



Human Papillomavirus (HPV) Vaccinations & HPV- Associated Cancers

Department of Health Statistics and Informatics
VTAAC HPV Taskforce Meeting
Michael Flaherty

March 2025

HPV Vaccination Rates

HPV Prevention in the Vermont Cancer Plan

Cancer Prevention

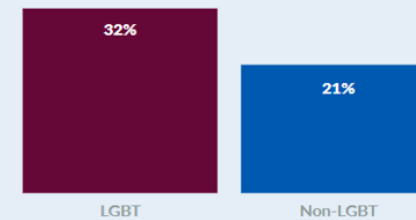
Goal 4. Prevent Human Papillomavirus (HPV) infections in young Vermonters.

Objectives	Measures	
	BASELINE (YEAR)	TARGET (2025)
4.1 Increase % of youth ages 13–17 who have completed the HPV vaccine series (IMR [§]).	59% (2021)	62%
4.2 Decrease incidence rate of HPV-associated cancers (Per 100,000 persons) (VCR [¶]).	9.3 (2014–2018) ^{17,18}	8.8

✓ Strategies

- **[HEALTH EQUITY]** Assess barriers contributing to lower HPV vaccination rates among populations of focus: BIPOC, LGBTQ+ Vermonters, people living with disabilities and low-income Vermonters.
- Provide training options to support providers in strongly promoting the HPV vaccine as a cancer prevention vaccine.
- Educate parents of youth (ages 13–17) around the importance of HPV vaccination and all of the cancers associated with HPV.
- Educate Vermont youth (ages 13–17) about the importance of HPV vaccination and all of the cancers associated with HPV.
- Assist primary care providers in implementing patient reminder systems, clinic-based education, provider assessment and feedback, provider reminders or standing orders to begin and complete the HPV vaccination series.
- Educate oral health providers about the need to include HPV vaccination as part of their preventive health recommendations.

Vermont LGBTQ¹⁹ youth in grades 9-12 are more likely to smoke cigarettes than heterosexual/cisgender students (YRBS[†] 2019).



[§]Immunization Registry [¶]Vermont Cancer Registry [†]Youth Risk Behavior Survey

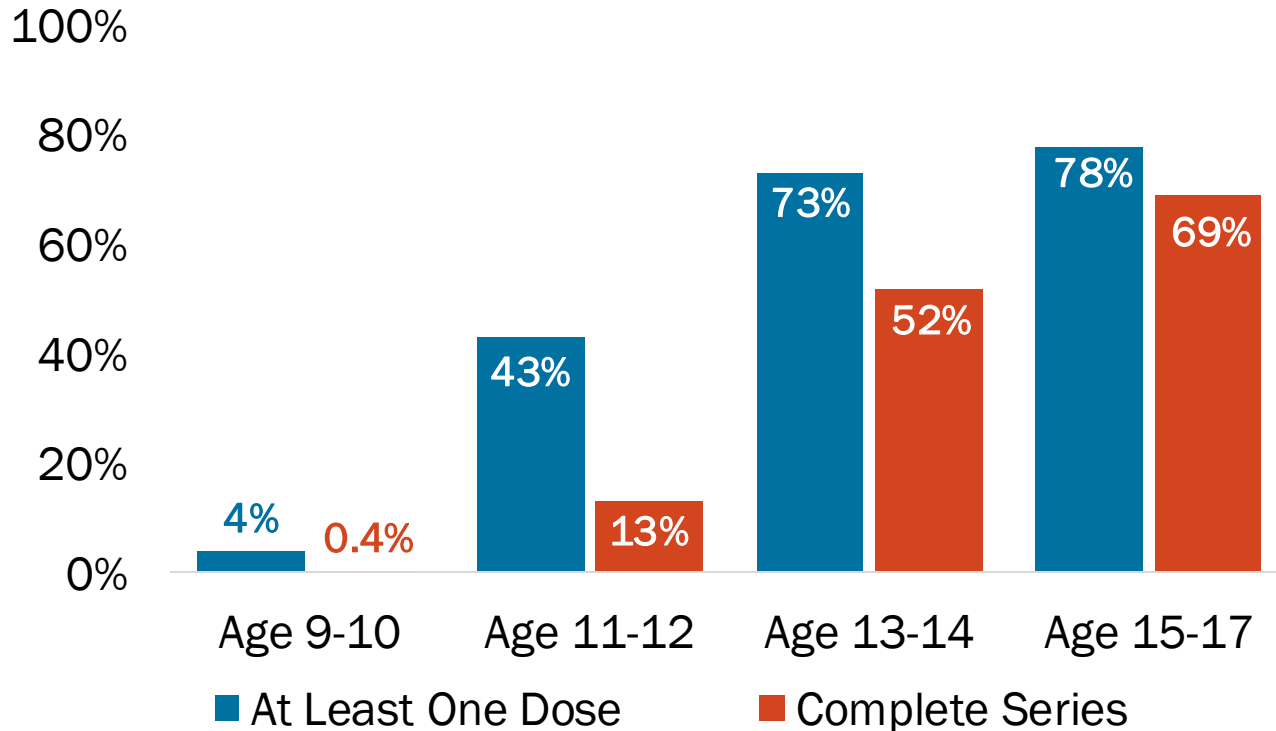
17. Measure is age adjusted to the 2000 U.S. standard population.

