Cervical Cancer Incidence

Wisconsin Surveillance Report | August 2025

WISCONSIN DEPARTMENT of HEALTH SERVICES

Wisconsin Cancer Reporting System | Office of Health Informatics | Division of Public Health
P-00379 (09/2025)

Authors

Lena Swander, MPH[1], Jessica Link Reeve, DrPH, MPH[1], Sydney Hocker, BS[1], Allison Antoine, MPH[2], Alexandria Cull Weatherer, MPH[2], Katelynn Kirkpatrick, MPH[1]

[1]Wisconsin Cancer Reporting System, Office of Health Informatics, Wisconsin Department of Health Services.
[2]Wisconsin Cancer Collaborative, University of Wisconsin-Madison.

Funding acknowledgement and disclaimer

The collection of Wisconsin cancer incidence data used in this report was supported by the Wisconsin Department of Health Services pursuant to Wis. Stat. § 255.04 and the CDC's (Centers for Disease Control and Prevention) National Program of Cancer Registries under cooperative agreement NU58DP007146. The ideas and opinions expressed herein do not necessarily reflect the opinions of the Department of Health and Human Services, the CDC, or their contractors and subcontractors.

Suggested citation

Cervical cancer incidence, Wisconsin surveillance report, P-00379 (09/2025). Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics, Wisconsin Cancer Reporting System.

Definitions

Cervical cancer cases: the 27010 SEER Recodes Site Recode ICD-O-3/WHO 2008 limited to invasive and female sex only

Cervical cancer incidence: how often a cervical cancer case is diagnosed among females during a certain time period

Cervical cancer incidence rate: the total number of new cervical cancer cases diagnosed in a time period in the population of interest, divided by the at-risk population and multiplied by 100,000

At risk-population: all females using the SEER U.S. County Population Data, County-Level Population Files-20 Age Groups (Wisconsin) populations

Age-adjusted cervical cancer incidence rate: the cervical cancer incidence rate adjusted to account for different age distributions between populations using the 2000 U.S. standard population estimates from the Census P25-1130 and direct method

Invasive: a malignant cancer or tumor that has spread beyond the layer of tissue in which it developed and is growing into surrounding, healthy tissues

Stage: the extent of cancer's progression and is often determined by the size of the cancer and how far it has spread

Merged summary stage: a variable created by cancer registries to standardize cancer staging data over time, especially when different staging schemes were used in different years

Ninety-five percent confidence interval: a range of values describing the uncertainty surrounding an estimate where the interval describes the expected number to include the true underlying value 95% of the time

Trend: overall direction and magnitude of change in cancer incidence rates over a specific time

Joinpoint regression: a statistical method that fits a series of straight-line segments to the trend data and identifies points (joinpoints) where a statistically significant change occurs

Annual percent change (APC): the average yearly change in cancer incidence rates within a specific segment of time, expressed as a percentage in Joinpoint regression

Key findings

- Between 2018–2022, 921 diagnosed cervical cancer cases were reported to the Wisconsin Cancer Reporting System at the Wisconsin Department of Health Services between.
- HPV vaccination is showing early signs of reducing cervical cancer burden among younger women.
- Most women diagnosed with cervical cancer in Wisconsin are between 35 to 44 years old. Women in this age group experienced rising incidence rates from 2001–2022, making them a key population for outreach and screening.
- Progress toward reducing incidence rates among women of all ages has plateaued.
- From 2001–2022, Wisconsin saw a significant increase of distant-stage cervical cancer rates. This indicates more women are being diagnosed at later, less treatable stages.

Introduction

This surveillance brief presents findings on cervical cancer incidence using data reported to the Wisconsin Cancer Reporting System (WCRS) at the Wisconsin Department of Health Services. All Wisconsin health care facilities are required to report cancers to WCRS as mandated by Wis. Stat. § 255.04. This surveillance brief includes cervical cancer incidence trends analyses (2001–2022) and examines disparities in burden (2018–2022) to inform prevention and control efforts across the state.

Background

Cervical cancer is a disease where cells grow out of control in the cervix. Anyone with a cervix is at risk, but cervical cancer is most often diagnosed in women between the ages of 35 and 44.[1] The human papillomavirus (HPV) is a common virus responsible for more than 9 of every 10 cases of cervical cancer.[2] HPV is a common virus passed from one person to another during any sexual contact. Most sexually active people will have HPV at some point in their lives.[3] Most people who become infected with HPV don't know they have it and the infection will usually go away on its own. However, when the body's immune system can't get rid of an HPV infection, it can cause cancer. Cancer usually takes years, even decades, to develop after a person gets HPV.[2]

Fortunately, almost all cervical cancer can be prevented by HPV vaccination.[2] The HPV vaccine series was first recommended for females ages 11 or 12 years. Since then, vaccination policy has evolved as new evidence supporting vaccinating both males and females to prevent future cancers emerged, and updates to the vaccine provided additional protection against other HPV types.

Cervical cancer screening is also an important part of routine care to identify cancer early. The goal of screening is to find precancerous cellular changes to the cervix so treatment can prevent cancer from developing. Screening frequency and the types of tests used depends on a patient's age and health history. The *Screening and prevention* section of this surveillance brief covers more information about current recommendations.

Because the HPV vaccine prevents infection from high-risk types of the virus that cause most cervical cancers, vaccine timing and changing eligibility plays a key role in understanding cervical cancer risk. Women who were too old to receive the vaccine when it was first introduced in 2006 (typically those now in their mid-30s or older) did not benefit from routine adolescent vaccination and may have already been exposed to HPV. As a result, they remain at higher risk for developing cervical cancer compared to younger women who were vaccinated earlier in life. This age-related difference in vaccine uptake and timing helps explain why cervical cancer incidence remains higher among older women. It also emphasizes the continued importance of routine cervical cancer screening in this population.

