



7. Among all 50 states, Oregon men ranked 34<sup>th</sup> and women ranked 23<sup>rd</sup> in all-cancer mortality for 2000. The higher ranking for women is primarily due to the high mortality from lung cancer for Oregon women.

Figure 2

<b>All Cancers Fast Facts</b>				
<b>Oregon 2001</b>		<b>Total<sup>1</sup></b>	<b>Male</b>	<b>Female</b>
<b>Cancer Incidence</b>				
	<b>All Cases Total</b>	<b>18,628</b>	<b>9,186</b>	<b>9,440</b>
	In situ	1,931	815	1,116
	Localized	7,789	3,881	3,908
	Regional	3,827	1,795	2,031
	Distant	3,543	1,829	1,714
	Unstaged	1,538	866	671
	<b>Invasive Rates</b>			
	Oregon Crude	480.9	486.4	475.4
	Oregon Age-adjusted	484.1	552.2	439.0
	Oregon Annual Current Trend (5-Year)	+0.4	+0.9	+0.0
	US Age-adjusted <sup>2</sup>	472.3	555.8	417.9
	US Annual Trend <sup>2</sup>	*+0.6	+0.5	*+0.4
<b>Cancer Mortality</b>				
	<b>Total Deaths</b>	<b>7,198</b>	<b>3,713</b>	<b>3,485</b>
	<b>Mortality Rates</b>			
	Oregon Crude	204.2	212.7	195.8
	Oregon Age-adjusted	201.4	246.1	173.2
	Oregon Annual Current Trend (5-Year)	-1.0	-0.6	-1.1
	US Age-adjusted <sup>3</sup>	199.6	248.9	167.6
	US Annual Trend <sup>2</sup>	-0.3	*-1.5	+0.1
<b>Prognosis &amp; Burden<sup>4</sup></b>				
	Prognosis: M/I Ratio	0.42	0.42	0.41
	Burden: YPLL before age 65	21,784	10,798	10,982

\* Indicates a statistically significant trend

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

<sup>2</sup> Annual Report to Nation on Cancer; 2002; Annual average age-adjusted rate 96-00

<sup>3</sup> 2000 mortality rate calculated from CDC Wonder: <http://wonder.cdc.gov>

<sup>4</sup> Calculations based on combined years 1997 - 2001

Please note: Oregon all-cancer data includes the cases that became reportable in 2001. National data is for years 1996-2000, so the data is not directly comparable for all sites combined.

