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## Recommended Schedule Changes for 9vHPV Vaccine

### HPV Vaccine Background

Vaccination against human papillomavirus (HPV) is recommended to prevent HPV infections and associated cancers (e.g., cervical, vulvar, vaginal, penile, anal, and oropharyngeal). Although cervical cancer incidence and mortality rates in Alaska are comparable to national estimates, Alaska has not experienced the same modest decline in incidence observed in the U.S. over the past decade.<sup>1</sup> Routine vaccination at age 11 or 12 years has been recommended by the Advisory Committee on Immunization Practices (ACIP) since 2006 for females and since 2011 for males. The Alaska Immunization Program began supplying 9vHPV for the recommended 3-dose schedule in October 2015.<sup>2</sup>

### New Recommendations

In October 2016, ACIP recommended a change in the vaccination schedule for 9vHPV vaccine.<sup>3</sup> CDC now recommends a 2-dose series of 9vHPV vaccine for persons aged 9 through 14 years to prevent HPV cancers. More detailed recommendations follow:

- The first dose of 9vHPV vaccine is routinely recommended for persons aged 11 through 12 years. The second dose of the vaccine should be administered 6 to 12 months after the first dose.
- Teens and young adults who start the series at ages 15 through 26 years require 3 doses of the 9vHPV vaccine.
- Adolescents aged 9 through 14 years who have already received 2 doses of 9vHPV vaccine less than 5 months apart require a third dose.
- 3 doses of 9vHPV vaccine are recommended for immunocompromised persons aged 9 through 26 years.

### Efficacy

Clinical trials have shown that HPV vaccines provide close to 100% protection against cervical precancerous lesions and genital warts.<sup>2</sup> The HPV vaccine is recommended based on age, not sexual experience. In recent immunogenicity studies, seroconversion and geometric mean titers were significantly higher in girls and boys aged 9–14 years receiving 2 doses of 9vHPV vaccine compared with females aged 16–26 years who received 3 doses of 9vHPV.<sup>3</sup>

### New Recommended Schedule

The 9vHPV vaccine is administered intramuscularly in a 2- or 3-dose series (Table). If the first dose is administered prior to the patient's 15<sup>th</sup> birthday, a 2-dose series may be used. If the vaccine series is interrupted, the vaccination series does not need to be restarted.<sup>4</sup> The 9vHPV vaccine may be administered simultaneously with other age-appropriate vaccines, including Tdap and meningococcal conjugate vaccines.

**Table. The 2- and 3-dose Series for 9vHPV Vaccine**

Age of Patient	Series	Schedule
9 through 14 years	2-dose	0, 6–12 months*
	3-dose	0, 2, 6 months†
15 through 26 years	3-dose	0, 2, 6 months†

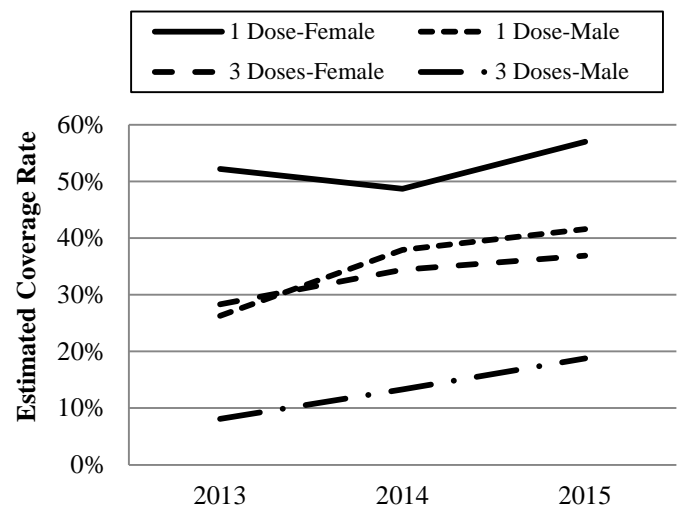
\*Minimum interval between the first and second dose is 5 months.

†Minimum interval between the first and second dose is 1 month; minimum interval between the second and third dose is 4 months.

### HPV Vaccination Coverage in Alaska

During 2013–2015 in Alaska, completion of the HPV 3-dose series increased from 28% to 37% for females and from 8% to 19% for males (Figure);<sup>5</sup> the proportion of persons aged 13–17 years who received one dose of HPV vaccine increased from 52% to 57% for females and from 26% to 42% for males.

**Figure. National Immunization Survey Teen HPV Vaccine Coverage Rates — Alaska, 2013–2015**



### Recommendations

1. Health care providers should strongly recommend the HPV vaccine as a part of the adolescent vaccine platform (i.e., 1 dose of Tdap, 2 doses of meningococcal vaccine, and 2 or 3 doses of 9vHPV vaccine).
2. Health care providers should educate parents and recommend HPV vaccination as an important cancer prevention tool. Two doses of 9vHPV vaccine provides safe, effective, and long-lasting protection when the series is initiated in children aged 9 through 14 years.<sup>1</sup>
3. Because there are nine different strains of HPV that are covered by the vaccine, someone who has already been exposed to HPV should still be vaccinated to be protected against additional strains of the virus that they could be exposed to from future sexual partners.<sup>6</sup>
4. HPV vaccination does not preclude the need for females to receive routine Pap test screening for cervical cancer.
5. The new schedule makes it easier for parents to protect their children against HPV related cancers by reducing the number of vaccinations and health care provider visits.
6. See *EpiBulletin* No. 27 for further information regarding adverse reactions, contraindications, precautions, and recommendations for immunizing.<sup>1</sup>

### References

1. Alaska Epidemiology *Bulletin*. "Cervical Cancer Incidence, Mortality, and Screening in Alaska." No. 2, January 24, 2017. Available at: [http://www.epi.alaska.gov/bulletins/docs/b2017\\_02.pdf](http://www.epi.alaska.gov/bulletins/docs/b2017_02.pdf)
2. Alaska Epidemiology *Bulletin*. "9-Valent HPV Vaccine Now Available through the Alaska Immunization Program." No. 27, October 16, 2015. Available at: [http://www.epi.alaska.gov/bulletins/docs/b2015\\_27.pdf](http://www.epi.alaska.gov/bulletins/docs/b2015_27.pdf)
3. CDC. Use of a 2-dose schedule for human papillomavirus vaccination — updated recommendations of the ACIP. *MMWR* 2016;65(49):1405–08. Available at: <https://www.cdc.gov/mmwr/volumes/65/wr/mm6549a5.htm>
4. CDC. Use of 9-valent human papillomavirus (HPV) vaccine: updated HPV vaccination recommendations of the ACIP. *MMWR* 2015;64(11):300–04. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6411a3.htm>
5. CDC. National, regional, state, and selected local area vaccination coverage among adolescents aged 13–17 Years — United States, 2015. *MMWR* 2016;65(33):850–58. Available at: <https://www.cdc.gov/mmwr/volumes/65/wr/mm6533a4.htm>
6. CDC. HPV Vaccine Questions and Answers. Available at: <https://www.cdc.gov/hpv/parents/questions-answers.html>