

B. CERVICAL CANCERS

Cancer of the cervix is associated with early onset of sexual activity and multiple sexual partners. The most important risk factor is infection by specific types of human papilloma virus (HPV), a group of communicable viruses that also cause genital warts. Vaccines for HPV are currently being studied in clinical trials for the prevention of cervical cancer. One promising vaccine targets HPV types that cause approximately 70 percent of cervical cancer cases worldwide. Early findings have shown that the vaccine is effective. Additionally, cervical cancer can be prevented. The precancerous growths caused by HPV can be treated before the growths develop into cervical cancer.

Cervical cancer used to be a common cause of cancer death for women and remains a leading cause in some areas of the world. In the United States, the number of deaths due to cervical cancer has declined drastically due to the use of the Papanicolaou (Pap) screening test. Not only can mortality be reduced, but cervical cancer could be largely eradicated with routine cervical cancer screening, which can identify precancerous cell growths.

The Oregon cervical cancer mortality rate of 2.4 in 2002 was 20% above the Healthy People 2010 target of 2.0 per 100,000 women. The Oregon Partnership for Cancer Control has made reducing cervical cancer mortality through screening a priority for Oregon.

NOT ONLY CAN MORTALITY BE REDUCED, BUT CERVICAL CANCER COULD BE LARGELY ERADICATED WITH ROUTINE CERVICAL CANCER SCREENING, WHICH CAN IDENTIFY PRECANCEROUS CELL GROWTHS.

CERVICAL CANCERS FAST FACTS OVERVIEW

Because the numbers are low, some data included in the cervical section are calculated using five or more years of aggregated data to ensure stable descriptions. A brief overview of Oregon's cervical cancer rates shows the following: (See Figure VII-B-1.)

1. In 2002, 126 new cases of invasive cervical cancer were diagnosed in Oregon, and 45 women died due to cervical cancer. *In situ* stage diagnoses are not reportable to OSCaR because they are often indistinguishable from pre-cancerous disease.
2. Current five-year trends show age-adjusted cervical cancer incidence in Oregon has been decreasing 4% annually from 1998-2002. Nationally, cervical cancer incidence has been decreasing 5% annually for 1997-2001. Mortality rates for cervical cancer in Oregon increased 9% a year while national rates decreased 4% a year. The national decreases for both incidence and mortality cervical cancer rates are statistically significant.
3. Oregon's 2002 incidence rate of 7.0 per 100,000 was 11% below the national rate of 7.9 for 1997-2001. Oregon's 2002 mortality rate of 2.4 was similar to the national rate of 2.5.
4. Although cervical cancer rates are extremely low, this is the 3rd most common cancer site for Hispanic women in Oregon and nationally. This suggests a potential target population for screening programs like Oregon's Breast and Cervical Cancer Program.
5. Among all 50 states, Oregon tied for 32nd nationally for cervical cancer mortality in 1999-2002. While the ranking is low, cervical cancer mortality in Oregon could be virtually eliminated through enhanced early detection.
6. In 2002, 55% of cervical cancer cases were diagnosed at a localized stage, which is similar to the 56% diagnosed in 2001.
7. During 1998-2002, Oregon's M/I ratio for cervical cancer was 0.28, and cervical cancer led to 466 YPLL annually. Since cervical cancer that is detected in a localized stage is essentially 100% curable, this indicates an area for public health intervention.

CERVICAL CANCERS FAST FACTS

FIGURE VII-B-1

Cervical Cancers Fast Facts		Female
Oregon 2002		
Cancer Incidence		
All Cases Total		126
	In situ	<i>Not Reportable</i>
	Localized	68
	Regional	44
	Distant	11
	Unstaged	3
Invasive Rates		
	Oregon Crude	7.1
	Oregon Age-adjusted	7.0
	Oregon Current Annual Trend (5-Year)	-4.4
	US Age-adjusted ¹	7.9
	US Annual Trend ^{1a}	*-4.8
Cancer Mortality		
Total Deaths		45
Mortality Rates		
	Oregon Crude	2.5
	Oregon Age-adjusted	2.4
	Oregon Current Annual Trend (5-Year)	+8.6
	US Age-adjusted ²	2.5
	US Annual Trend ³	*-3.8
Prognosis and Burden ⁴		
	Prognosis: M/I Ratio	0.28
	Burden: YPLL before age 65	466

