Intros

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OBJECTIVES

Digest results from MDHHS Michigan Assessment of Oral Cancer Screenings and Knowledge of Human Papillomavirus (HPV) Among Oral Health Professionals

- Review oral and oropharyngeal cancer signs and symptoms
- Learn current cancer statistics in MI
- Recognize oral HPV strains
- Relate names of current HPV vaccines
- Learn dosage recommendations
- Learn at least one communication strategy for promoting vaccine in dental setting
Michigan Assessment of Oral Cancer Screenings and Knowledge of Human Papillomavirus (HPV) Among Oral Health Professionals Results Report

Disseminated July 9-Aug 6 2018
Sent to 5000 DD dental offices
Received 1656
Return rate: 33%

www.michigan/oralhealth
• Assess screening procedures for oral cancer by oral health professionals.

• Assess the knowledge of oral health professionals of oral cancer screening, HPV, and HPV vaccine.

• Determine if oral health professionals perform any follow up after identifying patients with suspected oral cancers.

• Determine if oral health professionals are willing to discuss HPV, its connection to oral cancer, and/or promote the HPV vaccine.
Demographics

(58.2% been in practice 21 yrs or longer)

- 89% were dentists
- 6.2% were dental hygienists
- 3.4% were dental assistants
- 23 did not answer

- General Dental Practice- 1385 (83.6%)
- Specialty Practice- 146 (8.8%)
- Hospital Based Clinic- 4 (.2%)
- Dental Service Organization- 8 (.5%)
- Academic Institution- 15 (.9%)
- Local Health Department- 4 (.2%)
- Federally Qualified Health Center (FQHC)- 50 (3%)
- Mobile Dentistry Practice- 2 (.1%)
- Other- 14 (.8%) These included corporate dental, orthodontic, pediatric, retired, and 5 tribal.
Key findings

- 63% have no written policy/procedures on screening for oral cancer
- Most do perform oral cancer checks but ages varied
- Average number of H/N areas checked during screening was 4
- Most refer to OS after 2 week re-eval of suspicious lesion
- Most agree some continuing education is needed
Key findings on HPV

- Many “no response” to T/F about HPV vaccine
- Over 82% do not routinely ask or advise on HPV vaccine
- 72% disagree or neither agree/disagree about having adequate knowledge about the HPV vaccine to discuss it
- 66% are not comfortable or on the fence about discussing HPV with patients
• This is not the place to discuss this matter. Patients and parents will be offended. This is more of a primary healthcare provider issue.

• I have not been promoting the HPV vaccine as much as I should. I will be changing that policy in my office shortly.

• I wish I was more familiar and more informed, and would welcome any improvement in increasing the knowledge for myself and all dentists.

• What I do know about HPV is that it is a venereal disease. Prevention should be abstinence and monogamy and that is not my personal view.

• Risks of oral cancer and HPV vaccine are not part of my typical health review with patients. But after this survey I realize it should be and can put into our health review-oral exam discussion. THANK YOU.

• We are NOT doctors or gynecologists, etc.

• Each physician should be prescribing vaccines, not dentist. I screen all patients but don’t consult each client about things their physicians should do.

• Oral cancer screenings including HPV should be included in insurance benefits in order to have adequate discussions with patients.

• I would like more pre-printed patient education to give to parents.

• I would like to know more about HPV vaccines. I feel we are aggressive in our present scanning for oral lesions but I am not knowledgeable about HPV vaccines.
Next Steps

- Education and guidance
- Chairside patient materials
- Public awareness
- Survey to just RDHs
3 Signs of Oral Cancer

- A sore that doesn’t go away
- Red or white patches
- Persistent pain or tenderness when swallowing
Oral cancers are part of a group of cancers commonly referred to as head and neck cancers.
What is oral cancer?

Cancer is a disease where cells in the body grow out of control.
Oral cancer is a disease where cancer cells form in the mouth, lips, cheeks, gums, tongue, hard palate, tonsils and the throat.

Oral Cancer

- Oral Cavity

- Oropharynx: (the middle part of the pharynx, including the soft palate, the back of the mouth, the base of the tongue, and the tonsils)
Risk Factors
HPV is the most common sexually transmitted virus and infection in the US.

About 70% of cancers in the oropharynx (which includes the tonsils, soft palate, and base of the tongue) are linked to human papillomavirus (HPV) a common sexually transmitted virus.

In 2015, there were 44,430 new cases of oral cavity and pharynx cancer reported and 9,754 deaths from this cancer in the United States.

Many people don’t have symptoms and are unaware that they have HPV.

The virus may be inactive for weeks, months and for some people possibly even years after infection.
Primarily the tonsils, tonsillar crypt, the base of the tongue.
• Difficult or painful swallowing. A sensation that things are sticking in the throat when swallowing.
• A swollen but painless tonsil. When looking in the mouth, tonsils on both sides should be symmetrical in size.
• A persistent sore throat or hoarse voice.
• A painless lump felt on the outside of the neck, which has been there for at least two weeks.
• Constant coughing.
• An ear ache on one side (unilateral) which persists for more than a few days.

