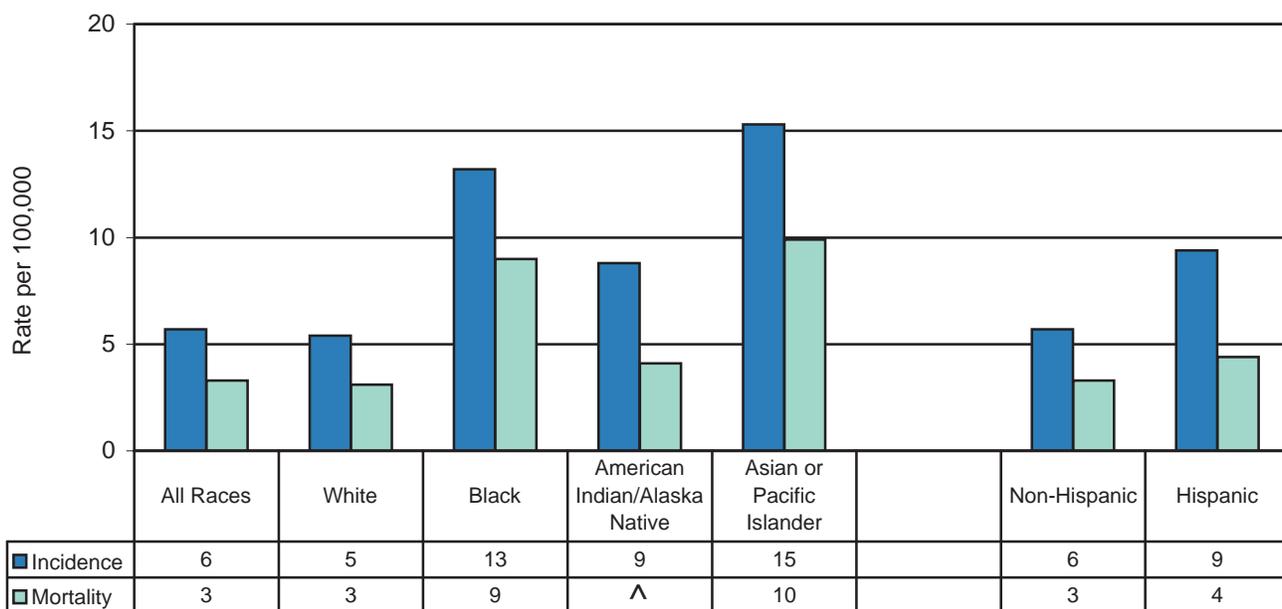
# Stomach Cancer

**Stomach Cancer Incidence and Mortality Rates, by Age Group and Sex, Oregon, 2006**



	00-04	05-09	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Male Incidence	0	0	0	0	0	1	1	3	1	2	5	10	14	31	32	42	43	45
Male Mortality	0	0	0	0	0	0	0	1	1	1	2	5	3	6	10	22	50	49
Female Incidence	0	0	0	0	0	0	0	2	2	3	2	7	11	14	5	29	29	32
Female Mortality	0	0	0	0	0	0	1	1	2	1	1	3	5	7	9	15	25	19

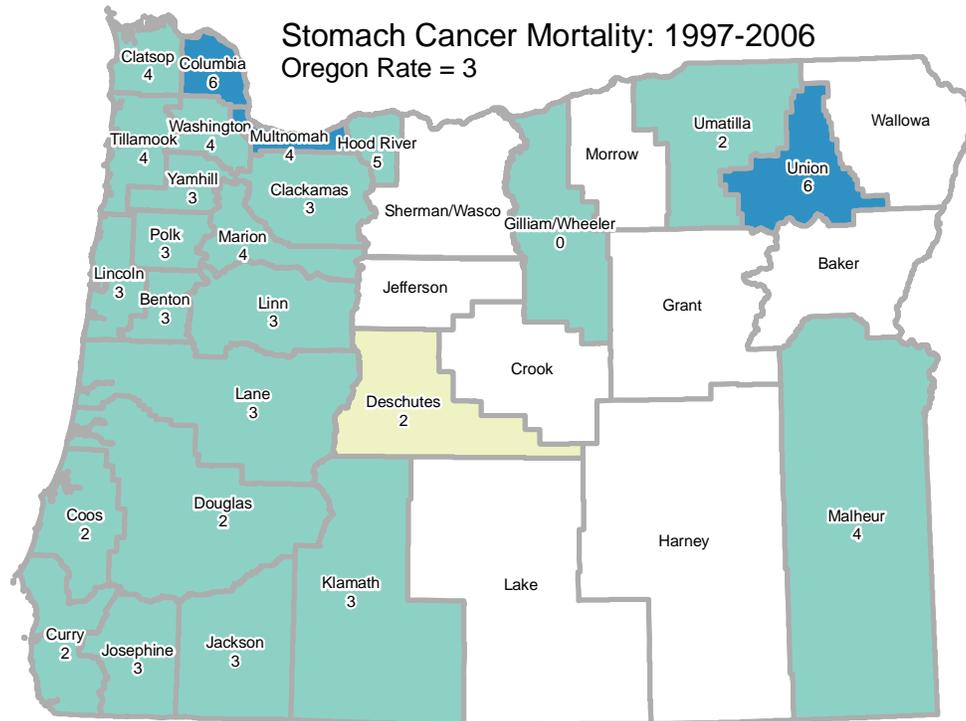
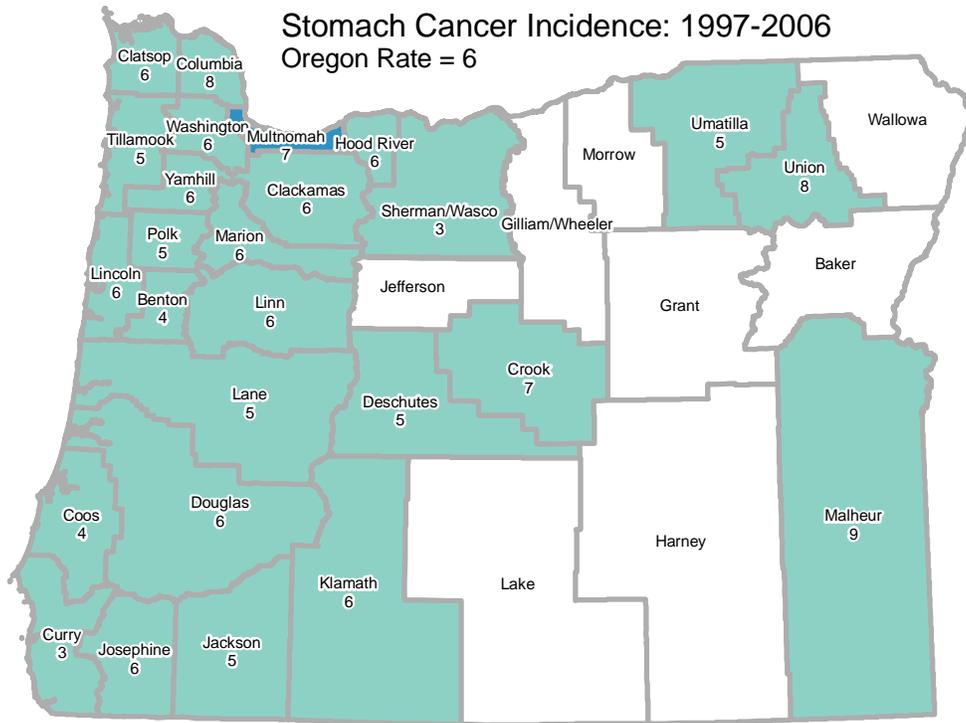
**Stomach Cancer Incidence and Mortality Rates, by Race and Ethnicity, Oregon, 1997-2006**



Incidence	6	5	13	9	15		6	9
Mortality	3	3	9	^	10		3	4

^ Rate not calculated due to instability of small numbers

# Stomach Cancer



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

## Stomach Cancer

### Stomach Cancer Incidence and Mortality by County, 1997-2006: Average Count, Annual Rate, and 10-Year Trend

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>209</b>	<b>5.7</b>	<b>-1.8</b>	<b>122</b>	<b>3.3</b>	<b>-3.1 *</b>
Baker	1	^	^	1	^	^
Benton	3	4.3	^	2	2.5	^
Clackamas	20	5.7	-3.7	11	3.3	-10.3 *
Clatsop	3	5.5	^	2	3.9	^
Columbia	3	7.7	^	3	6.4 H	^
Coos	4	4.4	^	2	2.0	^
Crook	2	6.9	^	1	^	^
Curry	2	3.3	^	1	^	^
Deschutes	6	4.7	^	3	2.0 L	^
Douglas	8	5.6	^	3	2.3	^
Gilliam	0	^	^	0	0.0	^
Grant	1	^	^	1	^	^
Harney	0	^	^	0	^	^
Hood River	1	5.7	^	1	5.2	^
Jackson	11	5.0	-7.3	7	3.1	^
Jefferson	1	^	^	1	^	^
Josephine	6	5.6	^	3	2.8	^
Klamath	4	5.9	^	3	3.3	^
Lake	1	^	^	0	^	^
Lane	17	4.9	3.2	11	3.0	-4.7 *
Lincoln	4	6.3	^	2	3.3	^
Linn	7	5.8	^	4	3.1	^
Malheur	3	9.0	^	1	4.0	^
Marion	17	5.8	1.6	10	3.5	^
Morrow	1	^	^	1	^	^
Multnomah	45	7.2 H	-3.0	28	4.4 H	-2.5
Polk	4	4.7	^	2	2.6	^
Sherman	0	^	^	0	0.0	^
Tillamook	2	4.9	^	1	3.6	^
Umatilla	3	4.7	^	1	2.0	^
Union	2	8.1	^	2	6.0 H	^
Wallowa	1	^	^	0	^	^
Wasco	1	^	^	1	^	^
Washington	22	6.1	-0.6	13	3.6	2.2
Wheeler	0	^	^	0	0.0	^
Yamhill	5	5.5	^	3	3.0	^

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.

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

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

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

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

# Thyroid Cancer

## THYROID CANCER - FAST FACTS OREGON

	Total	Male	Female
<b>CANCER INCIDENCE</b>			
<b>Total Cancer Cases (2006)</b>	387	105	282
<b>RATES</b>			
Oregon Crude Rate (2006)	10.5	5.7	15.2
Oregon Age-adjusted Rate (2006)	9.9	5.3	14.6
US Age-adjusted Rate (2005) <sup>1</sup>	10.1	5.2	14.9
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	8.2 *	9.3 *	7.6 *
<b>CANCER MORTALITY</b>			
<b>Total Cancer Deaths (2006)</b>	16	6	10
<b>RATES</b>			
Oregon Crude Rate (2006)	0.4	0.3	0.5
Oregon Age-adjusted Rate (2006)	0.4	0.3	0.4
US Age-adjusted Rate (2005) <sup>1</sup>	0.5	0.5	0.5
<b>TRENDS - APC</b>			
Oregon Annual Trend (2002-2006)	-11.8	-10.6	-13
<b>PROGNOSIS AND BURDEN</b>			
Prognosis: M/I Ratio (2002-2006)	0.05	0.09	0.04
Burden: YPLL (2002-2006)	48	23	25

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* Indicates a statistically significant trend.

In 2006, 387 cases of thyroid cancer were diagnosed and reported to the Oregon central registry. Median age at diagnosis was 51. During the same time period, 16 Oregonians died due to thyroid cancer. Median age at death was 72.

The age-adjusted incidence rate of thyroid cancer in 2006 was 10 per 100,000. Among men, the incidence rate was 5 per 100,000 and among women the rate was 15 per 100,000.

The age-adjusted mortality rate of thyroid cancer in 2006 was less than one per 100,000.

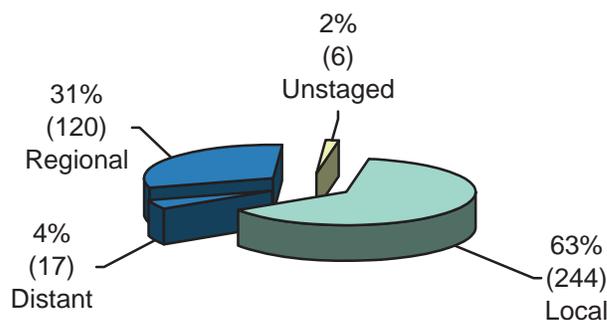
Most thyroid cancers (63 percent) were diagnosed at the local stage.