18. 2018 data are provisional.

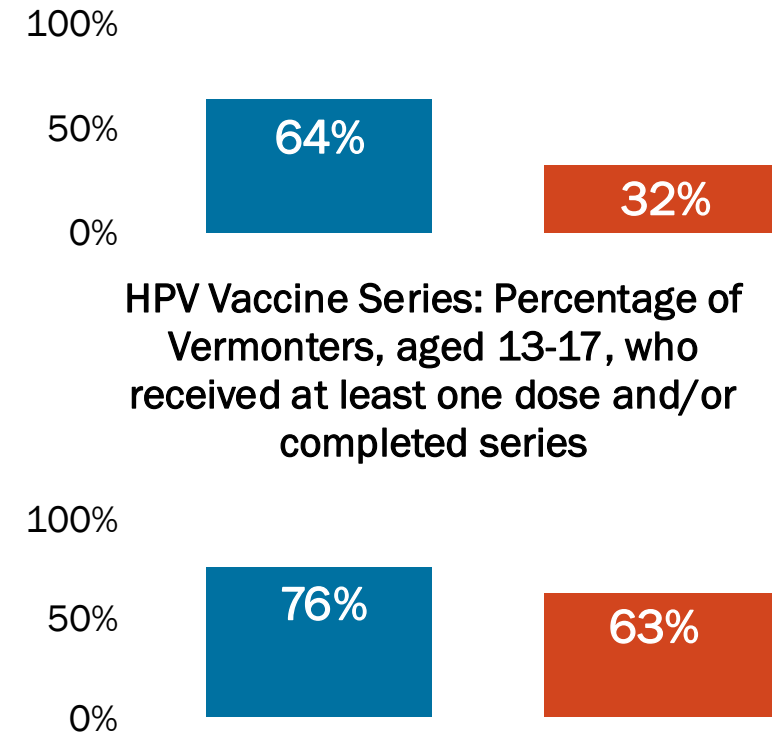
19. The Health Department's data sources do not yet fully reflect Vermont's LGBTQ+ population, as surveys only ask individuals to self-identify if they are lesbian, gay, bisexual and/or transgender. To best represent the available data therefore, we use LGBT when discussing findings from these data sources.

HPV Vaccination Rates by Current Age (as of 10/21/2024)

HPV Vaccine Series: Percentage of Vermonters who received at least one dose and/or completed the series by current age



