Wood County Health Department
Health Promotion & Prevention

Cervical Cancer and HPV-Associated Cancer Health Profile

February 2026

From 2000 to 2024, rates of new cervical cancer cases in Wood County decreased 4.9%. New cases and deaths are lower in Wood County than in Ohio and the US. However, rates of new cases are higher among women living in rural areas of Wood County than in urban areas. Incidence rates of non-sex-specific cancers associated with HPV (anal and oropharyngeal) are increasing in both men and women of Wood County.

According to the CDC, about 91% of cervical cancers in the US, 75% of vaginal cancers, 69% of vulvar cancers, 91% of anal cancers, and 70% of oropharyngeal cancers are probably caused by any HPV type. HPV vaccination can prevent nearly 90% of the cancers caused by this virus.

Data retrieved from Ohio Department of Health Ohio Cancer Surveillance System and Bureau of Vital Statistics and National Cancer Institute Surveillance, Epidemiology, and End Results (SEER) Program.

For questions, please contact:

Chloe Brown, MPH, CIC

Epidemiologist, Wood County Health Department

cgbrown@woodcountyohio.gov

Terms

Age-adjusted rate: a weighted average of the rates of cases in each age group; uses the distribution of ages in the local population and US population over time so rates are comparable.

Early stage: cancers diagnosed *in situ* (abnormal cells growing in a limited area, like one tissue layer) or localized (cancer growing only in the organ/area it was originally found).

HPV: human papillomavirus – a common viral infection spread through sexual contact. There are over 100 types of HPV; low-risk types can cause genital warts and high-risk types are initially asymptomatic but can progress to cancer.

HPV test: a test done by a healthcare provider or by yourself with an at-home test kit; collects cells to test for some high-risk HPV types.

Incidence/rate: the number of new cases/diagnoses over time, age-adjusted per 100,000 per year or five-year average.

Late stage: cancers diagnosed as regional (cancer spread to nearby organs, tissues, and/or regional lymph nodes) or distant (cancer spread beyond nearby organs, tissues, and/or metastasized to distant lymph nodes).

Mortality/mortality rate: the number of deaths over time, age-adjusted per 100,000 per year or five-year average.

Oropharyngeal: the middle part of your throat including the back, soft area of the roof of your mouth, the side and back walls of your throat, tonsils, and the back of your tongue.

Pap test/cytology: a test done by a healthcare provider; collects cells from the cervix to check for abnormal changes in a lab.

Screening: testing for cancer or precancerous cells in people without any symptoms.

Background

HPV is a very common viral infection which CDC estimates nearly everyone may have at one point in their life. The infection can cause genital warts or more serious types of HPV can lead to cancer, but there is a vaccine to prevent HPV infection.

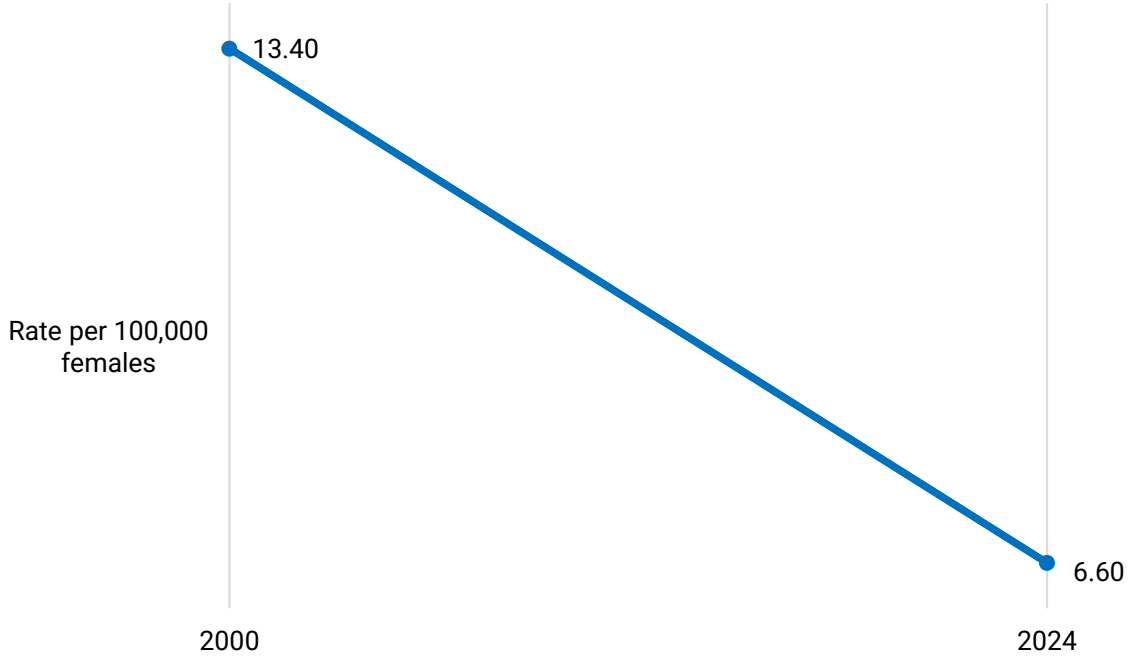
The HPV vaccine was first approved for use among girls aged 9-to-26-years in 2006 and its recommendation expanded to include boys in 2009. It has demonstrated high effectiveness against numerous HPV types and while it was initially approved to prevent cervical cancer, it is currently FDA approved to prevent cervical, vulvar, vaginal, anal, oropharyngeal cancers and genital warts among females and males aged 9-to-45-years.