M/I = Mortality-to-Incidence

YPLL = Years of Potential Life Lost

Figure 3

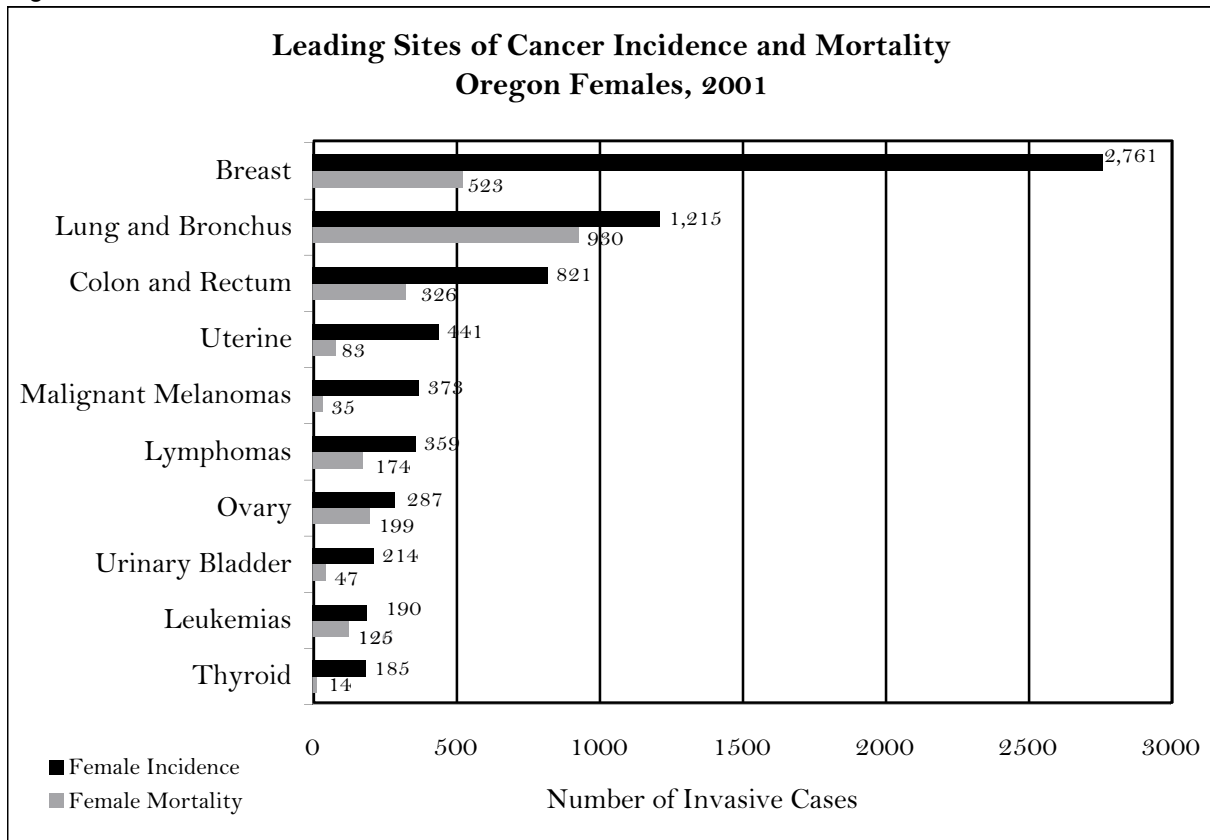
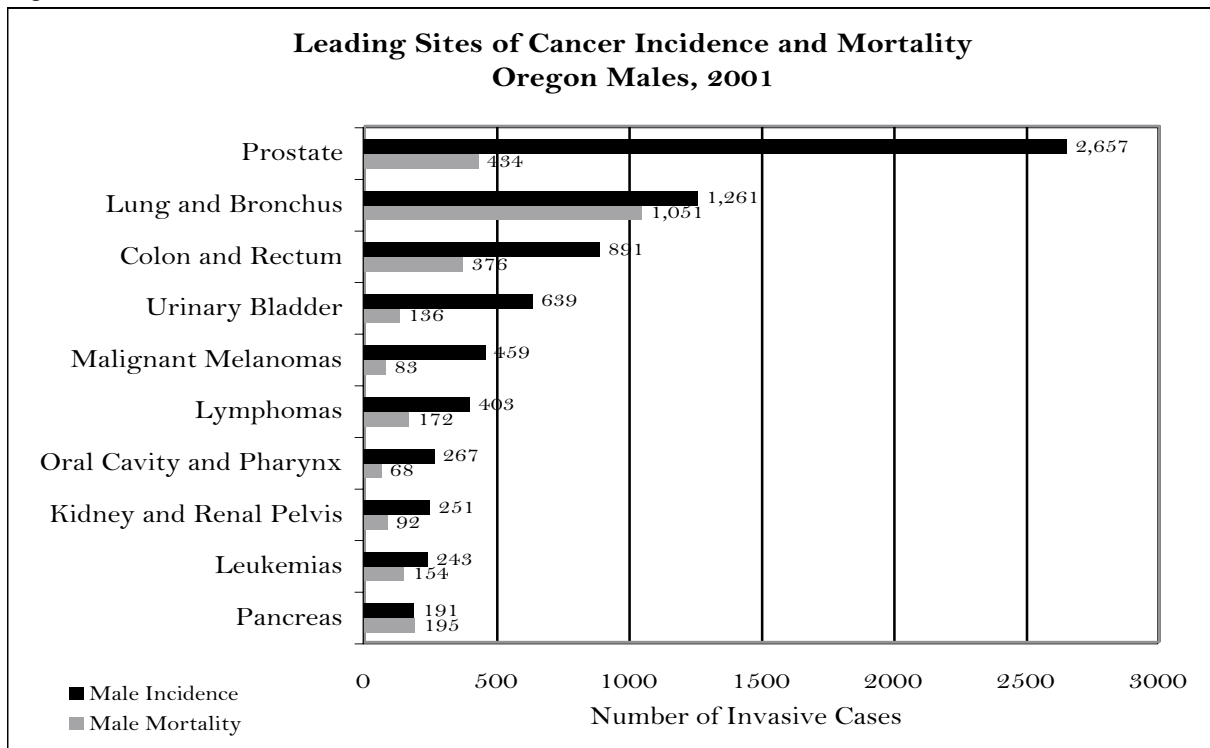