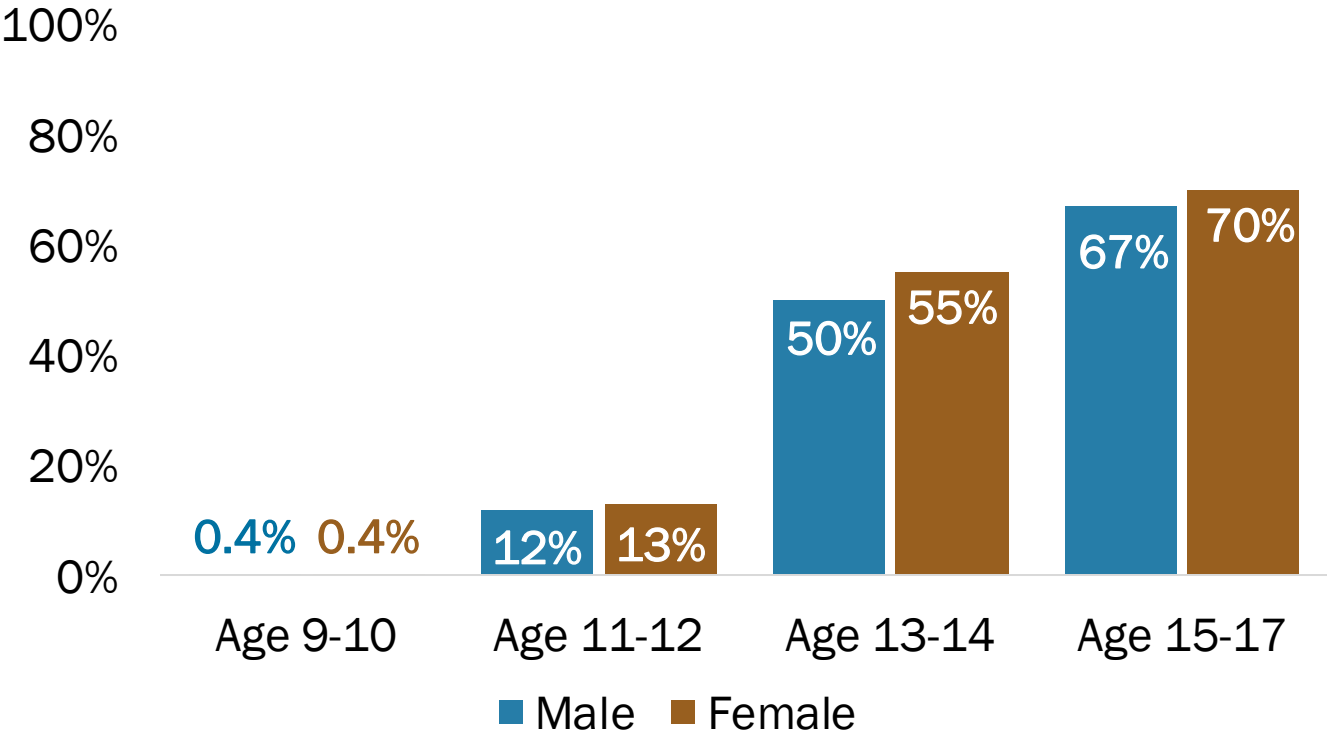
HPV Vaccine Series: Of those who are currently 13, percentage who received one dose and or completed the series by their 13th birthday



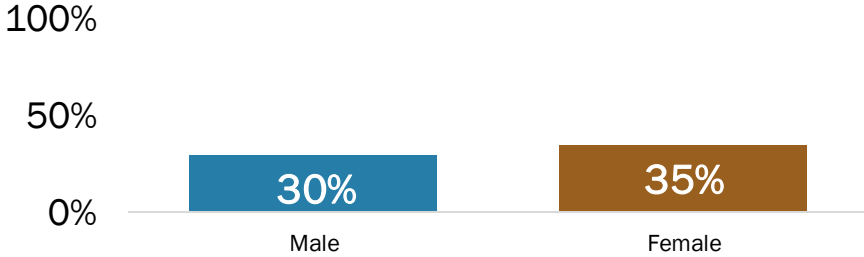
HPV Vaccine Series: Percentage of Vermonters, aged 13-17, who received at least one dose and/or completed series

HPV Vaccination Rates by Gender and Current Age (as of 10/21/2024)

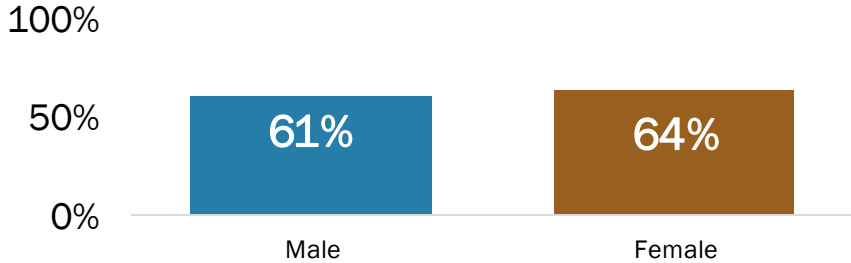
HPV Vaccine Series: Percentage of Vermonters who completed the series by current age and gender