Data sources and analysis

Data are from the Wisconsin Cancer Reporting System (WCRS). WCRS collects cancer incidence data on Wisconsin residents with newly diagnosed, reportable cancers. All health care facilities in Wisconsin are required to report cancers to WCRS as mandated by Wis. Stat. § 255.04. All tumors with malignant cell types are reportable except basal cell and squamous cell carcinomas of the skin and in situ cervical cancer.

WCRS has been recognized by the CDC's (Centers for Disease Control and Prevention) National Program of Cancer Registries and the North American Association of Central Cancer Registries for meeting high quality data standards. All analyses were performed by WCRS staff in SEER*Stat 9.0.41.0 and Joinpoint 5.4.0.

Important considerations

Incidence data in this surveillance brief include invasive cervical cancer cases reported to WCRS from 2001–2022. It does not include in situ or precancerous lesions such as Cervical Intraepithelial Neoplasia (CIN) 2 or CIN 3, which are not reportable and often diagnosed and treated in outpatient settings.

National survey data suggest a substantial fraction of women in the United States have undergone a hysterectomy, including the removal of the uterine cervix.[4] Recent studies have shown that correcting for hysterectomy is an important part of accurately estimating cervical cancer burden among women still at risk.[5,6] Data in this surveillance brief have not been corrected for hysterectomy prevalence, so true burden may be underestimated, disparities—particularly racial and ethnic—may be masked, and trends by age should especially be interpreted with caution.

Delay-adjustment was not used in this surveillance brief. Delay-adjustment methods help account for the time it takes for cases to be reported to registries.[7] Delay-adjusting rates can sometimes lead to shifts in observed trends, particularly in recent diagnosis years.

For other important data considerations when interpreting WCRS incidence data, visit the "Documentation and Information" section on the WISH: Cancer Incidence Modules website.

Incidence

An estimated 184 cervical cancer cases are newly diagnosed among women in Wisconsin each year. Between 2018–2022, 921 cases were diagnosed among women of all ages (*Table 1*). The age-adjusted incidence rate in 2022 was 6.1 per 100,000 women in Wisconsin, which is lower than the 2022 national rate (7.5 per 100,000).[8] Age-adjusting rates allows for more accurate comparisons across groups by accounting for differences in age distributions among populations.

Cervical cancer burden affects certain female populations in Wisconsin differently. *Figure 1* details age-adjusted incidence rates of cervical cancer stratified by key demographic and geographic factors at the time the cancer was first diagnosed. Rates are displayed by race and Hispanic ethnicity, age group, rural-urban county residence, Department of Health Services (DHS) region, and residence in a persistent poverty census tract.

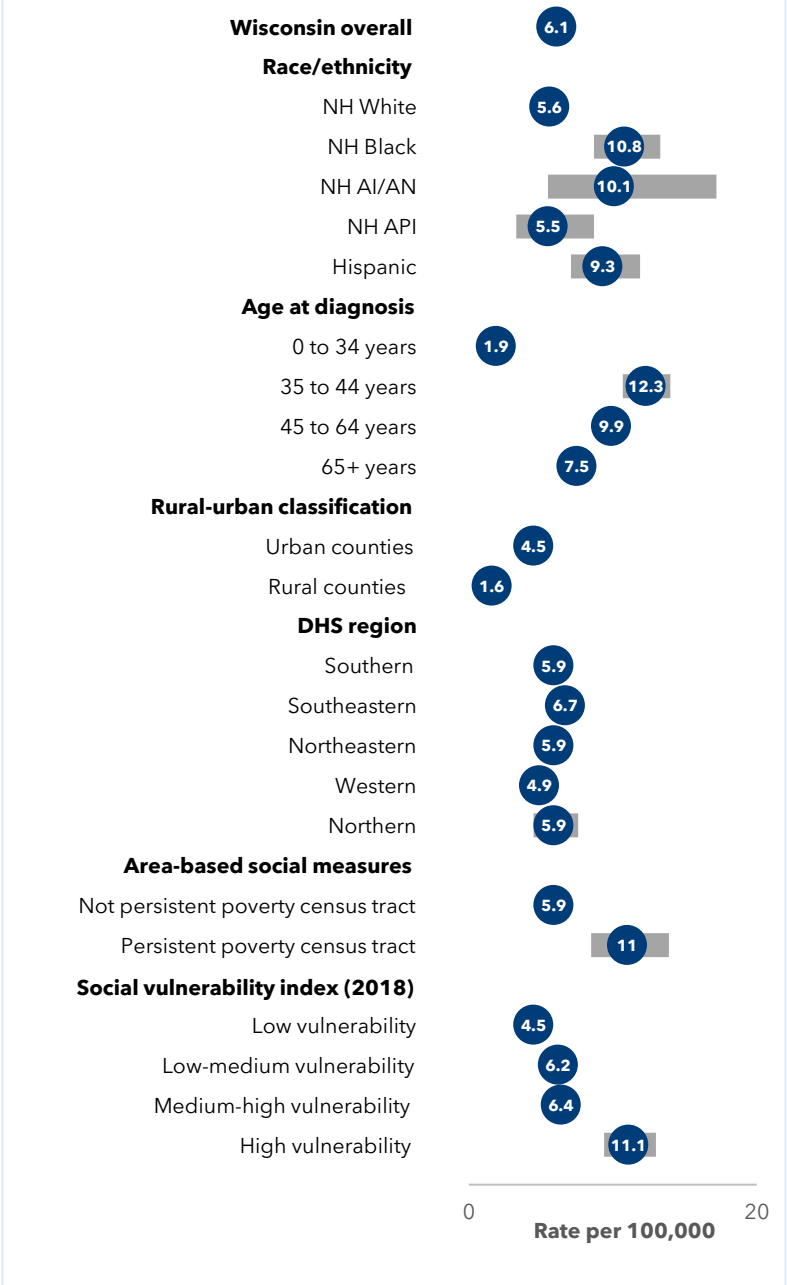
Figure 1 and *Table 1* highlight disparities in cervical cancer incidence and can help identify populations most affected or at risk. For example, most women diagnosed with cervical cancer in Wisconsin are between the ages of 35 to 44. Cervical cancer incidence rates are higher in urban counties, as well as areas of the state experiencing persistent poverty and those ranked high vulnerability. Additionally, Hispanic, non-Hispanic Black, and non-Hispanic American Indian/Alaska Native women in Wisconsin are diagnosed at higher rates than other races and ethnicities.