Figure 4

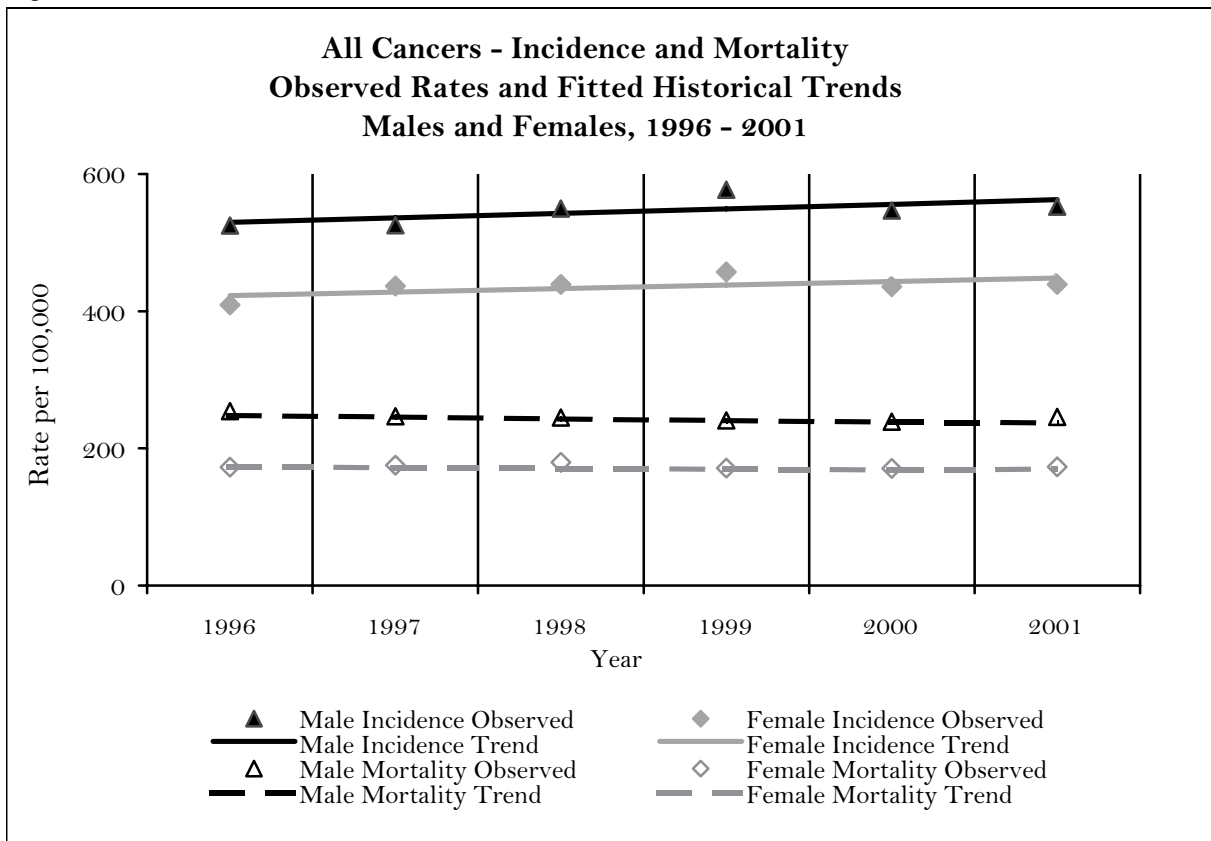


**B. Historical Trends 1996 - 2001**

Total invasive cancer incidence for both men and women has been steadily increasing by 1% a year since 1996. (See Figure 5.) Conversely, total cancer mortality has been decreasing by 1% a year for men but by less than 0.5% a year for women from 1996-2001. This increase in incidence but decrease in mortality is likely partially due to increased screening activities as well as treatment improvements.

Again, the historical annual percent change (APC) differs from the current, 5-year, annual change presented in *Fast Facts* because historical trends include all complete years of data (6 years).

Figure 5



### C. Stage at Diagnosis

Of public health importance is the percentage of early stage diagnoses, which is a proxy for success of population-based screening efforts. From 1996 to 2001, the percentage of early stage diagnoses increased for female breast cancer but decreased for cervical cancer. The percentage of early stage diagnoses for colorectal cancers increased among both men and women. Although there is no national recommendation for prostate cancer screening, the percentage of early stage prostate cancer diagnoses has increased since 1996. (See Figure 6.)

