

What is cervical cancer?

Cancer is a disease that causes cells in the body to divide and grow out of control. When cancer starts in the cervix, it is called cervical cancer. The cervix is the lower, narrow end of the uterus (or womb). The cervix connects the vagina (the birth canal) to the lower part of the uterus. Cancer cells in the cervix may grow into surrounding tissues or spread to other parts of the body. All women are at risk for cervical cancer.

Risk factors¹

- ✓ Infection with *Human Papilloma Virus* (HPV) is the most important risk factor for developing cervical cancer, responsible for about two-thirds of cervical cancer.²
- ✓ Not all females infected with HPV develop cervical cancer. Other risk factors such as immunosuppression, multiple births, and cigarette smoking can increase the risk of a woman developing cervical cancer.
- ✓ Long term use of oral contraceptives is also associated with an increased risk of cervical cancer.

Signs and symptoms¹

- Cervical cancer symptoms usually appear late, at an advanced stage (when cancer has spread to nearby tissues).
- Abnormal vaginal bleeding could be a sign of cervical cancer, such as during intercourse, in between menstrual cycles or bleeding after menopause.

Prevention and early detection¹

- The FDA has approved two vaccines for the prevention of cervical cancer from HPV infections: *Gardasil* is recommended for use in females 9 to 26 years of age; and *Cervarix* for females 10 to 25 years of age.
- The *Pap test*, is a cervical cancer screening tool that screens for abnormal cells on the cervix. Abnormal (dysplastic) and precancerous cells can develop into cervical cancer if not found and treated. The Pap test can provide early detection for cervical cancer. Treatment is most successful when received early.
- The American Cancer Society recommends:
 - ✓ Age 21: begin cervical cancer screening.
 - ✓ Age 21-29: Pap test every three years.
 - ✓ Age 30-65: Pap test plus HPV test every five years or Pap test alone every three years.^{1,3}
 - ✓ Age 65+: No screening recommendations for women who have had a regular cervical cancer screening (with normal results) in previous years.
- Women vaccinated against HPV should follow age specific recommendations for Pap screening.

South Carolina Quick Facts

- South Carolina ranked 15th in the nation for cervical cancer incidence in 2013.
- South Carolina ranked 12th in the nation for cervical cancer mortality in 2013.

Screening is extremely important for early detection and treatment.

- White women are less likely to develop cervical cancer than black women.
- Black women are nearly twice as likely to die from cervical cancer as white women.

South Carolina Success story



The Best Chance Network (BCN) provides breast and cervical cancer screening for women between the ages of 30-64 with incomes at or below 200% of federal poverty level who meet other eligibility guidelines.

- Since its inception on January 1, 1991:
 - ✓ Over 109,100 women received services
 - ✓ Over 173,000 mammograms provided
 - ✓ Over 215,000 clinical breast exams performed

Cervical cancer facts in South Carolina

- South Carolina ranked 15th in the nation for cervical cancer incidence and 12th for cervical cancer mortality.^{4,5}
- Cervical cancer incidence and mortality have fallen substantially over the last several decades due to the Pap test screening.¹ Cervical cancer is not one of the top ten cancers for incidence (new cases) or mortality (deaths) for women in South Carolina.⁶

Incidence (rate of new cases):

- Cervical cancer incidence rates (2009-2013) are slightly higher in South Carolina compared to the U.S. (8.1 vs. 7.7 new cases per 100,000 women, respectively).^{4,6}
- Black women have a higher cervical cancer incidence rate than white women (9.1 vs. 7.9 new cases per 100,000 women, respectively) (Figure 1).⁶

Mortality:

- Cervical cancer mortality rates (2009-2013) are slightly higher in South Carolina compared to the U.S. (2.6 vs. 2.3 deaths per 100,000 women, respectively).^{5,6}
- Cervical cancer mortality rates in black women are nearly two times higher than those for white women (4.1; 2.2 per 100,000 women, respectively) (Figure 2).⁶

Survival:

- Nationally, women with cervical cancer have a five-year relative survival rate of 92% when diagnosed in the early stages of this disease.¹ Forty-one percent of the cervical cancers diagnosed in South Carolina (2009-2013) were early stage cancers.⁶
- White women with cervical cancer are more likely to be diagnosed with early stage disease than black women (45% and 34%, respectively) (Figure 3).⁶

Cervical cancer screening:

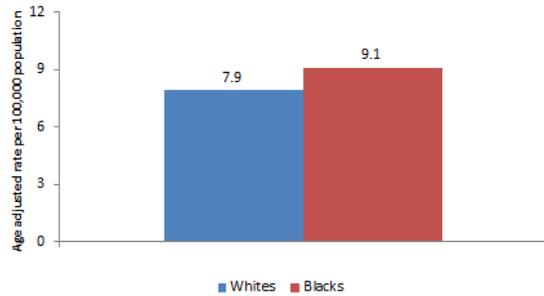
- According to the 2014 South Carolina Behavioral Risk Factor Surveillance System data (BRFSS), 75.8% of South Carolina women aged 18 years and older reported having a Pap test within the past 3 years (U.S. average =74.9%).^{8,9}
- Prevalence of receiving a Pap test within the last three years among black and white women aged 18 years and older in South Carolina were 81.7% and 73.4%, respectively (Figure 4).⁸ Women with low income (household income less than \$15,000) are less likely to have received a Pap test within the last three years than those with high income (household income \$50,000+).