During the period 2002-2006, there were 5 deaths for every 100 thyroid cancer diagnoses. Based on a life expectancy of 65 years, an average of 48 years of life were lost annually due to early deaths from thyroid cancer.

During 1997-2006, thyroid cancer incidence was significantly higher in Clackamas, Lane, and Multnomah counties. See [Thyroid Cancer maps](#).

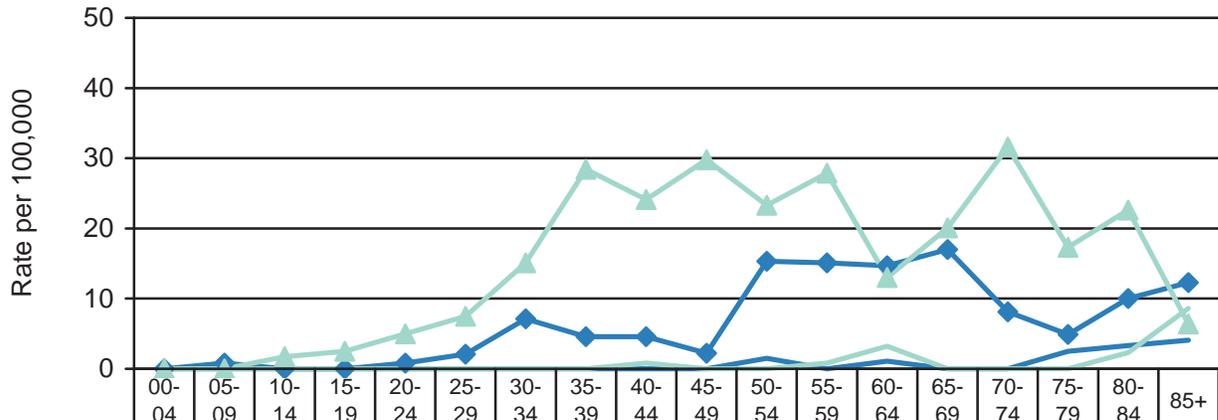
The 10-year incidence trend was increasing an average annual percent change of 6.1 percent statewide and in several counties: Clackamas (AAPC = 5.4 percent), Lane (AAPC = 8.9 percent), and Multnomah counties (AAPC = 4.7 percent). The mortality trend was stable.

**Thyroid Cancer  
Stage at Diagnosis, Oregon, 2006**



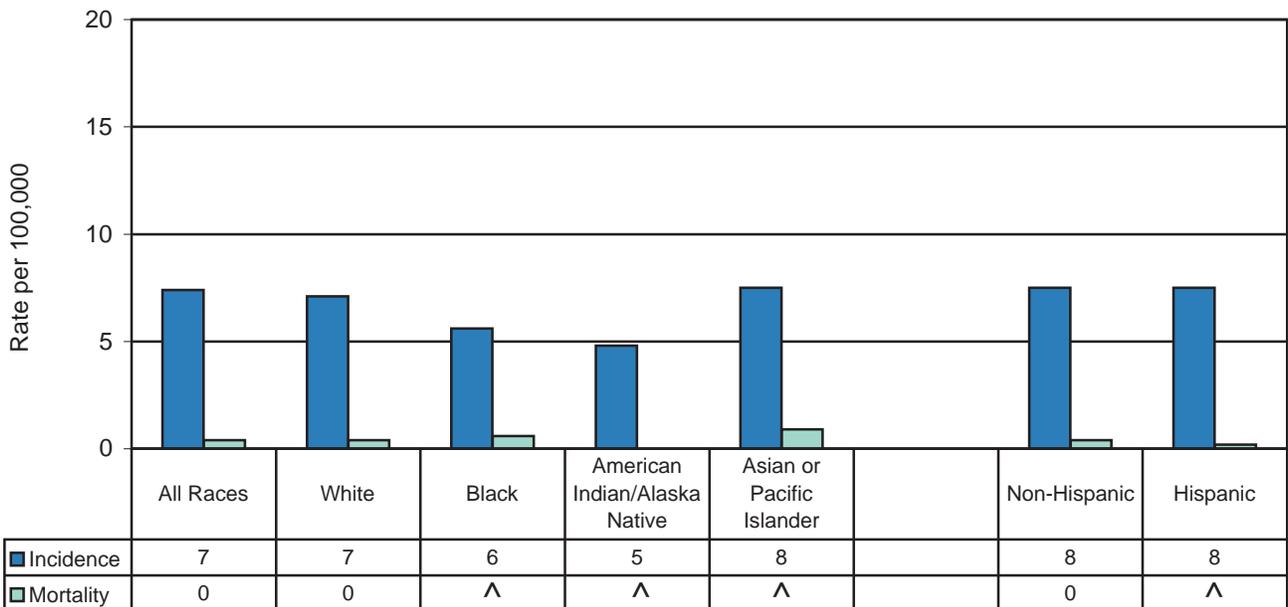
# Thyroid Cancer

**Thyroid Cancer Incidence and Mortality Rates, by Age Group and Sex, Oregon, 2006**



	00-04	05-09	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85+
Male Incidence	0	1	0	0	1	2	7	5	5	2	15	15	15	17	8	5	10	12
Male Mortality	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	3	4
Female Incidence	0	0	2	3	5	8	15	28	24	30	23	28	13	20	32	17	23	6
Female Mortality	0	0	0	0	0	0	0	0	1	0	0	1	3	0	0	0	2	9

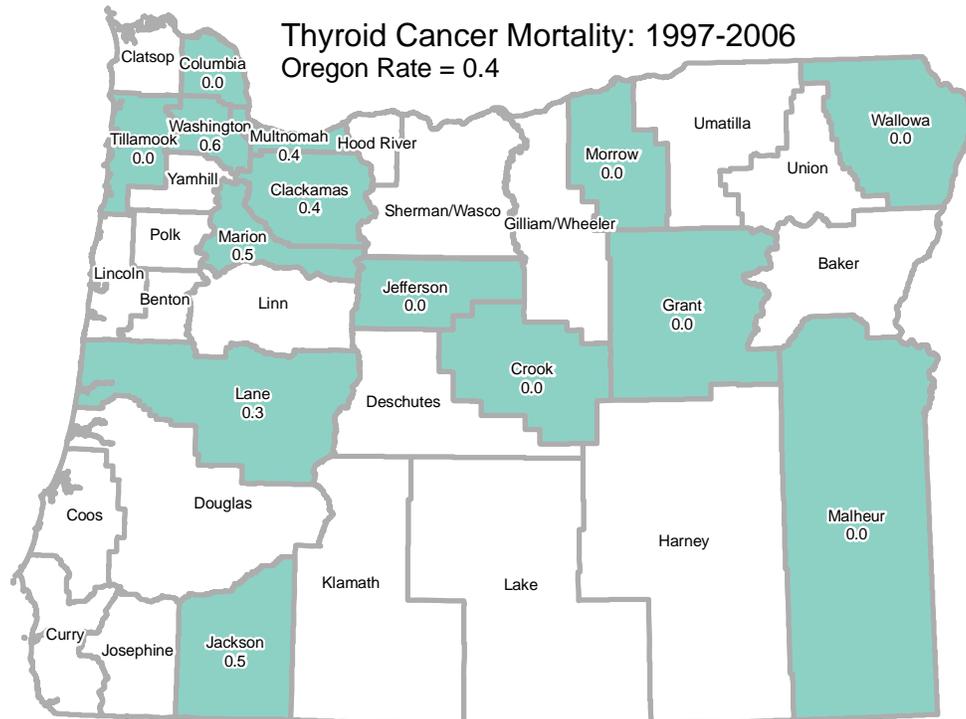
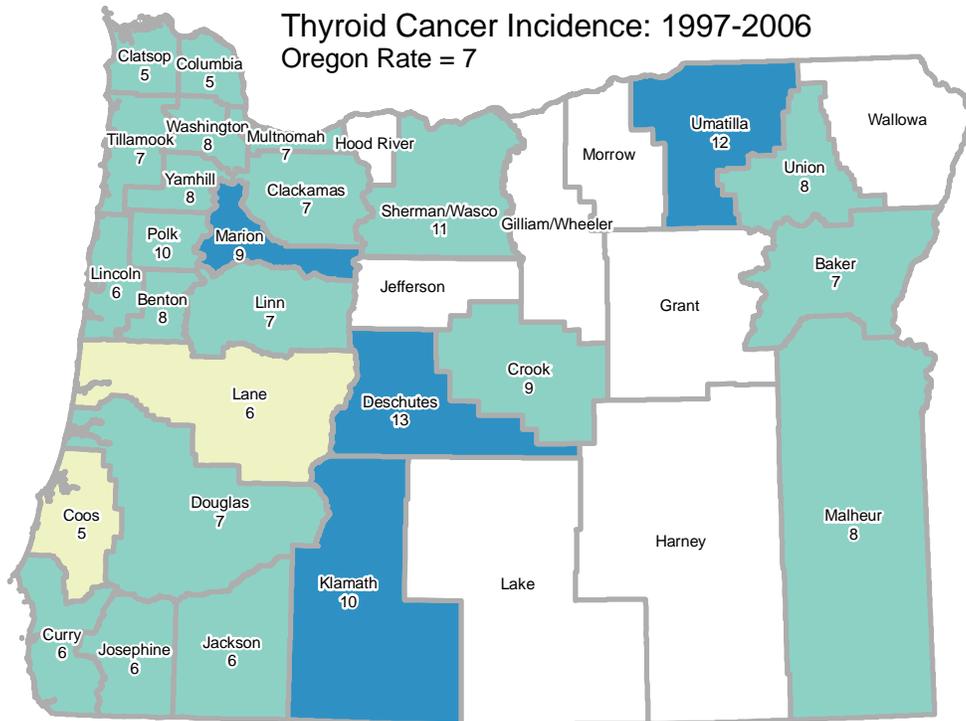
**Thyroid Cancer Incidence and Mortality Rates, by Race and Ethnicity, Oregon, 1997-2006**



	All Races	White	Black	American Indian/Alaska Native	Asian or Pacific Islander	Non-Hispanic	Hispanic
Incidence	7	7	6	5	8	8	8
Mortality	0	0	^	^	^	0	^

^ Rate not calculated due to instability of small numbers

# Thyroid Cancer



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 persons, age-adjusted to the 2000 US Census 19-age-group standard.

# Thyroid Cancer

## Thyroid Cancer Incidence and Mortality by County, 1997-2006: Average Count, Annual Rate, and 10-Year Trend

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>266</b>	<b>7.4</b>	<b>6.1 *</b>	<b>16</b>	<b>0.4</b>	<b>-2.5</b>
Baker	2	7.2	^	0	^	^
Benton	6	8.1	^	0	^	^
Clackamas	24	6.6	5.4 *	1	0.4	^
Clatsop	2	4.9	^	0	^	^
Columbia	2	5.0	^	0	0.0	^
Coos	3	4.6 L	^	0	^	^
Crook	2	9.1	^	0	0.0	^
Curry	2	6.1	^	0	^	^
Deschutes	16	12.5 H	6.5	1	^	^
Douglas	8	7.4	^	1	^	^
Gilliam	0	^	^	0	^	^
Grant	1	^	^	0	0.0	^
Harney	1	^	^	0	^	^
Hood River	1	^	^	0	^	^
Jackson	12	6.0	11.1	1	0.5	^
Jefferson	1	^	^	0	0.0	^
Josephine	5	5.7	^	0	^	^
Klamath	7	10.4 H	^	0	^	^
Lake	1	^	^	0	^	^
Lane	19	5.7 L	8.9 *	1	0.3	^
Lincoln	3	5.9	^	0	^	^
Linn	7	6.8	^	1	^	^
Malheur	2	7.8	^	0	0.0	^
Marion	25	9.0 H	5.4	1	0.5	^
Morrow	1	^	^	0	0.0	^
Multnomah	50	7.2	4.7 *	3	0.4	^
Polk	6	9.6	^	0	^	^
Sherman	1	^	^	0	0.0	^
Tillamook	2	7.1	^	0	0.0	^
Umatilla	8	12.0 H	^	0	^	^
Union	2	8.3	^	0	^	^
Wallowa	0	^	^	0	0.0	^
Wasco	2	8.1	^	0	^	^
Washington	34	7.5	3.4	2	0.6	^
Wheeler	0	^	^	0	0.0	^
Yamhill	7	8.2	^	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.

