## Dear Colleague:

The Michigan Department of Health and Human Services (MDHHS), along with leading health professional organizations serving adolescents and adults, are asking you to vaccinate your patients against human papillomavirus (HPV).

HPV vaccine is cancer prevention. However, HPV vaccine is underutilized in the United States and Michigan, despite the overwhelming evidence of its safety and effectiveness. HPV vaccination rates are far below rates of other routinely recommended vaccines for adolescents.

Missed opportunities data suggest that providers are not giving strong recommendations for HPV vaccine when patients are 11 or 12 years old. The health care provider recommendation is the single best predictor of vaccination. Recent studies show that a patient who receives a provider recommendation is 4 to 5 times more likely to receive the HPV vaccine.<sup>1,2</sup>

What you say, and how you say it, matters. A half-hearted recommendation to a patient may not only result in the patient leaving your practice unvaccinated, but may lead the patient to believe that HPV vaccine is not as important as the other adolescent vaccines.

The undersigned organizations hope that this letter, which provides key facts about HPV vaccine safety and effectiveness, will lead you to recommend HPV vaccination – firmly and strongly – to your adolescent and adult patients. Your recommendation will reflect your commitment to prevent HPV-associated cancers and disease in Michigan.

## HPV-associated disease<sup>3</sup>

- Approximately 79 million persons in the United States are infected with HPV, and approximately 14 million people in the United States will become newly infected with HPV each year.
- Each year, an estimated 26,000 cancers are attributable to HPV; about 17,000 in women and 9,000 in men.
- Cervical cancer is the most common HPV-associated cancer among women, and oropharyngeal cancers are the most common among men.

Despite these statistics, the use of HPV vaccination to prevent HPV infection is limited and immunization rates remain low.

## Prevention of HPV-associated disease by vaccination

- Three vaccines (bivalent/2vHPV, quadrivalent/4vHPV, and 9vHPV) are available to protect against HPV 16 and 18, types that cause about 66% of cervical cancers and the majority of other HPV-attributable cancers in the United States. 9vHPV protects against five additional types (31, 33, 45, 52, and 58), which account for about 15% of cervical cancers. 4vHPV and 9vHPV also protect against HPV 6 and 11, types that cause anogenital warts.<sup>4</sup>
- The Advisory Committee on Immunization Practices (ACIP) recommends routine vaccination of girls age 11 or 12 years with the 3-dose series of any HPV vaccine and routine vaccination of boys age 11 or 12 years with the 3-dose series of 4vHPV or 9vHPV.<sup>4</sup>
- The ACIP also recommends vaccination for females through age 26 years and for males through age 21 years who were not vaccinated when they were younger. Males aged 22 through 26 years may be vaccinated.<sup>4</sup>

- Administer HPV vaccine beginning at age 9 years to children and youth with any history of sexual abuse or assault who have not initiated or completed the 3-dose series.<sup>12</sup>
- Recommendations for use of HPV vaccine are based on age and not history of prior infection. Routine HPV vaccination is recommended for females and males regardless of their history of prior HPV infection. The chance of being infected with all nine vaccine-preventable strains of HPV included in the vaccine is very low, so there will most likely be benefit from the vaccine even in people with prior HPV infection.<sup>5</sup>

In Michigan, as of December 31, 2015, only 31.0% of teenage girls and 20.4% of teenage boys ages 13-17 years had received 3 doses of HPV vaccine.<sup>6</sup>

Additionally, four out of ten adolescent girls and six out of ten adolescent boys haven't started the HPV series (in Michigan and the U.S.).<sup>7</sup>

In 2013, in the U.S., 36.9% of women and 5.9% of men aged 19–26 years reported receiving 1 or more doses of HPV vaccine.<sup>8</sup>

## Safety of HPV vaccine

- From June 2006 to March 2014, approximately 67 million doses of Gardasil were distributed in the United States.<sup>9</sup>
- Each HPV vaccine was closely studied in clinical trials to make sure it was safe<sup>9</sup>:
  - 9vHPV was studied in more than 15,000 females and males.
  - 4vHPV was studied in 29,000 females and males.
  - 2vHPV was studied in more than 30,000 females.
- These clinical trials showed HPV vaccines to be safe and effective. Each vaccine continues to be monitored for any safety problems. This monitoring is especially looking for any rare or new problems that may happen after vaccination.<sup>9</sup>
- Data on safety are also available from post-licensure monitoring in other countries for both vaccines and provide continued evidence of the safety of 2vHPV and 4vHPV.
- Syncope can occur among adolescents who receive any vaccines, including HPV vaccine. ACIP recommends that clinicians consider observing patients for 15 minutes after vaccination.

Regardless of a safety profile that is similar to the other adolescent vaccines, parents cite safety concerns as one of the top five reasons they do not intend to vaccinate daughters against HPV.

## **Efficacy of HPV vaccines**

- Within 4 years of vaccine introduction, 4vHPV vaccine types (6, 11, 16, 18) prevalence declined 56% among females aged 14-19 years despite low vaccine uptake.<sup>10</sup>
- The vaccine effectiveness of at least 1 dose of 4vHPV is 82%. <sup>10</sup>
- In clinical trials of 9vHPV, efficacy with 3 doses for HPV serotype 31, 33, 45, 52 & 58 is 96.7%.<sup>4</sup>
- Studies suggest that HPV vaccine protection is long-lasting and there is no evidence of waning immunity. Available evidence indicates protection for at least 8-10 years and multiple cohort studies are in progress to monitor the duration of immunity.<sup>11</sup>

Since the vaccine does not protect against all HPV types, it does not replace other prevention strategies, such as regular cervical cancer screening.

## What you say matters; how you say it matters even more.

Based on research conducted with parents and physicians, CDC suggests recommending the HPV vaccine series the same way you recommend the other adolescent and adult vaccines.

Parents and patients may be interested in vaccinating, yet still have questions. Taking the time to listen to questions helps you save time and give an effective response. CDC has created an excellent tip sheet to assist you in answering questions parents and patients may have about HPV vaccines. This tip sheet and many other tools on the HPV vaccine are available at <u>http://www.cdc.gov/hpv/hcp/index.html</u>.

As a healthcare provider, we urge you to improve the strength and consistency of your recommendation for HPV vaccination to your patients. Your recommendation is the number one reason why someone will get the HPV vaccine and be protected from HPV-associated cancers and disease.



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