Economic burden:

- Primary diagnoses of cervical cancer for inpatient hospitalizations cost more than \$6.6 million dollars in South Carolina during 2014:
 - ✓ Inpatient hospitalizations: 151 women
 - ✓ Average length of stay: 3.5 days
 - ✓ Average charge per stay: \$43,422.¹⁰

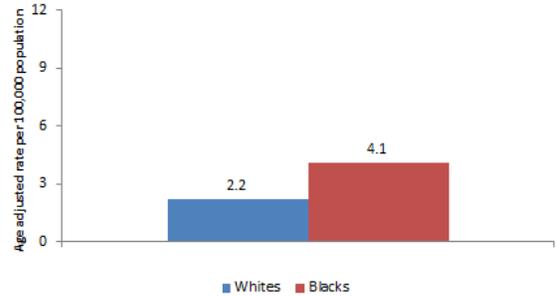
Racial differences:

Figure 1. Cervical Cancer Incidence Rate by Race, SC 2009-2013



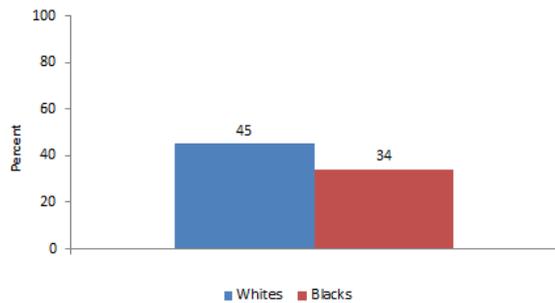
Note: rate excludes *in situ* cases Data Source: SC Central Cancer Registry

Figure 2. Cervical Cancer Mortality Rate by Race, SC 2009-2013



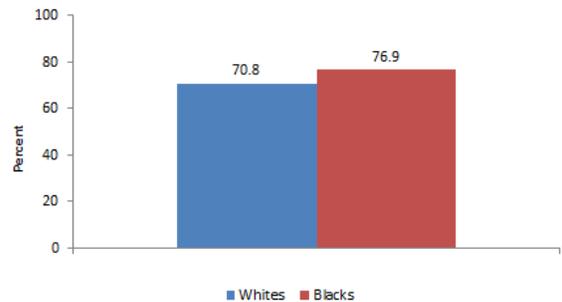
Note: rate excludes *in situ* cases Data Source: SC Central Cancer Registry

Figure 3. Cervical Cancer Cases Diagnosed at Early Stage by Race, SC 2009-2013



Note: percent excludes *in situ* cases Data Source: SC Central Cancer Registry

Figure 4. Prevalence of Pap Test within last 3 years of Women Ages 18+ by Race, SC 2014



Data Source: SC BRFSS, PHSS, DHEC

¹ American Cancer Society, Cancer Facts & Figures 2016. Atlanta: American Cancer Society; 2016.

² American Cancer Society, Cervical Cancer Detailed Guide, <http://www.cancer.org/cancer/cervicalcancer/detailedguide/index>

³ Screening for cervical cancer. Practice Bulletin No. 131. American College of Obstetricians and Gynecologists. Obstet Gynecol 2012; 120: 1222-28.

⁴ Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: SEER*Stat Database: NPCR and SEER Incidence - State RAD file - 1999-2013, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released June 2015.

⁵ Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov) SEER*Stat Database: Mortality - All COD, Aggregated With State, Total U.S. (1990-2012) <Katrina/Rita Population Adjustment>, National Cancer Institute, DCCPS, Surveillance Research Program, Surveillance Systems Branch, released April 2015. Underlying mortality data provided by NCHS (www.cdc.gov/nchs).

⁶ South Carolina Central Cancer Registry, Office of Public Health Statistics and Information Services, Dept. of Health & Environmental Control, based on combined cancer incidence data from 2009-2013.

⁷ Howlander N, Noone AM, Krapcho M, et al, SEER Cancer Statistics Review, 1975-2009 (Vintage 2009 Populations), National Cancer Institute. Bethesda, MD, http://seer.cancer.gov/csr/1975_2009_pops09/, based on November 2011 SEER data submission, posted to the SEER web site, 2012

⁸ South Carolina Behavioral Risk Factor Surveillance System, Office of Public Health Statistics and Information Services, Dept. of Health & Environmental Control, 2014.

⁹ Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2014.

¹⁰ SC Revenue and Fiscal Affairs Office, Hospital Discharge Patient-Level Dataset

For more information on cancer prevention and management, please contact:

Division of Cancer Prevention and Control (DHEC): <http://www.scdhec.gov/Health/DiseasesandConditions/Cancer/>
American Cancer Society: www.cancer.org | 1.800.227.2345

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