

# POSITION STATEMENT

## Human Papillomavirus Vaccination



The National Association of Nurse Practitioners in Women's Health (NPWH) advocates for an intentional and concerted effort to improve human papillomavirus (HPV) vaccination rates, with the goal of ending cancers caused by HPV. The use of strategies that increase parent/patient acceptance, reduce missed opportunities, promote affordability and accessibility for timely receipt, and ensure completion of the vaccination series are imperative. All nurse practitioners (NPs) who provide healthcare for adolescents and young adults are crucial to the success of this effort.

NPWH recognizes a need for and supports research to identify evidence-based practices that are effective in increasing HPV vaccination uptake, especially among populations currently identified as hard to reach and/or hesitant to accept vaccination. NPWH also supports quality improvement initiatives that are needed to put this evidence into practice and evaluate outcomes. NPWH provides leadership and collaborates with other organizations and agencies to offer education and resources needed for NPs to effectively promote and provide HPV vaccination.

### BACKGROUND

HPV is the most common sexually transmitted infection in the United States and is often acquired soon after initiating sexual activity. Approximately 42.5 million are infected with HPV, and there are more than 13 million new infections annually.<sup>1</sup> Although most cases of HPV infection resolve on their own, persistent infection with one or more of the 13 identified oncogenic HPV types can cause cancers of the cervix, oropharynx, anus, vulva, vagina, and penis.<sup>2</sup> An estimated 35,900 cancers attributable to HPV were reported annually from 2013 to 2017, the most common being oropharyngeal cancer (14,000) and cervical cancer (11,000).<sup>2</sup>

The first HPV vaccine approved by the US Food and Drug Administration in 2006 targeted the two most common HPV types associated with cancer and the two HPV types that cause most genital warts. A 9-valent vaccine, FDA approved in 2014 and now the only HPV vaccine available in the US,

targets nine types of HPV. These types are associated with the majority of cervical cancers as well as many oropharyngeal, anal, vulvar, vaginal, and penile cancers, and most genital warts. The 9-valent vaccine is FDA approved for females and males age 9 to 45 years.<sup>3</sup>

The Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices (ACIP) currently recommends routine HPV vaccination for all girls and boys at age 11 or 12 years, or as early as age 9 in a 2-dose vaccine series. For those still unvaccinated, adolescents and young adults age 13 to 26 years are to receive catch-up vaccinations via a 2-dose series for those up to age 14 years and a 3-dose series for those age 15 years and older. ACIP also recommends HPV vaccination for adults age 27 to 45 years via shared decision making with their healthcare provider.<sup>4,5</sup> The *Box* provides the CDC ACIP dose and timing recommendations.

#### **BOX. CDC ACIP HPV immunization dose and timing recommendations<sup>4,5</sup>**

- **Age 9 through 14 years at initial vaccination: 2-dose series 6–12 months apart**
- **Age 15 years or older at initial vaccination: 3-dose series, 0, 1–2 months, and 6 months**
- **Individuals with immunocompromising conditions, including HIV infection: 3-dose series regardless of age**
- **If vaccination schedule is interrupted, the series does not need to be restarted**

The rates of HPV vaccination have improved over the past several years for adolescents age 13 to 17 years. Yet it remains that just a little over half of adolescents are fully vaccinated (*Table 1*).<sup>6,7</sup> In 2019, adolescents living in nonmetropolitan areas were less likely to be partially or fully vaccinated than those living in metropolitan areas. This disparity was only observed among adolescents at or above the poverty level. Male vaccination rates remain lower than female rates but are improving.<sup>6</sup> Current data do not show disparities among racial or ethnic groups of adolescents in initiating or completing vaccinations.<sup>8</sup>

**TABLE 1. Estimated vaccine coverage increases over time, adolescents age 13–17 years<sup>6,7</sup>**

Gender	2015 ≥ 1 dose of HPV vaccine	2019 ≥ 1 dose of HPV vaccine	2015 Fully vaccinated	2019 Fully vaccinated
Females	62.8%	73.2 %	41.9%	56.8%
Males	49.8%	69.8%	28.1%	51.8%
Total	56.3%	71.5%	35.0%	54.2%

The percentage of adults age 18 to 26 years who have received the recommended number of doses of HPV vaccine has increased from 13.8% in 2013 to 21.5% in 2018. In 2018, of adults who received one or more doses of HPV vaccine, 18.5% received their first dose at age 12 years or younger, 60.1% at age 13 to 17 years, and 21.4% at age 18 to 26 years (*Table 2*).<sup>9</sup> These numbers demonstrate that catch-up vaccinations remain relevant to improving overall HPV vaccination rates.

**TABLE 2. Age of first dose of HPV vaccine for adults (18–26 years) receiving one or more doses in 2018<sup>9</sup>**

Gender	12 years or younger	13–17 years	18–26 years
Females	21.9%	59.9%	18.3%
Males	11.8%	60.8%	27.4%
Total	18.5%	60.1%	21.4%

The use of strategies that reduce missed opportunities, increase parent/patient acceptance, promote affordability and accessibility for timely receipt, and ensure completion of the vaccination series are imperative. Although more research is needed, parent/patient and healthcare provider barriers to HPV vaccination have been identified.

