

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 was recently approved for prevention of infection by high risk types of HPV. It appears to be effective in greatly reducing the risk of cervical cancer. Additionally, even when infection has occurred, the precancerous growths caused by HPV can be detected and 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 2.1 in 2003 was 5% 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 prevention, education, and screening a priority for Oregon.

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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 2003, 116 new cases of invasive cervical cancer were diagnosed in Oregon, and 43 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 7% annually from 1999-2003. Nationally, cervical cancer incidence has been decreasing 4% annually for 1999-2003. Mortality rates for cervical cancer in Oregon increased 3% a year while national rates decreased 3% a year. Oregon's decrease in incidence is statistically significant, while the increase in mortality is not.
3. Oregon's 2003 incidence rate of 6.3 per 100,000 was 11% below the national rate of 8.0 for 2003. Oregon's 2003 mortality rate was 2.1 per 100,000.
4. Although cervical cancer rates are extremely low, this is the 4th most common cancer site for Hispanic women in Oregon and nationally. This suggests a potential opportunity for outreach to this population by screening programs like Oregon's Breast and Cervical Cancer Program.
5. Among all 50 states, Oregon tied for 26th nationally for cervical cancer mortality in 2002. While the ranking is low, cervical cancer mortality in Oregon could be virtually eliminated through enhanced early detection.
6. In 2003, 59% of cervical cancer cases were diagnosed at a localized stage, which is similar to the 55% diagnosed in 2002.
7. During 1999-2003, Oregon's M/I ratio for cervical cancer was 0.31 and led to 458 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	
YEAR 2003	
Oregon	Female
CANCER INCIDENCE	
All Cases Total	116
<i>In Situ</i>	Not Reportable
Localized	68
Regional	37
Distant	9
Unstaged	2
Incidence Rates	
Oregon Crude	6.5
Oregon Age-adjusted	6.3
Oregon Current Annual Trend (1999-2003)	*-7.2
US SEER Age-adjusted ²	8.0
US SEER Annual Trend (1999-2003) ²	*-3.7
CANCER MORTALITY	
Total Deaths	43
Mortality Rates	
Oregon Crude	2.4
Oregon Age-adjusted	2.1
Oregon Current Annual Trend (1999-2003)	2.8
US Age-adjusted ³	2.5
US Annual Trend (1999-2003) ³	*-3.4
PROGNOSIS AND BURDEN⁴	
Prognosis: M/I Ratio	0.31
Burden: YPLL before age 65	458

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

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

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

³ National Center for Health Statistics (NCHS) US Mortality Public Use Data

⁴ Calculations based on combined years 1999-2003

M/I = Mortality-to-Incidence Ratio

YPLL = Years of Potential Life Lost

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.)

The percentage of cervical cancers diagnosed at an early stage decreases with 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 7% 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 12% decrease in the percentage of early stage diagnoses.

