

## VII. Selected Sites

### C. Colorectal Cancer

Although a family history of colorectal cancer is a risk factor, three quarters of colorectal cancers occur in individuals with no known risk factors. Eating a low-fat/high-fiber diet and not smoking may help prevent colorectal cancer. Routine screening can also reduce both morbidity and mortality of colorectal cancer through early diagnosis and removal of precancerous polyps.

Colorectal cancer is the 3<sup>rd</sup> most common cancer among all Oregonians combined and the 2<sup>nd</sup> most common cause of cancer-related death. The 2001 Oregon colorectal cancer mortality rate of 19.5 was 40% above the Healthy People 2010 target of 13.9 per 100,000 persons.

A brief overview of Oregon's colorectal cancer data shows the following: (See Figure 41.)

1. In 2001, 1,828 new cases of colorectal cancer were diagnosed in Oregon, of which 1,713 were invasive. There were 702 Oregonians who died of colorectal cancer.
2. Current five-year trends show that age-adjusted colorectal cancer incidence rates have remained fairly flat in Oregon while rates have been decreasing 2% annually across the nation. Age-adjusted colorectal cancer mortality rates have been declining annually by 1% in Oregon and 2% nationally.
3. Oregon's 2001 colorectal cancer incidence rate was 12% lower than the average 1996-2000 national rate. Oregon's 2001 mortality rate was 6% lower than the 2000 national rate.
4. Of the 41 states with central registries meeting national data quality standards in 2000, Oregon ranked 28<sup>th</sup> in colorectal cancer incidence for men and 30<sup>th</sup> for women. Among all 50 states, Oregon ranked 47<sup>th</sup> in colorectal cancer mortality for men and 45<sup>th</sup> for women in 2000.
5. When cancer rates are reviewed by a person's sex, race, and ethnicity, colorectal cancer is the 3<sup>rd</sup> most common cancer for both men and women among most racial and ethnic groups in Oregon with the following exceptions. Colorectal cancer is the 2<sup>nd</sup> most common cancer for both Asian/Pacific Islander men and women and African American women. It is the 4<sup>th</sup> most common cancer site for both White, Hispanic men and women. Colorectal cancer is also the 3<sup>rd</sup> leading cause of cancer mortality among most racial and ethnic groups in Oregon. It is the 2<sup>nd</sup> leading cause of cancer mortality among American Indian/Alaskan Native men, however, it is not in the top five mortality sites among White, Hispanic men.

6. In 2001, 42% of colorectal cancer cases were diagnosed in the early, more treatable, stages (*in situ* or localized). Early stage diagnoses have increased 20% since 1996, when 35% were diagnosed in the early stages.
7. During 1997-2001, Oregon's M/I ratio for colorectal cancer was 0.39, suggesting a fair prognosis for this disease. Colorectal cancer was responsible for 1,560 YPLL each year.

Figure 41

<b>Colorectal Cancer 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>1,828</b>	<b>965</b>	<b>863</b>	
In situ	115	73	42	
Localized	602	315	287	
Regional	709	374	335	
Distant	306	157	149	
Unstaged	96	46	50	
<b>Invasive Rates</b>				
OR Crude	49.3	51.8	46.9	
Oregon Age-adjusted	47.9	57.6	40.8	
Oregon Annual Current Trend (5-Year)	-0.1	+1.0	-0.9	
US Age-adjusted <sup>2</sup>	54.2	64.2	46.7	
US Annual Trend <sup>2</sup>	-2.3	-2.0	-0.2	
<b>Cancer Mortality</b>				
<b>Total Deaths</b>	<b>702</b>	<b>376</b>	<b>326</b>	
<b>Mortality Rates</b>				
Oregon Crude	20.2	21.8	18.6	
Oregon Age-adjusted	19.5	25.1	15.4	
Oregon Annual Current Trend (5-Year)	-1.4	+0.7	*-3.5	
US Age-adjusted <sup>3</sup>	20.8	25.1	17.6	
US Annual Trend <sup>2</sup>	*-1.7	*-1.9	*-1.8	
<b>Prognosis &amp; Burden<sup>4</sup></b>				
Prognosis: M/I Ratio	0.39	0.39	0.38	
Burden: YPLL before age 65	1,560	939	621	

