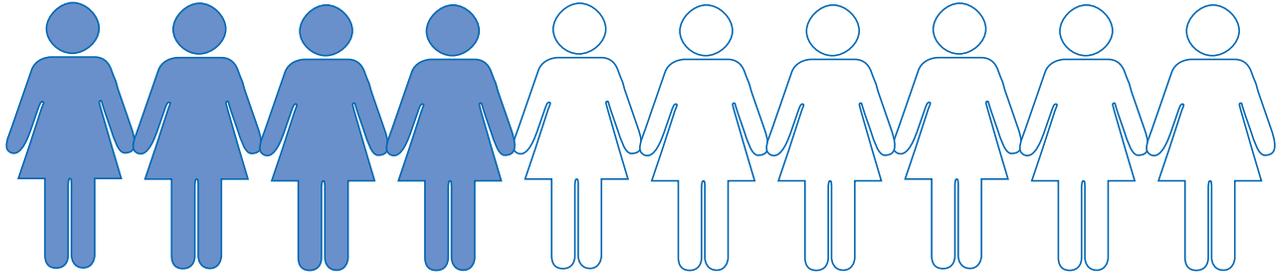
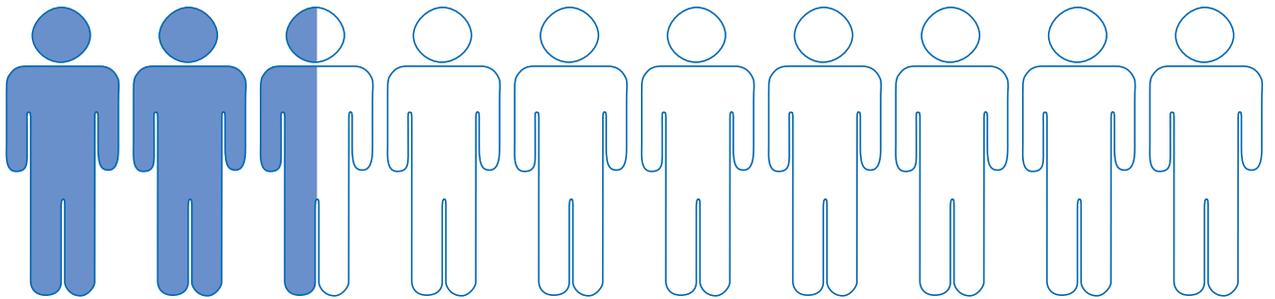


Facts & Figures

Human Papilloma Virus (HPV) and Cancer in Wisconsin



4 in 10 Females in Wisconsin ages 13-17 received all three doses of an HPV vaccine



2.5 in 10 Males in Wisconsin ages 13-17 received all three doses of an HPV vaccine

540 The number of people diagnosed each year with cancer that was likely caused by an HPV infection

90% Percentage of cervical and anal cancers likely caused by HPV

63% Percentage of penile cancer likely caused by HPV

Human Papilloma Virus (HPV) and Cancer

Overview

Several cancers are linked to the human papilloma virus (HPV) infection including cervical, vaginal, vulvar, oropharyngeal (back of the mouth and throat), anal, and penile cancers. Cervical cancer is the most common serious health problem linked to HPV infection in women. Over 90% of cervical cancers and 70% of vulvar and vaginal cancers are HPV-related. Cancer of the oropharynx is attributable to HPV infections in more than 7 out of 10 cases.

