

HPV Vaccination - How Are We Doing in the United States?

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In a recently released issue of *Pediatrics*([10.1542/peds.2020-012765](https://doi.org/10.1542/peds.2020-012765)), Drs. Onyema Greg Chido-Amajuoyi and Rajesh Talluri and colleagues describe disparities in and uptake patterns for HPV (human papilloma virus) vaccine among children 9-12 years old in the United States (US) over the 10 year period 2008-2018 following national vaccine introduction. This is a highly relevant topic not just in the US but globally: the World Health Organization has cited vaccine hesitancy (2019) and tackling disparities (2021) as one of the "top ten global health issues." Understanding HPV vaccine uptake at these ages is critical because, as the authors point out, HPV vaccination within this age range is associated with greater effectiveness and immunogenicity than administration at older ages, and to compound this, studies have shown that when HPV vaccination is initiated after age 12 years, the rate of vaccine series non-completion is doubled. So, clinicians have good reason to want to understand HPV immunization patterns in order to identify innovative strategies that can improve vaccine uptake.

The authors obtained study data from the National Immunization Surgery-Teen (NIS-Teen) survey, which is a population-based survey that collects vaccination data through both a randomly selected household phone-based survey and an immunization history survey completed by health providers. The main outcomes over the period of study were rates of HPV vaccination initiation, i.e., receipt of a first dose, and rates of being up to date (HPV-UTD), defined per the American College of Immunization Practices (ACIP) as either receipt of 3 or more doses, or receipt of 2 doses with the first dose prior to age 15 years and the second dose after an interval not less than 5 months minus 4 days. Outcomes were stratified by sex (male or female), race (Black or White), ethnicity (Hispanic or non-Hispanic) and state of residence.

Although overall both vaccination initiation rates in the 9-12-year-old age group and vaccine series completion rates increased significantly over the period of the study, these two trends diverged, indicating that rates of non-completion of the vaccine series by age 13 years actually also increased, which is not good. So, while initiation rose from 17.3% to 62.6% over 2008-2018, and HPV-UTD more than doubled from 13.5% (2011) to 32.8% (2018), you can see the widening gap between initiation and completion graphically in Figure 1 without any fancy math. I don't want to spoil your fun reading about the differences in initiation and HPV-UTD rates by gender, racial and geographic groups, and these results may surprise you, as they did me. In the bigger picture, just one third of US children are vaccinated against HPV by age 13 years (2018 data), and this is the major take-away and concern for me from this article. What strategies do you use in your practice to promote HPV vaccination, and what is working? Share with us, so we can collaborate to move this key cancer-prevention strategy in the right direction.

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