Table 1. Female age-adjusted cervical cancer incidence rates per 100,000 and case counts by population and geographic characteristics, Wisconsin (2018–2022)[9,10]

Population characteristics	Cases	Rate (95% CI)
Wisconsin overall	921	6.1 (5.7, 6.5)
Race/ethnicity		
NH White	719	5.6 (5.2, 6)
NH Black	91	10.8 (8.7, 13.3)
NH AI/AN	14	10.1 (5.5, 17.2)
NH API	20	5.5 (3.3, 8.7)
Hispanic	72	9.3 (7.1, 11.9)
Age at diagnosis		
0 to 34 years	119	1.9 (1.6, 2.3)
35 to 44 years	221	12.3 (10.7, 14)
45 to 64 years	374	9.9 (8.8, 11)
65+ years	207	7.5 (6.5, 8.6)
Rural-urban classification		
Urban counties	672	4.5 (4.1, 4.9)
Rural counties	249	1.6 (1.4, 1.8)
DHS region		
Southern	182	5.9 (5.1, 6.9)
Southeastern	374	6.7 (6, 7.4)
Northeastern	189	5.9 (5.1, 6.9)
Western	101	4.9 (4, 6)
Northern	75	5.9 (4.5, 7.6)
Area-based social measures		
Not persistent poverty census tract	850	5.9 (5.5, 6.3)
Persistent poverty census tract	70	11 (8.5, 13.9)
Social vulnerability index (2018)		
Low vulnerability	258	4.5 (3.9, 5.1)
Low-medium vulnerability	297	6.2 (5.5, 7)
Medium-high vulnerability	202	6.4 (5.5, 7.4)
High vulnerability	162	11.1 (9.4, 13)

Notes: NH=non-Hispanic; AI/AN=American Indian/Alaska Native; API=Asian/Pacific Islander. Rural-urban classification uses Rural-Urban Continuum Codes (2013). DHS regions are defined by Wisconsin Department of Health Services. Persistent poverty census tracts are defined by the NCI SEER Program as 20% or more of the population has lived below the poverty level for approximately 30 years. Social vulnerability index (2018) is defined by the CDC's Agency for Toxic Substances and Disease Registry.

Figure 1. Female age-adjusted cervical cancer incidence rates per 100,000 by population and geographic characteristics, Wisconsin (2018–2022)[9,10]
95% confidence intervals displayed in shaded grey



Notes: NH=non-Hispanic; AI/AN=American Indian/Alaska Native; API=Asian/Pacific Islander. Rural-urban classification uses Rural-Urban Continuum Codes (2013). DHS regions are defined by the Wisconsin Department of Health Services. Persistent poverty census tracts are defined by the NCI SEER Program as 20% or more of the population has lived below the poverty level for approximately 30 years. Social vulnerability index (2018) is defined by the CDC's Agency for Toxic Substances and Disease Registry.

Trends

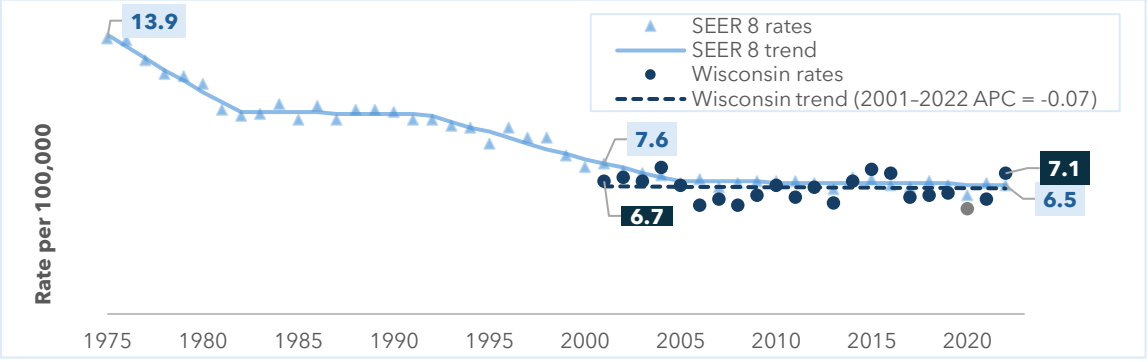
Long-term trends in cervical cancer incidence give insight and context around the impact of screening and vaccination efforts. *Figure 2* shows age-adjusted cervical cancer incidence rates and modeled trends in Wisconsin alongside SEER 8 Registries. SEER 8 data come from the longest standing, high-quality population-based cancer registries in the United States. SEER 8 registries are a common benchmark for tracking national cancer trends longitudinally.

