

## C. COLORECTAL CANCERS

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Although a family history of colorectal cancer is a risk factor, three-quarters of colorectal cancers occur in individuals with no known risk factors other than age. 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 and can even lead to its prevention through early diagnosis and removal of precancerous polyps. Fewer than half of the adults over age 50 receive the recommended screening test for colorectal cancer.

Colorectal cancer is the 3<sup>rd</sup> most common cancer among Oregonians and the 2<sup>nd</sup> most common cause of cancer-related death. The 2003 Oregon colorectal cancer mortality rate of 18.0 was 29% above the Healthy People 2010 target of 13.9 per 100,000 persons. Reducing colorectal cancer incidence and mortality through screening has been identified as a priority by the Oregon Partnership for Cancer Control.

INVASIVE COLORECTAL  
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## COLORECTAL CANCERS FAST FACTS OVERVIEW

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A brief overview of Oregon's colorectal cancer data shows the following: (See Figure VII-C-1.)

1. In 2003, 1,884 new cases of colorectal cancer were diagnosed in Oregon, of which 1,804 were invasive; 685 Oregonians died of colorectal cancer.
2. Current five-year trends show that age-adjusted colorectal cancer incidence rates have decreased 3% a year for both women and men, similar to the decline seen nationally. Age-adjusted colorectal cancer mortality rates among Oregon men declined 3% while the colorectal cancer mortality rate for women remained fairly stable.
3. Oregon's 2003 colorectal cancer incidence rate was nearly the same as the 2003 national rate. Oregon's 2003 mortality rate was 5% lower than the 2003 national mortality rate.
4. Of the 44 states with central registries meeting national data quality standards in 2002, Oregon ranked low in colorectal cancer incidence: 40<sup>th</sup> for men and 31<sup>st</sup> for women. Among all 50 states, Oregon also ranked low in colorectal cancer mortality; tied for 35<sup>th</sup> for men and 44<sup>th</sup> for women in 2002.
5. Colorectal cancer is the 2<sup>nd</sup> most common cancer among Asian/Pacific Islander men in Oregon. For all other Oregon men, colorectal cancer is the 3<sup>rd</sup> most common cancer. Among Oregon women, colorectal cancer is the 2<sup>nd</sup> most common cancer for African American and Asian/Pacific Islanders. For all other Oregon women, colorectal cancer is the 3<sup>rd</sup> most common cancer. Among Oregon men, colorectal cancer is the 2<sup>nd</sup> leading cause of cancer mortality for American Indian/Alaska Natives; 3<sup>rd</sup> leading cause for African Americans, Asian/Pacific Islanders, Whites, and Non-Hispanics; and 5<sup>th</sup> leading cause for Hispanics. Among Oregon women, colorectal cancer is the 3<sup>rd</sup> leading cause of cancer death among all race and ethnic groups.
6. In 2003, 41% of colorectal cancer cases were diagnosed in the early, more treatable stages (*in situ* or localized). Early stage diagnoses have increased 17% since 1996, when 35% were diagnosed in the early stages.
7. During 1999-2003, Oregon's M/I ratio for colorectal cancer was 0.37, suggesting a fair prognosis for this disease. Colorectal cancer was responsible for 1,721 YPLL each year.

## COLORECTAL CANCERS FAST FACTS

FIGURE VII-C-1

<b>COLORECTAL CANCERS FAST FACTS</b>			
<b>YEAR 2003</b>			
<b>Oregon</b>	<b>All Sexes<sup>1</sup></b>	<b>Male</b>	<b>Female</b>
<b>CANCER INCIDENCE</b>			
<b>All Cases Total</b>	<b>1,884</b>	<b>949</b>	<b>935</b>
<i>In Situ</i>	80	42	38
Localized	663	346	317
Regional	715	344	371
Distant	337	177	160
Unstaged	89	40	49
<b>Incidence Rates</b>			
Oregon Crude	50.7	51.3	50.1
Oregon Age-adjusted	48.0	54.5	42.7
Oregon Current Annual Trend (1999-2003)	*-3.1	-3.0	-3.2
US SEER Age-adjusted <sup>2</sup>	48.8	56.8	42.4
US SEER Annual Trend (1999-2003) <sup>2</sup>	*-2.5	*-2.8	*-2.3
<b>CANCER MORTALITY</b>			
<b>Total Deaths</b>	<b>685</b>	<b>316</b>	<b>369</b>
<b>Mortality Rates</b>			
Oregon Crude	19.2	17.9	20.6
Oregon Age-adjusted	18.0	19.4	16.9
Oregon Current Annual Trend (1999-2003)	-1.6	-3.2	+0.1
US Age-adjusted <sup>3</sup>	19.0	23.0	16.1
US Annual Trend (1999-2003) <sup>3</sup>	*-2.4	*-2.5	*-2.5
<b>PROGNOSIS AND BURDEN<sup>4</sup></b>			
Prognosis: M/I Ratio	0.37	0.38	0.37
Burden: YPLL before age 65	1,721	988	733