* Indicates a statistically significant trend
M/I = Mortality-to-Incidence Ratio
YPLL = Years of Potential Life Lost
¹ Year 2001, US SEER 9 Registry Data, SEERSTAT 5.2.2
^{1a} Years 1997-2001, US SEER 9 Registry Data, SEERSTAT 5.2.2
² 2002 mortality rate calculated from CDC Wonder: <http://wonder.cdc.gov>
³ *Annual Report to the Nation on the Status of Cancer*, most current trend of 3 years or more.
⁴ Calculations based on combined years 1998-2002

STAGE AT DIAGNOSIS

Although OSCaR does not collect information on precancerous conditions or carcinoma *in situ* for cervical cancers, it does collect stage at diagnosis for invasive cervical cancer. The percentage of early stage (localized) diagnoses ranges from 51-63% annually with a current five-year average of 59%. (See Figure VII-B-2.)

Although the majority of cervical cancers were diagnosed at an early stage, the percentage of early stage cervical cancers diagnosed decreases with increasing age. (See Figure VII-B-3.)

As with breast cancer, place of residence can influence whether or not a women is diagnosed with cervical cancer at an early stage. In this case, less populated counties historically have had higher percentages of cervical cancers diagnosed at an early stage. (See Figure VII-B-4.)

This disparity has been lessening, and diagnosis year 2001 was the first year to have a greater percentage of early stage diagnoses in urban areas. However, this is not due to an overall improvement in the percentage of early stage diagnoses. While there has been a 2% increase since 1996 in the percentage of early stage cervical cancer diagnoses for women living in urban counties, women in rural areas have had a 10% decrease in the percentage of early stage diagnoses.

