According to the American Cancer Society, this year, approximately 12,900 women in the United States are expected to be diagnosed with cervical cancer, while 4,100 women are expected to die from the disease.

Almost all cervical cancers are caused by human papillomavirus (HPV), a common virus spread by skin-to-skin contact. There are over 150 types, or strains, of HPV, many of which are harmless to humans, however, several types of HPV, known as “high-risk,” can convert normal cells on the cervix into cancerous ones. If left unchecked and untreated, these cells can turn into invasive cervical cancer.

Most women who are diagnosed with cervical cancer today have not had regular Pap tests, or Pap smears, or have not followed up on abnormal Pap test results. However, when detected at an early stage, cervical cancer has a five-year survival rate of 91 percent, which plummets to a mere 16 percent when cervical cancer is caught at an advanced stage. Through vaccination and screening, cervical cancer and cervical cancer-related death can be prevented.

Screening for cervical cancer is generally recognized as effective in reducing morbidity and mortality. The American Cancer Society (ACS), the United States Preventative Services Task Force (USPSTF), the American College of Obstetricians and Gynecologists (ACOG), and many other organizations recommend routine screening for the detection of cervical cancer. Women should begin cervical cancer screening at age 21, regardless of the age of onset of sexual activity. Pap smears should be performed every three years in women who are 21 to 29 years old, and every five years in women aged 30 or older and who have a history of three negative tests, provided this testing is accompanied by an HPV DNA test. More frequent screening may be necessary in women who have had abnormal Pap tests or a previous diagnosis of cervical cancer.

Additionally, there are currently three vaccines on the market designed to offer protection against the most “high-risk” types of HPV. These vaccines, which are recommended by the Centers for Disease Control and Prevention (CDC) as well as many other health promotion organizations, are licensed, safe, and effective for both males and females ages nine through 26. Aside from cervical cancer, HPV is also linked to cancer of the vagina and vulva in females, cancer of the penis in males, and cancer of the anus and oropharynx (head and neck) in both sexes. Therefore, it is important to vaccinate both sexes in order to reduce the prevalence and risk of HPV overall.

The use of screening and vaccination together can diminish the prevalence HPV as well as the incidence of cervical cancer and cervical cancer death. Greater use these proven clinical prevention measures in the U.S. could avert the loss of more than 4,000 lives annually. Furthermore, increasing the use of these services and diminishing the incidence of cervical cancer would result in total savings of more than $4.4 million each year. Going forward, leadership, collaboration, and commitment among policy makers and researchers alike is needed to support and sustain cervical cancer prevention.