Incidence and death rates are per 100,000 and age-adjusted to the 2000 US Standard Population (19 age group)

\* Indicates a statistically significant trend

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

<sup>2</sup> SEER 13 Registry Data, SEER Stat 6.2.3 (See *Technical Section, National Data*, for a description of SEER 13)

<sup>3</sup> National Center for Health Statistics (NCHS) US Mortality Public Use Data

<sup>4</sup> Calculations based on combined years 1999-2003

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. Screening can also reduce incidence by identifying precancerous polyps, which could then be removed before they develop into cancerous tumors. In 2003, nearly 41% of cancers were detected in the early stages (*in situ* or localized). (See Figure VII-C-2.)

Men generally have a higher percentage of colorectal cancers diagnosed at an early stage than women. (See Figure VII-C-3.)

As seen with other cancers, where an individual resides can influence the stage at diagnosis of colorectal cancer. There is a modest correlation between the percentage of colorectal cancers diagnosed at an early stage (*in situ* or localized) and population density. (See Figure VII-C-4.) Frontier counties generally have a lower percentage of colorectal cancers diagnosed at an early stage, while Urban and Rural counties have a similar, slightly higher percentage.

FIGURE VII-C-2

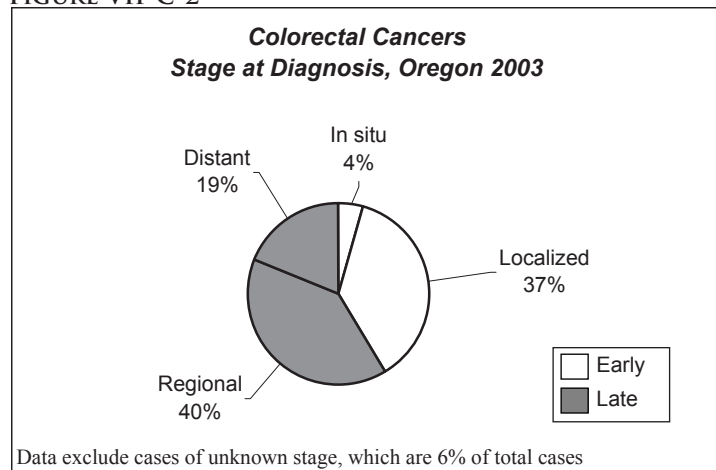


FIGURE VII-C-3

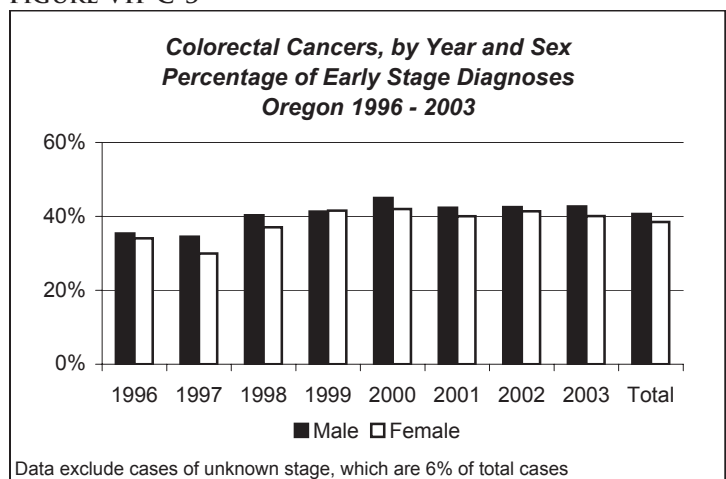
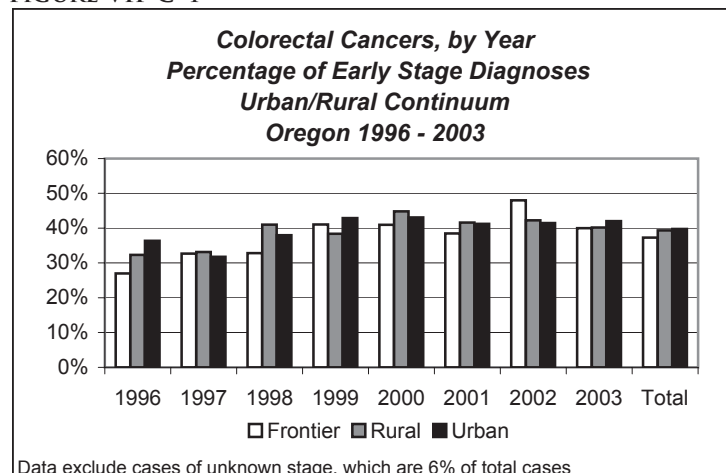