\*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

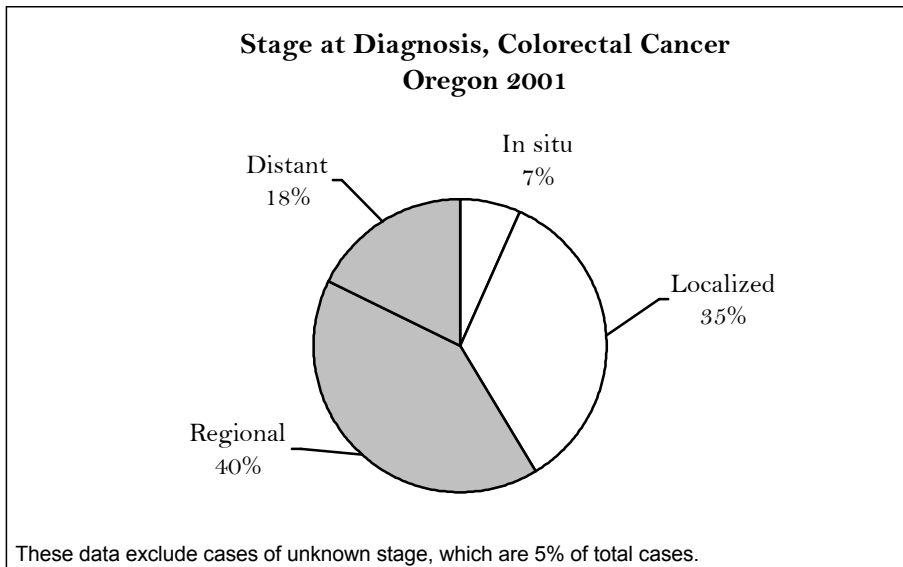
M/I = Mortality-to-Incidence Ratio

YPLL = Years of Potential Life Lost

### Stage at Diagnosis

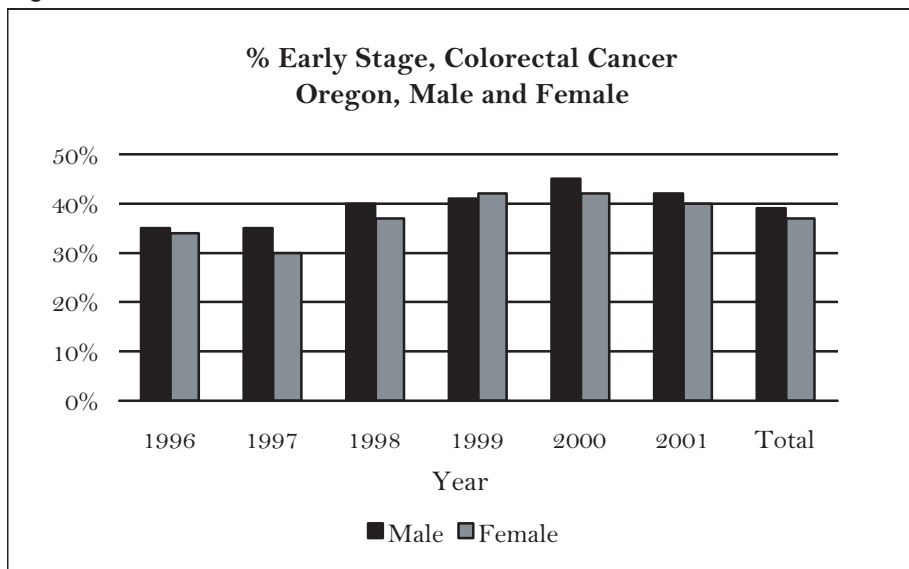
Because prognosis is strongly influenced by stage at diagnosis, detecting colorectal cancer early can decrease mortality. The US Preventive Services Task Force (USPSTF) recommends colorectal cancer screening for persons over the age 49 by one of four methods: fecal occult blood test (FOBT), sigmoidoscopy, colonoscopy, or double-contrast barium enema. Although the USPSTF does not recommend a particular screening frequency; many organizations recommend annual FOBT, sigmoidoscopy or barium enema every five years, or colonoscopy every ten years. The American Cancer Society (ACS) preferred method is an annual FOBT and a sigmoidoscopy every five years. In 2001, however, only 51% of Oregonians over 49 reported receiving either FOBT or sigmoidoscopy within the recommended time periods and only 16% reported receiving the ACS preferred method.