Commonly cited barriers to HPV vaccination by parents/patients include lack of knowledge about the vaccine, safety concerns, misinformation about side effects and adverse reactions, belief that vaccine is not needed because adolescent is not yet sexually active, fear that the adolescent will become sexually active once vaccinated, and cost for those who are uninsured or underinsured.<sup>10–12</sup>

Notably, parents/patients report lack of healthcare provider recommendation as the major reason for not receiving HPV vaccination.<sup>10,13</sup> Reasons healthcare providers report as barriers to discussing HPV vaccination include anticipated lengthy and ineffective conversations, a perception that

parents do not value HPV vaccination, and low self-efficacy for persuading HPV vaccine-hesitant parents to have their child vaccinated.<sup>14–16</sup> Numerous studies have shown, however, that a brief, strong recommendation from the healthcare provider is one of the most effective methods to gain parent/patient acceptance of HPV vaccination.<sup>13,15,17,18</sup>

The use of recommendation language that expresses confidence on the part of the healthcare provider that the parent/patient will accept the vaccination, sometimes called presumptive or announcement language, may be more effective than a more conversational style.<sup>9,12,14,16</sup> However, when the parent or patient remains hesitant, it is important to move to a communication strategy that acknowledges the individual’s reasons for hesitancy, is nonjudgmental, and provides directed counseling to address specific concerns and dispel any misinformation. If the parent/patient declines vaccination, education should be provided and vaccination should be offered again at subsequent health

appointments, as rates of secondary acceptance are high.<sup>19</sup> A goal is to preserve a positive patient–provider relationship that facilitates later conversations. One technique that encompasses these strategies being studied with promising results is motivational interviewing.<sup>10,13,14</sup>

Evidence suggests that multifaceted, team-based approaches have the potential to improve HPV vaccination initiation and completion rates.<sup>10,20</sup> Such approaches include always offering HPV vaccination in the standard childhood immunization schedule, implementing procedures to identify patients who need HPV vaccination so there are no missed opportunities, healthcare provider and staff education,

support for increasing healthcare provider self-efficacy in providing strong recommendations and addressing vaccine hesitancy, support for other staff members to provide congruent information and recommendations, providing the vaccination on site, electronic health record prompts, standing orders, and a reminder system for next or missed doses.<sup>10,18,20</sup> The importance of catch-up vaccinations for adults remains relevant, and similar strategies should be employed.

## IMPLICATIONS FOR WOMEN’S AND GENDER-RELATED HEALTHCARE

All NPs who provide healthcare for adolescents and young adults have the opportunity to increase HPV vaccination rates and thus to reduce the number of cancers caused by HPV infection. NPWH urges NPs to take a leadership role in their clinical settings to employ a multifaceted, team-based approach to ensure that all eligible patients receive full HPV vaccination.

As part of the team-based approach, the NP can facilitate healthcare provider and staff education that provides knowledge about and promotes confidence in providing a strong recommendation using presumptive language and in using effective communication strategies to address vaccine hesitancy.

If vaccinations are not provided on site, staff need to provide the parent/patient with lists of specific locations that do provide the vaccination. This list should include locations that have Vaccines for Children programs that provide free vaccines until age 18 years for children who are either Medicaid eligible, underinsured, or uninsured.

NPWH also encourages NPs to participate in research to identify evidence-based practices that are effective in increasing HPV vaccination uptake and in quality improvement projects to put this evidence into practice, address barriers, and evaluate outcomes.

## NPWH LEADERSHIP

### NPWH will provide leadership to ensure:

- Continuing education (CE) programs and resources are available to support NPs in acting as change agents within clinical settings to implement evidence-based, multifaceted, team-based approaches to improving HPV vaccination rates.
- CE programs and resources are available for NPs to strengthen specific communication strategies to effectively address HPV vaccine hesitancy.
- Research progresses to identify strategies that are effective in increasing HPV vaccination uptake especially among populations currently identified as hard to reach and/or hesitant to accept vaccination.

## HELPFUL RESOURCES

American Academy of Pediatrics. Human papillomavirus and other vaccines recommended for adolescents. Updated August 11, 2021. <https://www.aap.org/en/patient-care/immunizations/human-papillomavirus-and-other-vaccines-recommended-for-adolescents/>

Case Western Reserve University. Center for Evidence-Based Practices. Motivational interviewing resources. [www.case.edu/socialwork/centerforebp/practices/motivational-interviewing/motivational-interviewing-resources](http://www.case.edu/socialwork/centerforebp/practices/motivational-interviewing/motivational-interviewing-resources)

Centers for Disease Control and Prevention. Human papillomavirus (HPV). Educational materials. <https://www.cdc.gov/hpv/hcp/educational-materials.html>

Unity: United for adolescent vaccination. <https://www.unity4teenvax.org/about-us/>

National HPV vaccination roundtable. Resource library. <https://hpvroundtable.org/resource-library/>

Centers for Disease Control and Prevention. Vaccines for Children Program (VFC). VFC state, territory, and city coordinators. [www.cdc.gov/vaccines/programs/vfc/contacts-state.html](http://www.cdc.gov/vaccines/programs/vfc/contacts-state.html)

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