Figure 6

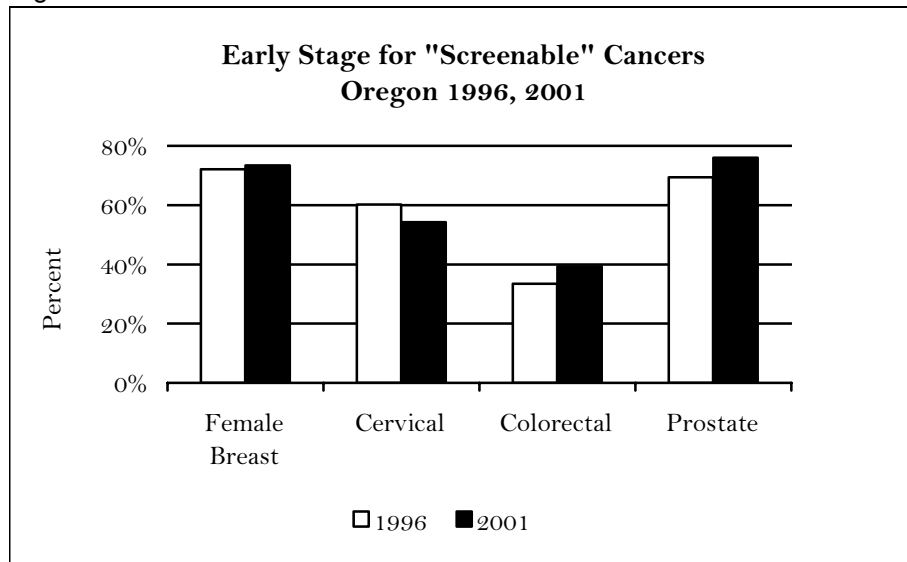
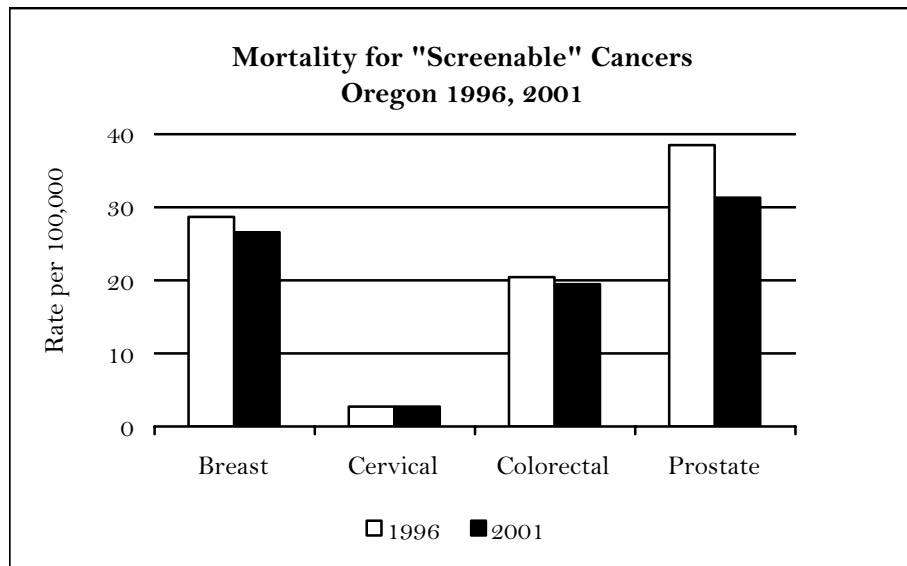


Figure 7



With the exception of cervical cancer, these sites demonstrated declines in mortality rates from 1996-2001, while cervical cancer mortality remained unchanged. (See Figure 7.)