In this surveillance brief, each annual percentage change (APC) describing a trend was calculated from the slope of the regression line for a specific time period. The APC indicates where rates are increasing, decreasing, or stable. A positive APC reflects an increasing trend, a negative APC reflects a decreasing trend, and an APC not statistically different from zero reflects a generally stable trend. Trend analysis for Wisconsin only includes 2001–2022 to account for major changes in screening guidelines, diagnostic classification, and cancer reportability coding standards. Incidence rates for 2020 were not used in the fit of any modeled trends due to the impacts the COVID-19 pandemic had on cancer screening and diagnosis.[12,13] During this period, routine cervical cancer screening was widely delayed or deferred, leading to an artificial drop in diagnoses that doesn't reflect a true decline in incidence.[14,15]

From 1975–1982, SEER 8 cervical cancer incidence rates declined significantly by an APC of -4.5. These declines mostly reflect public health gains in routine use of the Pap test to screen for cervical cancer. Rates significantly declined again 1993–2003 (APC=-3.2), likely reflecting continued progress in screening guidelines and technology. From 2005–2022, however, the rate of decline dramatically slowed (APC=-0.02). In Wisconsin, cervical cancer incidence in Wisconsin have remained essentially stable by an APC of -0.07 from 2001–2022. The stable trend over the last two decades in Wisconsin mirrors that of national trends estimated from SEER 8 registry data.

Taken together, these data suggest that progress toward reducing cervical cancer incidence has plateaued. While the introduction of widespread HPV vaccination in 2006 holds long-term promise, its protective effects have primarily benefited younger cohorts vaccinated before exposure to HPV.[16,17,18] Many adult women, particularly those who were already sexually active by 2006 or who aged out of vaccine eligibility, did not benefit directly from HPV vaccination. Women born before 1991–1992, now in mid-30s and older, remain at elevated risk and continue to rely on regular cervical cancer screening for early detection and prevention.

Figure 2. Female age-adjusted cervical cancer incidence rates per 100,000 and modeled trends, Wisconsin (2001–2022) and SEER 8 Registries (1975–2022)[9,11]



2020 rates excluded from Wisconsin and SEER 8 modeled trend analyses. All exclusions displayed in grey.

Table 2. Modeled trend data from SEER 8 (1975–2022) and Wisconsin (2001–2022) female age-adjusted cervical cancer incidence rates per 100,000[9,11]

	SEER 8			Wisconsin		
Year	**Observed rate**	**Modeled rate**	**APC**	**Observed rate**	**Modeled rate**	**APC**
1975	13.9	14.1		NA	NA	NA
1976	13.8	13.5		NA	NA	NA
1977	12.8	12.9		NA	NA	NA
1978	12.1	12.3	-4.5*	NA	NA	NA
1979	12	11.8		NA	NA	NA
1980	11.6	11.2		NA	NA	NA
1981	10.3	10.7		NA	NA	NA
1982	10	10.2	Joinpoint	NA	NA	NA
1983	10.1	10.2		NA	NA	NA
1984	10.6	10.2		NA	NA	NA
1985	9.8	10.2		NA	NA	NA
1986	10.5	10.2		NA	NA	NA
1987	9.8	10.1	-0.2	NA	NA	NA
1988	10.3	10.1		NA	NA	NA
1989	10.3	10.1		NA	NA	NA
1990	10.2	10.1		NA	NA	NA
1991	9.8	10.1		NA	NA	NA
1992	9.8	10	Joinpoint	NA	NA	NA
1993	9.5	9.7		NA	NA	NA
1994	9.4	9.4		NA	NA	NA
1995	8.6	9.2		8	NA	NA
1996	9.4	8.9		8.2	NA	NA
1997	8.9	8.6		8.6	NA	NA
1998	8.9	8.3	-3.1*	9.4	NA	NA
1999	8	8.1		9.1	NA	NA
2000	7.4	7.8		9.4	NA	NA
2001	7.6	7.6		6.7	6.4	
2002	7.2	7.4		6.9	6.4	
2003	7.1	7.1		6.7	6.4	
2004	7	6.9	Joinpoint	7.4	6.4	
2005	6.6	6.7		6.5	6.4	
2006	6.8	6.7		5.5	6.4	
2007	6.4	6.7		5.8	6.4	
2008	6.6	6.7		5.5	6.4	
2009	6.7	6.7		6	6.4	
2010	6.7	6.6		6.5	6.4	
2011	6.7	6.6		5.9	6.4	
2012	6.6	6.6		6.4	6.4	-0.07
2013	6.3	6.6		5.6	6.4	
2014	6.9	6.6	-0.02	6.7	6.4	
2015	6.8	6.6		7.3	6.4	
2016	6.5	6.6		7.1	6.4	
2017	6.4	6.6		5.9	6.4	
2018	6.7	6.6		6	6.4	
2019	6.5	6.6		6.1	6.4	
2020	6	6.5		5.3	6.4	
2021	6.6	6.5		5.8	6.4	
2022	6.5	6.5		7.1	6.3	

2020 rates excluded from Wisconsin modeled trend analysis. All exclusions displayed in grey.
*Indicates the annual percentage change (APC) is significantly different from zero at the alpha=0.05 level.

