

HPV FACT SHEET

Updated January 2017

HPV vaccination is approved for routine vaccination of boys and girls at age 11 or 12 years and for young men and women through age 26. HPV vaccines protect against certain high risk types of HPV that cause cancers such as cervical, oropharyngeal, vulvar, vaginal, penile, and anal.

FACT: HPV and HPV-related diseases are common.

- The lifetime risk of acquiring an HPV infection is approximately 80%.¹
- There were an estimated 10,700 new cases of cervical cancer, 11,000 new cases of oropharyngeal cancer,* and 4,600 new cases of anal cancer in the United States attributed to HPV every year from 2008 through 2012.²
- The annual number of HPV-positive oropharyngeal cancers has now surpassed the annual number of cervical cancers.²

FACT: The vaccine is safe and it works.

- The 9-valent HPV vaccine (Gardasil 9) protects against nine HPV subtypes (6, 11, 16, 18, 31, 33, 45, 52, 58). HPV types 16 and 18 cause 70% of all cervical, anal, and genital cancers in women, and 70% of anal cancers in men. HPV types 6 and 11 cause 90% of all genital warts in men and women.³
- Since HPV vaccinations began, there has already been a decrease in incidence of HPV infection, warts and pre-cancers.⁴
- Like all vaccines, the HPV vaccine is most effective if it is given BEFORE a person is exposed to the disease.
- The HPV vaccines produce a higher immune response in preteens and young teens than they do in older teens and young adults - which is why it is so important for children to get vaccinated before age 15.
- The Centers for Disease Control and Prevention (CDC) and the Food and Drug Administration (FDA) continually monitor vaccine safety and show no safety concerns. As of December 2016, approximately 90 million doses of HPV vaccine were distributed in the U.S., and no serious safety concerns have been linked to HPV vaccination.⁵
- **All 69 NCI-designated cancer centers recommend the HPV vaccine for female and male adolescents.**

FACT: Treating diseases caused by HPV is expensive. HPV vaccines are covered by insurance under the Affordable Care Act and the Vaccines for Children program, for those eligible.⁷

- In the United States, the overall annual direct medical cost burden of preventing and treating HPV-related disease is at least \$8.0 billion.⁸
- In Texas, annual HPV-related disease costs for men and women approach \$170 million.⁹

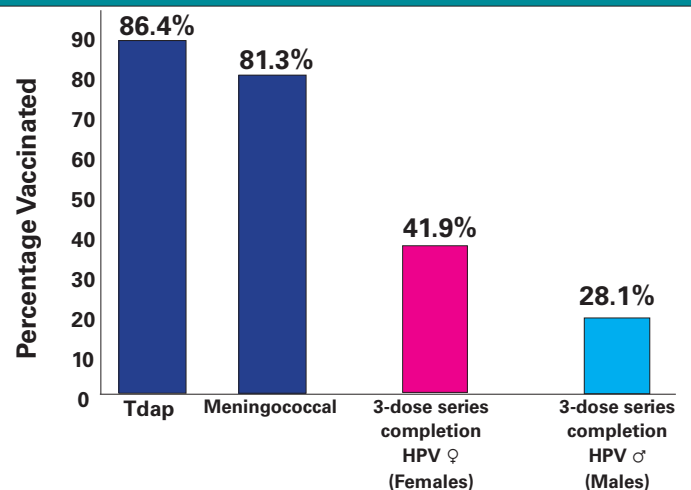
FACT: The vaccine does not increase sexual activity.

- Studies have shown that girls who received the HPV vaccine are not more likely to become sexually active earlier than those who did not receive the vaccine.⁶

FACT: HPV can be transmitted through various forms of contact, and intercourse is not required to contract the infection.

- HPV can be found on skin and mucosal surfaces throughout the body, including the mouth.