About 91% of cervical cancers in the US, 75% of vaginal cancers, 69% of vulvar cancers, 91% of anal cancers, and 70% of oropharyngeal cancers are probably caused by any HPV type, according to CDC.

Wood County Cervical Cancer Rates

Wood County's age-adjusted rate of cervical rate was **13.4 per 100,000 females in 2000** and decreased to **6.6 per 100,000 females in 2024**. Rates continued to vary after the introduction of the HPV vaccine in 2006 because cancer develops slowly and cervical cancer diagnoses are typically among older women who were not eligible for the vaccine. Despite this, the rate of new diagnoses **decreased nearly 5%** since 2000.

Age-adjusted cervical cancer rates among women in Wood County **decreased 4.9%** from 2000 to 2024.



Cervical cancer trends have a positive outlook locally, regionally, and nationally. Rates of new cases and deaths from cervical cancer are lower in Wood County than Ohio and the US.

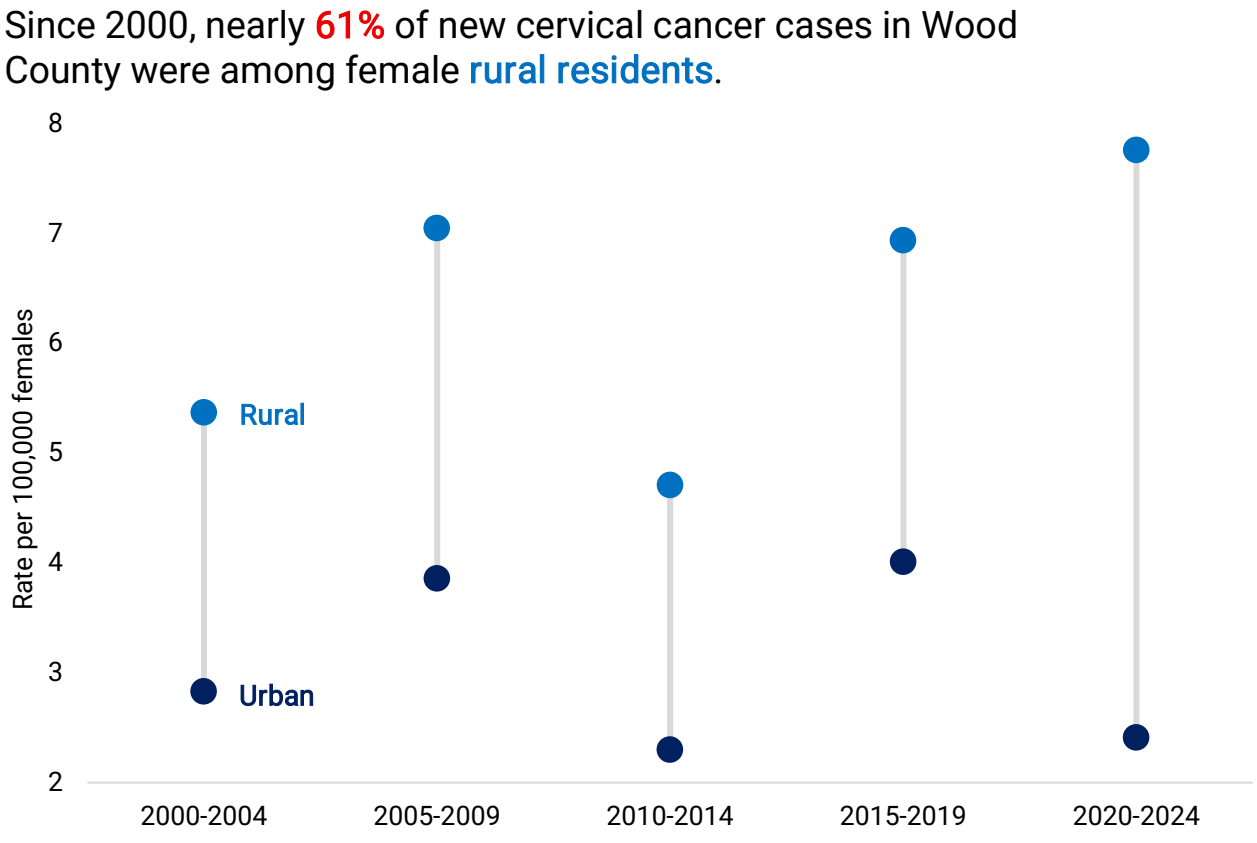
	Wood County	Ohio	US
New Cases	6.6	8.2	6.9
Deaths	1.6	2.2	2.2