FIGURE VII-C-4



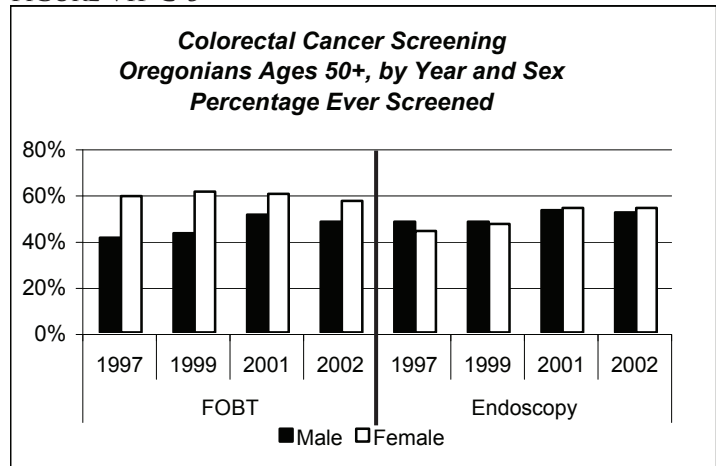
ROUTINE SCREENING

The US Preventive Services Task Force (USPSTF) recommends colorectal cancer screening, for persons age 50 and over, 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 2002, however, only 48% of Oregonians aged 50 or older reported receiving either FOBT or endoscopy (sigmoidoscopy or colonoscopy) within the recommended time periods and only 11% reported receiving the ACS preferred method.

The percentage of Oregonians who report having ever received FOBT has been consistently higher for women than men since 1997. (See Figure VII-C-5.) Historically, men reported higher rates of ever receiving endoscopy, but, since 2001, women have reported higher rates of endoscopy screening. According to the 2004 National Healthcare Quality Report, Oregon was considered “Above Average” for endoscopy and FOBT screening in 2000, but the rating fell to “Average” in 2001.

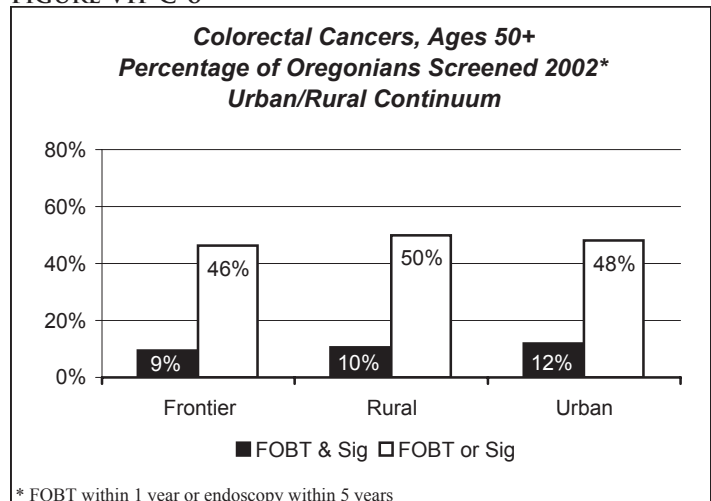
While the percentage of Oregonians ever receiving endoscopy has been increasing for both men and women, the greatest increase has been reported by women (23% versus an 8% increase among men). Reported screening rates were

FIGURE VII-C-5



Data: Oregon Behavioral Risk Factor Surveillance System (BRFSS)

FIGURE VII-C-6



\* FOBT within 1 year or endoscopy within 5 years

Data: Oregon Behavioral Risk Factor Surveillance System (BRFSS)

higher among women in 2002 than men (13% of women and 10% of men received ACS preferred screening; 49% of women and 47% of men received either test within the recommended time periods).

Although county-level data for colorectal cancer screening should be interpreted cautiously due to sampling issues, data suggest that screening rates are lower in Frontier (rural, with less than 6 persons per square mile) counties. (See Figure VII-C-6.)