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

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

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

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

# Uterine Cancer

## UTERINE CANCER - FAST FACTS OREGON

<b>CANCER INCIDENCE</b>	
<b>Total Cancer Cases (2006)</b>	523
<b>RATES</b>	
Oregon Crude Rate (2006)	28.0
Oregon Age-adjusted Rate (2006)	23.8
US Age-adjusted Rate (2005) <sup>1</sup>	23.4
<b>TRENDS - APC</b>	
Oregon Annual Trend (2002-2006)	0.2
<b>CANCER MORTALITY</b>	
<b>Total Cancer Deaths (2006)</b>	91
<b>RATES</b>	
Oregon Crude Rate (2006)	4.9
Oregon Age-adjusted Rate (2006)	4.0
US Age-Adjusted Rate (2005) <sup>1</sup>	4.1
<b>TRENDS - APC</b>	
Oregon Annual Trend (2002-2006)	+1.8
<b>PROGNOSIS AND BURDEN</b>	
Prognosis: M/I Ratio (2002-2006)	0.16
Burden: YPLL (2002-2006)	192

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

<sup>1</sup>U.S. Cancer Statistics Working Group. *United States Cancer Statistics: 1999-2005 Incidence and Mortality Web-based Report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009. Available at [www.cdc.gov/uscs](http://www.cdc.gov/uscs).

APC = Average Annual Percent Change.

M/I = Mortality to Incidence Ratio.

YPLL = Years of Potential Life Lost.

\* Indicates a statistically significant trend.

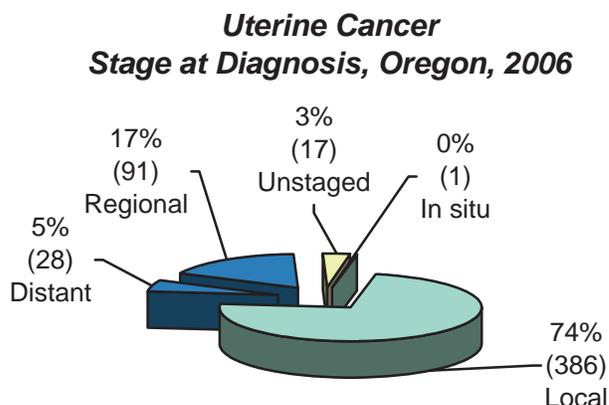
In 2006, 523 cancers of the uterus were diagnosed in Oregon women and reported to the central registry. Median age at diagnosis was 63. During the same time period, 91 women died due to uterine cancer. Median age at death was 71.

The age-adjusted incidence rate of uterine cancer in 2006 was 24 per 100,000 and the age-adjusted mortality rate for uterine cancer was 4 per 100,000.

The majority of uterine cancers (75 percent) were diagnosed at the *in situ* or local stage when the cancer is very treatable.

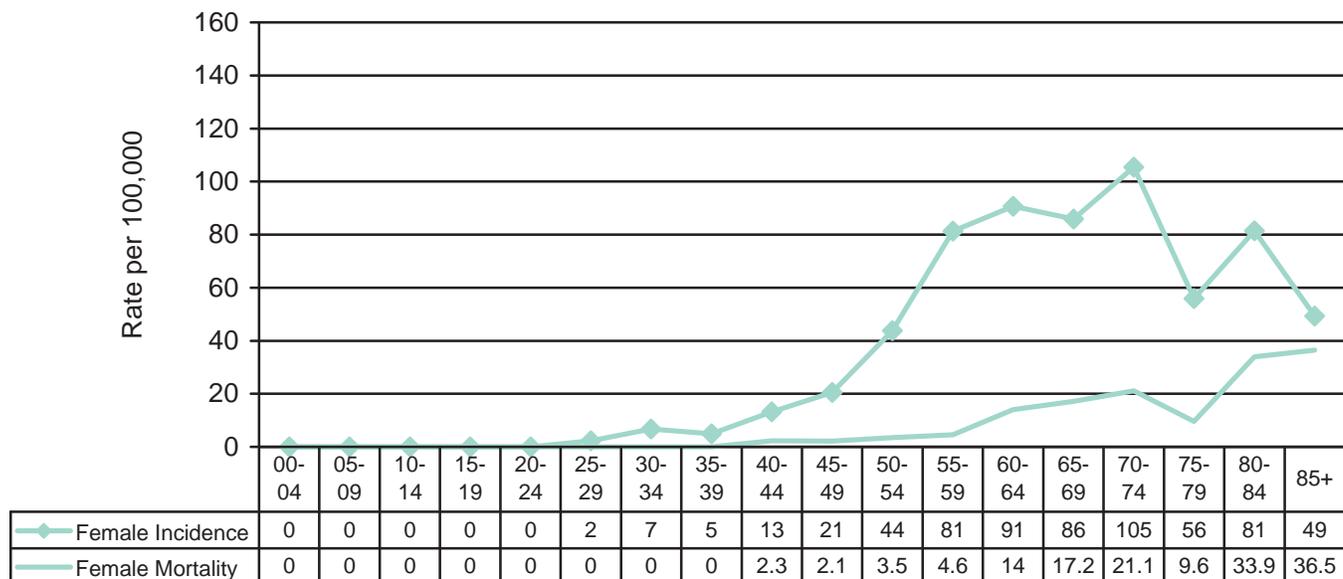
During the period 2002-2006, there were 16 deaths for every 100 uterine cancer diagnoses. Based on a life expectancy of 65 years, an average of 192 years of life were lost annually due to early deaths from uterine cancer.

During 1997-2006, no area of the state had significantly higher or lower incidence or mortality than the state. See [Uterine Cancer maps](#).

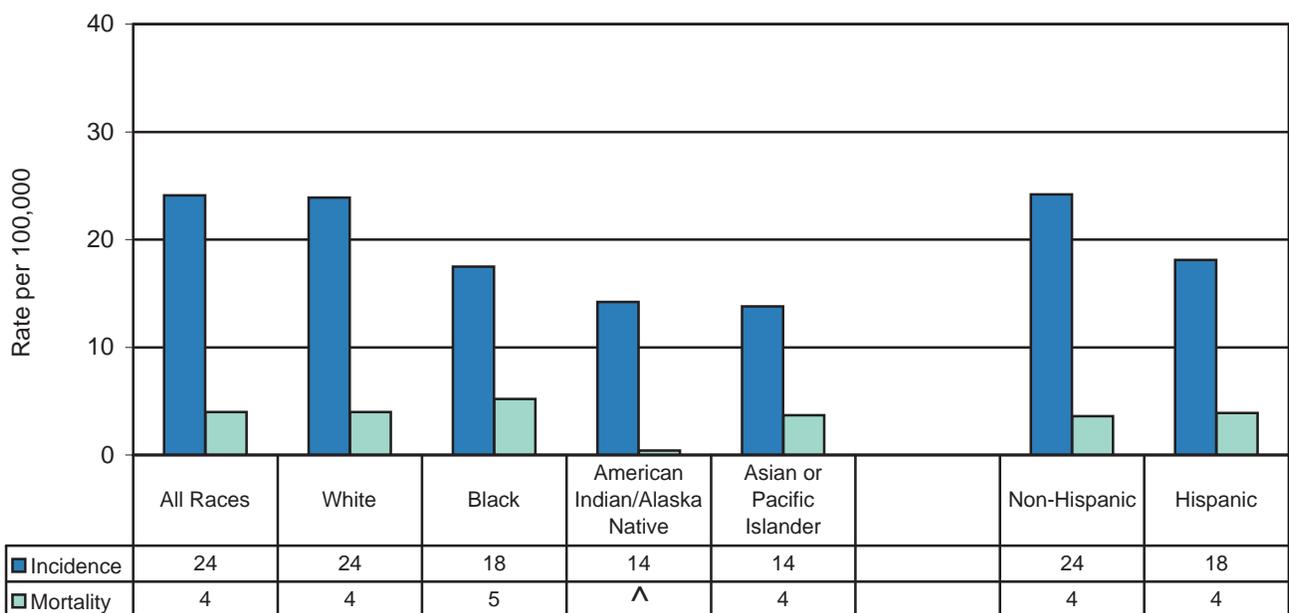


## Uterine Cancer

**Uterine Cancer Incidence and Mortality Rates,  
by Age Group, Oregon, 2006**

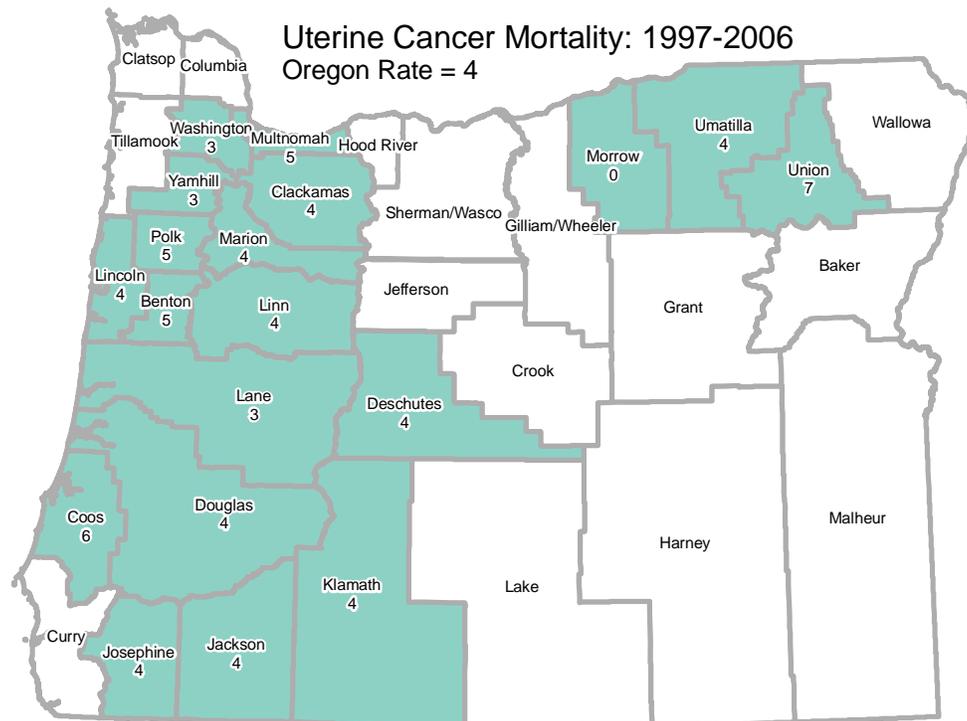
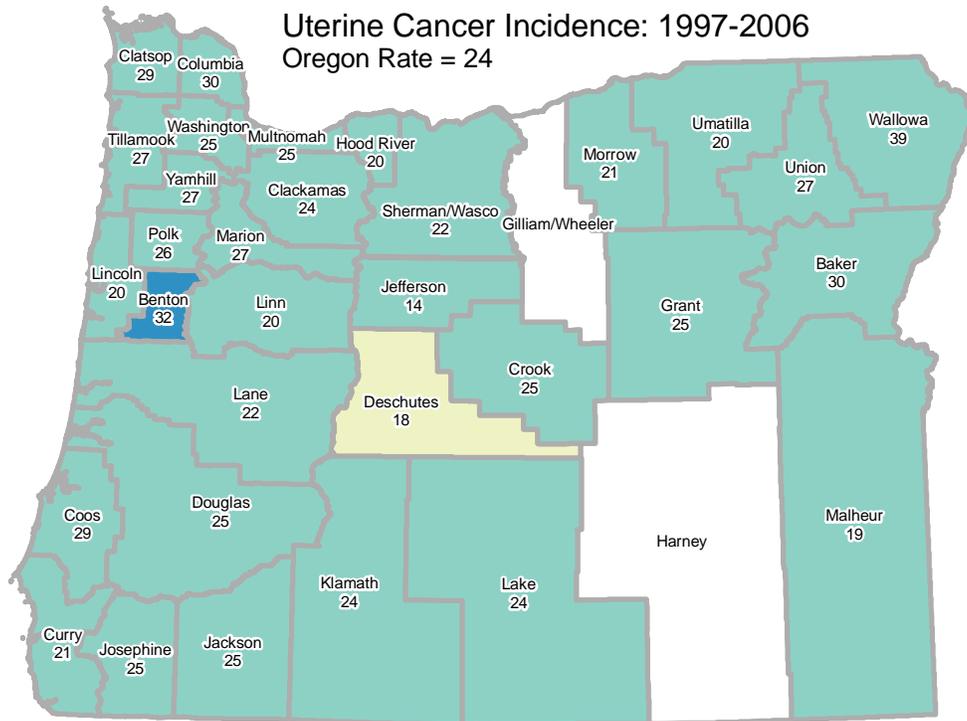


**Uterine Cancer Incidence and Mortality Rates,  
by Race and Ethnicity, Oregon, 1997-2006**



^ Rate not calculated due to instability of small numbers

# Uterine Cancer



Statistically Higher Than Oregon Rate ■  
 Similar to Oregon Rate ■  
 Statistically Lower Than Oregon Rate ■  
 1-10 Cases

Rates shown are number of cases per 100,000 females, age-adjusted to the 2000 US Census 19-age-group standard.