Trends by age

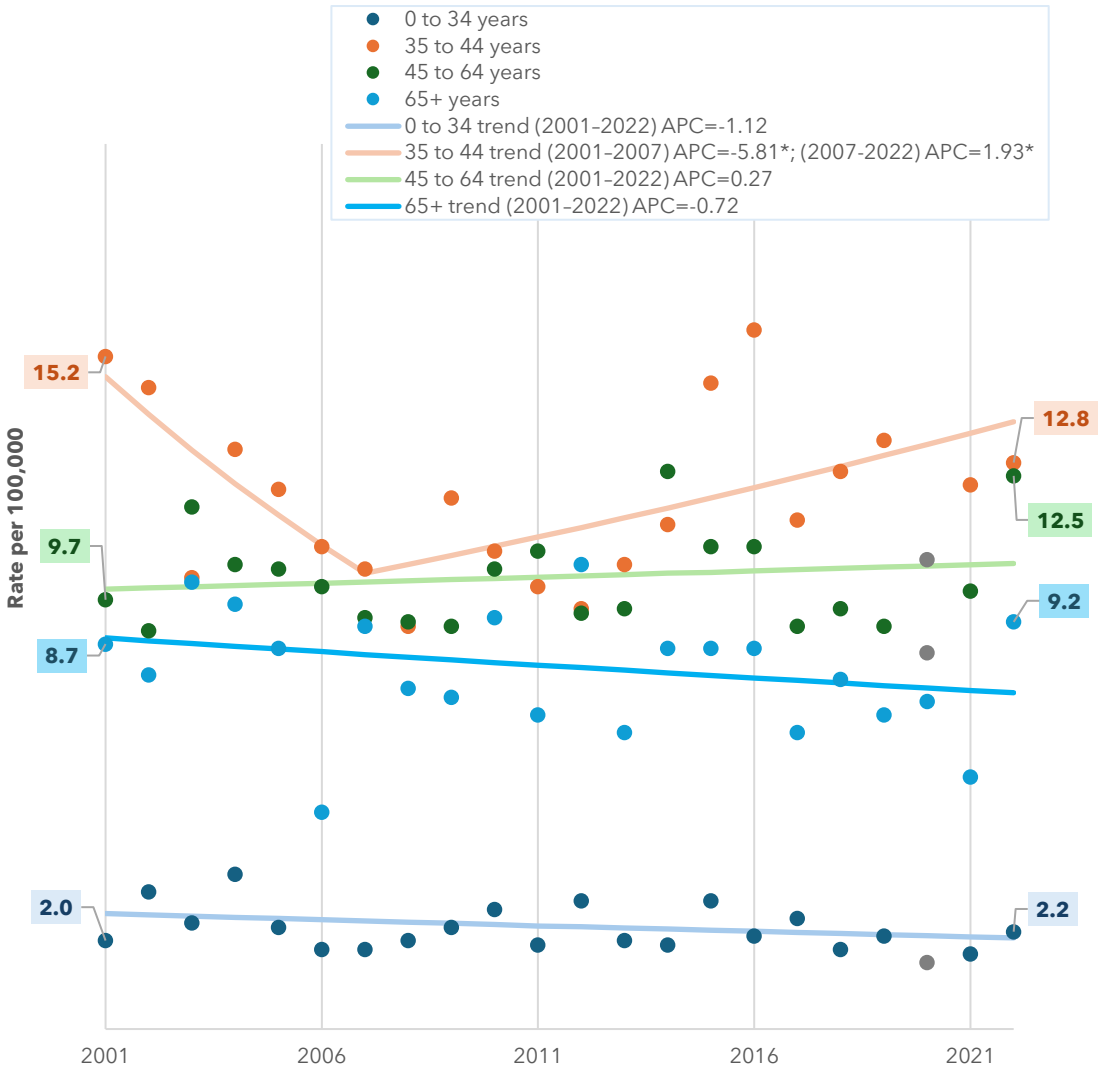
Cervical cancer incidence trends in Wisconsin over the last two decades differ by age at diagnosis (*Table 3, Figure 3)*. These differences likely reflect the interplay of screening behaviors, HPV exposure, and prevention effectiveness. Among women diagnosed under age 35, incidence declined modestly but was not considered statistically significant (APC=-1.12). This slight decline is consistent with national evidence that the introduction of HPV vaccination in 2006 may have begun reducing cervical cancer burden among younger women. Many in this group were the first to receive cervical cancer prevention benefits through HPV vaccination.

The most striking pattern is among women diagnosed between ages 35 to 44, where incidence declined sharply between 2001–2007 (APC=-5.81*), but then reversed course with a significant increase from 2007–2022 (APC=1.93*). This change is consistent with national data showing rising cervical cancer incidence in midlife, potentially due to delayed or missed screenings, inadequate follow-up of abnormal results, or loss of coverage during healthcare transitions. Women ages 34 to 45 were typically too old to benefit from HPV vaccination when it was first introduced. Their increased risk today highlights a critical gap in prevention for those aging into middle adulthood without consistent screening.

For women diagnosed at ages 45 to 64, incidence remained relatively stable (APC=0.27), though this group still accounts for a substantial portion of overall cases (41%). Incidence among those diagnosed at age 65+ declined slightly, but the trend was not statistically significant (APC=-0.72). However, given state and national concern about rising distant stage disease in older adults, this trend should be interpreted with caution and receive continued monitoring.

Taken together, trends by age emphasize the importance of prevention strategies tailored across a woman's lifetime. Women diagnosed in mid-life, especially those not covered by early vaccination efforts, remain a key population for outreach, screening, and follow-up care.

Figure 3. Female age-adjusted cervical cancer incidence rates per 100,000 and modeled trends by age at diagnosis, Wisconsin (2001–2022)[9]



2020 rates excluded from Wisconsin modeled trend analysis. All exclusions displayed in grey.
*Indicates the annual percentage change (APC) is significantly different from zero at the alpha=0.05 level.