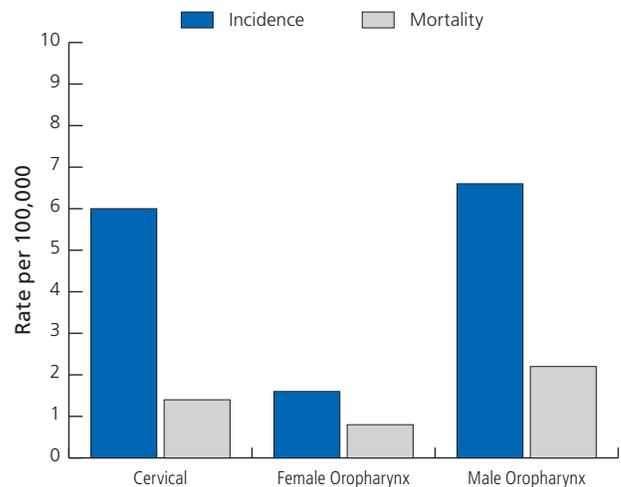
Most cervical cancers are caused by persistent infection with certain types of HPV infections. While women who begin having sex at an early age or who have had many sexual partners are at increased risk for HPV infection and cervical cancer, a woman may be infected with HPV even if she has had only one sexual partner. In fact, HPV infections are common in healthy women and only rarely cause cervical cancer.

Cervical cancer begins in cells lining the cervix. Normal cells slowly change into precancerous cells that can then turn into cancer. These cell changes can be detected by the Pap test and treated to prevent cancer. That is why screening tests offer a powerful opportunity for the prevention, early detection, and successful treatment of cervical cancer.

Burden of HPV-related Cancers in Wisconsin

In reporting of the burden of potential HPV-associated cancers, which were defined by focusing on specific sites and specific histologies, this analysis refers to these as “HPV-associated.” This analysis and most others that describe the burden of HPV-associated cancers do not attempt to provide actual estimates of the attributable fraction of HPV in these cancers but provide basic information about cancers at sites in which HPV DNA is frequently found.

Figure 1. Major HPV-related Cancers, 2009-2013



HPV-related cancers are defined as sites in which HPV DNA is frequently found. Rates are per 100,000 and age-adjusted to the 2000 US standard population.

Source: Wisconsin Cancer Reporting System, Office of Health Informatics, Department of Health Services and National Center for Health Statistics.

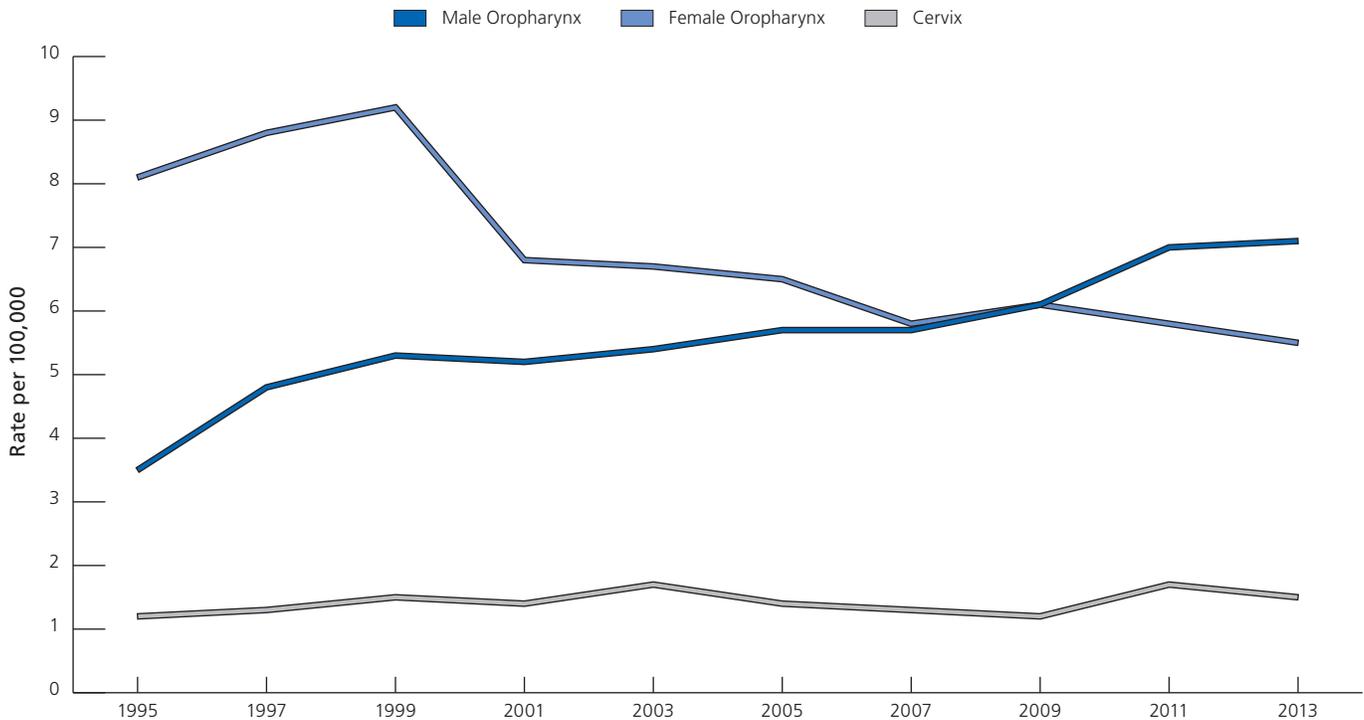
In Wisconsin from 2009-2013, the incidence rate of cervical cancer was 6.0 per 100,000 and the mortality rate was 1.4 per 100,000 (Figure 1). The cervical cancer incidence rate declined from 8.1 in 1995 to 5.5, per 100,000, in 2013 (Figure 2). Although the rate is relatively low, during that five-year period there were 897 women diagnosed with cervical cancer that could have been prevented.

