



Bureau of Infectious Disease and Laboratory Sciences Immunization Program

Massachusetts HPV Initiative

Raising HPV Immunization Rates to Decrease HPV-Associated Cancers

Key Points

- There are approximately **42,700 HPV-associated* cancers** each year in the United States and about **33,700 cancers** are attributable to HPV.
- Cervical cancer is the most common HPV-associated cancer among women and oropharyngeal cancers are the most common among men.
- **Oropharyngeal cancer** has surpassed cervical cancer as the **most common HPV-associated cancer**.
- Antibody levels are higher and HPV vaccination is more effective when given at the recommended ages.

The 9vHPV vaccine has the potential to prevent 92% of HPV-attributable cancers, which equals 31,000 cancer cases!

Source: United States Cancer Statistics Data Brief, No. 4, August 2018

Cancers associated with human papillomavirus, United States—2011–2015, <https://www.cdc.gov/cancer/hpv/pdf/USCS-DataBrief-No4-August2018-508.pdf>

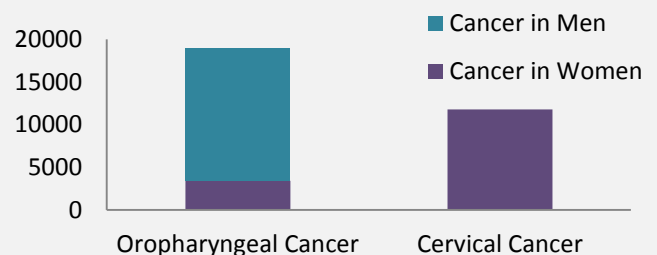
Percentage of Cancers Attributable to HPV, US

Cervix	91
Vagina	75
Vulva	69
Anus	91
Oropharynx	70
Penis	63

HPV causes the majority of HPV-associated cancers.

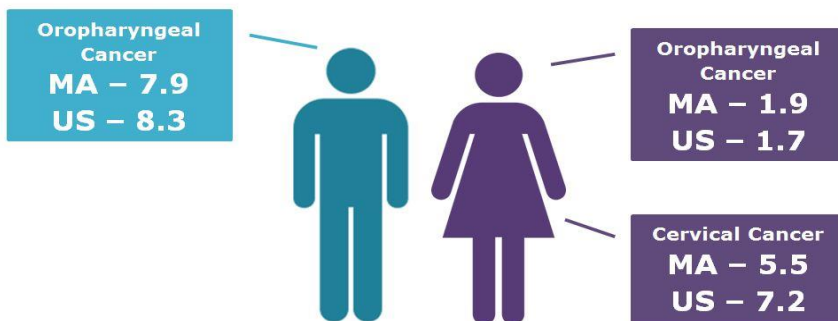
Source: <https://www.cdc.gov/cancer/hpv/statistics/cases.htm>

of HPV-Associated Cancer Cases, US, 2015



Trends in HPV-Associated Cancers – United States, 1999–2015, MMWR, https://www.cdc.gov/mmwr/volumes/67/wr/mm6733a2.htm?s_cid=mm6733a2_w

HPV-Associated Cancer Incidence, by Sex, per 100,000

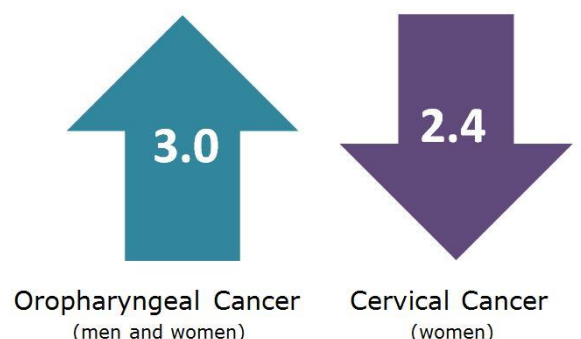


Massachusetts Rates, 2004–2014: Cook, E.E., Gershman, S.T., Kim, J.J. et al. Cancer Causes Control (2018). <https://doi.org/10.1007/s10552-018-1016-1>
US Rates, 2011–2015: United States Cancer Statistics Data Brief, No. 4, August 2018, Cancers associated with human papillomavirus, United States—2011–2015, <https://www.cdc.gov/cancer/hpv/pdf/USCS-DataBrief-No4-August2018-508.pdf>

Note on terminology:

* An *HPV-associated cancer* is a specific cellular type of cancer that is diagnosed in a part of the body where HPV is often found. An *HPV-attributable cancer* is a cancer that is probably caused by HPV.