HPV Vaccine Series: Of those who are currently 13, percentage who completed the series by their 13th birthday, by gender



HPV Vaccine Series: Percentage of Vermonters aged 13-17 who completed the series, by gender

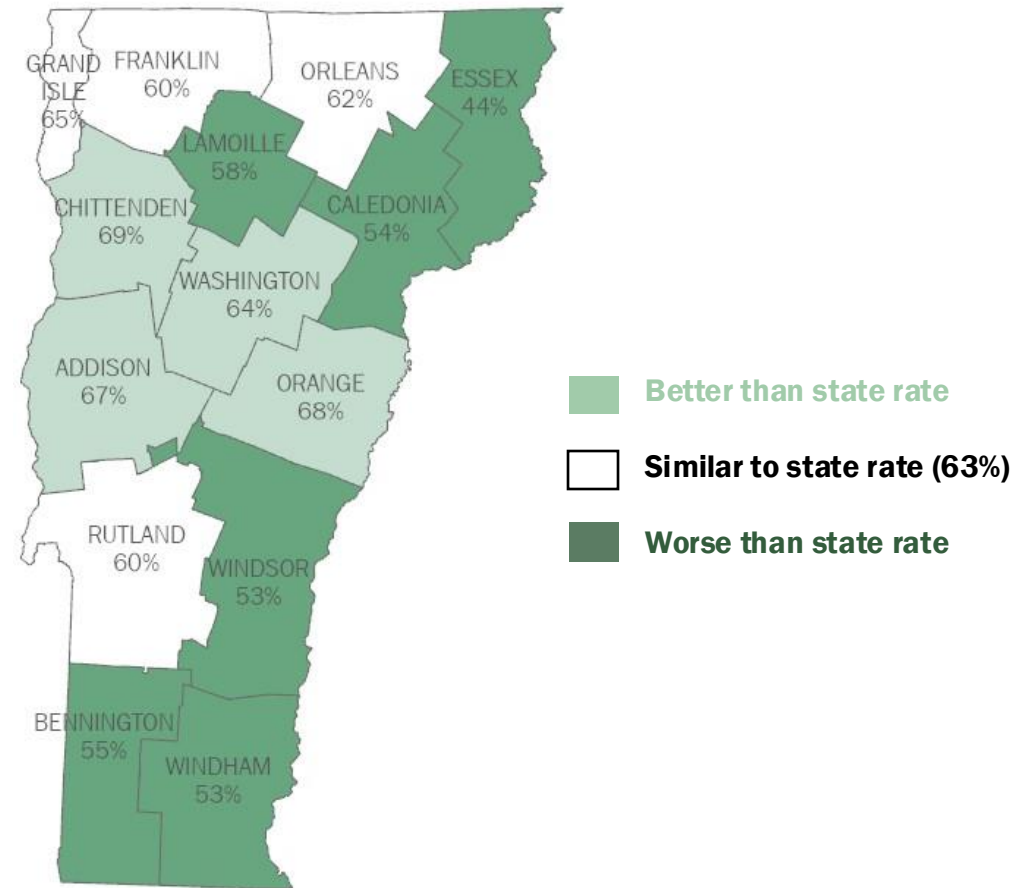


Six counties fall below the statewide HPV-Vaccination rate.

The rate of adolescents who have completed the HPV vaccine series varies widely across the state, with **six counties** falling under the statewide rate.