## Uterine Cancer

### **Uterine Cancer Incidence and Mortality by County, 1997-2006: Average Count, Annual Rate, and 10-Year Trend**

1997-2006 Oregon Counties	NEW CASES			DEATHS		
	Invasive Cases Per Year	Age-Adjusted Rate	10-Year Trend / APC	Deaths Per Year	Age-Adjusted Rate	10-Year Trend / APC
<b>State</b>	<b>477</b>	<b>24.4</b>	<b>-0.8</b>	<b>82</b>	<b>4.0</b>	<b>-1.0</b>
Baker	4	30.4	^	1	^	^
Benton	12	31.8 H	-1.2	2	4.6	^
Clackamas	46	23.6	0.5	7	3.7	^
Clatsop	7	29.0	^	1	^	^
Columbia	7	29.8	^	1	^	^
Coos	13	28.5	-1.1	3	5.5	^
Crook	3	24.9	^	1	^	^
Curry	4	21.0	^	1	^	^
Deschutes	13	18.4 L	-4.7	3	4.0	^
Douglas	18	25.3	-2.9	3	4.0	^
Gilliam	1	^	^	0	^	^
Grant	1	24.9	^	0	^	^
Harney	1	^	^	0	^	^
Hood River	2	20.2	^	0	^	^
Jackson	30	25.4	-1.3	5	3.7	^
Jefferson	1	14.3	^	0	^	^
Josephine	14	25.1	3.8	3	3.9	^
Klamath	9	23.5	^	2	3.7	^
Lake	1	23.7	^	0	^	^
Lane	43	22.4	-0.9	7	3.4	^
Lincoln	7	20.4	^	1	3.8	^
Linn	13	20.3	-0.1	3	4.4	^
Malheur	3	19.1	^	1	^	^
Marion	41	26.6	1.6	7	4.2	^
Morrow	1	21.0	^	0	0.0	^
Multnomah	87	25.0	-2.1	16	4.5	-2.4
Polk	10	26.3	^	2	5.1	^
Sherman	0	^	^	0	0.0	^
Tillamook	5	26.8	^	0	^	^
Umatilla	7	19.5	^	1	3.5	^
Union	4	27.0	^	1	6.9	^
Wallowa	2	38.7	^	0	^	^
Wasco	3	21.3	^	1	^	^
Washington	52	24.6	-0.4	7	3.2	^
Wheeler	0	^	^	0	0.0	^
Yamhill	12	26.7	-0.1	1	3.0	^

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.

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

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

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

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

## Oregon Incidence Data by Site and Sex, 2002-2006

<b>TABLE 1: CANCER INCIDENCE</b> by Site, Sex, and Year (2002-2006)		<b>TOTAL <sup>1</sup></b>		<b>MALE</b>		<b>FEMALE</b>	
		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>18,030</b>	<b>473.3</b>	<b>9,182</b>	<b>531.9</b>	<b>8,847</b>	<b>431.6</b>
	<i>5-Year APC Trend</i>		-1.1		-1.5		-0.9
	2002	17,761	486.5	8,978	546.9	8,781	444.9
	2003	17,412	467.4	8,853	526.2	8,556	425.7
	2004	18,289	484.0	9,435	549.9	8,853	435.4
	2005	18,364	474.3	9,390	534.4	8,973	431.3
	2006	18,322	456.1	9,252	504.6	9,070	422.1
<b>Bones and Joints</b>	<b>Annual Average</b>	<b>35</b>	<b>1.0</b>	<b>20</b>	<b>1.1</b>	<b>15</b>	<b>0.8</b>
	<i>5-Year APC Trend</i>		-9.3 *		-8.6		-10.4
	2002	40	1.1	24	1.4	16	0.9
	2003	37	1.0	18	1.1	19	1.0
	2004	36	1.0	20	1.1	16	0.8
	2005	36	1.0	20	1.1	16	0.9
	2006	28	0.7	18	0.9	10	0.5
<b>Brain and CNS</b>	<b>Annual Average</b>	<b>279</b>	<b>7.5</b>	<b>153</b>	<b>8.6</b>	<b>126</b>	<b>6.5</b>
	<i>5-Year APC Trend</i>		0.2		-1.8		3.6
	2002	263	7.2	154	8.9	109	5.6
	2003	279	7.6	147	8.3	132	7.0
	2004	282	7.6	164	9.3	118	6.1
	2005	276	7.3	144	8.0	132	6.8
	2006	293	7.5	156	8.3	137	6.9
<b>Brain</b>	<b>Annual Average</b>	<b>265</b>	<b>7.1</b>	<b>147</b>	<b>8.2</b>	<b>118</b>	<b>6.1</b>
	<i>5-Year APC Trend</i>		0.2		-1.7		3.4
	2002	247	6.8	148	8.6	99	5.1
	2003	266	7.3	139	7.8	127	6.7
	2004	273	7.4	158	9.0	115	6.0
	2005	258	6.8	136	7.5	122	6.3
	2006	279	7.1	152	8.1	127	6.4
<b>Breast</b>	<b>Annual Average</b>	<b>2,723</b>	<b>70.9</b>	<b>16</b>	<b>0.9</b>	<b>2,707</b>	<b>132.8</b>
	<i>5-Year APC Trend</i>		-2.0		-0.2		-1.9
	2002	2,803	76.3	19	1.1	2,784	142.4
	2003	2,607	69.3	13	0.8	2,593	129.8
	2004	2,699	70.6	9	^	2,690	132.4
	2005	2,717	69.9	22	1.2	2,695	130.9
	2006	2,791	68.7	16	0.9	2,775	129.2
<b>Digestive System</b>	<b>Annual Average</b>	<b>3,127</b>	<b>81.5</b>	<b>1,664</b>	<b>96.7</b>	<b>1,463</b>	<b>68.9</b>
	<i>5-Year APC Trend</i>		-1.6		-1.3		-2.1 *
	2002	3,031	82.1	1,538	94.0	1,493	72.7
	2003	3,157	84.1	1,704	101.6	1,452	69.7
	2004	3,180	83.8	1,749	102.4	1,431	68.1
	2005	3,148	80.8	1,667	95.1	1,481	69.0
	2006	3,117	77.5	1,660	91.3	1,457	65.7

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, 2002-2006

<b>TABLE 1: CANCER INCIDENCE</b> by Site, Sex, and Year (2002-2006)		<b>TOTAL <sup>1</sup></b>		<b>MALE</b>		<b>FEMALE</b>	
		Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend
Primary Sites	Year						
<b>Colorectal</b>	<b>Annual Average</b>	<b>1,785</b>	<b>46.5</b>	<b>905</b>	<b>53.0</b>	<b>880</b>	<b>41.2</b>
	<i>5-Year APC Trend</i>		-2.6		-2.2		-3.3 *
	2002	1,761	47.6	854	52.5	907	43.9
	2003	1,844	49.0	924	55.6	920	43.6
	2004	1,802	47.4	964	56.9	838	39.6
	2005	1,799	46.3	915	52.6	884	41.1
	2006	1,720	42.9	869	48.2	851	38.2
<b>Esophagus</b>	<b>Annual Average</b>	<b>212</b>	<b>5.5</b>	<b>166</b>	<b>9.7</b>	<b>45</b>	<b>2.1</b>
	<i>5-Year APC Trend</i>		3.2		2.7		5.3
	2002	191	5.2	155	9.3	36	1.7
	2003	206	5.5	161	9.5	45	2.2
	2004	208	5.5	163	9.6	45	2.2
	2005	209	5.4	158	9.0	51	2.4
	2006	244	6.1	195	10.8	49	2.2
<b>Gallbladder</b>	<b>Annual Average</b>	<b>36</b>	<b>0.9</b>	<b>9</b>	<b>0.6</b>	<b>27</b>	<b>1.3</b>
	<i>5-Year APC Trend</i>		-9.3		-2.1		-12.1
	2002	46	1.2	10	^	36	1.8
	2003	30	0.8	6	^	24	1.1
	2004	39	1.0	11	0.7	28	1.3
	2005	37	0.9	12	0.7	25	1.1
	2006	29	0.7	8	^	21	1.0
<b>Liver/Intrahepatic Bile duct</b>	<b>Annual Average</b>	<b>195</b>	<b>5.0</b>	<b>135</b>	<b>7.3</b>	<b>59</b>	<b>2.9</b>
	<i>5-Year APC Trend</i>		4.2		4.8		2.3
	2002	159	4.3	104	5.9	55	2.8
	2003	183	4.9	126	7.1	56	3.0
	2004	205	5.4	151	8.3	54	2.7
	2005	210	5.2	150	7.8	60	2.8
	2006	216	5.2	146	7.4	70	3.2
<b>Liver</b>	<b>Annual Average</b>	<b>177</b>	<b>4.5</b>	<b>127</b>	<b>6.8</b>	<b>50</b>	<b>2.5</b>
	<i>5-Year APC Trend</i>		4.2		6.0		-0.7
	2002	141	3.8	92	5.2	49	2.5
	2003	168	4.5	119	6.7	48	2.5
	2004	190	5.0	144	7.9	46	2.3
	2005	191	4.7	138	7.1	53	2.5
	2006	194	4.7	141	7.1	53	2.4
<b>Pancreas</b>	<b>Annual Average</b>	<b>425</b>	<b>11.1</b>	<b>205</b>	<b>12.0</b>	<b>220</b>	<b>10.3</b>
	<i>5-Year APC Trend</i>		-0.5		-0.9		-0.1
	2002	405	11.0	181	11.2	224	10.8
	2003	427	11.4	229	13.6	198	9.5
	2004	421	11.1	205	12.1	216	10.0
	2005	440	11.2	197	11.2	243	11.1
	2006	432	10.9	214	12.0	218	9.9