Ohio and US data as of 2022, Wood County data as of 2024

Ohio reported a 25% decrease in cervical cancer rates among women from 1996 to 2020, and the US saw decreases from 2000 to 2013 before rates began to level off, although women 20-24-years are still seeing noticeable decreases (11% per year). Declining incidence rates have been attributed to increased screenings and likely the preventative effect of the HPV vaccine.

Rural vs Urban Trends

Despite decreasing case rates, some populations face a higher burden than others. Wood County five-year age-adjusted rates of cervical cancer were higher among female rural residents in Wood County compared to female urban residents. From 2000-2024, the average age-adjusted incidence rate was 1.6 times higher in rural residents than urban, and rural residents accounted for almost 61% of all new diagnoses since 2000. These trends align with national trends of cervical cancer diagnoses and deaths. Rural residents face barriers to care like transportation and lower availability of providers. New cervical cancer prevention guidelines were recently approved that include an at-home testing option for HPV.



Screening Recommendations

Cervical cancer screening recommendations were limited to Pap tests or pelvic exams for many years until **2012** when the American Cancer Society (ACS) began recommending **HPV testing alongside Pap tests** for women 30-65. Current screening guidelines vary by agency and by personal risk factors such as a previous abnormal Pap test or immunocompromising condition.

	Recommending Agency		
	American Cancer Society	**US Preventive Services Task Force**	**Health Resources & Services Administration**
21-to-29-years		Pap test (cytology) alone every 3 years	Pap test (cytology) alone every 3 years
25-to-65-years	Primary HPV test every 5 years clinician-collected (every 3 years if self-collected), Pap/HPV co-test every 5 years, or Pap test (cytology) every 3 years.		
30-to-65-years		Pap test (cytology) alone every 3 years, HPV alone every 5 years, or Pap/HPV co-test every 5 years	Pap test (cytology) alone every 3 years or Pap/HPV co-test every 5 years

Women 65-years and older should speak with their provider about their Pap test history and personal risk factors to determine their screening recommendations.

Across Ohio, Pap smear prevalence is **lowest** among **women aged 21-24-years** (57.2%) and highest among women aged 35-44-years (81.7%) and 25-34-years (81.4%). HPV vaccine coverage was at **62.7%** among Ohioan teens **13-17-years** in 2022.