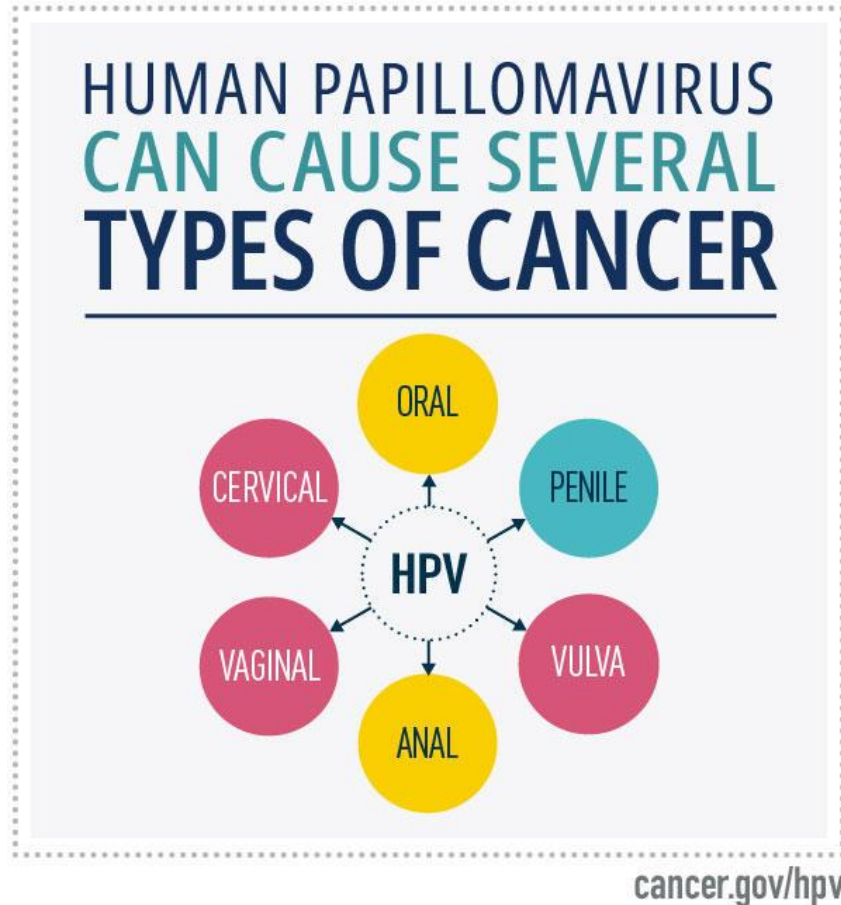
Having completed the HPV vaccine series requires either:

- Adolescents who received the first dose before their 15th birthday to receive two doses.
- Adolescents who received the first dose after their 15th birthday to receive 3 doses.



HPV-Associated Cancers

What cancers are caused by HPV Infections?