Figure 42



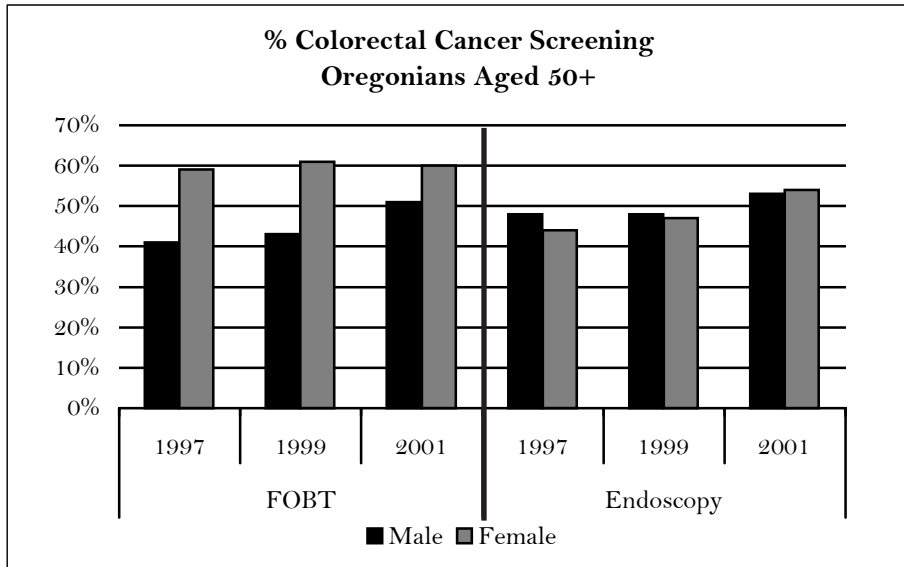
In 2001, nearly 42% of cancers were detected in the early stages (*in situ* or localized). (See Figure 42.) This represents a 24% increase in the percentage of early stage diagnosis since 1996.

Figure 43



Screening rates are similar among men and women (16% of men and women receiving ACS preferred method; 51% of men and 52% of women receiving either test within the recommended time period). Men generally have a higher percentage of colorectal cancers diagnosed at an early stage than women. (See Figure 43.)

Figure 44



The percentage of Oregonians who report having ever received FOBT has been consistently higher for women than men since 1997. (See Figure 44.) A greater percentage of Oregon men, however, received the screening tests within the recommended time periods than women.

While the percentage of Oregonians receiving endoscopy (sigmoidoscopy or colonoscopy) has been increasing for both men and women, the greatest increase has been reported by women; 23% for women and 10% for men since 1997.

Where an individual lives can influence the stage of diagnosis of colorectal cancer. There is a modest correlation between the percentage of colorectal cancers diagnosed at an early stage (insitu or localized) and population density. (See Figure 45.)

