What is HPV?

- The human papillomavirus (HPV) is a group of more than 150 related viruses. Some HPV types cause warts or papillomas (non-cancerous tumors) and others cause cancers. (CDC)
- HPV is the most commonly sexually transmitted infection in the world, and is transmitted through intimate skin-to-skin contact. (CDC)
- HPV will infect 75-80% of people at some point in their lives. Nearly 80 million people are currently infected in the United States, and 14 million new infections occur every year. (CDC)

HPV and Cancer

- HPV is responsible for almost all cervical cancers, more than 90% of anal cancer, roughly 2/3 of oropharyngeal cancers and the majority of vulvar, vaginal and penile cancers. (CDC)
- Each year in the United States, nearly 39,000 new HPV-related cancers are diagnosed. This includes roughly 15,800 men and 23,000 women. (CDC)
- Worldwide, more than 600,000 new HPV-related cancers are diagnosed each year: 530,000 cervical cancers, 22,000 oropharyngeal cancers and 24,000 anal cancers. (Forman et al)
- Worldwide, more than 250,000 women currently die of cervical cancer each year. (WHO)
- Oropharyngeal cancers are more common in men and are expected to surpass cervical cancers in annual incidence by the year 2020. (Chaturvedi et al)
- There is no effective early screening test for oropharyngeal cancers. Most cancers are therefore diagnosed at later stages, when current treatments are less effective. (Schmeler and Sturgis)
- In the United States, the overall annual direct medical cost burden of preventing and treating HPV-related diseases is at least $8 billion. (Chesson et al)

The HPV Vaccine

- Each HPV vaccine passed extensive safety testing before being approved by the FDA. The most common side effects are mild, including pain, redness, and swelling at the injection site. (CDC)
Since its introduction in 2006, more than 80 million doses of the HPV vaccine have been distributed nationally and more than 200 million doses globally. (CDC, WHO).

The CDC recommends all children complete the vaccine series between ages 9-13. Children younger than 15 should receive two doses of the vaccine six months apart. Although less effective, the vaccine is approved for men and women up to age 26. Those above age 15 should complete a three-dose series. (CDC)

The recommended ages are based on the most robust immune response. Further, the vaccine is protective, not curative, meaning that maximum effectiveness is achieved when administered before any exposure to HPV. (ACIP)

Nationally, 41.9% of girls and 28.1% of boys have completed the HPV vaccine series. Approximately 36% of girls and 50% of boys have received at least one dose. (CDC)

The Department of Health and Human Services, through the Healthy People 2020 initiative, has introduced a goal of reaching 80% vaccination rates by the year 2020. (Healthy People 2020)

The U.S. has already seen a 64% decline among girls aged 14-19 in the 4 HPV types protected for by the vaccine. There was a 34% decrease among girls 20-24. (Markowitz et al)

Due to government-sponsored vaccination programs, several countries have achieved high vaccination rates including Rwanda (99%), United Kingdom (86%), Belgium (82%), Portugal (87%), Denmark (82%) and Australia (73%). (Markowitz et al)

In Australia, a government-funded vaccination program resulted in significant reductions in HPV infection (Tabrizi et al, Kahn et al) and cervical pre-cancers. (Brotherton et al)

Danish HPV vaccination programs have resulted in a significant decrease in genital warts among young Danish women. (Baandrup et al)

In the United States, the HPV vaccine is currently only mandated in Rhode Island, Washington D.C. and Virginia.

Studies show that many pediatricians are not recommending the HPV vaccine to parents, for a number of possible reasons. (Gilkey et al)

Vaccination rates may be improved by addressing physician’s perceptions about parental acceptance of HPV vaccination. (Allison et al)

The HPV vaccine has been shown not to increase promiscuity. Vaccination in the recommended ages was not associated with increased sexual activity-related outcome rates. (Bednarczyk et al)