

HPV Vaccine Reduces Infection Rates in Teen Girls

By Linda Barlow | July 2, 2013

Since the human papillomavirus (HPV) vaccine was introduced in 2006, vaccine-type HPV prevalence has decreased by 56 percent among females 14-19 years old, according to a new [study](#) published in *The Journal of Infectious Diseases*.

HPV is the [most common](#) sexually transmitted virus in the United States. Although the vast majority of HPV infections do not cause serious harm, some will persist and can lead to cervical cancer. Each year in the U.S., about [19,000](#) cancers caused by HPV occur in women.

“Unfortunately, only one-third of girls aged 13-17 have been fully vaccinated with HPV vaccine,” says CDC Director Tom Frieden, M.D., M.P.H. “Our low vaccination rates represent 50,000 preventable tragedies, which means 50,000 girls alive today will develop cervical cancer over their lifetime. This would be prevented if we reach 80 percent vaccination rates. For every year we delay in doing so, another 4,400 girls will develop cervical cancer in their lifetimes.”

Study author Markowitz notes that the decline in vaccine type prevalence could be due to factors such as [“Herd” Immunity](#) (also called “community immunity”), which occurs when most members of a community are protected against a contagious disease because a critical portion of the population has been immunized and the opportunities for an outbreak are reduced. “Herd” Immunity has been shown to control a variety of contagious diseases, including measles, mumps, rotavirus (MMR), influenza and pneumococcal disease.

Public health experts recommend routine HPV vaccination at ages 11-12 for both boys and girls. A series of three shots is recommended over six months. HPV vaccination is also recommended for older teens and young adults who were not vaccinated when younger.

The HPV vaccine is not without its [critics](#), and health care providers are not consistently giving strong recommendations for the vaccine, particularly for younger teens, according to the CDC.

“One of the most common criticisms from parents – that their teen is not sexually active yet – misses the point,” suggests Frieden, who says that vaccines should be administered well before people are exposed to an infection.

Frieden also points out that, with the Vaccines for Children Program and the Affordable Care Act, vaccination is easy and cost should not be a barrier because many insurers are required to cover the vaccine at no cost to either female or male patients.

The power of an effective and widespread vaccination program should not be ignored. Smallpox, for example – a serious and sometimes fatal infectious disease – has no specific treatment and is only prevented by a vaccine. Although outbreaks of the disease have occurred from time to time over thousands of years, it is now eradicated worldwide because of a successful and comprehensive vaccination campaign.

A similar initiative is underway to eradicate polio worldwide. The development of effective vaccines to prevent paralytic polio was one of the major medical breakthroughs of the 20th century. Supported by the Bill & Melinda Gates Foundation, the Global Polio Eradication Initiative (GPEI) has helped to reduce the incidence of polio by more than 99 percent.

As with smallpox, if enough people in a community are immunized, the virus will be deprived of susceptible hosts and will die out. But high levels of vaccination coverage must be maintained to stop transmission and prevent outbreaks.

Will HPV go the way of smallpox and polio thanks to “Herd” Immunity? Do you agree with the CDC that it’s time to ramp up efforts to protect the next generation with the HPV vaccine? Or do you share the critics’ concerns?

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