



Mission:
HPV **CANCER**
FREE

ACS Elimination Statement on HPV Cancers

The American Cancer Society affirms our commitment to work towards a reduction in the global burden of HPV disease, and where certain conditions are met, the elimination of cervical cancer through HPV vaccination and screening. To this end, the ACS has launched *Mission: HPV Cancer Free*,¹ the goal of which is to increase HPV vaccination rates for pre-teen boys and girls to 80% by 2026, 20 years after approval of the first HPV vaccine. We believe that through this sustained organizational commitment and strategic investment, the American Cancer Society can help save untold lives and create an HPV cancer-free world.

The Case for Elimination

Human papillomavirus (HPV) infection is a known causal agent of six different types of cancers. Each year in the United States, 31,500 people are diagnosed with a cancer that was caused by HPV and hundreds of thousands of women are diagnosed and treated for advanced cervical pre-cancers costing billions of health care dollars.² Virtually all cases of cervical cancer and most pre-cancers are caused by HPV infection.

The HPV vaccine prevents infection with nine HPV types, including high-risk types that cause about 90% of HPV cancers.³ The HPV vaccine is so effective at preventing infection when administered before exposure that the Advisory Committee on Immunization Practices reduced the number of recommended doses from three to two, consistent with global recommendations including from the World Health Organization.⁴ Current research shows the HPV vaccine provides lasting protection and early studies are showing reduction of HPV cancer rates to zero in certain populations after vaccination.^{5,6} Research is beginning to demonstrate that it may be possible to eliminate certain HPV types and the diseases they cause, including cancer.⁷

Elimination is defined as a reduction to zero cases, or near zero, in a defined geographic area.⁸ Vaccines have had great success in eliminating diseases such as polio and, in many regions, measles. Never in history has a cancer been eliminated, but the American Cancer Society believes the elimination of cervical cancer is a very real possibility if two conditions are met:

- Sustained 80% HPV vaccination coverage for pre-teen boys and girls
- Continued routine screening and treatment for cervical pre-cancers

Modeling shows that where these conditions are met, we could see the elimination of cancer causing HPV infections within 40 years,⁹ and in settings where routine screening is also practiced, the elimination of cervical cancer in this period of time. Despite a robust cervical cancer screening program in the U.S., half of women diagnosed with cervical cancer have never had a Pap test or have not been adequately screened. Additionally, only 60% of boys and girls have started the HPV vaccine series and far less have completed the series.¹⁰ We must address these gaps if we hope to pave the way for an HPV cancer-free world.

A Shared Vision

The American Cancer Society stands with global and domestic partners in endorsing the critical and urgent agenda of accelerating progress towards the reduction, and possible elimination, of HPV cancers.

Forging a path to elimination will take sustained action by organizations and individuals in cancer control, immunization, and public health communities here and around the world.^{11,12}

The ACS is committed to investing our human and financial resources in ways that support this shared vision of an HPV cancer-free world.

References

1. www.cancer.org/hpv
2. www.cdc.gov/cancer/hpv/index.htm
3. Saraiya M, Unger ER, Thompson TD, et al. US Assessment of HPV Types in Cancers: Implications for Current and 9-Valent HPV Vaccines. *J Natl Cancer Inst.* 2015;107: djv086.
4. Meites E, Kempe A, Markowitz LE. Use of a 2-Dose Schedule for Human Papillomavirus Vaccination - Updated Recommendations of the Advisory Committee on Immunization Practices. *MMWR Morb Mortal Wkly Rep.* 2016;65: 1405-1408.
5. Kjaer, S. K., Nygård, M., Dillner, J., et al. A 12-Year Follow-up on the Long-Term Effectiveness of the Quadrivalent Human Papillomavirus Vaccine in 4 Nordic Countries. *Clinical Infectious Diseases.* 2018;66: 339-345.
6. Luostarinen, T, Apter, D., Dillner, J., et al, Vaccination Protects against Invasive HPV-associated Cancers. *Int J Cancer.* 2018;142:2186-2187.
7. Kane, M. and Giuliano, A.R.. Eliminating HPV-related diseases as a public health problem: Let's start with cervical cancer. *HPV World* 2018;35:42-49.
8. Walter R. Dowdle, *The Principles of Disease Elimination and Eradication*, *MMWR* 48 (SU01);23-27, 1999. <https://www.cdc.gov/mmwr/preview/mmwrhtml/su48a7.htm>
9. Brisson, M., Benard, E., Drolet, M., et al. Population-level Impact, Herd Immunity, and Elimination after Human Papillomavirus Vaccination: A Systematic Review and Meta-analysis of Predictions from Transmission-dynamic Models. *Lancet Public Health.* 2016;1: e8-e17.
10. Walker TY, Elam-Evans LD, Singleton JA, et al. National, Regional, State, and Selected Local Area Vaccination Coverage Among Adolescents Aged 13-17 Years - United States, 2016. *MMWR Morb Mortal Wkly Rep.* 2017;66: 874-882.
11. Saslow, D., Sienko, J., Nkonga, J.L.Z., and Brewer, N.T. Creating a National Coalition to Increase Human Papillomavirus Vaccination Coverage. *Academic Pediatrics.* 2018;18:S11-13.
12. www.hpvroundtable.org