Table 3. Observed and modeled trend data from female age-adjusted cervical cancer incidence rates per 100,000 by age at diagnosis, Wisconsin (2001–2022)[9]

	0 to 34 years			35 to 44 years			45 to 64 years			65+ years		
Year	Observed rate	Modeled rate	APC	Observed rate	Modeled rate	APC	Observed rate	Modeled rate	APC	Observed rate	Modeled rate	APC
2001	3.3	2.6		15.2	14.7		9.7	9.9		8.7	8.8	
2002	2.6	2.6		14.5	13.9		9	10		8	8.8	
2003	3.8	2.5		10.2	13.1	-5.81*	11.8	10		10.1	8.7	
2004	4.7	2.5		13.1	12.3		10.5	10		9.6	8.7	
2005	4.6	2.5		12.2	11.6		10.4	10.1		8.6	8.6	
2006	4.6	2.5		10.9	10.9		10	10.1		4.9	8.5	
2007	2	2.4		10.4	10.3	Joinpoint	9.3	10.1		9.1	8.5	
2008	3.1	2.4		9.1	10.5		9.2	10.1		7.7	8.4	
2009	2.4	2.4		12	10.7		9.1	10.2		7.5	8.3	
2010	3.5	2.4		10.8	10.9		10.4	10.2		9.3	8.3	
2011	2.3	2.3		10	11.1		10.8	10.2		7.1	8.2	
2012	1.8	2.3	-1.12	9.5	11.3		9.4	10.2	0.27	10.5	8.2	-0.72
2013	1.8	2.3		10.5	11.6		9.5	10.3		6.7	8.1	
2014	2	2.3		11.4	11.7		12.6	10.3		8.6	8.1	
2015	2.3	2.2		14.6	12	1.93*	10.9	10.3		8.6	8	
2016	2.7	2.2		15.8	12.2		10.9	10.4		8.6	7.9	
2017	1.9	2.2		11.5	12.5		9.1	10.4		6.7	7.9	
2018	2.9	2.2		12.6	12.7		9.5	10.4		7.9	7.8	
2019	2	2.1		13.3	13		9.1	10.4		7.1	7.8	
2020	1.9	2.1		10.60	13.2		8.5	10.5		7.4	7.7	
2021	2.9	2.1		12.3	13.5		9.9	10.5		5.7	7.7	
2022	2.1	2.1		12.8	13.7		12.5	10.5		9.2	7.6	

2020 rates excluded from Wisconsin modeled trend analysis. All exclusions displayed in grey.
*Indicates the annual percentage change (APC) is significantly different from zero at the alpha=0.05 level.

Trends by stage

The extent of cancer's progression is known as stage. Stage is often determined by the size of the cancer and how far it has spread. Doctors use this information for treatment and monitoring progress. Stage at diagnosis measures cancer progression before any treatment is given. The International Federation of Gynecology and Obstetrics (FIGO) staging system uses Stages I through IV and is commonly used in clinical settings to stage cervical cancer. This surveillance brief uses merged summary stage to describe reportable cervical cancers by the following groups:

- **Localized**: a tumor limited to the organ in which it began, without evidence of spread
- **Regional**: a tumor spread beyond the original site to nearby lymph nodes, organs and/or tissues
- **Distant**: a tumor spread from the primary site to distant organs or distant lymph nodes

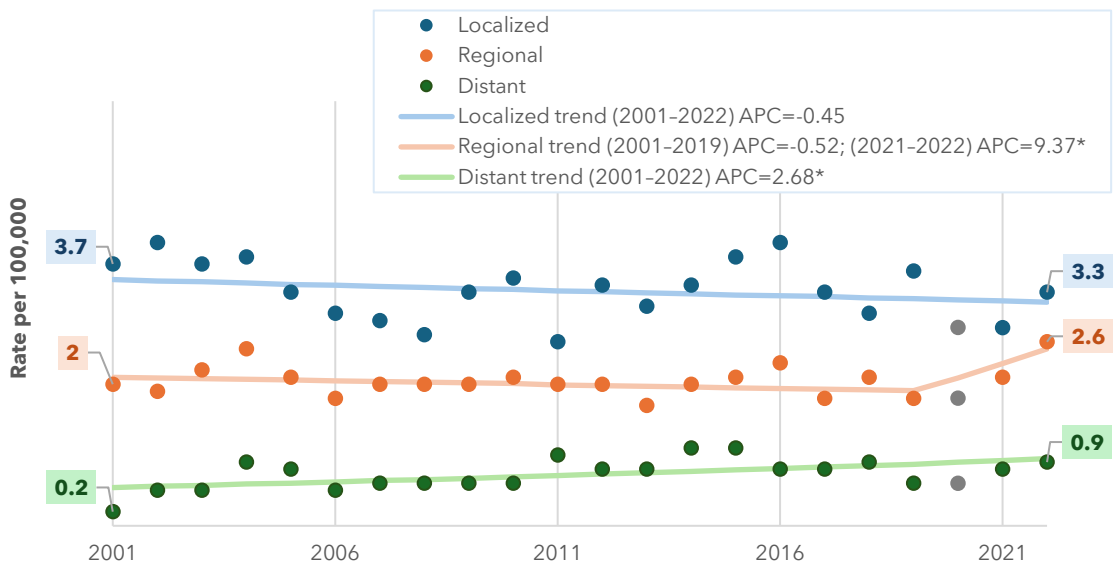
The table below outlines the alignment between merged summary stage and FIGO stage:

Cervical cancer staging systems	
Merged summary stage	**FIGO stage(s)**
Localized	I (IA1, IA2, IB1-IB3, I NOS)
Regional	
Direct extension only	II (IIA, IIB), IIIA, IIIB
Lymph nodes only	IIIC1 (pelvic), IIIC2 (para-aortic)
Both extension and nodes	II/III + nodes, IIIC with extension
Distant	IVA, IVB

Cervical cancer incidence trends in Wisconsin from 2001–2022 in *Figure 4* show shifting patterns by stage at diagnosis that reflect emerging public health challenges. Cervical cancer diagnosed at a localized stage declined slightly (APC=-0.45) but was not considered significant, suggesting a potential plateau or decline in early detection. Regional stage tumors declined slightly from 2001–2019 (APC=-0.52) but then showed a statistically significant increase between 2021–2022 (APC=9.37*). The recent uptick is limited to two years, and the changing trend may reflect delays in screening during the COVID-19 pandemic or ongoing challenges in access to timely diagnostic services.

The most concerning trend is the significant increase of distant-stage diagnoses from 2001–2022 (APC=2.68*), indicating that more women are being diagnosed at a later, less treatable stage. This pattern aligns with recent national studies and SEER registry data that show rising distant stage cervical cancer incidence.

Figure 4. Female age-adjusted cervical cancer incidence rates per 100,000 and modeled trends by stage at diagnosis, Wisconsin (2001–2022)[9]



2020 rates excluded from Wisconsin modeled trend analysis. All exclusions displayed in grey.
*Indicates the annual percentage change (APC) is significantly different from zero at the alpha=0.05 level.

Table 4. Observed and modeled trend data from female age-adjusted cervical cancer incidence rates per 100,000 by stage at diagnosis, Wisconsin (2001–2022)

	Localized			Regional			Distant		
Year	Observed rate	Modeled rate	APC	Observed rate	Modeled rate	APC	Observed rate	Modeled rate	APC
2001	3.7	3.5		2	2.1		0.2	0.5	
2002	4	3.5		1.9	2.1		0.5	0.6	
2003	3.7	3.5		2.2	2.1		0.5	0.6	
2004	3.8	3.4		2.5	2.1		0.9	0.6	
2005	3.3	3.4		2.1	2.1		0.8	0.6	
2006	3	3.4		1.8	2.1		0.5	0.6	
2007	2.9	3.4		2	2		0.6	0.6	
2008	2.7	3.4		2	2		0.6	0.7	
2009	3.3	3.4		2	2		0.6	0.7	
2010	3.5	3.3		2.1	2	-0.52	0.6	0.7	
2011	2.6	3.3		2	2		1	0.7	
2012	3.4	3.3	-0.45	2	2		0.8	0.7	2.68*
2013	3.1	3.3		1.7	2		0.8	0.8	
2014	3.4	3.3		2	2		1.1	0.8	
2015	3.8	3.3		2.1	2		1.1	0.8	
2016	4	3.3		2.3	1.9		0.8	0.8	
2017	3.3	3.2		1.8	1.9		0.8	0.8	
2018	3	3.2		2.1	1.9		0.9	0.9	
2019	3.6	3.2		1.8	1.9	Joinpoint	0.6	0.9	
2020	2.8	3.2		1.8	2.1		0.6	0.9	
2021	2.8	3.2		2.1	2.3	9.37*	0.8	0.9	
2022	3.3	3.2		2.6	2.5		0.9	1	

2020 rates excluded from Wisconsin modeled trend analysis. All exclusions displayed in grey.
*Indicates the annual percentage change (APC) is significantly different from zero at the alpha=0.05 level.

Screening and prevention

Although everyone with a cervix is at risk for cervical cancer, the HPV vaccine and screening tests can help prevent disease and promote early detection. When found early enough, cervical cancer is highly treatable. The most important things someone can do to prevent cervical cancer is to:

- **Have regular screenings**.
- **Get vaccinated against HPV**.

There are two main tests used to screen for cervical cancer: the HPV test and the Pap test (Pap smear). The Pap test looks for precancerous changes in the cervical cells that might become cancer if left untreated. The HPV test looks for the presence of the virus that causes cell changes on the cervix. An HPV test might be done at the same time as a Pap test (called co-testing). Health care providers might suggest an HPV test if a patient's Pap test results were unclear, if they're 30 or older, or if they've had atypical screening results in the past.[19]

The HPV vaccine protects against the kinds of HPV that most commonly cause cervical, vaginal, and vulvar cancers. The vaccine also protects against the kinds of HPV that most commonly cause cervical, oropharyngeal (back of the mouth and throat), anal, penile, vaginal, and vulvar cancers, plus genital warts. The vaccine has been a safe, effective tool to reduce HPV infections and cancer risk since 2006. The CDC recommends the HPV vaccine for:

- Children (male and female) ages 11 to 12, but they can be vaccinated as early as age 9.
- Everyone through age 26 years, if not already vaccinated.

Some adults ages 27 to 45 years who aren't already vaccinated might choose to get the HPV vaccine. Talk to a doctor about the risk of new HPV infections and possible benefits of vaccination. HPV vaccination in adults provides less benefit, because more people in this age range have already been exposed to HPV.

Only 5 out of 10 teenagers are fully vaccinated by age 18, which is less than optimal. Vaccinating between ages 9 and 12 helps to best prevent HPV cancer later in life. Progress on HPV vaccination among adolescents is tracked on the Wisconsin Department of Health Services' (DHS) Immunization Dashboard. The Wisconsin Cancer Collaborative (WCC) also monitors and promotes key findings on HPV vaccination in partnership with data from DHS through their annual Vaccine Data Snapshot. To learn more about HPV vaccination in Wisconsin, visit Immunizations: HPV and HPV-Related Cancers and HPV Vaccine and Cancer.