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, 2002-2006

<b>TABLE 1: CANCER INCIDENCE</b> by Site, Sex, and Year (2002-2006)		<b>TOTAL<sup>1</sup></b>		<b>MALE</b>		<b>FEMALE</b>	
		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>67</b>	<b>1.8</b>	<b>37</b>	<b>2.1</b>	<b>30</b>	<b>1.5</b>
	<i>5-Year APC Trend</i>		1.8		2.9		0.6
	2002	62	1.7	33	2.0	29	1.5
	2003	59	1.6	32	1.9	27	1.3
	2004	76	2.0	44	2.6	32	1.6
	2005	64	1.7	36	2.0	28	1.4
	2006	74	1.8	41	2.2	33	1.5
<b>Stomach</b>	<b>Annual Average</b>	<b>211</b>	<b>5.5</b>	<b>127</b>	<b>7.5</b>	<b>84</b>	<b>4.0</b>
	<i>5-Year APC Trend</i>		-2.7		-4.5		-1.3
	2002	214	5.8	129	8.0	85	4.2
	2003	198	5.4	128	7.7	70	3.5
	2004	238	6.3	140	8.2	98	4.8
	2005	197	5.2	117	7.0	80	3.7
	2006	206	5.1	119	6.6	87	3.9
<b>Endocrine System</b>	<b>Annual Average</b>	<b>336</b>	<b>9.1</b>	<b>94</b>	<b>5.1</b>	<b>243</b>	<b>13.0</b>
	<i>5-Year APC Trend</i>		8.2 *		7.6 *		8.3 *
	2002	271	7.6	73	4.1	198	11.0
	2003	311	8.5	91	5.2	220	11.9
	2004	333	9.1	87	4.9	246	13.3
	2005	351	9.4	100	5.5	251	13.3
	2006	415	10.7	117	5.9	298	15.4
<b>Thyroid</b>	<b>Annual Average</b>	<b>313</b>	<b>8.4</b>	<b>82</b>	<b>4.5</b>	<b>231</b>	<b>12.4</b>
	<i>5-Year APC Trend</i>		8.2 *		9.3 *		7.6 *
	2002	254	7.1	61	3.4	193	10.7
	2003	288	7.9	79	4.5	209	11.3
	2004	310	8.4	75	4.2	235	12.7
	2005	325	8.7	89	4.8	236	12.6
	2006	387	9.9	105	5.3	282	14.6
<b>Eye and Orbit</b>	<b>Annual Average</b>	<b>40</b>	<b>1.1</b>	<b>21</b>	<b>1.2</b>	<b>19</b>	<b>1.0</b>
	<i>5-Year APC Trend</i>		-1.5		1.6		-4.5
	2002	47	1.3	24	1.4	23	1.2
	2003	31	0.8	12	0.7	19	1.0
	2004	38	1.0	23	1.3	15	0.7
	2005	37	1.0	21	1.1	16	0.8
	2006	46	1.2	25	1.3	21	1.0
<b>Genital System (Female)</b>	<b>Annual Average</b>	<b>978</b>	<b>48.0</b>	<b>n/a</b>	<b>n/a</b>	<b>978</b>	<b>48.0</b>
	<i>5-Year APC Trend</i>		-0.1		n/a		-0.1
	2002	942	48.2	n/a	n/a	942	48.2
	2003	964	48.2	n/a	n/a	964	48.2
	2004	991	49.2	n/a	n/a	991	49.2
	2005	938	45.1	n/a	n/a	938	45.1
	2006	1,056	49.3	n/a	n/a	1,056	49.3

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, 2002-2006

<b>TABLE 1: CANCER INCIDENCE</b> by Site, Sex, and Year (2002-2006)		<b>TOTAL <sup>1</sup></b>		<b>MALE</b>		<b>FEMALE</b>	
		Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend	Invasive Cancer Counts	Rate/ Current Trend
Primary Sites	Year						
<b>Cervix</b>	<b>Annual Average</b>	<b>117</b>	<b>6.3</b>	<b>n/a</b>	<b>n/a</b>	<b>117</b>	<b>6.3</b>
	<i>5-Year APC Trend</i>		-3.1		n/a		-3.1
	2002	131	7.2	n/a	n/a	131	7.2
	2003	115	6.3	n/a	n/a	115	6.3
	2004	104	5.6	n/a	n/a	104	5.6
	2005	113	5.9	n/a	n/a	113	5.9
	2006	123	6.4	n/a	n/a	123	6.4
<b>Ovary</b>	<b>Annual Average</b>	<b>286</b>	<b>13.9</b>	<b>n/a</b>	<b>n/a</b>	<b>286</b>	<b>13.9</b>
	<i>5-Year APC Trend</i>		0.7		n/a		0.7
	2002	269	13.5	n/a	n/a	269	13.5
	2003	299	14.7	n/a	n/a	299	14.7
	2004	290	14.2	n/a	n/a	290	14.2
	2005	242	11.5	n/a	n/a	242	11.5
	2006	330	15.4	n/a	n/a	330	15.4
<b>Uterus</b>	<b>Annual Average</b>	<b>494</b>	<b>24.0</b>	<b>n/a</b>	<b>n/a</b>	<b>494</b>	<b>24.0</b>
	<i>5-Year APC Trend</i>		0.2		n/a		0.2
	2002	461	23.4	n/a	n/a	461	23.4
	2003	476	23.6	n/a	n/a	476	23.6
	2004	520	25.6	n/a	n/a	520	25.6
	2005	491	23.4	n/a	n/a	491	23.4
	2006	522	23.8	n/a	n/a	522	23.8
<b>Genital System (Male)</b>	<b>Annual Average</b>	<b>2,725</b>	<b>156.3</b>	<b>2,725</b>	<b>156.3</b>	<b>n/a</b>	<b>n/a</b>
	<i>5-Year APC Trend</i>		-2.2		-2.2		n/a
	2002	2,748	166.7	2,747	166.7	n/a	n/a
	2003	2,578	152.5	2,578	152.5	n/a	n/a
	2004	2,783	160.6	2,783	160.6	n/a	n/a
	2005	2,734	153.6	2,734	153.6	n/a	n/a
	2006	2,784	148.9	2,784	148.9	n/a	n/a
<b>Prostate</b>	<b>Annual Average</b>	<b>2,593</b>	<b>149.0</b>	<b>2,593</b>	<b>149.0</b>	<b>n/a</b>	<b>n/a</b>
	<i>5-Year APC Trend</i>		-2.1		-2.1		n/a
	2002	2,609	158.9	2,609	158.9	n/a	n/a
	2003	2,438	144.7	2,438	144.7	n/a	n/a
	2004	2,655	153.5	2,655	153.5	n/a	n/a
	2005	2,604	146.6	2,604	146.6	n/a	n/a
	2006	2,660	142.2	2,660	142.2	n/a	n/a
<b>Testis</b>	<b>Annual Average</b>	<b>117</b>	<b>6.4</b>	<b>117</b>	<b>6.4</b>	<b>n/a</b>	<b>n/a</b>
	<i>5-Year APC Trend</i>		-4.9 *		-4.9 *		n/a
	2002	128	7.2	127	7.2	n/a	n/a
	2003	117	6.5	117	6.5	n/a	n/a
	2004	117	6.5	117	6.5	n/a	n/a
	2005	115	6.2	115	6.2	n/a	n/a
	2006	107	5.7	107	5.7	n/a	n/a

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, 2002-2006

<b>TABLE 1: CANCER INCIDENCE</b> by Site, Sex, and Year (2002-2006)		<b>TOTAL</b> <sup>1</sup>		<b>MALE</b>		<b>FEMALE</b>	
		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>12</b>	<b>0.3</b>	<b>10</b>	<b>0.6</b>	<b>6</b>	<b>0.1</b>
	<i>5-Year APC Trend</i>		10.1		13.4		
	2002	6	^	6	^	0	^
	2003	13	0.4	10	^	3	^
	2004	13	0.4	11	0.6	2	^
	2005	14	0.4	13	0.7	1	^
	2006	12	0.3	12	0.7	0	^
<b>Leukemia</b>	<b>Annual Average</b>	<b>410</b>	<b>10.9</b>	<b>238</b>	<b>14.0</b>	<b>173</b>	<b>8.5</b>
	<i>5-Year APC Trend</i>		0.3		-1.0		2.2
	2002	415	11.5	245	15.0	170	8.7
	2003	374	10.2	223	13.2	151	7.6
	2004	393	10.5	225	13.3	168	8.3
	2005	439	11.4	254	14.7	185	8.6
	2006	431	11.1	241	13.6	190	9.1
<b>Lymphomas</b>	<b>Annual Average</b>	<b>885</b>	<b>23.3</b>	<b>479</b>	<b>27.6</b>	<b>406</b>	<b>19.9</b>
	<i>5-Year APC Trend</i>		-1.7		-0.7		-2.7
	2002	860	23.6	454	27.3	406	20.5
	2003	875	23.6	460	27.1	415	20.7
	2004	916	24.2	518	30.0	398	19.5
	2005	925	23.9	476	27.0	449	21.6
	2006	851	21.4	487	26.4	364	17.2
<b>Hodgkin Lymphoma</b>	<b>Annual Average</b>	<b>106</b>	<b>2.9</b>	<b>55</b>	<b>3.1</b>	<b>51</b>	<b>2.8</b>
	<i>5-Year APC Trend</i>		-0.8		-3.2		1.5
	2002	109	3.1	57	3.3	52	2.9
	2003	98	2.7	53	3.0	45	2.5
	2004	109	3.0	60	3.3	49	2.7
	2005	104	2.8	51	2.7	53	2.8
	2006	112	2.9	56	2.9	56	3.0
<b>Non-Hodgkin Lymphoma</b>	<b>Annual Average</b>	<b>779</b>	<b>20.4</b>	<b>424</b>	<b>24.5</b>	<b>355</b>	<b>17.1</b>
	<i>5-Year APC Trend</i>		-1.8		-0.4		-3.4
	2002	751	20.5	397	24.0	354	17.6
	2003	777	20.8	407	24.0	370	18.2
	2004	807	21.2	458	26.7	349	16.8
	2005	821	21.1	425	24.3	396	18.7
	2006	739	18.5	431	23.5	308	14.3
<b>Mesothelioma</b>	<b>Annual Average</b>	<b>50</b>	<b>1.3</b>	<b>38</b>	<b>2.3</b>	<b>11</b>	<b>0.5</b>
	<i>5-Year APC Trend</i>		-2.9		-8.7		17.9
	2002	58	1.6	53	3.3	5	^
	2003	56	1.5	42	2.6	14	0.6
	2004	33	0.9	29	1.8	4	^
	2005	39	1.0	22	1.4	17	0.8
	2006	62	1.6	45	2.7	17	0.7

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, 2002-2006

<b>TABLE 1: CANCER INCIDENCE</b> by Site, Sex, and Year (2002-2006)		<b>TOTAL</b> <sup>1</sup>		<b>MALE</b>		<b>FEMALE</b>	
		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>188</b>	<b>4.9</b>	<b>106</b>	<b>6.1</b>	<b>82</b>	<b>3.9</b>
	<i>5-Year APC Trend</i>		-1.6		-3.8		1.3
	2002	208	5.7	116	7.1	92	4.5
	2003	155	4.2	94	5.7	61	3.0
	2004	189	4.9	111	6.4	78	3.7
	2005	184	4.8	100	5.7	84	3.9
	2006	204	5.0	107	5.9	97	4.4
<b>Oral Cavity and Pharynx</b>	<b>Annual Average</b>	<b>411</b>	<b>10.6</b>	<b>283</b>	<b>15.6</b>	<b>127</b>	<b>6.2</b>
	<i>5-Year APC Trend</i>		-2.4		-0.8		-5.9
	2002	400	10.9	258	15.0	142	7.2
	2003	420	11.1	294	16.5	125	6.2
	2004	429	11.1	292	16.1	137	6.6
	2005	387	9.8	281	15.1	105	5.0
	2006	418	10.2	290	15.2	128	5.9
<b>Respiratory System</b>	<b>Annual Average</b>	<b>2,738</b>	<b>72.7</b>	<b>1,453</b>	<b>86.1</b>	<b>1,284</b>	<b>62.5</b>
	<i>5-Year APC Trend</i>		-1.8		-2.4		-1.0
	2002	2,712	75.0	1,461	90.6	1,251	63.2
	2003	2,679	72.7	1,418	85.9	1,261	62.7
	2004	2,775	74.3	1,478	88.0	1,296	63.6
	2005	2,832	74.2	1,496	87.8	1,336	64.3
	2006	2,692	67.7	1,414	79.0	1,278	59.3
<b>Larynx</b>	<b>Annual Average</b>	<b>117</b>	<b>3.0</b>	<b>91</b>	<b>5.1</b>	<b>26</b>	<b>1.3</b>
	<i>5-Year APC Trend</i>		1.0		-0.2		6.7
	2002	102	2.8	86	5.2	16	0.8
	2003	120	3.2	94	5.3	26	1.3
	2004	118	3.1	88	5.0	30	1.5
	2005	125	3.3	86	4.9	39	1.9
	2006	120	2.9	100	5.3	20	0.9
<b>Lung and Bronchus</b>	<b>Annual Average</b>	<b>2,591</b>	<b>68.8</b>	<b>1,343</b>	<b>79.9</b>	<b>1,247</b>	<b>60.7</b>
	<i>5-Year APC Trend</i>		-1.8		-2.5		-1.1
	2002	2,577	71.3	1,354	84.2	1,223	61.7
	2003	2,529	68.7	1,306	79.5	1,223	60.9
	2004	2,628	70.4	1,368	81.7	1,259	61.7
	2005	2,667	70.0	1,384	81.4	1,283	61.8
	2006	2,553	64.4	1,305	73.2	1,248	57.9
<b>Skin</b>	<b>Annual Average</b>	<b>981</b>	<b>25.9</b>	<b>523</b>	<b>29.5</b>	<b>459</b>	<b>23.5</b>
<i>Excludes basal and squamous cell</i>	<i>i-Year APC Trend</i>		2.1		1.2		2.7
	2002	911	25.0	492	29.1	419	22.4
	2003	859	23.1	465	26.9	394	20.6
	2004	1,045	27.9	550	31.1	495	25.9
	2005	1,082	27.9	582	32.2	500	24.9
	2006	1,009	25.3	524	28.2	485	23.5