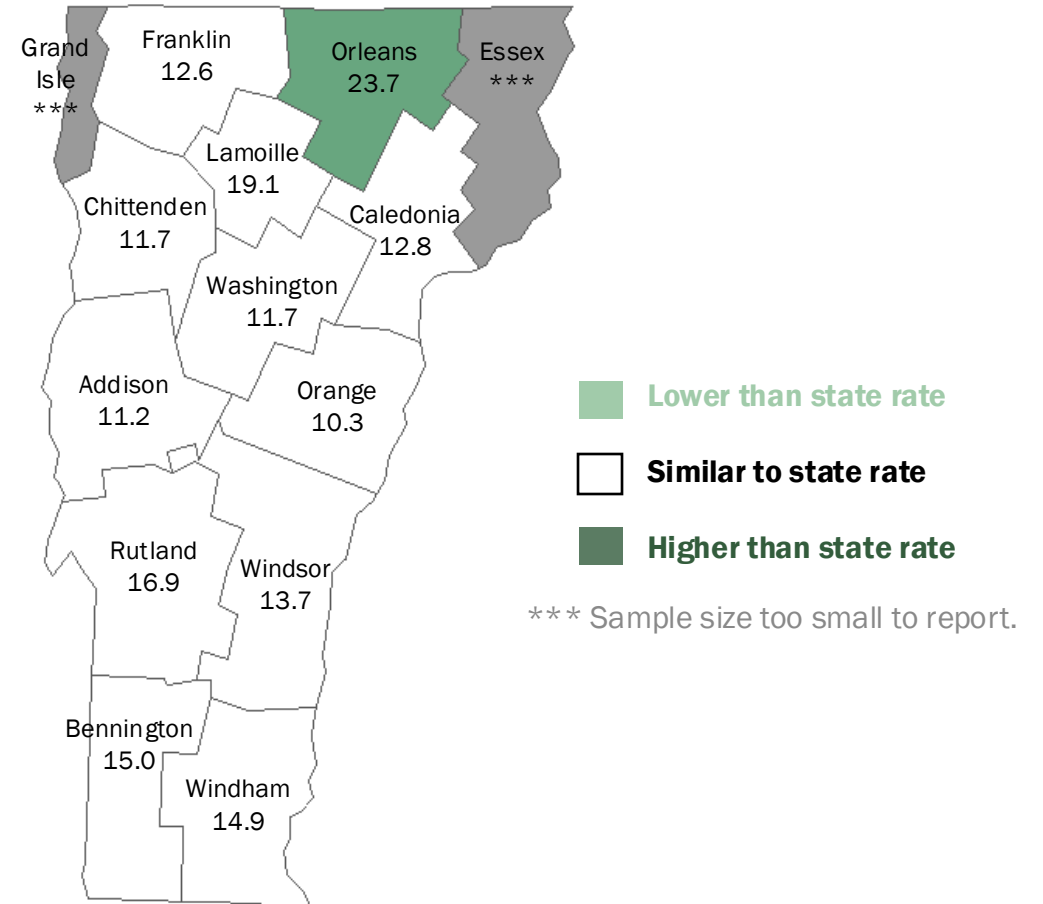
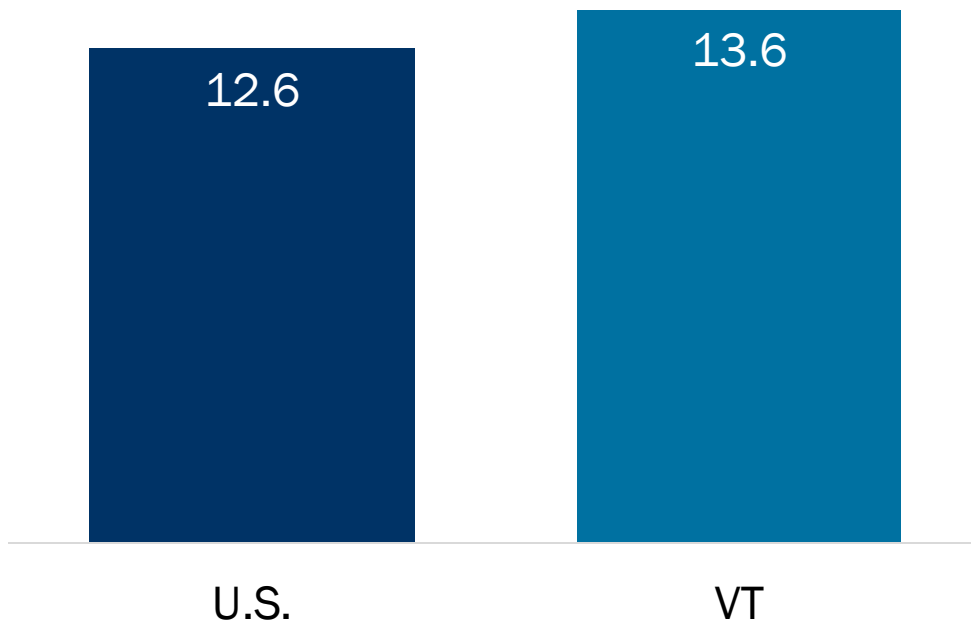
HPV is believed to cause:

- Virtually all cervical cancers
- Over 90% of anal cancers
- 75% of vaginal cancers
- 70% of oropharyngeal cancers
- 69% of vulvar cancers
- 63% of penile cancers

Orleans County reports a statistically higher rate of HPV-Associated cancers than the state average.

The incidence rate of HPV-associated cancers in Vermont is similar to that of the US.