RACE AND ETHNICITY

Although race and ethnicity data need to be interpreted cautiously due to reporting issues (please see the *Technical Section* for additional details), colorectal cancer is among the top 5 cancers for all Oregonians regardless of race or ethnicity. African Americans (AA) have the highest colorectal cancer incidence followed by American Indians/Alaskan Natives (AI/AN) and Whites. (See Figure VII-C-7.) AI/AN rank higher for colorectal cancer incidence in Oregon than nationally. This may be partially explained by the efforts of the Northwest Portland Area Indian Health Board, OSCaR, and the Indian Health Service to improve reporting for this group. Asian/Pacific Islanders (A/PI) have the lowest colorectal cancer incidence and Hispanics have lower colorectal cancer incidence than Non-Hispanics. Mortality due to colorectal cancer follows the incidence patterns by race and ethnicity. As with incidence, AI/AN rank higher for colorectal cancer mortality in Oregon than nationally.

Among the four race categories, A/PI have the lowest percentage of colorectal cancer diagnosed at an early stage and Whites have the highest percentage. (See Figure VII-C-8.)

There are also differences by race in the percentage of cases that were unstaged at diagnosis. Generally, a colorectal cancer is not staged at diagnosis because of an extremely poor prognosis, or because comorbidities (or advanced age) contraindicate surgery and/or treatment. However, some unstaged colorectal cancer cases may be early stage cases among patients that refuse clinical treatment for ideological or other reasons. All cases

FIGURE VII-C-7

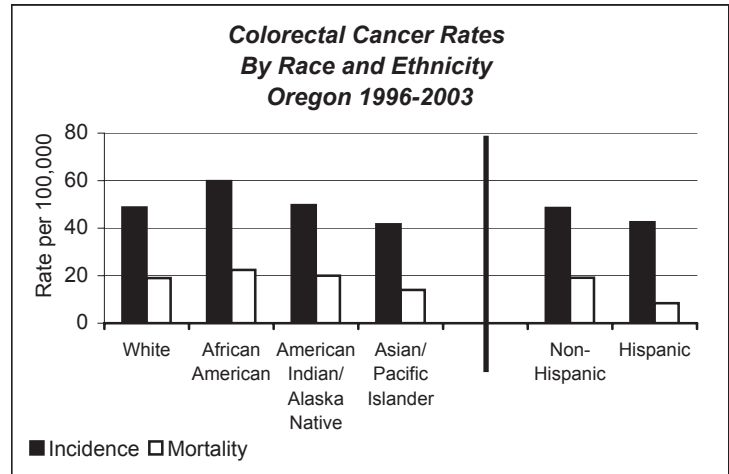
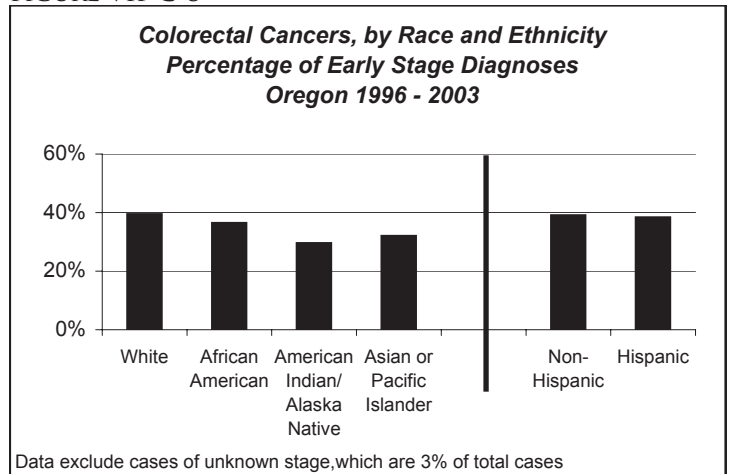


FIGURE VII-C-8



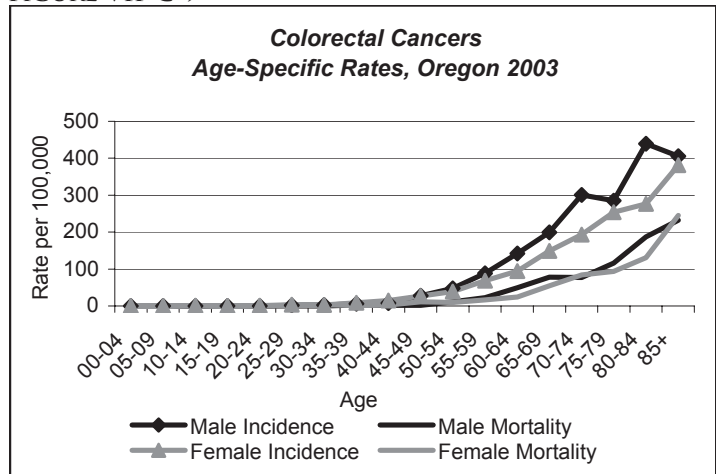
that are identified by a death certificate only are reported as unstaged at diagnosis cases. These cases may represent patients who had difficulty gaining access to health care or were only in the health care system near the end of their life.