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, 2002-2006

<b>TABLE 1: CANCER INCIDENCE</b> by Site, Sex, and Year (2002-2006)		<b>TOTAL <sup>1</sup></b>		<b>MALE</b>		<b>FEMALE</b>	
		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>924</b>	<b>24.3</b>	<b>492</b>	<b>27.7</b>	<b>432</b>	<b>22.2</b>
	5-Year APC Trend		2.1		1.5		2.4
	2002	860	23.6	467	27.5	393	21.1
	2003	801	21.6	430	24.8	371	19.5
	2004	983	26.2	514	29.0	469	24.7
	2005	1,033	26.6	554	30.6	479	23.9
	2006	942	23.6	496	26.7	446	21.6
<b>Soft Tissue includes Heart</b>	<b>Annual Average</b>	<b>118</b>	<b>3.1</b>	<b>68</b>	<b>3.8</b>	<b>50</b>	<b>2.5</b>
	5-Year APC Trend		0.2		-2.9		3.3
	2002	107	2.9	64	3.7	43	2.3
	2003	121	3.2	72	4.2	49	2.5
	2004	120	3.2	69	4.0	51	2.5
	2005	130	3.4	79	4.3	51	2.5
	2006	113	2.9	56	3.0	57	2.8
<b>Urinary System</b>	<b>Annual Average</b>	<b>1,416</b>	<b>37.1</b>	<b>993</b>	<b>58.4</b>	<b>423</b>	<b>20.1</b>
	5-Year APC Trend		-0.1		-0.4		-0.3
	2002	1,345	36.8	950	58.9	395	19.6
	2003	1,347	35.9	929	56.0	418	20.2
	2004	1,444	38.2	1,010	60.1	434	20.9
	2005	1,524	39.1	1,084	62.4	440	20.5
	2006	1,418	35.2	992	54.7	426	19.2
<b>Kidney and Renal Pelvis</b>	<b>Annual Average</b>	<b>514</b>	<b>13.4</b>	<b>317</b>	<b>17.9</b>	<b>197</b>	<b>9.6</b>
	5-Year APC Trend		3.7		4.0		2.8
	2002	446	12.2	277	16.5	169	8.6
	2003	480	12.7	286	16.6	194	9.5
	2004	523	13.8	313	17.9	210	10.3
	2005	556	14.2	363	20.2	193	9.3
	2006	566	13.8	347	18.2	219	10.1
<b>Urinary Bladder</b>	<b>Annual Average</b>	<b>870</b>	<b>22.9</b>	<b>657</b>	<b>39.3</b>	<b>213</b>	<b>10.0</b>
	5-Year APC Trend		-2.2		-2.3		-3.3
	2002	870	23.9	658	41.5	212	10.3
	2003	836	22.4	620	38.0	216	10.4
	2004	890	23.6	681	41.2	209	10.0
	2005	936	24.0	699	40.8	237	10.8
	2006	819	20.5	628	35.4	191	8.5
<b>Miscellaneous Sites</b>	<b>Annual Average</b>	<b>577</b>	<b>15.1</b>	<b>299</b>	<b>17.9</b>	<b>278</b>	<b>12.9</b>
	5-Year APC Trend		-2.1		-1.2		-3.5
	2002	594	16.1	300	18.7	293	14.2
	2003	549	14.7	283	17.4	266	12.7
	2004	590	15.5	307	18.3	283	13.3
	2005	571	14.6	295	17.4	276	12.4
	2006	582	14.6	308	17.6	274	12.1

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, 2002-2006

<b>TABLE 2: CANCER MORTALITY</b> by Site, Sex, and Year (2002-2006)		<b>TOTAL</b>		<b>MALE</b>		<b>FEMALE</b>	
Primary Sites	Year	Rate/ Cancer Deaths	Current Trend	Rate/ Cancer Deaths	Current Trend	Rate/ Cancer Deaths	Current Trend
<b>All Causes of Death</b>		<b>30,849</b>	<b>785.9</b>	<b>15,177</b>	<b>920.8</b>	<b>15,672</b>	<b>676.8</b>
	<i>Annual Average</i>						
	<i>5-Year APC Trend</i>		-2.0 *		-2.3 *		-1.8 *
	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
	2004	30,201	771.9	14,876	907.4	15,325	664.6
	2005	30,852	764.8	15,138	893.4	15,714	658.8
	2006	31,300	766.3	15,422	891.4	15,878	664.6
<b>All Malignant Cancers</b>		<b>7,355</b>	<b>191.6</b>	<b>3,771</b>	<b>226.6</b>	<b>3,584</b>	<b>167.2</b>
	<i>Annual Average</i>						
	<i>5-Year APC Trend</i>		-1.8 *		-2.0 *		-1.8 *
	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
	2004	7,320	192.1	3,762	228.1	3,558	167.0
	2005	7,396	189.4	3,856	226.8	3,540	162.4
	2006	7,401	184.1	3,759	214.6	3,642	163.2
<b>Bones and Joints</b>		<b>15</b>	<b>0.4</b>	<b>11</b>	<b>0.6</b>	<b>4</b>	<b>0.2</b>
	<i>Annual Average</i>						
	<i>5-Year APC Trend</i>		+4.4		+14.5		^
	2002	12	0.3	8	^	4	^
	2003	14	0.4	7	^	7	^
	2004	17	0.5	13	0.7	4	^
	2005	16	0.4	13	0.7	3	^
	2006	16	0.4	13	0.7	3	^
<b>Brain and CNS</b>		<b>205</b>	<b>5.4</b>	<b>117</b>	<b>6.5</b>	<b>88</b>	<b>4.3</b>
	<i>Annual Average</i>						
	<i>5-Year APC Trend</i>		-4.3		-3.9		-3.9
	2002	218	5.9	122	7.0	96	4.9
	2003	195	5.3	114	6.6	81	4.1
	2004	207	5.4	116	6.4	91	4.4
	2005	231	6.0	139	7.7	92	4.6
	2006	175	4.3	95	5.0	80	3.8
<b>Breast</b>		<b>513</b>	<b>13.2</b>	<b>3</b>	<b>0.2</b>	<b>510</b>	<b>23.9</b>
	<i>Annual Average</i>						
	<i>5-Year APC Trend</i>		-3.1		^		-3.0
	2002	503	13.6	2	^	501	24.7
	2003	550	14.5	2	^	548	26.1
	2004	515	13.3	3	^	512	24.1
	2005	477	12.1	6	^	471	21.9
	2006	521	12.7	3	^	518	23.1
<b>Digestive System</b>		<b>1,659</b>	<b>43.0</b>	<b>904</b>	<b>53.3</b>	<b>756</b>	<b>34.6</b>
	<i>Annual Average</i>						
	<i>5-Year APC Trend</i>		-1.1		-1.9 *		-0.4
	2002	1,609	43.3	899	55.8	710	33.4
	2003	1,656	44.0	885	53.4	771	36.2
	2004	1,670	43.7	907	54.5	763	35.1
	2005	1,670	42.4	898	51.7	772	34.7
	2006	1,691	41.7	929	51.5	762	33.6

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

APC=Average Annual Percentage 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, 2002-2006

<b>TABLE 2: CANCER MORTALITY</b> by Site, Sex, and Year (2002-2006)		<b>TOTAL</b>		<b>MALE</b>		<b>FEMALE</b>	
Primary Sites	Year	Rate/ Cancer Deaths	Current Trend	Rate/ Cancer Deaths	Current Trend	Rate/ Cancer Deaths	Current Trend
<b>Colon and Rectum</b>	<b>Annual Average</b>	<b>654</b>	<b>16.8</b>	<b>325</b>	<b>19.5</b>	<b>329</b>	<b>14.7</b>
	<i>5-Year APC Trend</i>		-3.8 *		-5.6 *		-2.3
	2002	665	17.8	354	22.4	311	14.4
	2003	685	18.0	316	19.4	369	16.9
	2004	637	16.5	329	20.2	308	13.8
	2005	659	16.6	316	18.5	343	15.0
	2006	624	15.3	308	17.2	316	13.7
<b>Esophagus</b>	<b>Annual Average</b>	<b>195</b>	<b>5.1</b>	<b>151</b>	<b>8.8</b>	<b>44</b>	<b>2.0</b>
	<i>5-Year APC Trend</i>		+1.2		+1.8		+0.3
	2002	186	5.0	137	8.3	49	2.3
	2003	177	4.7	143	8.6	34	1.5
	2004	205	5.5	161	9.6	44	2.2
	2005	197	5.1	150	8.8	47	2.1
	2006	209	5.1	162	9.0	47	2.0
<b>Gallbladder</b>	<b>Annual Average</b>	<b>22</b>	<b>0.6</b>	<b>6</b>	<b>0.4</b>	<b>16</b>	<b>0.7</b>
	<i>5-Year APC Trend</i>		+6.1		^		-1.0
	2002	17	0.5	4	^	13	0.6
	2003	23	0.6	4	^	19	0.9
	2004	23	0.6	6	^	17	0.8
	2005	19	0.5	5	^	14	0.6
	2006	28	0.7	12	0.7	16	0.7
<b>Liver/Intrahepatic Bile Duct</b>	<b>Annual Average</b>	<b>171</b>	<b>4.4</b>	<b>111</b>	<b>6.2</b>	<b>60</b>	<b>2.9</b>
	<i>5-Year APC Trend</i>		+2.4		+2.9		+0.7
	2002	147	3.9	91	5.3	56	2.7
	2003	172	4.6	111	6.3	61	3.1
	2004	171	4.6	115	6.7	56	2.8
	2005	182	4.6	118	6.3	64	3.0
	2006	184	4.5	121	6.3	63	2.9
<b>Liver</b>	<b>Annual Average</b>	<b>127</b>	<b>3.3</b>	<b>88</b>	<b>4.8</b>	<b>39</b>	<b>1.9</b>
	<i>5-Year APC Trend</i>		+3.2		+7.5		-5.2
	2002	107	2.9	67	3.8	40	1.9
	2003	127	3.4	81	4.6	46	2.4
	2004	125	3.3	90	5.2	35	1.7
	2005	135	3.3	98	5.2	37	1.7
	2006	142	3.4	103	5.2	39	1.7
<b>Pancreas</b>	<b>Annual Average</b>	<b>419</b>	<b>10.9</b>	<b>208</b>	<b>12.3</b>	<b>211</b>	<b>9.8</b>
	<i>5-Year APC Trend</i>		+1.7		+0.1		+3.4
	2002	402	10.9	203	12.6	199	9.5
	2003	377	10.1	204	12.4	173	8.3
	2004	430	11.2	196	11.7	234	10.6
	2005	424	10.9	209	12.1	215	9.9
	2006	461	11.5	228	12.8	233	10.5

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

APC=Average Annual Percentage 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, 2002-2006