Figure 45

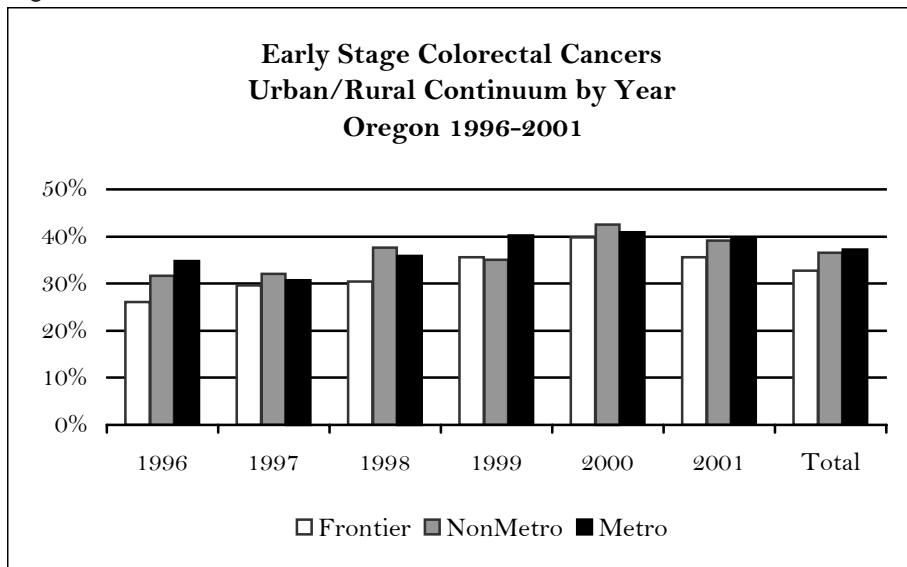
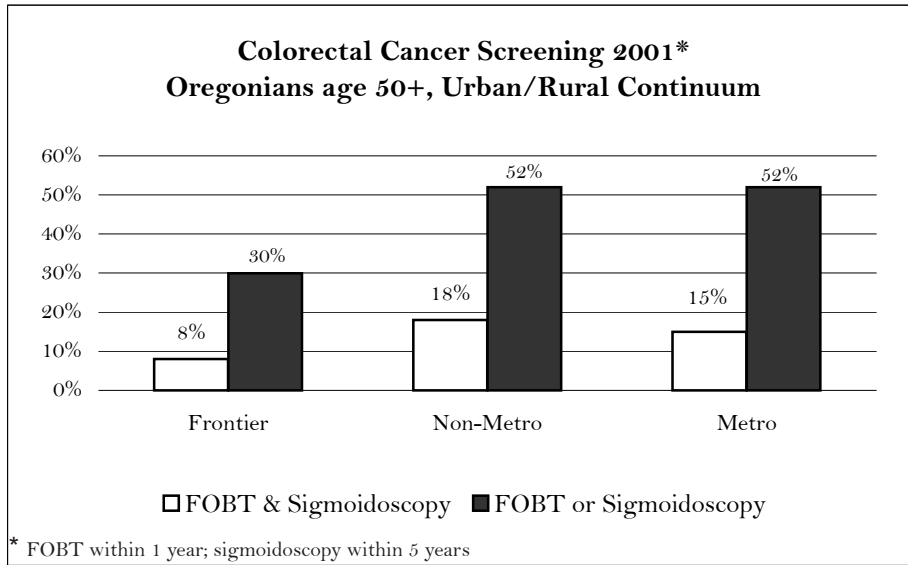