FIGURE VII-B-2

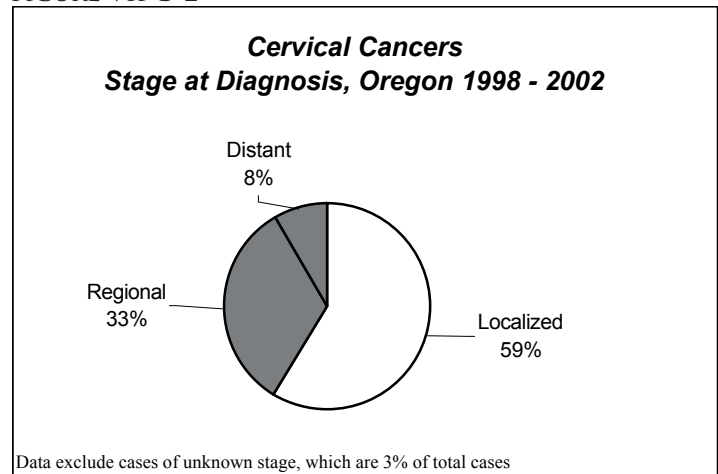


FIGURE VII-B-3

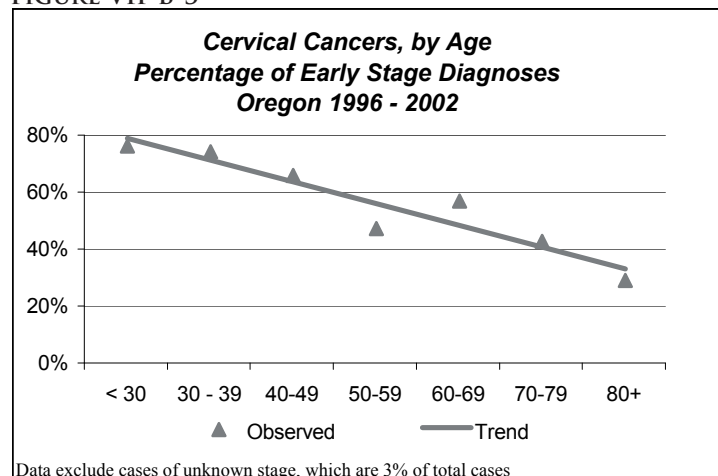
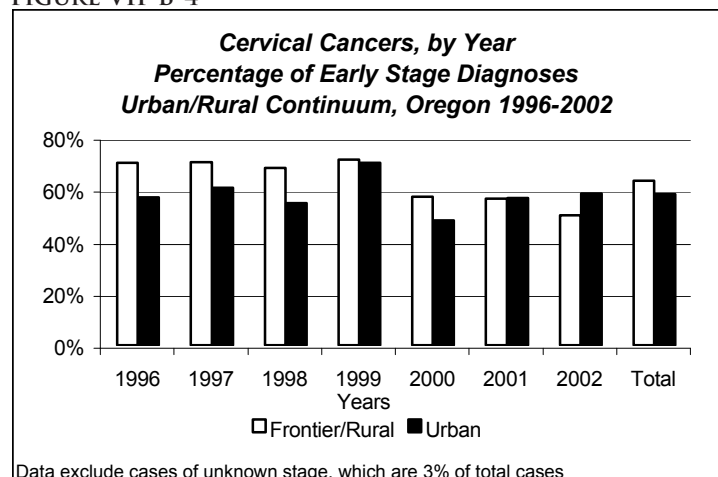


FIGURE VII-B-4



ROUTINE SCREENING

Routine Pap screening among Oregon women remained fairly stable in the last decade. (See Figure VII-B-5.) According to the 2004 National Healthcare Quality Report, Oregon ranked “Below Average” for routine Pap screening for both 2000 and 2002.

Screening rates followed the same pattern seen in percentage of early stage diagnoses by age. The percentage of women receiving routine Pap smears declines as age increases. (See Figure VII-B-6.)

For the combined years 2001-2002, an increase in routine Pap screening correlated with increased population density. (See Figure VII-B-7.) Again, please review *Appendix B* for a list of counties and their urban/rural code designations.