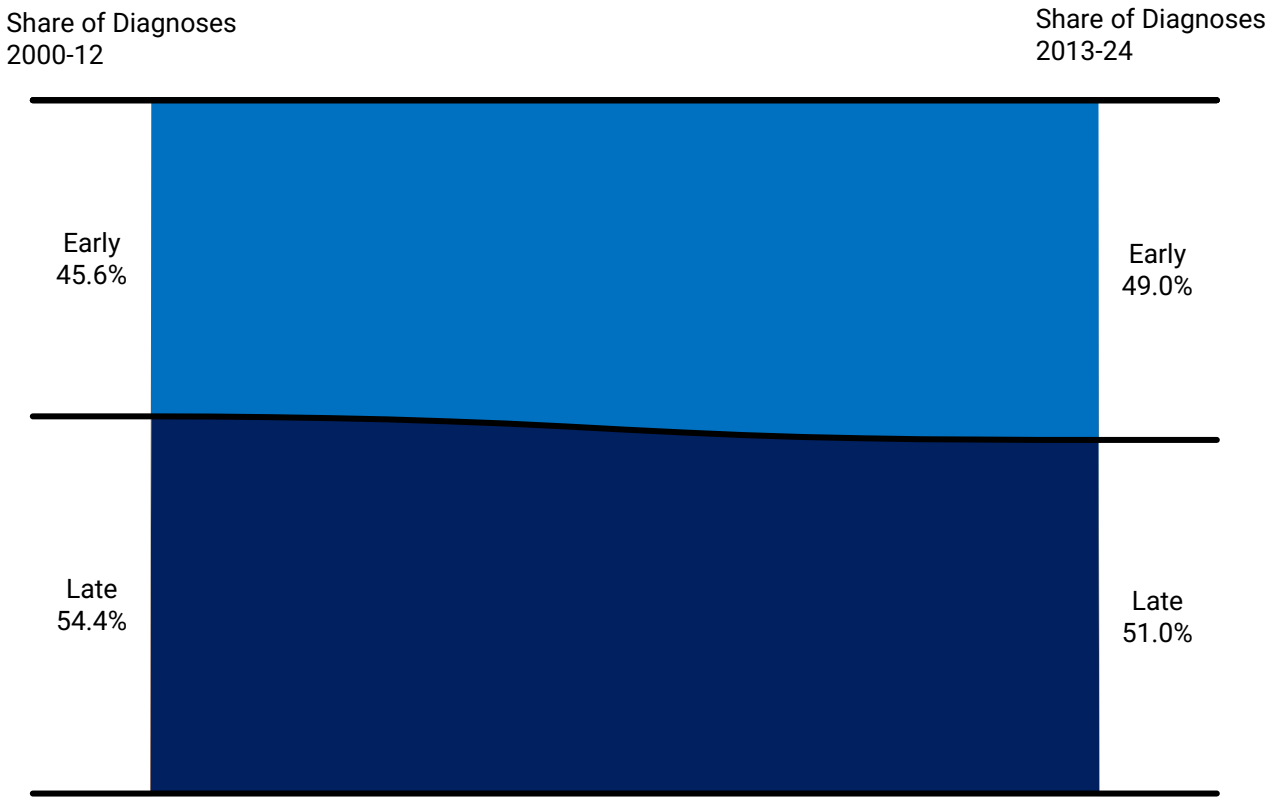
It is important for **younger, eligible populations** to receive the recommended cancer screenings and the HPV vaccine to **reduce risk later in life** when they are no longer eligible or may have already developed disease.

Early vs Late Cervical Cancer Diagnoses

Regular screenings help detect cancer in **early stages** while it **is precancerous or before it has spread outside of the cervix**. Pap tests and HPV tests both find abnormal (precancerous) cells in the cervix that can become cancer, but because most cervical cancers are caused by HPV, HPV tests are more likely to detect precancerous, early stages of disease. Late diagnoses find cancer that has spread to surrounding pelvic tissue or even further inside the body.

From 2000 to 2024, there were slightly more late diagnoses of cervical cancer (n = 57) compared to early diagnoses (n = 51). However, the proportion of cancers diagnosed as early **increased nearly 4%** after 2012.

After 2012, more cervical cancers were diagnosed in early stages.