Figure 46



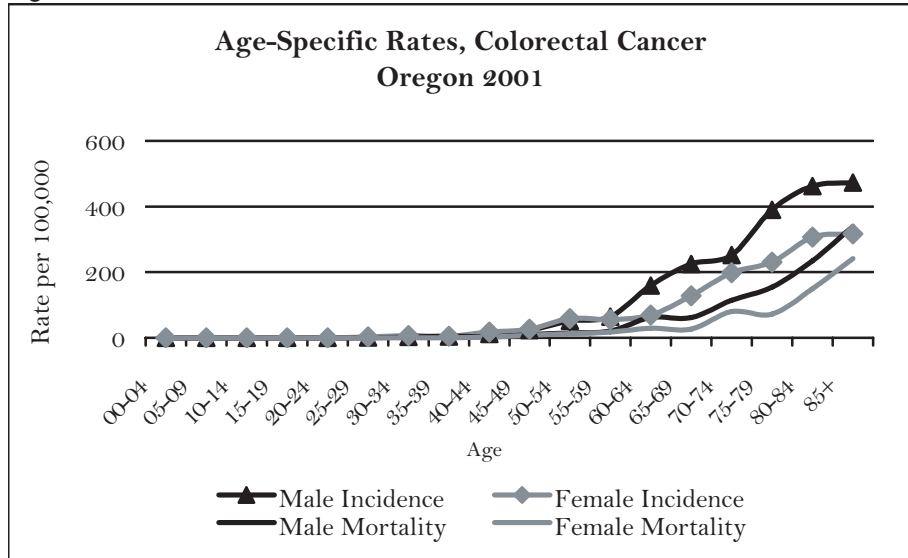
Although county level data for colorectal cancer screening should be interpreted with caution due to sampling issues, data suggest that screening rates are lower in Frontier counties and similar in Metro and Non-Metro counties. (See Figure 46.)

### Age-Specific Incidence and Mortality

As with other types of cancer, the risk of developing colorectal cancer increases with age. Figure 47 shows the age-specific incidence and mortality rates.

Colorectal cancer incidence rates begin to increase sharply after age 50 for both men and women. Oregon's age-specific incidence and mortality rates are greater among males than females at nearly all ages.