FIGURE VII-B-5

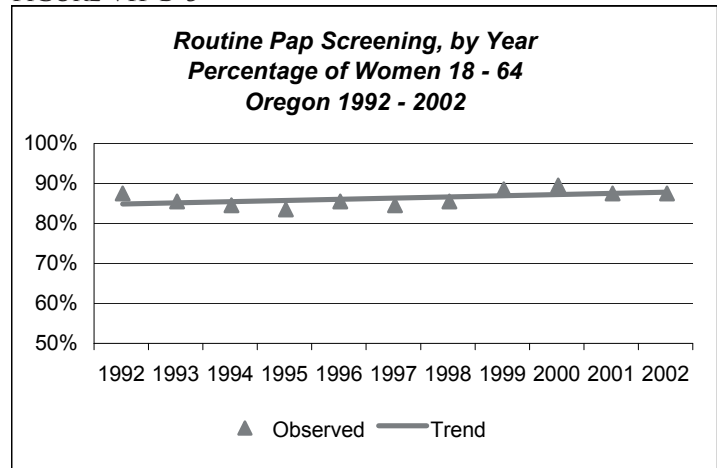


FIGURE VII-B-6

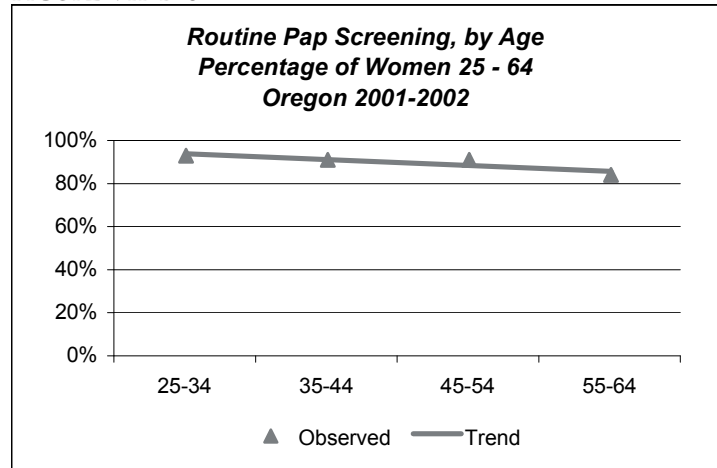
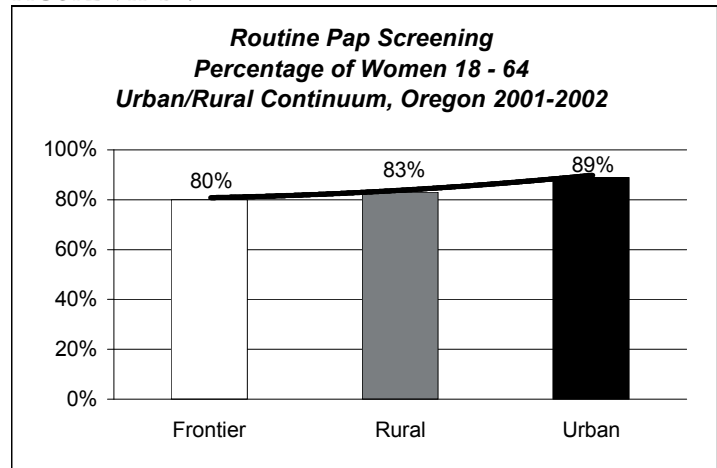


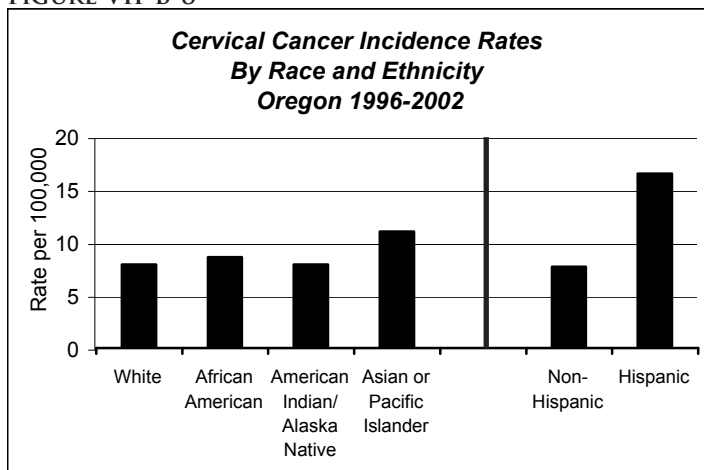
FIGURE VII-B-7



RACE AND ETHNICITY

Although race and ethnicity data need to be interpreted cautiously due to reporting issues (please see the *What's New in 2002?* and the *Technical Section* for additional details), cervical cancer is the 3rd most common cancer among Hispanic women in Oregon and nationwide. Hispanic women have a higher cervical cancer rate than Non-Hispanic women. Among racial groups, Asian/Pacific Islander women have the highest cervical cancer rates followed by African American women. (See Figure VII-B-8.) There are too few cervical cancer deaths in Oregon to calculate stable mortality rates by race or ethnicity.

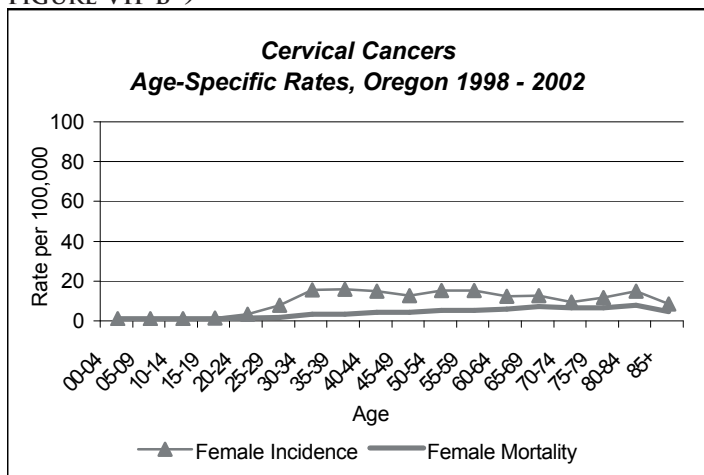
FIGURE VII-B-8



AGE-SPECIFIC INCIDENCE AND MORTALITY

Once sexual activity has begun, the risk of developing cervical cancer does not vary significantly with age. Figure VII-B-9 shows the age-specific incidence and mortality rates for cervical cancer in Oregon. Mortality rates do increase after age 30, consistent with the decline in the percentage of early stage diagnosis as age increases.