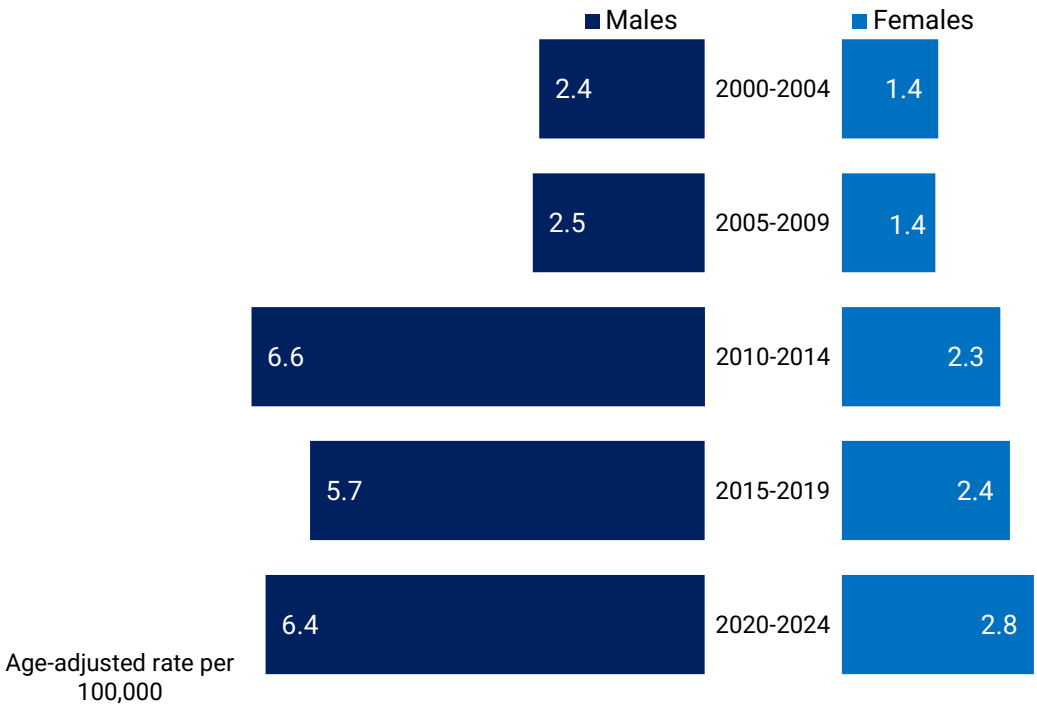


Other HPV-Associated Cancer Trends

Cancers associated with HPV infection are cervical, vaginal, vulvar, penile, anal, and oropharyngeal. Non-sex-specific HPV-associated cancers, meaning they occur in females and males, include anal/rectal squamous cell carcinoma and oropharyngeal.

Five-year age-adjusted rates of these cancers are generally low, but are increasing among males and females in Wood County. Rates in females and males increased after 2005-2009 and remained stable, though rates are higher among men. Cases are predominantly among adults 45-years-old and older.

Non-sex-specific HPV-associated cancer rates are over twice as high among men.



In Ohio, the rate of anal cancers increased from 1996 to 2020 among both females and males. Anal cancer incidence rates from 2016 to 2020 were over double in females (2.8) than males (1.4). Nationally, rates increased among women but have stablized among men since 2008. US rates are higher in females (2.5) than males (1.6), similar to Ohio.

Oropharyngeal cancer increased in Ohio men from 1996 to 2020 while remaining stable among women. Oropharyngeal cancer incidence rates were over five times higher in males (10.1) than females (1.9). In the US, oropharyngeal cancer has been steadily increasing among men as well, and remaining stable in women. National rates are higher in males (5.3) than females (1.0).

Preventing HPV-Associated Cancers

HPV vaccination is recommended for **both boys and girls**, and can **prevent up to 90%** of the cancers caused by HPV. It is important for boys to receive the vaccine when eligible because there is **no routine testing for HPV among men** unless they already have symptoms and there are **no recommended screenings for HPV-associated cancers except cervical.**

The HPV vaccination is still regarded as a newer vaccine and because cancer can take decades to develop, its impact continues to be studied. However, early research has indicated it is beneficial in **preventing both HPV infections and HPV-associated cancers in men and women**. Wood County children and adults younger than 27-years without vaccine history should continue to follow the recommened guidelines for HPV vaccination. Adults 27-to-45-years should talk with their provider about their risk.

Wood county residents can make an appointment with the **Wood County Community Health Center** for **childhood vaccinations** and for **reproductive health**. Visit https://woodcountyhealth.org/ to learn more!

Resources

Wood County Community Health Center

Childhood HPV Vaccination

Our Community Health Center offers recommended childhood vaccines through the Vaccine for Children (VFC) Program, including the HPV vaccine. Please call or visit the health center to learn more about what we can offer children birth through age 18.

https://woodcountyhealth.org/health-promotion-prevention/immunizations/

Reproductive Health

Primary care providers at the Community Health Center also offer reproductive health services. Please call or visit the health center to learn more about what preventative screenings, testings, and consultations are available to you.

https://woodcountyhealth.org/health-center/services/primary-preventative-care/

Ohio Department of Health

Cancers Associated with HPV in Ohio 2023

Check out ODH's comprehensive report about trends in HPV-associated cancers.

https://odh.ohio.gov/know-our-programs/ohio-cancer-incidence-surveillance-system/resources/cancers-associated-with-hpv-2023

CDC

View CDC's information about HPV, cancer, and the vaccine.

https://www.cdc.gov/hpv/index.html