A/PI have the lowest percentage of unstaged cases (3%), and AA and AI/AN tied for the highest percentage (8%). These stage-at-diagnosis differences may reflect differences in treatment options, patient treatment choices, disease severity, or may indicate unequal access to health care among these groups.

AGE-SPECIFIC INCIDENCE AND MORTALITY

As with other types of cancer, the risk of developing colorectal cancer increases with age. Figure VII-C-9 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 every age.

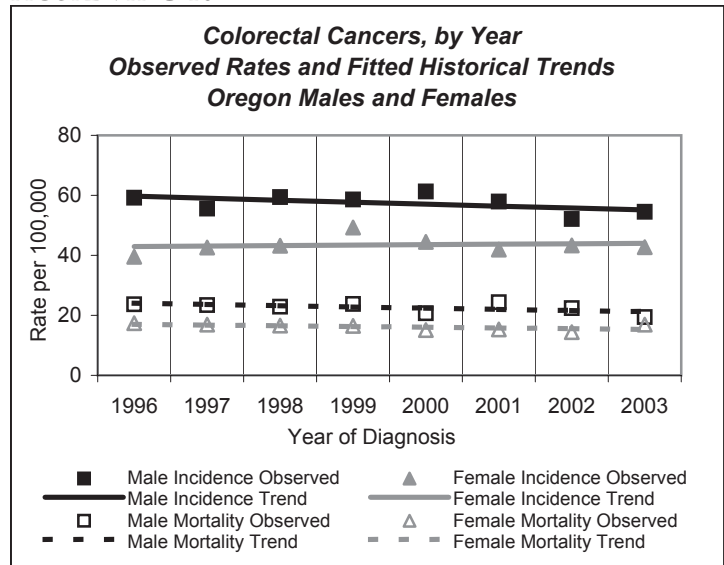
FIGURE VII-C-9



HISTORICAL TRENDS (1996-2003)

Colorectal cancer incidence among Oregon men has decreased an average of 1% a year over the past eight years. Incidence for women has increased about 0.3% annually. Colorectal cancer mortality has been decreasing for both men and women since 1996. Mortality trends for both men and women are decreasing 2% a year. This divergence between incidence and mortality among women may be the result of increased screening in recent years. (See Figure VII-C-10.)

FIGURE VII-C-10



REGIONAL VARIATION (COMBINED FIVE-YEAR RATES: 1999-2003)

With the exception of the northeast portion of the state and Deschutes, Jackson, Klamath, and Lake Counties, the majority of Oregon has lower colorectal cancer incidence rates than the nation. (See Figure VII-C-11.)

Mortality rates for colorectal cancer are higher than national rates in northeast Oregon, Clatsop, and Columbia Counties. The exception are Coos, Crook, and Curry Counties, which are at the national average; the rest of the state has colorectal cancer mortality rates below that seen nationally. (See Figure VII-C-12.)

The high incidence and high mortality seen in northeast Oregon may be of epidemiologic importance in determining the risk factors for colorectal cancer. This area may also benefit from additional colorectal cancer screening.

FIGURE VII-C-11

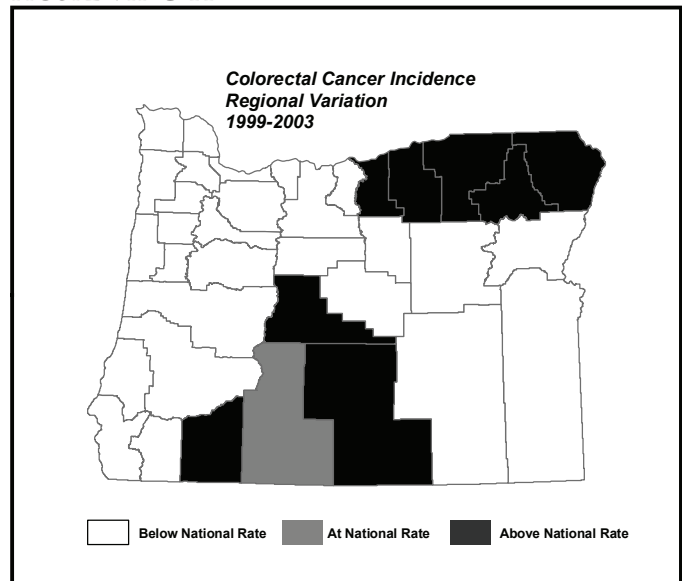


FIGURE VII-C-12