Vaccination Coverage Among Adolescents Aged 13-17 Years, U.S., 2015¹⁰

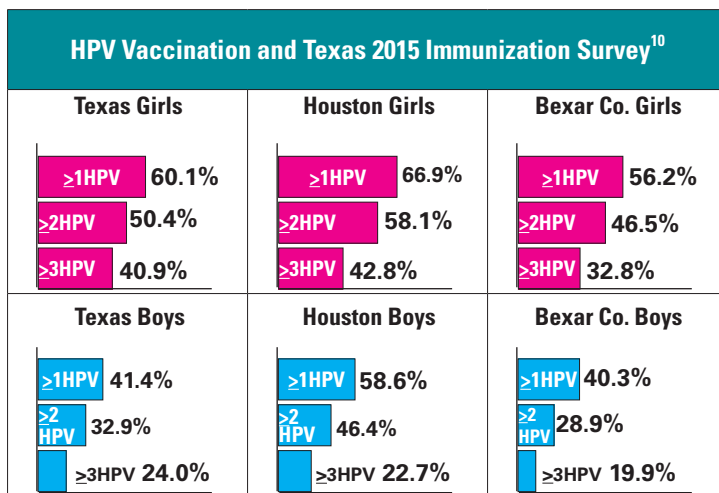
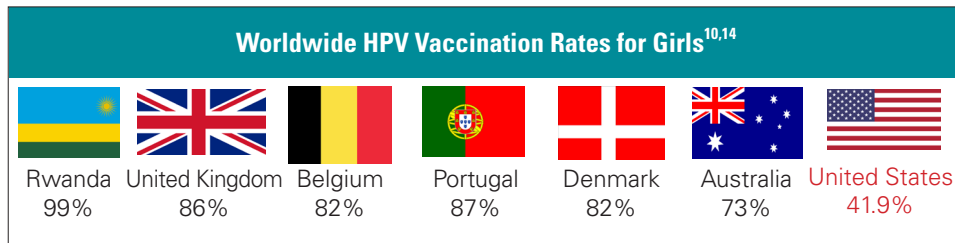


*Estimated number of cases occurring at HPV-related subsites of the pharynx (base of tongue and tonsil/oropharynx)

HPV: Numbers & Statistics

Cancer Statistics	in U.S. 2017 ¹¹		in TX, 2015 ^{12,13}	
	Cancer Type	New Cases	Deaths	New Cases
Oropharyngeal (Throat/Tonsil)*	17,000	3,050	2,793	694
Cervical (Cervix Uteri)**	12,820	4,210	1,112	390
Vulvar (Vulva)**	6,020	1,150	280	54
Vagina**	4,810	1,240	88	30
Anus, Anal Canal and Anorectum**	8,200	1,100	431	73
Penile**	2,120	360	117	32
Total Estimated Cancer Deaths	11,110		1,273	

*Estimated number of cases occurring at HPV-related subsites of the pharynx (base of tongue and tonsil/oropharynx)
 **In general, HPV is thought to be responsible for more than 90% of anal and cervical cancers, about 70% of vaginal vulva and oropharyngeal cancers, and more than 60% of penile cancers. <http://www.cdc.gov/cancer/hpv/statistics/>.