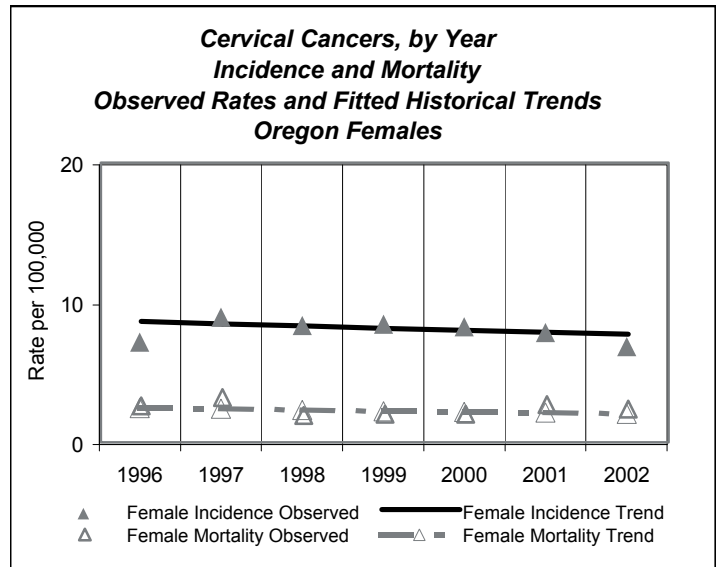
FIGURE VII-B-9



HISTORICAL TRENDS (1996-2002)

Since 1996, both cervical cancer incidence and mortality rates have steadily declined; mortality has decreased 2% a year while incidence has decreased 1%. (See Figure VII-B-10.)

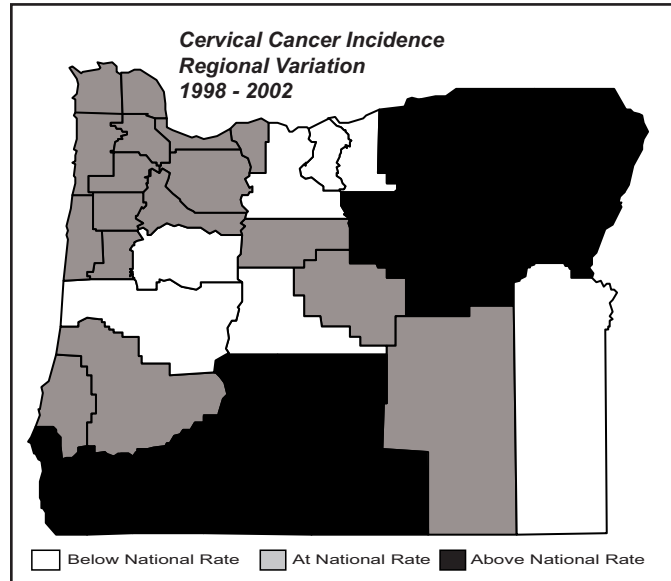
FIGURE VII-B-10



REGIONAL VARIATION (COMBINED SEVEN-YEAR RATES: 1996-2002)

Cervical cancer incidence is higher than the national rate in Northeast Oregon and much of Southern Oregon. (See Figure VII-B-11.) The Portland Metropolitan area, along with much of the coast and parts of Central Oregon, are at the national rate for cervical cancer. The central Columbia Gorge, Malheur County, and the Lane/ Linn/Deschutes area have lower cervical cancer rates than the national rate.

FIGURE VII-B-11



Mortality does not follow the geographic pattern of cervical cancer incidence, which may indicate regional differences in screening. Mortality is higher than the national rate in the northern tip of the Oregon coast and Southeast Oregon. (See Figure VII-B-12.)

Since cervical cancer is curable in the early stages, the areas of high mortality should be targeted for screening efforts.

FIGURE VII-B-12