<b>TABLE 2: CANCER MORTALITY</b> by Site, Sex, and Year (2002-2006)		<b>TOTAL</b>		<b>MALE</b>		<b>FEMALE</b>	
Primary Sites	Year	Rate/ Cancer Deaths	Rate/ Current Trend	Rate/ Cancer Deaths	Rate/ Current Trend	Cancer Deaths	Rate/ Current Trend
<b>Small Intestine</b>	<b>Annual Average</b>	<b>15</b>	<b>0.4</b>	<b>7</b>	<b>0.4</b>	<b>7</b>	<b>0.3</b>
	5-Year APC Trend		-3.9		^		^
	2002	13	0.4	5	^	8	^
	2003	18	0.5	7	^	11	0.5
	2004	14	0.4	8	^	6	^
	2005	15	0.4	7	^	8	^
	2006	13	0.3	10	^	3	^
<b>Stomach</b>	<b>Annual Average</b>	<b>120</b>	<b>3.1</b>	<b>69</b>	<b>4.1</b>	<b>51</b>	<b>2.4</b>
	5-Year APC Trend		-5.3 *		-6.9		-2.2
	2002	128	3.5	79	4.9	49	2.4
	2003	122	3.3	68	4.1	54	2.6
	2004	122	3.2	65	3.8	57	2.7
	2005	116	3.0	72	4.1	44	2.0
	2006	113	2.8	60	3.5	53	2.4
<b>Endocrine System</b>	<b>Annual Average</b>	<b>30</b>	<b>0.8</b>	<b>14</b>	<b>0.9</b>	<b>16</b>	<b>0.7</b>
	5-Year APC Trend		-4.5		-11.6		+3.3
	2002	36	1.0	18	1.1	18	0.9
	2003	23	0.6	11	0.7	12	0.5
	2004	34	0.9	20	1.3	14	0.7
	2005	25	0.7	13	0.7	12	0.6
	2006	32	0.8	10	0.6	22	1.0
<b>Thyroid</b>	<b>Annual Average</b>	<b>16</b>	<b>0.4</b>	<b>7</b>	<b>0.4</b>	<b>9</b>	<b>0.4</b>
	5-Year APC Trend		-11.8		^		^
	2002	21	0.6	8	^	13	0.7
	2003	17	0.4	8	^	9	^
	2004	14	0.4	8	^	6	^
	2005	12	0.3	6	^	6	^
	2006	16	0.4	6	^	10	^
<b>Eye and Orbit</b>	<b>Annual Average</b>	<b>4</b>	<b>0.1</b>	<b>2</b>	<b>^</b>	<b>2</b>	<b>^</b>
	5-Year APC Trend		^		^		^
	2002	9	^	6	^	3	^
	2003	2	^	2	^	0	^
	2004	2	^	2	^	0	^
	2005	5	^	2	^	3	^
	2006	2	^	0	^	2	^
<b>Genital System (Female)</b>	<b>Annual Average</b>	<b>356</b>	<b>16.7</b>	<b>n/a</b>	<b>n/a</b>	<b>356</b>	<b>16.7</b>
	5-Year APC Trend		-1.5		n/a		-1.1
	2002	358	17.7	n/a	n/a	358	17.7
	2003	328	15.5	n/a	n/a	328	15.5
	2004	376	17.6	n/a	n/a	376	17.6
	2005	355	16.5	n/a	n/a	355	16.5
	2006	363	16.3	n/a	n/a	363	16.3

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

APC=Average Annual Percentage 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, 2002-2006

<b>TABLE 2: CANCER MORTALITY</b> by Site, Sex, and Year (2002-2006)		<b>TOTAL</b>		<b>MALE</b>		<b>FEMALE</b>	
Primary Sites	Year	Rate/ Cancer Deaths	Current Trend	Rate/ Cancer Deaths	Current Trend	Rate/ Cancer Deaths	Current Trend
<b>Cervix</b>	<b>Annual Average</b>	<b>39</b>	<b>2.0</b>	<b>n/a</b>	<b>n/a</b>	<b>39</b>	<b>2.0</b>
	<i>5-Year APC Trend</i>		-7.3		n/a		-7.3
	2002	45	2.4	n/a	n/a	45	2.4
	2003	43	2.1	n/a	n/a	43	2.1
	2004	29	1.5	n/a	n/a	29	1.5
	2005	41	2.0	n/a	n/a	41	2.0
	2006	36	1.7	n/a	n/a	37	1.7
<b>Ovary</b>	<b>Annual Average</b>	<b>214</b>	<b>10.0</b>	<b>n/a</b>	<b>n/a</b>	<b>214</b>	<b>10.0</b>
	<i>5-Year APC Trend</i>		-0.7		n/a		-0.7
	2002	212	10.4	n/a	n/a	212	10.4
	2003	186	8.8	n/a	n/a	186	8.8
	2004	244	11.3	n/a	n/a	244	11.3
	2005	214	9.7	n/a	n/a	214	9.7
	2006	213	9.6	n/a	n/a	213	9.6
<b>Uterus</b>	<b>Annual Average</b>	<b>82</b>	<b>3.8</b>	<b>n/a</b>	<b>n/a</b>	<b>82</b>	<b>3.8</b>
	<i>5-Year APC Trend</i>		+1.8		n/a		+1.8
	2002	79	3.8	n/a	n/a	79	3.8
	2003	77	3.6	n/a	n/a	77	3.6
	2004	78	3.6	n/a	n/a	78	3.6
	2005	83	3.9	n/a	n/a	83	3.9
	2006	91	4.0	n/a	n/a	91	4.0
<b>Genital System (Male)</b>	<b>Annual Average</b>	<b>427</b>	<b>27.1</b>	<b>427</b>	<b>27.1</b>	<b>n/a</b>	<b>n/a</b>
	<i>5-Year APC Trend</i>		-3.5 *		-3.5 *		n/a
	2002	448	30.1	448	30.1	n/a	n/a
	2003	422	27.5	422	27.5	n/a	n/a
	2004	415	26.4	415	26.4	n/a	n/a
	2005	426	26.3	426	26.3	n/a	n/a
	2006	426	25.8	426	25.8	n/a	n/a
<b>Prostate</b>	<b>Annual Average</b>	<b>419</b>	<b>26.7</b>	<b>419</b>	<b>26.7</b>	<b>n/a</b>	<b>n/a</b>
	<i>5-Year APC Trend</i>		-3.2 *		-3.2 *		n/a
	2002	435	29.4	435	29.4	n/a	n/a
	2003	415	27.1	415	27.1	n/a	n/a
	2004	406	25.9	406	25.9	n/a	n/a
	2005	420	25.9	420	25.9	n/a	n/a
	2006	421	25.5	421	25.5	n/a	n/a
<b>Testis</b>	<b>Annual Average</b>	<b>7</b>	<b>0.4</b>	<b>7</b>	<b>0.4</b>	<b>n/a</b>	<b>n/a</b>
	<i>5-Year APC Trend</i>		^		^		n/a
	2002	12	0.7	12	0.7	n/a	n/a
	2003	6	^	6	^	n/a	n/a
	2004	7	^	7	^	n/a	n/a
	2005	5	^	5	^	n/a	n/a
	2006	4	^	4	^	n/a	n/a

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

APC=Average Annual Percentage 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, 2002-2006

<b>TABLE 2: CANCER MORTALITY</b> by Site, Sex, and Year (2002-2006)		<b>TOTAL</b>		<b>MALE</b>		<b>FEMALE</b>	
Primary Sites	Year	Rate/ Cancer Deaths	Current Trend	Rate/ Cancer Deaths	Current Trend	Rate/ Cancer Deaths	Current Trend
<b>Leukemia</b>	<b>Annual Average</b>	<b>282</b>	<b>7.4</b>	<b>165</b>	<b>10.0</b>	<b>118</b>	<b>5.4</b>
	<i>5-Year APC Trend</i>		+1.0		1.2		-0.4
	2002	274	7.5	163	10.5	111	5.4
	2003	268	7.1	150	9.4	118	5.6
	2004	268	7.0	156	9.5	112	5.2
	2005	300	7.7	172	10.2	128	5.6
	2006	302	7.6	182	10.7	120	5.3
<b>Lymphomas</b>	<b>Annual Average</b>	<b>321</b>	<b>8.3</b>	<b>169</b>	<b>10.2</b>	<b>152</b>	<b>6.9</b>
	<i>5-Year APC Trend</i>		-4.6		-5.2		-3.4
	2002	320	8.6	164	10.3	156	7.3
	2003	340	9.0	181	11.0	159	7.4
	2004	327	8.5	188	11.6	139	6.2
	2005	336	8.5	167	9.9	169	7.4
	2006	282	7.0	145	8.2	137	6.1
<b>Hodgkin Lymphoma</b>	<b>Annual Average</b>	<b>17</b>	<b>0.5</b>	<b>9</b>	<b>0.5</b>	<b>8</b>	<b>0.4</b>
	<i>5-Year APC Trend</i>		-2.3		^		^
	2002	18	0.5	10	^	8	^
	2003	17	0.4	6	^	11	0.5
	2004	11	0.3	8	^	3	^
	2005	23	0.6	13	0.7	10	^
	2006	15	0.4	7	^	8	^
<b>Non-Hodgkin Lymphoma</b>	<b>Annual Average</b>	<b>304</b>	<b>7.9</b>	<b>160</b>	<b>9.7</b>	<b>144</b>	<b>6.4</b>
	<i>5-Year APC Trend</i>		-4.7		-5.4		-3.5
	2002	302	8.1	154	9.7	148	6.8
	2003	323	8.6	175	10.6	148	6.9
	2004	316	8.2	180	11.1	136	6.0
	2005	313	7.9	154	9.2	159	6.8
	2006	267	6.6	138	7.8	129	5.7
<b>Mesothelioma</b>	<b>Annual Average</b>	<b>40</b>	<b>1.0</b>	<b>33</b>	<b>2.0</b>	<b>7</b>	<b>0.3</b>
	<i>5-Year APC Trend</i>		+2.9		+1.4		^
	2002	28	0.8	22	1.4	6	^
	2003	50	1.3	43	2.7	7	^
	2004	38	1.0	33	2.0	5	^
	2005	36	0.9	30	1.9	6	^
	2006	46	1.2	36	2.1	10	^
<b>Myeloma</b>	<b>Annual Average</b>	<b>151</b>	<b>4.0</b>	<b>81</b>	<b>4.9</b>	<b>71</b>	<b>3.3</b>
	<i>5-Year APC Trend</i>		-6.6		-7.6		-5.1
	2002	173	4.7	87	5.5	86	4.2
	2003	159	4.3	95	5.9	64	3.0
	2004	139	3.6	70	4.3	69	3.1
	2005	136	3.5	83	4.9	53	2.4
	2006	150	3.7	69	4.0	81	3.5

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

APC=Average Annual Percentage 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, 2002-2006