References

- Chesson, H.W., Dunne, E.F., Hariri, S., Markowitz, L.E. (2014). The estimated lifetime probability of acquiring human papillomavirus in the United States. *Sex Transm Dis.*, 2014 Nov;41(11):660-4.
- Viens LJ, Henley SJ, Watson M, et al. Human Papillomavirus–Associated Cancers — United States, 2008–2012. *MMWR Morb Mortal Wkly Rep* 2016;65:661–666. DOI: <http://dx.doi.org/10.15585/mmwr.mm6526a1>.
- Tabrizi, S. N., Brotherton, J. M., Kaldor, J. M., Skinner, S. R., Cummins, E., Liu, B., et al. (2012). Fall in human papillomavirus prevalence following a national vaccination program. *J Infect Dis*, 206, 1645–1651. Baandrup, L., Blomberg, M., Dehlendorff, C., Sand, C., Andersen, K. K., Kjaer, S. K. (2013). Significant decrease in the incidence of genital warts in young Danish women after implementation of a national human papillomavirus vaccination program. *Sex Transm Dis*, 40(2), 130–135.
- Kahn JA, Brown DR, Ding L, Widdice LE, Shew ML, Glynn S, Bernstein DI (2012). Vaccine-type human papillomavirus and evidence of herd protection after vaccine introduction. *Pediatrics*, August;130(2):e249-56. doi: 10.1542/peds.2011-3587. Epub 2012 Jul 9.
- Centers for Disease Control and Prevention. Frequently asked questions about HPV vaccine safety. http://www.cdc.gov/vaccinesafety/Vaccines/HPV/hpv_faqs.html#ten.
- Bednarczyk, R. A., Davis, R., Ault, K., Orenstein, W., Omer, S. B. (2012). Sexual activity-related outcomes after human papillomavirus vaccination of 11- to 12-year-olds. *Pediatrics*, 130, 798–805.
- Rysavy, M. B., Kresowik, J. D., Liu, D., Mains, L., Lessard, M., Ryan, G. L. (2014). Human papillomavirus vaccination and sexual behavior in young women. *J Pediatr Adolesc Gynecol*, 27(2), 67–71.
- Centers for Disease Control and Prevention. HPV vaccine—questions and answers. <http://www.cdc.gov/vaccines/vpd-vac/hpv/vac-faqs.htm>.
- Chesson, H.W., Ekwueme, D. U., Saraiya, M., Watson, M., Lowy, D. R., Markowitz, L. E. (2012). Estimates of the annual direct medical costs of the prevention and treatment of disease associated with human papillomavirus in the United States. *Vaccine*, 30, 6016–6019.
- Fonseca, V. (2007). Cervical cancer and HPV-related disease in Texas. Presented at the 82nd Annual Texas Public Health Association Conference, Galveston, TX, February 2007.
- Centers for Disease Control and Prevention. (2016). National Immunization Survey—teen, United States, 2015. *MMWR Morb Mortal Wkly* 2016; 65(33):850-8.
- Siegel, R. L., Miller, K. D. and Jemal, A. (2017). Cancer statistics, 2017. *CA: A Cancer Journal for Clinicians*, 67:7-30. doi: 10.3322/caac.21387.
- Texas Department of State Health Services. 2015 Texas Expected Numbers of Cancer Cases and Deaths. <http://www.dshs.texas.gov/tcr/statisticalData/2015expected/2015-Texas-Expected-Numbers-of-Cancer-Cases-and-Deaths.aspx>
- Prepared by the Texas Department of State Health Services, Cancer Epidemiology and Surveillance Branch, Texas Cancer Registry. Data Request # 16004 1/28/2016.
- HPV Information Centre. Summary Report. <http://www.hpvcentre.net/summaryreport.php>.

What can be done?

- Encourage universal HPV vaccine series coverage for males and females ages 11 to 12.
- Encourage school-based vaccination programs.
- Provide HPV education and vaccination.
- Use reminders for doses 2 and 3.

Contact the following organizations for more information:

HPV-Related Cancers Moonshot

Website: <http://www.cancermoonshots.org/cancer-types/hpv/>

Centers for Disease Control and Prevention(CDC)

Website: www.cdc.gov/hpv
 Phone: 800-CDC-INFO

National Cervical Cancer Coalition (NCCC)

Website: www.nccc-online.org
 Phone: 800-685-5531

Cervical Cancer-Free Texas

Website: www.cervicalcancerfreecoalition.org

The Immunization Partnership

Website: www.immunizeusa.org
 Phone: 281-400-3689

Prevent Cancer Foundation - Think About the Link

<http://preventcancer.org/our-work/programs/think-about-the-link/>

ACS HPV Vaccination Roundtable

<https://www.mysocietysource.org/sites/HPV/ResourcesandEducation/SitePages/Home.aspx>

HPV Fact Sheet Contact

Office of Health Policy

The University of Texas MD Anderson Cancer Center
 7007 Bertner Ave., Unit 1677
 Houston, TX 77030

Website:

https://www.mdanderson.org/cancermoonshots/cancer-types/HPV_related_cancers.html

Email: HPVMoonShotTeam@mdanderson.org