HPV Vaccine's Impressive Success Story

By Lila Abassi — February 23, 2016

Human Papillomavirus, the pathogen that causes 99.7 percent of cervical cancers, is also the most commonly sexually transmitted infection in both females and males. And it's the third most common cause of gynecological cancer in the United States.

In countries that do not have screening, HPV is even worse: Cervical cancer is the second most common cause of gynecological cancer and the second most common cause of cancer deaths.

Given the above, here is some very good news. Scientists from the Centers for Disease Control and Prevention recently published the finding of a new study that shows how effective the vaccine can be.

Writing in the journal *Pediatrics*, Dr. Lauri E. Markowitz and colleagues reported that the HPV vaccine has helped bring down the prevalence of cervical cancer by 64 percent in females aged 14 to 19 years, and by 34 among those aged 20 to 24 years. This study, provides evidence for the first time of the impact of the vaccine among young women in the U.S.

The CDC scientists examined the prevalence of HPV in two sets of specimens: The first set was obtained from females aged 14-34 who participated in the National Health and Nutrition Examination Survey (NHANES) from the pre-vaccine years (2003-2006). The second sample set was obtained from women of the same age group, but during three years after the vaccine was approved (2009-2012).

Dr. Markowitz, the study's lead author says that this trend should continue as vaccine coverage increases.
As women who got the vaccine when they were younger age move into these older age groups, we should continue to see a continued decrease, Dr. Markowitz said. Overall, the fact that we are seeing a larger decrease overall than what we expect given our coverage rates does suggest there may be some herd protection and there also may be effectiveness from less than a complete three dose series."

These findings should go a long way in educating the public (as well as doctors) that the HPV vaccine is not solely for gynecological disease, but rather, protects both men and women from other cancers, such as penile cancers, oropharyngeal cancers (head and neck), and anal cancers.

One of the main barriers that has prevented wider use of this vaccine is not medical. Rather, it is the hesitancy of doctors (not just parents) to broach an emotionally charged issue: sexuality in young women.

This was demonstrated in a Harvard study [4] that was recently published in the journal Cancer Epidemiology, Biomarkers and Prevention. The study revealed that many doctors recommended HPV vaccine inconsistently, behind schedule, or without urgency. These practices not only add to the problem of under-immunized adolescents, but create doubt in parents as well.

The way around this is rather simple. It must be emphasized that the benefits of vaccination as a powerful tool for cancer prevention must trump theoretical concerns that the vaccine will contribute to promiscuity [5]. It does not.