<b>TABLE 2: CANCER MORTALITY</b> by Site, Sex, and Year (2002-2006)		<b>TOTAL</b>		<b>MALE</b>		<b>FEMALE</b>	
Primary Sites	Year	Rate/ Cancer Deaths	Current Trend	Rate/ Cancer Deaths	Current Trend	Rate/ Cancer Deaths	Current Trend
<b>Oral Cavity and Pharynx</b>	<b>Annual Average</b>	<b>98</b>	<b>2.5</b>	<b>63</b>	<b>3.6</b>	<b>35</b>	<b>1.6</b>
	<i>5-Year APC Trend</i>		-1.7		+2.3		-8.7
	2002	98	2.7	60	3.7	38	1.8
	2003	93	2.5	54	3.2	39	1.8
	2004	94	2.5	58	3.4	36	1.7
	2005	110	2.8	73	4.0	37	1.7
	2006	95	2.3	68	3.7	27	1.2
<b>Respiratory System</b>	<b>Annual Average</b>	<b>2,129</b>	<b>56.3</b>	<b>1,132</b>	<b>67.9</b>	<b>996</b>	<b>47.7</b>
	<i>5-Year APC Trend</i>		-1.6 *		-1.6		-1.5
	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
	2004	2,123	56.6	1,129	67.9	994	48.0
	2005	2,141	55.9	1,162	68.6	979	46.4
	2006	2,147	54.3	1,124	64.2	1,023	46.9
<b>Larynx</b>	<b>Annual Average</b>	<b>35</b>	<b>0.9</b>	<b>26</b>	<b>1.5</b>	<b>10</b>	<b>0.5</b>
	<i>5-Year APC Trend</i>		-15.3		-17.0 *		^
	2002	46	1.3	35	2.1	11	0.6
	2003	35	0.9	29	1.7	6	^
	2004	43	1.1	26	1.5	17	0.8
	2005	28	0.7	19	1.1	9	^
	2006	25	0.6	20	1.1	5	^
<b>Lung and Bronchus</b>	<b>Annual Average</b>	<b>2,082</b>	<b>55.1</b>	<b>1,099</b>	<b>65.9</b>	<b>983</b>	<b>47.0</b>
	<i>5-Year APC Trend</i>		-1.3 *		-1.2		-1.5
	2002	2,057	56.7	1,061	66.5	996	49.4
	2003	2,069	55.7	1,104	67.6	965	46.9
	2004	2,074	55.3	1,099	66.2	975	47.1
	2005	2,097	54.8	1,131	66.9	966	45.7
	2006	2,114	53.4	1,100	62.8	1,014	46.5
<b>SKIN</b>	<b>Annual Average</b>	<b>155</b>	<b>4.0</b>	<b>102</b>	<b>6.0</b>	<b>53</b>	<b>2.5</b>
<i>Excludes basal and squamous cell</i>	<i>5-Year APC Trend</i>		-1.5		-0.1		-3.8
	2002	155	4.2	98	6.0	57	2.8
	2003	159	4.2	108	6.3	51	2.4
	2004	152	3.9	94	5.6	58	2.7
	2005	145	3.8	100	5.7	45	2.2
	2006	163	4.1	111	6.3	52	2.4
<b>Melanoma of the Skin</b>	<b>Annual Average</b>	<b>121</b>	<b>3.1</b>	<b>79</b>	<b>4.6</b>	<b>42</b>	<b>2.0</b>
	<i>5-Year APC Trend</i>		-3.1 *		-2.1		-4.5
	2002	123	3.3	77	4.8	46	2.3
	2003	127	3.4	85	4.8	42	2.0
	2004	120	3.1	74	4.4	46	2.2
	2005	117	3.1	83	4.8	34	1.7
	2006	118	3.0	77	4.3	41	2.0

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

APC=Average Annual Percentage 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, 2002-2006

<b>TABLE 2: CANCER MORTALITY</b> by Site, Sex, and Year (2002-2006)		<b>TOTAL</b>		<b>MALE</b>		<b>FEMALE</b>	
Primary Sites	Year	Rate/ Cancer Deaths	Rate/ Current Trend	Rate/ Cancer Deaths	Rate/ Current Trend	Rate/ Cancer Deaths	Rate/ Current Trend
<b>Soft Tissue includes Heart</b>	<b>Annual Average</b>	<b>55</b>	<b>1.4</b>	<b>30</b>	<b>1.7</b>	<b>25</b>	<b>1.2</b>
	<i>5-Year APC Trend</i>		+0.9		+2.7		-1.7
	2002	52	1.4	23	1.4	29	1.5
	2003	51	1.4	30	1.8	21	1.0
	2004	56	1.5	34	2.0	22	1.1
	2005	56	1.5	33	1.9	23	1.1
	2006	58	1.4	29	1.6	29	1.3
<b>Urinary System</b>	<b>Annual Average</b>	<b>357</b>	<b>9.2</b>	<b>238</b>	<b>14.5</b>	<b>119</b>	<b>5.3</b>
	<i>5-Year APC Trend</i>		-3.7 *		-2.7		-5.7
	2002	379	10.2	242	15.3	137	6.4
	2003	346	9.1	231	14.4	115	5.3
	2004	356	9.2	244	14.8	112	5.1
	2005	359	9.1	248	14.9	111	4.7
	2006	344	8.5	226	13.1	118	5.1
<b>Kidney and Renal Pelvis</b>	<b>Annual Average</b>	<b>154</b>	<b>4.0</b>	<b>98</b>	<b>5.8</b>	<b>56</b>	<b>2.5</b>
	<i>5-Year APC Trend</i>		-2.7		-1.0		-5.4
	2002	165	4.4	101	6.0	64	3.0
	2003	143	3.8	91	5.6	52	2.4
	2004	158	4.1	101	6.0	57	2.6
	2005	142	3.6	92	5.3	50	2.2
	2006	161	4.0	106	5.9	55	2.5
<b>Urinary Bladder</b>	<b>Annual Average</b>	<b>191</b>	<b>4.9</b>	<b>134</b>	<b>8.3</b>	<b>57</b>	<b>2.5</b>
	<i>5-Year APC Trend</i>		-4.2		-3.3		-6.3
	2002	200	5.4	133	8.7	67	3.1
	2003	190	5.0	134	8.4	56	2.5
	2004	191	4.9	138	8.5	53	2.4
	2005	205	5.1	152	9.4	53	2.2
	2006	170	4.2	113	6.8	57	2.4
<b>Miscellaneous Sites</b>	<b>Annual Average</b>	<b>557</b>	<b>14.4</b>	<b>280</b>	<b>17.1</b>	<b>277</b>	<b>12.5</b>
	<i>5-Year APC Trend</i>		-0.3		-0.1		-0.5
	2002	553	14.8	269	17.2	284	13.1
	2003	546	14.4	269	17.0	277	12.6
	2004	528	13.8	278	17.3	250	11.5
	2005	572	14.4	291	17.2	281	12.2
	2006	586	14.5	291	17.0	295	12.9

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

APC=Average Annual Percentage 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

### TECHNICAL NOTES

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 brain and central nervous system tumors 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 were identified from review of death certificates. The remaining cases were identified by review of pathology reports

from laboratories or 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. (Please see Appendix D, SEER Site Recode ICD-O-3 from NCI SEER program.) 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, Cancer Causes of Death for SEERSite recodes 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 Recodes for Cancers Newly Reportable in 2001 for a 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.)

### 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 2001-2006 were based on the National Center for Health Statistics (NCHS) estimates of the July 1, 2001-July 1, 2006, United States resident population from the Bridged-race Vintage 2006 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 and available on the Internet at: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm](http://www.cdc.gov/nchs/nvss/bridged_race.htm).

Beginning with the 2000 US Census, respondents have had the option of self-ascribing more than one race. Because cancer registry data continue to be reported with ascription to a 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 set, 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. For specific information about the bridging methodology, see the NCHS website: [http://www.cdc.gov/nchs/nvss/bridged\\_race.htm#methodology](http://www.cdc.gov/nchs/nvss/bridged_race.htm#methodology).

### 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. See the Oregon BRFSS website: <http://www.dhs.state.or.us/dhs/ph/chs/brfs/brfss.shtml>.

### National Data

National incidence data are from the *State Cancer Profiles* by National Cancer Institute's National Program of Cancer Registries (<http://www.statecancerprofiles.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, Aggregated With State, Total U.S. (1969-2006) <Katrina/Rita Population Adjustment>, National Cancer Institute, DCCPS, Surveillance Research Program, Cancer Statistics Branch, released May 2009. Underlying mortality data were provided by NCHS. [[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: 1999-2005 Incidence and Mortality*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; 2009, 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 the following website: <http://www.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 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 have no 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, 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 disease but are categorized as "unknown stage" due to lack of staging information.

**Linkages.** One notable data quality effort involves assessing and correcting race misclassification for American Indian/Alaska Native 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 clinic registry data to determine if AI/ANs 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 2009, Macro International Inc. conducted an audit of OSCaR data. The final audit report estimated OSCaR's overall case completeness rate at 99.3%, and the overall data accuracy rate for 27 essential data elements at 97.7%. OSCaR was commended for these excellent results.

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 2006 received Gold Certification. OSCaR has received gold certification for 10 of 11 years of complete data. Additional information about NAACCR certification is available on the web: [http://www.naaccr.org/index.asp?Col\\_SectionKey=11&Col\\_ContentID=54](http://www.naaccr.org/index.asp?Col_SectionKey=11&Col_ContentID=54).

## EPIDEMIOLOGICAL MEASURES

### Cancer Counts

All malignant 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 all 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. Unless otherwise noted, 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 *FastFacts* sections.

The following population 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
2005	3,641,056	1,810,911	1,830,145
2006	3,700,758	1,839,688	1,861,070

**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/stdpop.19ages.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.** 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 geographic 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 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 SEER\*Stat [Surveillance Research Program, National Cancer Institute SEER\*Stat software (<http://www.seer.cancer.gov/seerstat>) Version 6.5.2, July 21, 2009]. Data were formatted for SEER\*Stat using SEER Prep [Surveillance Research Program, National Cancer Institute SEER\*Prep software (<http://www.seer.cancer.gov/seerprep/>) Version 2.4.2, March 2009]. Trends were calculated using age-adjusted rates and reported as an annual percent change (APC). The 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.

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

**Ethnicity.** Hispanic or Latino ethnicity is calculated separately from race and includes Mexican, Puerto Rican, Cuban, South or Central American (other than Brazil), and other specified Hispanic, Latino, or Spanish.

**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-O-3.** ICD-O-3 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 is considered malignant.

**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.

**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: African American, 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.

***In Situ*** A tumor that fulfills all microscopic criteria for malignancy, but does not invade or penetrate surrounding tissue.

**Localized** A tumor that is invasive but remains restricted to the organ of origin.

**Regional** 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.

**Distant** 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.

**Unstaged** 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.

# Appendices

## A. List of Reportable Conditions 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	
<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		

## 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
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 Melanoma of the Skin</b>	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		
<b>Invalid</b>	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
Colon and Rectum			
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
Liver and Intrahepatic Bile Duct			
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
<b>Bones and Joints</b>	170	C40-C41	23000
<b>Soft Tissue Include Heart</b>	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
<b>Breast</b>	174-175	C50	26000
<b>Female Genital System</b>			
Cervix Uteri	180	C53	27010
Corpus and Uterus, NOS			
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
<b>Eye and Orbit</b>			
	190	C69	30000
<b>Brain and Other Nervous System</b>			
	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
<b>Myeloma</b>			
	203.0, 238.6	C90.0, C90.2	34000
<b>Leukemia</b>			
Lymphocytic Leukemia			
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
Myeloid and Monocytic Leukemia			
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
Other Leukemia			
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
<b>Mesothelioma</b>			
	N/A	C45	36010
<b>Kaposi Sarcoma</b>			
	N/A	C46	36020
<b>Miscellaneous Malignant Cancer</b>			
	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
<b>In Situ, Benign or Unknown Behavior Neoplasms</b>			
	210-237, 238.0-238.5, 238.7-238.9, 239	D00-D48	38000

## Appendices

### E. Site/Histology Recodes Based on International 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
<b>V Retinoblastoma</b>	9510-9514	C000-C809	50

## Appendices

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

Site Group	ICD-O-3 Histology (Type)	ICD-O-2/3	Recode
<b>VI Renal tumors</b>			
(a) Nephroblastoma and other nonepithelial renal tumors	8959, 8960, 8964-8967	C000-C809	61
	8963, 9364	C649	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	C649	62
	8311, 8312, 8316-8319, 8361	C000-C809	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	C220, C221	72
	8160-8180	C000-C809	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	C400-C419, C760-C768, C809	82
	9221, 9230, 9241-9243	C000-C809	82
(c) Ewing tumor and related sarcomas of bone	9260	C400-C419, C760-C768, C809	83
	9363-9365	C400-C419	83
(d) Other specified malignant bone tumors	8810, 8811, 8823, 8830	C400-C419	84
	8812, 9250, 9261, 9262, 9270-9275, 9280-9282, 9290, 9300-9302, 9310-9312, 9320-9322, 9330, 9340-9342, 9370-9372	C000-C809	84
(e) Unspecified malignant bone tumors	8000-8005, 8800, 8801, 8803-8805	C400-C419	85
<b>IX Soft tissue and other extraosseous 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	C000-C399, C440-C768, C809	92
	8820, 8822, 8824-8827, 9150, 9160, 9491, 9540-9571, 9580	C000-C809	92
(c) Kaposi sarcoma	9140	C000-C809	93

## Appendices

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

Site Group	ICD-O-3 Histology (Type)	ICD-O-2/3	Recode
(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 International 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
(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>			<b>999</b>