FIGURE VII-B-2

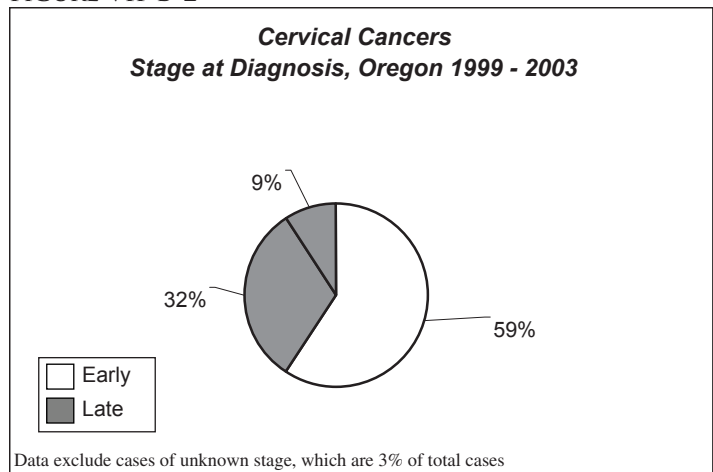


FIGURE VII-B-3

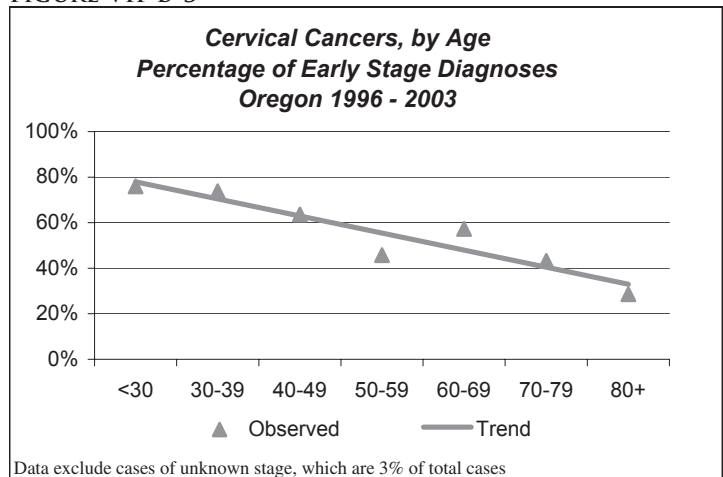
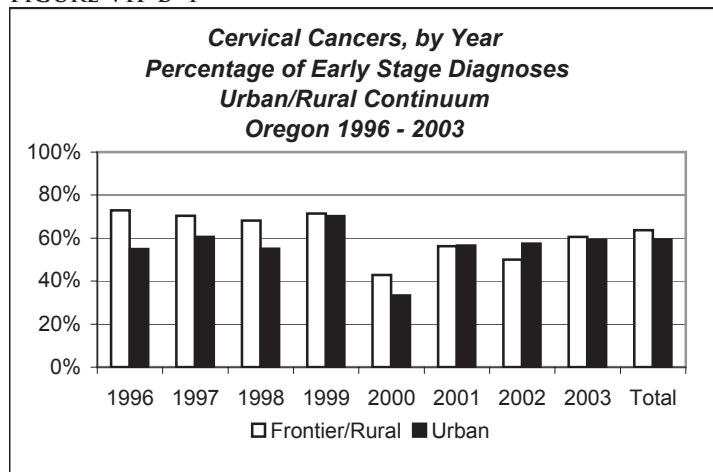


FIGURE VII-B-4



ROUTINE SCREENING

Rates of 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.) Please review *Appendix B* for a list of counties and their urban/rural code designations.