The incidence rate for oropharynx cancer from 2009-2013 was higher for males compared with females, 6.6 compared with 1.6, per 100,000, respectively. The oropharyngeal cancer mortality rate for males was 2.2 per 100,000 and 0.8 per 100,000 for females (Figure 1). The incidence rate for male oropharynx cancer increased steadily from 3.5 per 100,000 in 1995 to 7.1 per 100,000 in 2013. By contrast, the female rate for oropharynx cancer remained relatively constant, from 1.2 to 1.5, per 100,000, during that time period (Figure 2).

HPV Vaccination in Wisconsin

Vaccines are available to protect against the most common HPV infections that cause cervical cancer. To be most effective, the HPV vaccine should be given before a person becomes sexually active. The vaccinations are most effective when given at ages 11 or 12 but may be given as early as age 9 and through the age of 26.

Figure 2. Trends in HPV-related Cancer Incidence, Wisconsin, 1995-2013



Rates are per 100,000 and age-adjusted to the 2000 US standard population. HPV-related cancers are defined as sites in which HPV DNA is frequently found.

Source: Wisconsin Cancer Reporting System, Office of Health Informatics, Department of Health Services.

According to the 2014 National Immunization Survey Report, 41% of females and 24% of males ages 13-17 in Wisconsin have received all three doses of an approved HPV vaccine. The Centers for Disease Control and Prevention recommends that HPV vaccinations be given in three doses over six months.

Screening for Cervical Cancer

Since HPV vaccines cannot protect against established infections, and they do not protect against all HPV types, women should still be screened for cervical cancer. Screening can prevent cervical cancer by detecting precancerous lesions that be treated so they do not progress to cancer. The Pap test, which can include HPV testing, is a simple procedure in which a small sample of cells is collected from the cervix. HPV tests, which detect HPV infections associated with cervical cancer, can forecast cervical cancer risk many years in the future and are currently recommended to be used in conjunction with the Pap test in some women.

American Cancer Society Screening Recommendations for Cervical Cancer

Cervical cancer screening should begin at age 21. For women ages 21-29, screening should be done every 3 years with conventional or liquid-based Pap tests. For women ages 30-65, screening should be done every 5 years with both the HPV test and the Pap test (preferred), or every 3 years with the Pap test alone (acceptable).

Women ages 66 and older who have had 2 consecutive negative HPV and Pap tests within the past 10 years, with the most recent test occurring within 5 years, and women who have had a total hysterectomy should stop cervical cancer screening.

Women should not be screened annually by any method at any age.



Wisconsin Department of Health Services

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