



# The Eradicable Cancer

One out of every 145 women has cervical cancer, yet cervical cancer is the most preventable cancer and the only one that can realistically be eradicated in our lifetime. This is a fact supported by science and innovation.

Cervical cancer begins in the cervix and gradually grows more invasive. It is caused by persistent infection with the human papillomavirus or HPV, a group of common and contagious viruses. There are over 100 different types of HPV, and more than 30 types spread through sexual contact that can be categorised into oncogenic (cancer-causing) or non-oncogenic types.

Cervical cancer includes squamous cell carcinomas which begin in epithelial cells, like the skin, and comprise about 80-90 per cent of all cervical cancers. Adenocarcinomas are cancer cells that begin in glandular tissue and comprise the remaining 10-20 per cent of cervical cancers.

Most women will get HPV in their lifetime and most will clear high-risk HPV on their own, but clearing of the virus is variable. The high risk strains of HPV, which comprise more than 80% of all cervical cancer cases, are 16, 18, 31, 33, and 45. Most women acquire HPV within 12 months after their first instance of sexual intercourse, as it is highly commutable and incredibly common. 81% of women will resolve HPV infection within 18 months after diagnosis.

Cervical pre-cancers and early cancers usually have no symptoms or signs but the most common symptom is abnormal vaginal bleeding. Additional symptoms include unusual discharge from the vagina that occurs separately from menstrual cycles, bleeding after sexual intercourse, and douching or a pelvic exam. After menopause, symptoms may include vaginal bleeding or increased vaginal discharge.

## Cervical Cancer's Impact

Worldwide, cervical cancer is the second most common cancer among women, resulting in an estimated 240,000 deaths each year. 80% of

all women will contract HPV at some time in their life before they are 50. Approximately 12,170 women will develop cervical cancer in the United States in 2012, and nearly 4220 will die from it.

Cervical cancer affects some ethnicities more than others, especially Hispanic and African American women. 11.1% of all cervical cancer cases affect African American women, 12.7% Hispanic, 7.9% White, 7.6% Asian American/Pacific Islander, and 6.6% American Indian. The mortality rates also reflect similar patterns: 4.6% African American, 3.4% American Indian, 3.1% Hispanic, 2.2% White and Asian American.

Cervical cancer is the most preventable cancer. Yet failure to screen (50% of all cases), large gaps between screenings (>5 years) (10% of all cases), and false-negative Pap smears (30% of all cases) are major factors in disease incidence.

## Screening Guidelines

The US Preventive Services Task Force (USPSTF) makes evidence-based recommendations on clinical preventive services to empower healthcare professionals, healthcare systems, and the American people to make informed decisions about their health and healthcare, including cervical cancer screening guidelines. Established in 1984, USPSTF is made up of 16 experts in care, prevention and research methods — including physicians, nurses and health behaviour specialists. The work of this independent panel is supported by the Agency for Healthcare Research and Quality (AHRQ) and its initiative — the Evidence-based Practice Centers (EPC) Program.

The most recent USPSTF cervical cancer screening guidelines, issued in 2011, suggest the first Pap smear should occur at 21 years of age, or three years after the woman's first instance of sexual intercourse. Screening before then is unnecessary since cervical cancer in women under 20 years of age is almost non-existent. For women 20-29 years old,

screenings are recommended every two years and for women over 30, screenings are recommended every three years if they have had three consecutive negative Pap results and are low-risk. Low-risk constitutes no history of Cervical Intraepithelial Neoplasia (CIN) 2 or 3 and being HIV negative. Cervical screening can be discontinued between 65-70 years of age but women should continue to receive annual exams. Women who have received the HPV vaccine still need to have regular screenings.

## Treatments

There is no known cure for cervical cancer but it is preventable. A vaccine is available to protect women against cervical cancer, and was approved by the Food and Drug Administration (FDA) to be administered to women aged nine to 26. This vaccine prevents infection from HPV types 16 and 18, which are responsible for approximately 70 per cent of cervical cancer, and HPV types 6 and 11, which are responsible for approximately 90 per cent of genital warts. These vaccines are only used to prevent, not treat, cervical cancer. Because HPV is transmitted sexually, vaccinations for males are encouraged to help eliminate cervical cancer.