FIGURE VII-B-5

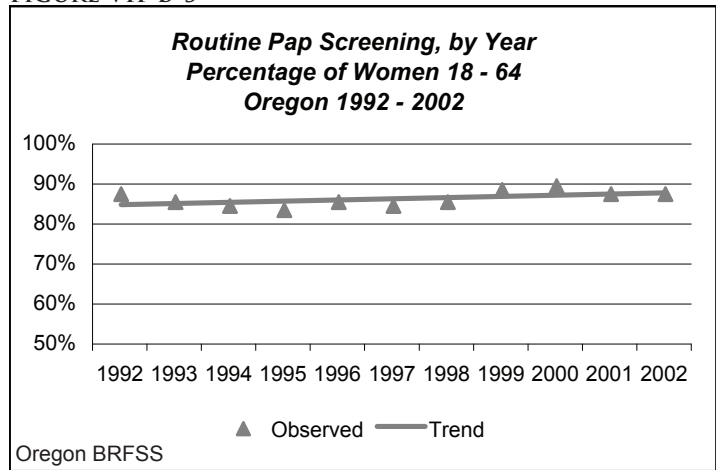


FIGURE VII-B-6

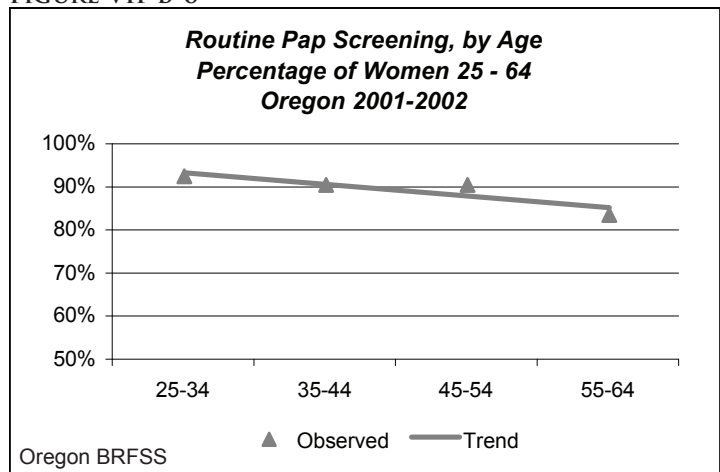
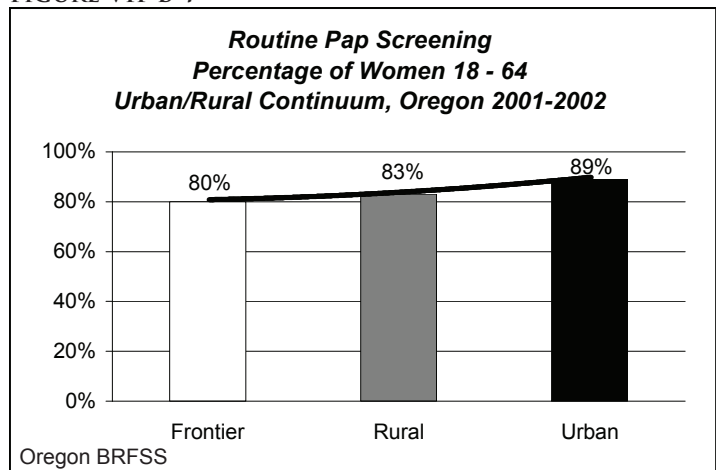


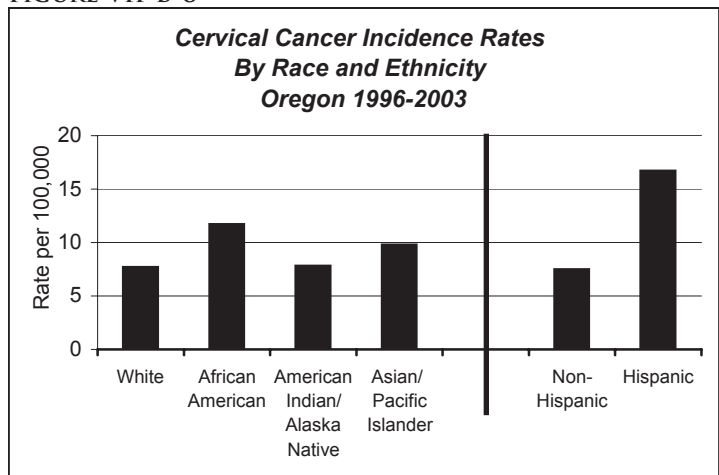
FIGURE VII-B-7



RACE AND ETHNICITY

Although race and ethnicity data need to be interpreted cautiously due to reporting issues (see the *Technical Section* for additional details), cervical cancer is the 4th 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, African American women have the highest cervical cancer incidence rates followed by Asian/Pacific Islander women. (See Figure VII-B-8.) There are too few cervical cancer deaths in Oregon to calculate stable mortality rates by race or ethnicity.

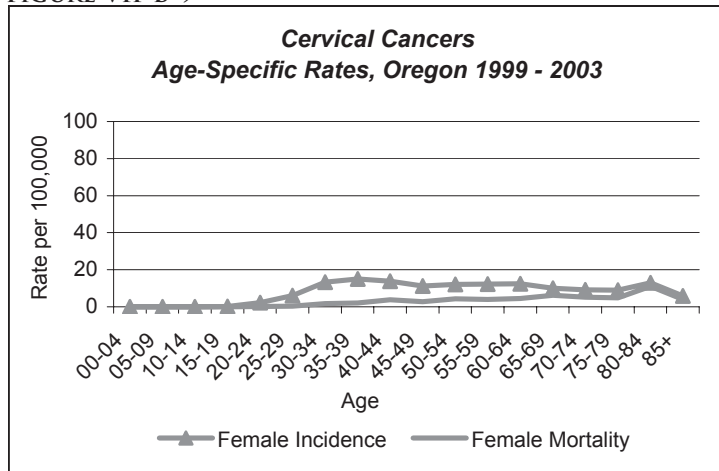
FIGURE VII-B-8



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.

