



Mitchell E. Daniels, Jr.
Governor

Gregory N. Larkin, M.D., F.A.A.F.P.
State Health Commissioner

Dear Parents/Guardians of Sixth Grade Students:

The American Cancer Society estimates there are about 11,000 new cases of invasive cervical cancer in the United States each year, and about 4,000 deaths annually from this disease. Physicians have long suspected a relationship between sexual activity and cervical cancer, but it wasn't until the 1980's that scientists were able to prove this link by isolating the genetic material from human wart, or papilloma, virus in cervical cancer cells. To date, more than 100 types of human papillomavirus (HPV) have been identified, and about 40 of these are capable of infecting the human genital tract. Low-risk HPV types, such as 6 and 11, are responsible for causing genital warts or benign cervical cell abnormalities. It is the high-risk virus types, including 16 and 18, which have the potential to cause changes in the cervix, vagina, and anus leading to cancer, if not treated. High-risk HPV types are detected in 99% of cervical cancers. Types 16 and 18 alone are responsible for about 70% of cervical and anogenital cancers worldwide.

The Centers for Disease Control and Prevention (CDC) estimate that about 20 million Americans are currently infected with at least one type of HPV. A study done by the CDC found that more than 1 out of every 4 women between the ages of 14 and 59 are infected with HPV. That number increases to 1 out of every 3 young women aged 15-19 and almost 1 out of every 2 women 20-24 years of age.¹ Many of these infections are asymptomatic and 90% will resolve spontaneously over time. Those infections that persist may cause genital warts, abnormal pap smears, or cervical cancer. The risk of becoming infected with HPV increases with the number of sexual partners; however a recent study found that 49% of women with only one sexual partner were infected with HPV. The only factor associated with the risk of HPV infection in these women was the number of previous partners of their male partner.²

Fortunately, safe and effective vaccines are now available for females and males between the ages of 9 and 26 against the most common types of HPV. These vaccines are a series of 3 shots, given over a 6 month period of time. Because the vaccines prevent most HPV infections but do not treat existing infections, they work better when given prior to initiation of sexual activity. In 2009, a survey of high school students across Indiana found that half of 9th-12th graders had already had sex.³ The CDC recommends routine vaccination of girls at the age of 11 or 12, and vaccination of all females aged 13-26 not previously vaccinated. The CDC has also recognized the use of one HPV vaccine (Gardasil®) in males ages 9-26 to prevent genital warts and anal cancer. For more information about HPV infection or vaccine, talk to your doctor or visit www.cdc.gov/vaccines/.

This information is provided by the Indiana State Department of Health as required by Public Law 80 (Senate Enrolled Act 327) of 2007. Questions may be directed to the Indiana State Department of Health Immunization Program at 1-800-701-0704.

Sincerely,

Joan Duwve, MD, MPH
Chief Medical Officer
Indiana State Department of Health

¹ Dunne, E. et.al., "Prevalence of HPV Infection Among Females in the United States", JAMA. 2007;297(8):813-819.

² Winer, R. et.al., "Risk of Female Human Papillomavirus Acquisition Associated with First Male Sex Partner", J Infect Dis, 2008;197(2):279-282.

³ <http://www.in.gov/isdh/20627.htm>