Change of HPV-Associated Cancer Incidence Rate, Annual Percent, Massachusetts, 2004–2014



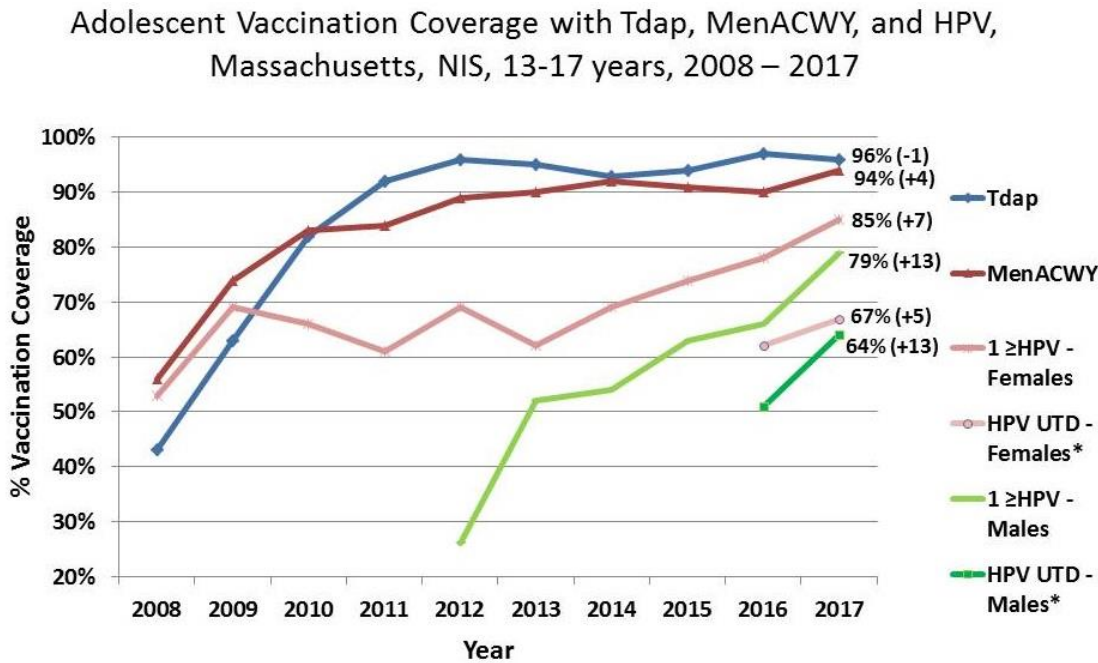
Massachusetts Rates, 2004–2014: Cook, E.E., Gershman, S.T., Kim, J.J. et al. Cancer Causes Control (2018). <https://doi.org/10.1007/s10552-018-1016-1>

What do we need to do?

Vaccinate!

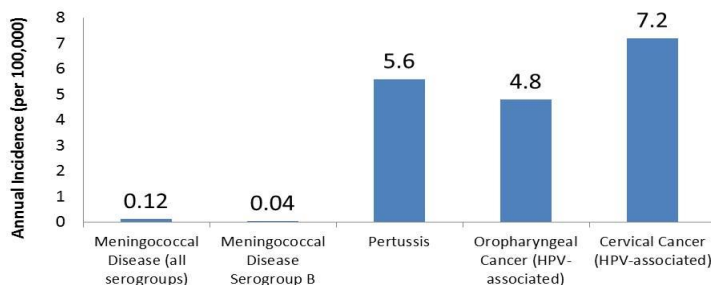
All girls and boys who are 11 or 12 years old should get the recommended series of HPV vaccine. The vaccination series can be started at age 9 years.

We need to continue to raise HPV vaccination rates!



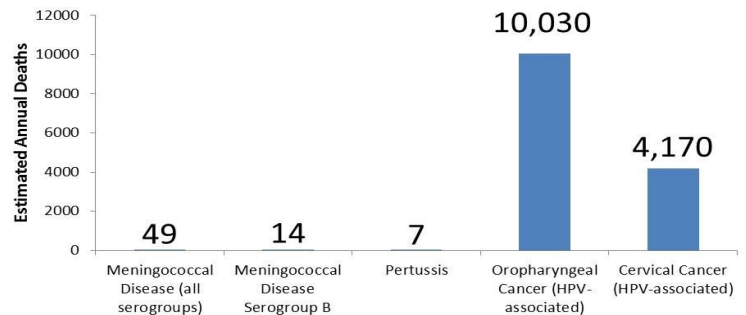
NIS Data, CDC

Incidence of Diseases Covered in Adolescent Vaccine Series, US



Data Sources: Meningococcal Disease, CDC, 2016, <https://www.cdc.gov/meningococcal/downloads/NCIRD-EMS-Report.pdf>; Pertussis, CDC, 2016, <https://www.cdc.gov/pertussis/downloads/pertussis-surv-report-2016.pdf>; HPV, CDC, 2011-2015, <https://www.cdc.gov/cancer/hpv/pdf/USCS-DataBrief-No4-August2018-508.pdf>

Deaths from Diseases Covered in Adolescent Vaccine Series, US



Data Sources: Meningococcal Disease, CDC, 2016, <https://www.cdc.gov/meningococcal/downloads/NCIRD-EMS-Report.pdf>; Pertussis, CDC, 2016, <https://www.cdc.gov/pertussis/downloads/pertussis-surv-report-2016.pdf>; HPV, American Cancer Society, 2018 Estimated Deaths, <https://cancerstatisticscenter.cancer.org/>

HPV vaccination works.

↓ 71%

Infections with HPV types that cause most HPV cancers and genital warts have **dropped 71 percent** among teen girls.

HPV vaccination provides safe, effective, and long-lasting protection.



doses distributed in the U.S., data continues to show HPV vaccine is safe and effective.

For more information:

MDPH, HPV Vaccine is Cancer Prevention website:

www.mass.gov/dph/hpvvax

CDC, HPV website:

www.cdc.gov/hpv

National HPV Roundtable:

<https://hpvroundtable.org/>

Contact:

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