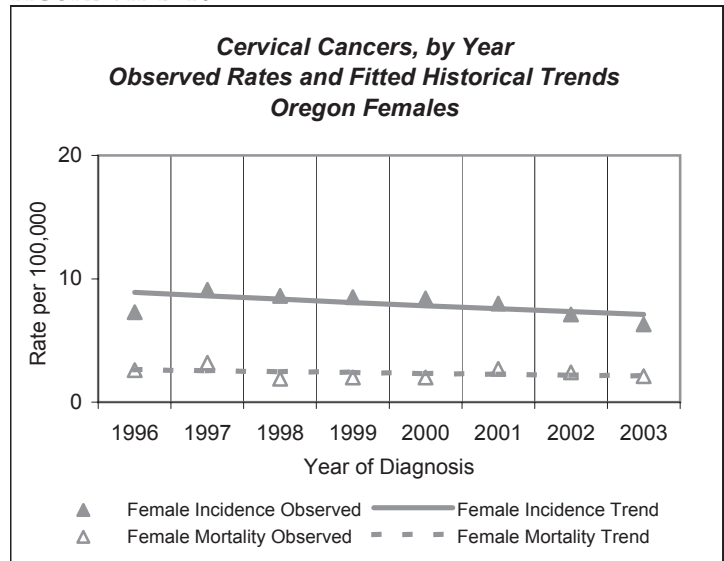
FIGURE VII-B-9



HISTORICAL TRENDS (1996-2003)

Since 1996, both cervical cancer incidence and mortality rates have steadily declined an average of 3% annually. (See Figure VII-B-10.)

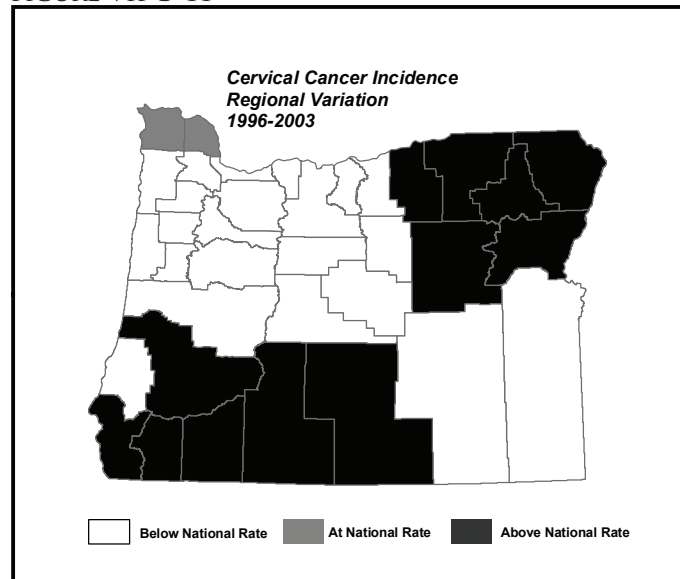
FIGURE VII-B-10



REGIONAL VARIATION (COMBINED EIGHT-YEAR RATES: 1996-2003)

Cervical cancer incidence is higher than the national rate in northeast Oregon and much of southern Oregon. (See Figure VII-B-11.) The northwest portion of the state (except for Clatsop and Columbia Counties), as well as Coos, Harney and Malheur Counties, have cervical cancer incidence rates below the national rate.

FIGURE VII-B-11



Cervical cancer mortality rates are higher than the national average for the north coast and Crook, Harney, Lake, and Wheeler Counties. (See Figure VII-B-12.) Southern Oregon, with the exception of Coos County, has rates similar to the national rate. The rest of the state (including much of eastern Oregon, and Deschutes, Marion, Linn and Polk Counties) has rates that are lower than the nation.

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

FIGURE VII-B-12