Figure 47

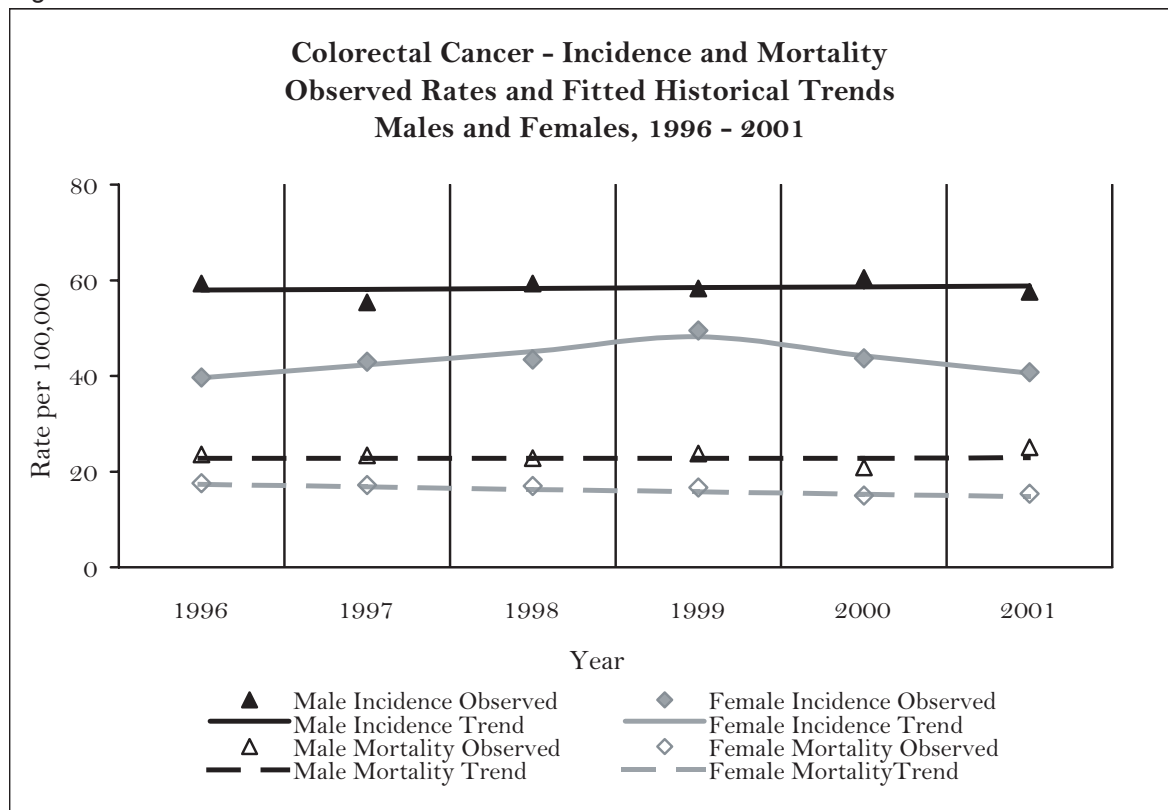


### Historical Trends (1996-2001)

Colorectal cancer incidence in Oregon has been fairly flat for men with a slight increase of <0.5% a year over the past six years. However, incidence for women has been more variable. Incidence increased by 7% annually for women from 1996–1999 and then decreased 8% annually from 1999–2001.

The Annual Percent Change (APC) for colorectal cancer mortality has not varied since 1996 for either men or women. Mortality trends for men mirror incidence with a nominal increase (< 0.5%). Mortality for women, however, is decreasing about 3% annually. (See Figure 48.)

Figure 48



### Regional Variation (Combined Five-Year Rates: 1997-2001)

Incidence rates for colorectal cancer are higher in the north-east portion of Oregon and in some areas of the south, central region. (See Figure 49.) Incidence rates are generally lower along the coast and in the southeast portion of the state. Mortality rates for colorectal cancer are also higher in the northeast region of Oregon as well as sections on each tip of the coast. (See Figure 50.)

The high incidence and high mortality seen in the north-east may be of epidemiologic importance in determining the risk factors for colorectal cancer.

Figure 49 Colorectal Cancer Incidence  
1997 - 2001  
Regional Variation

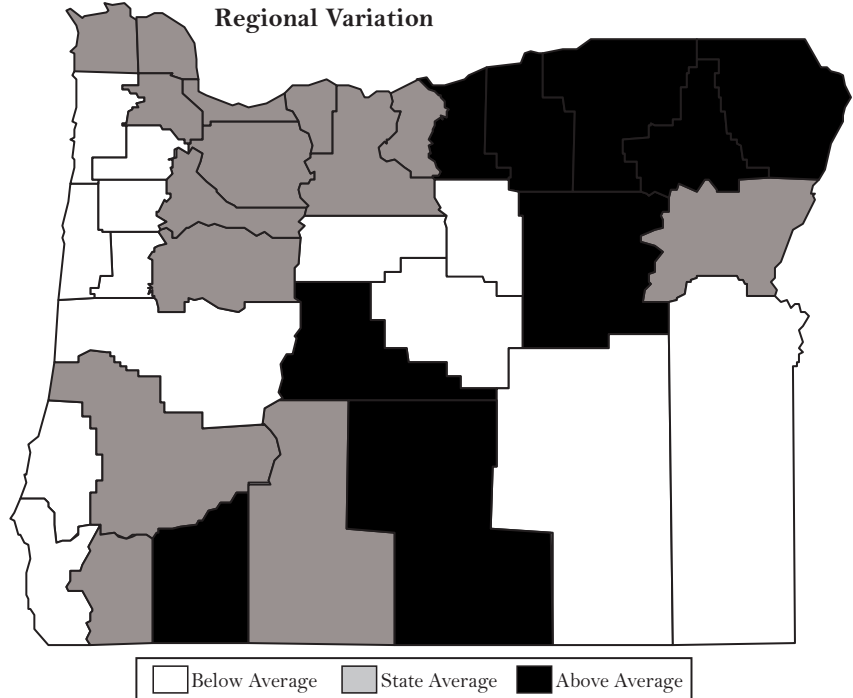


Figure 50 Colorectal Cancer Mortality  
1997 - 2001  
Regional Variation