Routine screenings also promote early detection. Of the women in the United States who develop cervical cancer, about half have never had a Pap test and an additional 10 per cent have not had a Pap test in the last five years.

There are several different treatment options for patients with cervical cancer. The most common are surgery, chemotherapy and radiation. But vaccination is the key to prevention and ultimate eradication.

## Barriers to Treatment

In the US, controversy about sexual behaviour and other barriers hinders the appropriate use of the HPV vaccine. Healthcare providers often do not offer the correct and complete explanation to patients about the HPV vaccine and the need for Pap

smears. Many parents are hesitant to vaccinate their young children for fear of promoting earlier sexual experiences.

Universal screening is needed to detect and prevent cervical cancer and must be advocated for at the local level by trusted sources. Educational programmes in regions in the US with the most cervical cancer cases, such as North Carolina and Kentucky, have proven to be effective.

Several vaccination barriers for rural populations include<sup>1</sup> does the woman have male permission or support to get vaccinated?<sup>2</sup> lack of transportation - public transportation in Kentucky is extremely limited, and<sup>3</sup> cost factors including insurance coverage and high co-pays.

Advocates suggest vaccinations be available at stores where women are likely to shop. For example, Wal-Marts in rural and convenient locations might encourage people who are already in the store to get vaccinated. Easy access may help women who have had the first HPV vaccination to continue with the second and third vaccinations to complete the set and be fully protected from cervical cancer.

### Partnership to End Cervical Cancer

The Society for Women's Health Research (SWHR), a national non-profit dedicated to the study of sex differences, chairs the Partnership to End Cervical Cancer (PECC) and its 43 member groups dedicated to eliminating cervical cancer.

PECC's mission is to ensure universal access to education, screening and vaccination to prevent cervical cancer. For six years, PECC members have dedicated resources to reduce barriers to appropriate services, and to raise the potential for ending cervical cancer in the US with public and private stakeholders.

PECC has produced public service announcements, produced web and print informational materials, held Capitol Hill and media briefings, and supported and shared programmes within the PECC member organisations on the importance of the HPV vaccine and the elimination of cervical cancer. PECC has also worked closely with

Cervical Cancer Free America, which provides nationwide initiatives around education, screening and vaccination that have the potential to end cervical cancer in this lifetime.

Great strides have been made over the past several decades to reduce the incidence of cervical cancer in the United States. The greater and largely unrecognised burden of cancer-causing HPV threatens the reproductive and emotional health of thousands of women, and costs the United States almost \$4 billion annually. While eliminating cervical cancer in the United States may seem like an ambitious goal, experts agree that it is an achievable one. With organisations like SWHR, PECC, and Cervical Cancer Free America working towards universal vaccination, eradicating cervical cancer can quickly become a reality.

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### L. Jo Parrish, MA, MBA

Jo Parrish oversees all aspects of a multi-faceted communications programme that includes public education, public and media relations, marketing, website, and publications. She also oversees all aspects of SWHR's fundraising and development activities, including renewing support from current sources, expanding and diversifying SWHR's funding base, and major fundraising events. Parrish joined SWHR in 1999. She has over 20 years of experience in organisations, associations, education, and cultural arts with special expertise in strategic and process planning in start-up or new programme operations.

Email: jo@swhr.org

### Rachel Griffith

Rachel Griffith is the Communication and Event Manager at the Society for Women's Health Research (SWHR). She manages and coordinates SWHR's conferences, meetings and events. Griffith also manages outreach to SWHR constituents through the e-newsletter, social networks, research articles and media relations. She received the Aesculapius Award for Excellence in Health Communication in 2011. Griffith earned her BA in public relations from the University of Oklahoma.

Email: rachel@swhr.org