Incidence Rate per 100,000 people



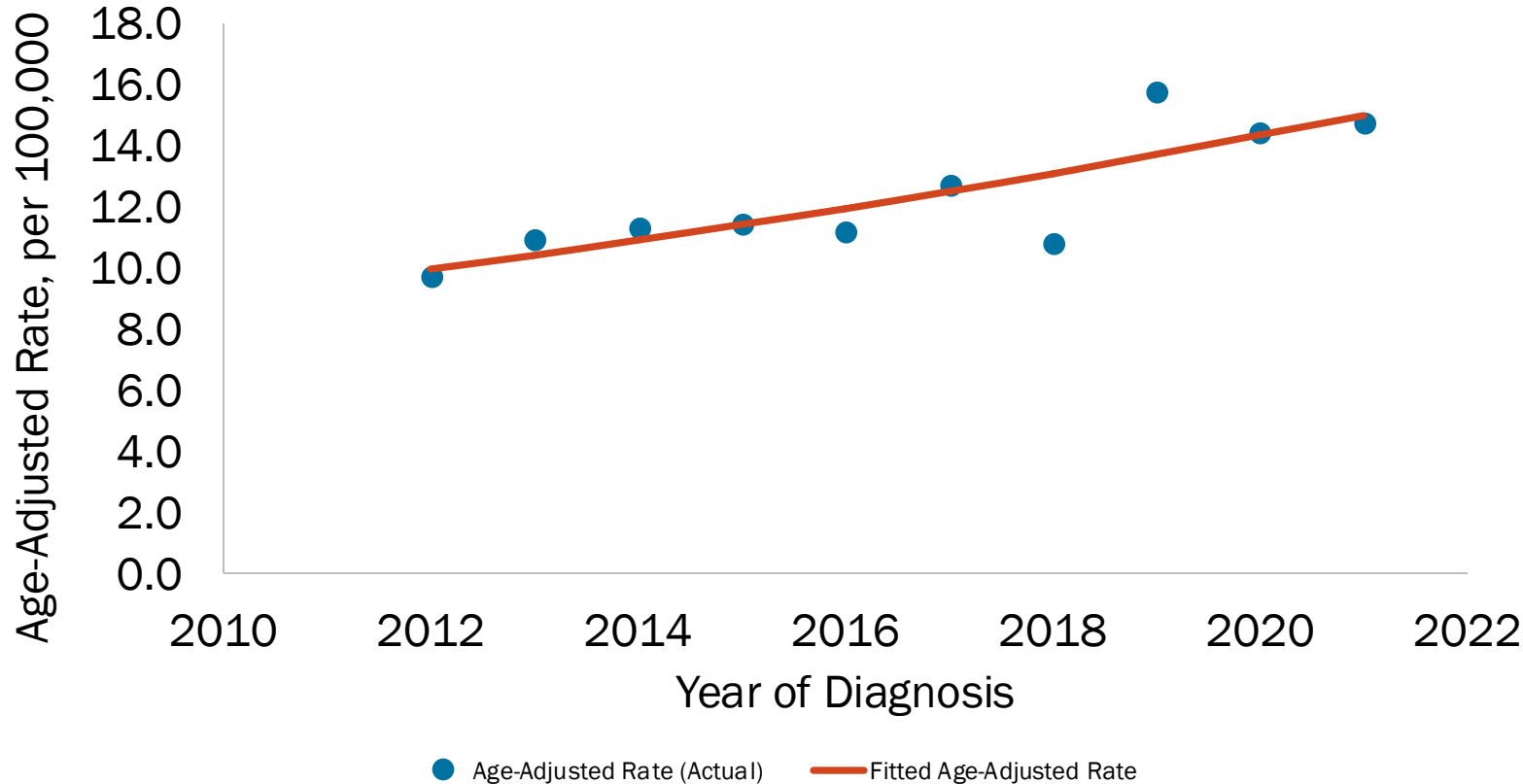
Note: Cervical cancers diagnosed as in situ are not reported to the Cancer Registry and are therefore not included in this chart.

Vermont Department of Health Source: Vermont Cancer Registry 2017-2021

All estimates are age-adjusted to the 2000 U.S. standard population.

HPV-Associated Cancers are Increasing in Vermont

HPV-Associated Cancer Rate, Vermont, 2012-2021, Age-Adjusted per 100,000



From 2012 to 2021, the rate of HPV-Associated cancers increased significantly by **4.6%** annual percent change.

Thank you!

Let's stay in touch.

Email: michael.flaherty@vermont.gov

Web: <https://www.healthvermont.gov/stats/surveillance-reporting-topic/cancer-data>

Social: @HealthVermont.gov

