

## Risk Factors

The primary cause of cervical cancer is infection with the human papillomavirus (HPV). Although HPV infections are common in sexually active women and rarely develop into cervical cancer, certain strains of the virus have a high association with development of cervical cancer. Persistence of the infection and development into cancer are associated with cigarette smoking among other factors.<sup>1</sup>



## Warning Signs and Symptoms

There are no early warning signs of abnormal cervical cells that may develop into cancer. Later signs of when these cells become cancerous and invade nearby tissue include abnormal vaginal bleeding or bleeding between periods, after sexual intercourse, or during a pelvic exam. Menstrual bleeding may last longer and be heavier. Bleeding after menopause or increased vaginal discharge are also symptoms. Check with a doctor or other health professional if you experience any of these symptoms.<sup>1</sup>

## Early Detection

The Pap test, where a small sample of cells is collected from the cervix, is the most effective way of detecting abnormal cells that may develop into cervical cancer. Fortunately, most cervical pre-cancers slowly develop into invasive cancer. The American Cancer Society (ACS) recommends that women have an annual Pap test starting within three years of becoming sexually active, but no later than age 21. After age 30, a woman who has had three consecutive normal Pap tests can be screened every three years. Pap tests are not necessary for women who had a total hysterectomy (including removal of the cervix) unless it was done as treatment for cancer.<sup>1</sup>

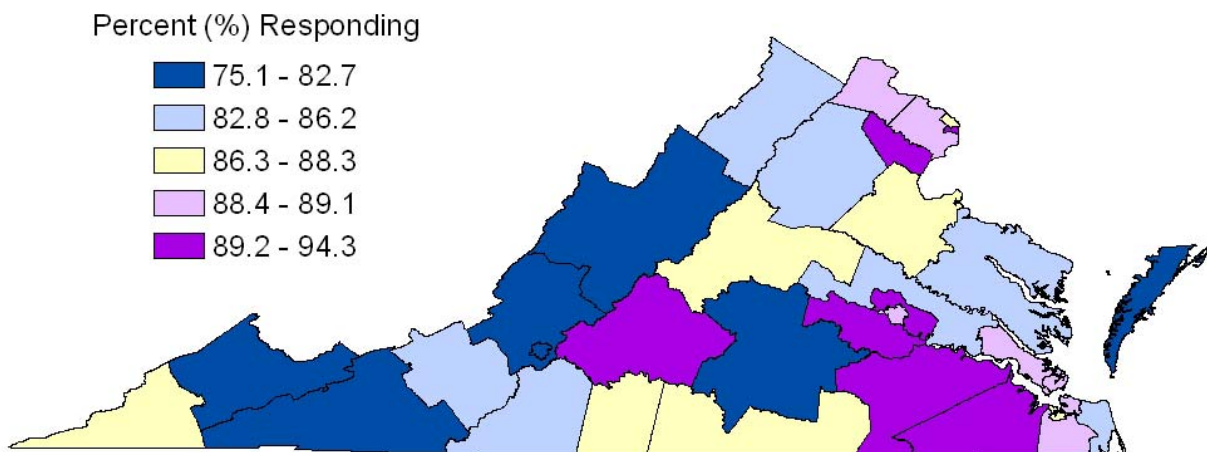
## Cervical Cancer in Virginia

- Cervical cancer was not among the top ten cancers diagnosed among women in the U.S. and in Virginia.<sup>2,3</sup> According to the ACS, an estimated **11,070 women** in the U.S., including **260 women in Virginia**, will be diagnosed with cervical cancer in 2008.<sup>1</sup>
- Cervical cancer was even more rare as a cause of death among women. An estimated **3,870 women** will die from cervical cancer nationwide in 2008.<sup>1</sup> On average, fewer than 90 deaths from cervical cancer occurred each year in Virginia between 2001 and 2005.<sup>4</sup>
- Between 2001 and 2005, women were diagnosed with cervical cancer at a rate of **6.9 cases** per 100,000,<sup>3</sup> and died at a rate of **2.2 deaths** per 100,000.<sup>4</sup> Nationwide, the incidence and mortality rates were, respectively, 8.4 cases and 2.5 deaths per 100,000.<sup>2</sup>
- More than half (54%) of cervical cancer cases in Virginia were diagnosed in women under age 50.<sup>3</sup> Women have less than one percent (<1%) chance of being diagnosed with cervical cancer during their lifetime.<sup>1</sup>
- In Virginia, black women were more likely to be diagnosed with and die from cervical cancer than white women.<sup>3,4</sup> National data indicates that Hispanic women had the highest

cervical cancer incidence rate (13.2) among all racial and ethnic groups. Asian and American Indian women had lower incidence rates.<sup>2</sup>

- From 1995 to 2005, the cervical cancer incidence rate in Virginia declined by 27%. The cervical cancer mortality rate also declined with a noticeable decrease after 2003.<sup>3,4</sup>
- The five-year relative survival rate for cervical cancer is **92%** if diagnosed early.<sup>1</sup> Cervical cancer is treatable when detected early. In Virginia, 46% of women were diagnosed with cervical cancer in its earliest (local) stage when it's most curable. White women (49%) were diagnosed early more often than black women (39%).<sup>3</sup>
- According to a 2006 state health behavior survey, **86%** of women 18 years and older had a Pap test within the past three years—similar to the national rate of 85.7%. Pap test screening rates were lowest among women who were either younger (< 25 years) or older (≥ 65 years), less educated, lower income, and uninsured.<sup>5</sup> Figure 1 shows that Cumberland Plateau (75.1%), Alleghany (76.7%), and Mount Rogers (78.9%) had the lowest Pap test screening rates among the 35 health districts.

**Figure 1 – Pap Test in Past Three Years by Health District, Women 18 and Older, Virginia, 2004-2006**



**Source:** Virginia Behavioral Risk Factor Surveillance System. Percentages are weighted. Includes only women with an intact cervix.

- In Virginia, there were 319 inpatient hospitalizations for cervical cancer that occurred in 2006, at a total charge (cost) of nearly \$8 million. The average length of stay was four days, and the average charge per stay was \$24,822.<sup>6</sup>

<sup>1</sup> American Cancer Society *Cancer Facts & Figures 2008* (<http://www.cancer.org>).

<sup>2</sup> Ries LAG, Melbert D, Krapcho M, Stinchcomb DG, et al. (eds.), *SEER Cancer Statistics Review, 1975-2005*, National Cancer Institute. Bethesda, MD: 2008 ([http://seer.cancer.gov/csr/1975\\_2005/](http://seer.cancer.gov/csr/1975_2005/)).

<sup>3</sup> Virginia Cancer Registry. Based on combined data from 2001-2005. Rates are age-adjusted to the 2000 U.S. standard population.

<sup>4</sup> VDH Division of Health Statistics. Based on combined data from 2001-2005. Rates are age-adjusted to the 2000 U.S. standard population.

<sup>5</sup> Virginia Behavioral Risk Factor Surveillance System. Rates are population-weighted.

<sup>6</sup> Virginia Health Information Hospital Discharge Patient-Level Dataset.