### D. Age-Specific Cancer Rates

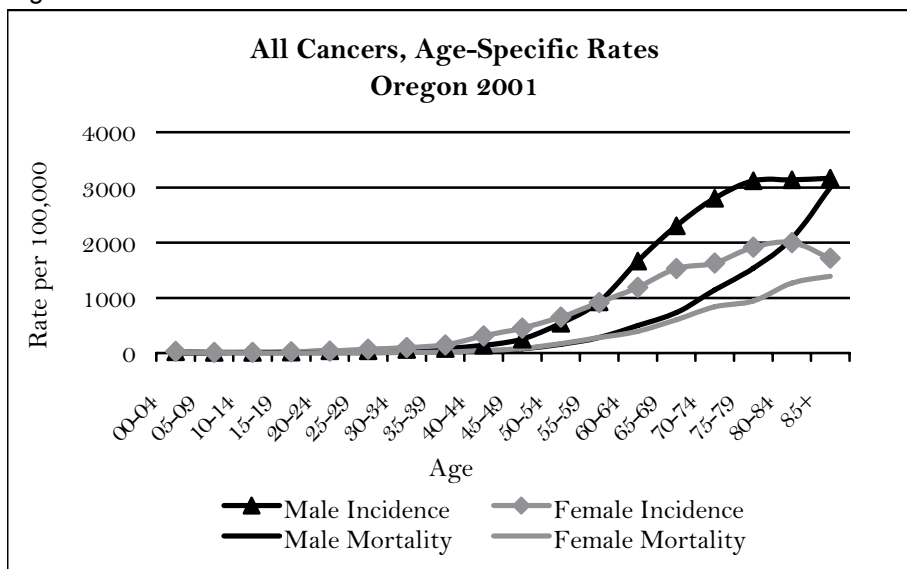
The greatest risk factor for developing and dying from cancer is age. Figure 8 shows age-specific cancer incidence and mortality rates for Oregon men and women.

Cancer incidence is extremely low among children. But, between the ages of 15 and 24, the rate increases nearly 2-fold with each 5-year increment in age. Between the ages of 25 and 39, the rate increases about 1.5-fold with each 5-year increment in age. Between the ages of 40 and 54, the rate of increase is again nearly 2-fold for each 5-year increment in age. After age 50, incidence rates continue to rise, but the rate of the rise slowly declines. For diagnosis year 2001, cancer occurred at a rate of less than 100 per 100,000 Oregonians before age 35. After age 60, cancer incidence was greater than 1,000 per 100,000.

Prior to age 15, males had a higher incidence of cancer. Then from age 15 to age 54, women had a higher incidence of cancer. The situation reversed again in those aged 55 and older when men had a higher rate of cancer. This is most likely due to female-specific cancers (i.e., breast, cervix, and uterine cancers), which begin to affect women after puberty. National data follow similar patterns.

Cancer mortality generally increased with age for both men and women. Overall cancer mortality was greater for men than women. In Oregon, age-specific mortality rates were higher for men compared to women except for children under 10 and the 40-59 age group. This mortality pattern was similar to the national data with female mortality rising at an earlier age. The higher mortality from women age 40-59 is predominately due to the rate of female breast cancer.

Figure 8



### E. Disease Severity

The M/I (mortality-to-incidence) ratio, also known as case-fatality ratio, provides a measure of disease severity. The closer a M/I value is to 1.0, the poorer the expected outcome for a patient with cancer of that type. A M/I value over 1.0 indicates the poorest prognosis. This means more people died of the particular cancer type than were diagnosed in the same year.

Overall, Oregon's M/I ratio was 0.42 for the years 1997 - 2001. The M/I ratio was slightly better for women than for men. Pancreatic cancer had the worst prognosis among the most common cancer sites with a M/I ratio of 1.02 and was followed by esophageal cancer with a ratio of .96. Figure 9 shows M/I ratios for the leading cancers.

Figure 9

#### M/I (Mortality-to-Incidence) Ratios: Oregon 1997 - 2001

Selected Site	Total	Male	Female
All Sites	0.42	0.42	0.41
Pancreas	1.02	0.99	1.05
Esophagus	0.96	1.00	0.82
Liver/Intrahepatic Bile Duct	0.93	0.88	1.02
Myeloma	0.83	0.82	0.86
Lung/Bronchus	0.82	0.85	0.79
Brain/CNS	0.79	0.77	0.82
Leukemias	0.69	0.66	0.73
Ovary	0.64	n/a	0.64
Stomach	0.60	0.55	0.69
Mesothelioma	0.59	0.60	0.55
Soft Tissue including Heart	0.53	0.50	0.55
Lymphomas	0.44	0.42	0.46
Kidney/Renal Pelvis	0.39	0.39	0.38
Colon/Rectum	0.39	0.39	0.38
Cervix Uteri	0.29	n/a	0.29
Larynx	0.28	0.29	0.27
Oral Cavity/Pharynx	0.28	0.25	0.34
Urinary Bladder	0.20	0.19	0.23
Breast	0.19	0.27	0.19
Uterine	0.18	n/a	0.18
Prostate	0.18	0.18	n/a
Malignant Melanomas	0.15	0.17	0.12

n/a = not applicable