Citations

1. American Cancer Society. "Key Statistics for Cervical Cancer." Available online at cancer.org/cancer/types/cervical-cancer/about/key-statistics.html. Accessed July 24, 2025.
2. Centers for Disease Control and Prevention (CDC). March 3, 2025. "Cancers Caused by HPV." Available online at cdc.gov/hpv/about/cancers-caused-by-hpv.html. Accessed July 24, 2025.
3. CDC. December 11, 2024. "Cervical Cancer Basics." Available online at cdc.gov/cervical-cancer/about/index.html. Accessed July 24, 2025.
4. Merrill RM. Hysterectomy surveillance in the United States, 1997 through 2005. Med Sci Monit. 2008 Jan;14(1):CR24-31. PMID: 18160941.
5. Merrill RM. Impact of hysterectomy and bilateral oophorectomy on race-specific rates of corpus, cervical, and ovarian cancers in the United States. Ann Epidemiol. 2006 Dec;16(12):880-7. doi: 10.1016/j.annepidem.2006.06.001. Epub 2006 Oct 4. PMID: 17027290.
6. Rositch AF, Nowak RG, Gravitt PE. Increased age and race-specific incidence of cervical cancer after correction for hysterectomy prevalence in the United States from 2000 to 2009. Cancer. 2014 Jul 1;120(13):2032-8. doi: 10.1002/cncr.28548. Epub 2014 May 12. PMID: 24821088; PMCID: PMC4073302.
7. National Cancer Institute (NCI), Surveillance Research Program. "Development of the Delay Model." Available online at surveillance.cancer.gov/delay/model.html. Accessed July 24, 2025.
8. U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; https://www.cdc.gov/cancer/dataviz, released in June 2025.
9. Wisconsin Department of Health Services, Office of Health Informatics. SEER*Stat Database: Wisconsin 1995-2022 County. Created on 3/24/2025. Copy of CDC National Program of Cancer Registries (NPCR) November 2024 submission (24 month).
10. Wisconsin Department of Health Services, Office of Health Informatics. SEER*Stat Database: Wisconsin 2006-2022 Census Tract (2010 geo). Created on 7/8/2025. Copy of CDC National Program of Cancer Registries (NPCR) November 2024 submission (24 month).
11. SEER*Explorer: An interactive website for SEER cancer statistics [Internet]. Surveillance Research Program, NCI; 2025 Jul 2. [cited 2025 Jul 24]. Available from: https://seer.cancer.gov/statistics-network/explorer/. Data source: SEER Incidence Data, November 2024 Submission (1975-2022), SEER 8 registries.
12. NCI, Surveillance, Epidemiology, and End Results (SEER) Program. "Impact of COVID-19 on SEER Data Releases." Available online at https://seer.cancer.gov/data/covid-impact.html. Accessed July 24, 2025.
13. Angela B Mariotto, Eric J Feuer, Nadia Howlader, Huann-Sheng Chen, Serban Negoita, Kathleen A Cronin, Interpreting cancer incidence trends: challenges due to the COVID-19 pandemic, JNCI: Journal of the NCI, Volume 115, Issue 9, September 2023, Pages 1109–1111, https://doi.org/10.1093/jnci/djad086.
14. Bermudez Y, Scott LC, Beckman M, DeGroff A, Kenney K, Sun J, et al. Geographic Examination of COVID-19 Test Percent Positivity and Proportional Change in Cancer Screening Volume, National Breast and Cervical Cancer Early Detection Program. Prev Chronic Dis 2022;19:220111. DOI: http://dx.doi.org/10.5888/pcd19.220111.
15. Miller MJ, Xu L, Qin J, et al. Impact of COVID-19 on Cervical Cancer Screening Rates Among Women Aged 21–65 Years in a Large Integrated Health Care System—Southern California, January 1–September 30, 2019, and January 1–September 30, 2020. MMWR Morb Mortal Wkly Rep 2021;70:109–113. DOI: http://dx.doi.org/10.15585/mmwr.mm7004a1.
16. Guo F, Cofie LE, Berenson AB. Cervical Cancer Incidence in Young U.S. Females After Human Papillomavirus Vaccine Introduction. Am J Prev Med. 2018 Aug;55(2):197-204. doi: 10.1016/j.amepre.2018.03.013. Epub 2018 May 30. PMID: 29859731; PMCID: PMC6054889.
17. Gargano JW, Stefanos R, Dahl RM, et al. Trends in Cervical Precancers Identified Through Population-Based Surveillance — Human Papillomavirus Vaccine Impact Monitoring Project, Five Sites, United States, 2008–2022. MMWR Morb Mortal Wkly Rep 2025;74:96–101. DOI: http://dx.doi.org/10.15585/mmwr.mm7406a4.
18. Mix JM, Van Dyne EA, Saraiya M, Hallowell BD, Thomas CC. Assessing Impact of HPV Vaccination on Cervical Cancer Incidence among Women Aged 15-29 Years in the United States, 1999-2017: An Ecologic Study. Cancer Epidemiol Biomarkers Prev. 2021 Jan;30(1):30-37. doi: 10.1158/1055-9965.EPI-20-0846. Epub 2020 Oct 20. PMID: 33082207; PMCID: PMC7855406.
19. CDC. "Screening for Cervical Cancer." February 26, 2025. Available online at www.cdc.gov/cancer/cervical/basic_info/screening.htm. Accessed July 24, 2025.