Signs and Symptoms for HPV
Risk Factors

Number of sexual partners

Weakened immune system

Non-smoking white male between 35-55
Screening for Oral Cancer
6 Step Screening

https://www.sixstepscreening.org/

https://www.evagrayzel.com/
25 step screening

1. Mandible* chin and jaw bone
2. Anterior auricular lymph nodes* in front of ears
3. Posterior auricular lymph nodes* behind ears
4. Occipital lymph nodes* back of the neck
5. Temporomandibular joint (TMJ) jaw hinge

6. Parotid gland* salivary gland mid cheek
7. Submental lymph gland* under chin
8. Submandibular lymph glands* under chin
9. Sternohyoid muscle (SMC) large muscle side of neck
10. Thyroid gland – butterfly shaped gland in neck

11. Larynx – voice box moves when swallowing
12. Supraclavicular lymph nodes* root to collar bone, related to breast tissues
13. Lips inside and outside
14. Labial mucosa and frenum soft tissue inside lips
15. Alveolar ridges gums & bone top and bottom

16. Parotid gland duct or small opening mid cheek
17. Retromolar pads on bottom gum tissue behind 2nd or 3rd molar
18. Maxillary tuberosity on top gum tissue behind 2nd or 3rd molar
19. Floor of the mouth, underside of tongue tissues, ducts and muscle under tongue
20. Submandibular & submental glands* under chin and tongue

21. Lateral & base of tongue sides and back of tongue
22. Tongue
23. Hard & soft palate roof of mouth
24. Uvula anterior and posterior pillars back of throat
25. Palatine tori and posterior wall of the pharynx back of throat
Other Tools:

- Dyes
- Lights
- Brush Cytology
- Brush Biopsy
- Genomic and Biologic Markers
## Screening for Oropharyngeal Cancer

- Difficult to diagnose
- Endoscopy, panendoscopy
- Biopsy for HPV
- No blood tests can diagnose cancer in the oral cavity or oropharynx
Susan Deming, RDA, RDH, BS
MDHHS-Oral Health
demings@michigan.gov

References for more info:

The Oral Cancer Foundation
The Centers for Disease Control and Prevention (CDC)
The American Cancer Society
The American Dental Association
National Cancer Institute
MDHHS-Oral Health
Michigan Cancer Consortium
HPV Associated Cancers
• HPV and Cancer – Understanding the Connection

• Statistics for HPV associated cancers

• Someone You Love Project

Outline
Dental Providers

• With the rise of HPV-related oropharyngeal cancer incidence, it’s important to increase prevention efforts by involving multiple provider types.
HPV Associated Cancers

• Which cancers are caused by HPV?
  • Cervical Cancer
  • Anal Cancer – (90%) caused by HPV
  • Oropharyngeal Cancers (cancers of the middle part of the throat, including the soft palate, the base of the tongue, and the tonsils) – (70%) caused by HPV
  • Rare Cancers
    • Vaginal Cancers - (65%) caused by HPV
    • Vulvar Cancers - (50%) caused by HPV
    • Penile Cancers - (35%) caused by HPV
**Number of HPV-Associated and HPV-Attributable Cases Michigan**

<table>
<thead>
<tr>
<th>Cancer Site</th>
<th>Average Number of Cases per Year</th>
<th>Percent Attributed to HPV</th>
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</thead>
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<td>91%</td>
<td>415</td>
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<td>Vagina</td>
<td>29</td>
<td>75%</td>
<td>22</td>
</tr>
<tr>
<td>Vulva</td>
<td>163</td>
<td>69%</td>
<td>112</td>
</tr>
<tr>
<td>Penis</td>
<td>311</td>
<td>63%</td>
<td>196</td>
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<tr>
<td>Anus</td>
<td>176</td>
<td>91%</td>
<td>160</td>
</tr>
<tr>
<td>Female</td>
<td>121</td>
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</tr>
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<td>Male</td>
<td>55</td>
<td>89%</td>
<td>49</td>
</tr>
<tr>
<td>Oropharynx</td>
<td>715</td>
<td>70%</td>
<td>501</td>
</tr>
<tr>
<td>Female</td>
<td>164</td>
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<td>103</td>
</tr>
<tr>
<td>Male</td>
<td>551</td>
<td>72%</td>
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</tr>
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Definition of HPV Associated cancers based on Viens et al. MMWR 2016

Data Source: Michigan Cancer Surveillance Program (MCSP), Division of Vital Records and Health Statistics. Based on data released Jan 2019. Yearly average is calculated using data from 2012-2016
The HPV vaccine has coverage for HPV strains that cause cervical, anal, and oropharyngeal cancers.

There are more than 100 kinds of HPV strains.

High-risk HPV strains include HPV 16 and 18, which cause about 70% of cervical cancers. Other high-risk HPV viruses include 31, 33, 45, 52, 58, and a few others.
Someone You Love: The HPV Epidemic

- Narrated by Vanessa Williams
- Features the lives of five women affected by Human Papillomavirus (HPV).
- The women share the personal stories and struggles.
- Discusses risks, myths, problems, politics, misconceptions and hard truths of this widespread epidemic.
- Features eight scientific experts who provide clinical insight into this epidemic.
- Michigan Department of Health and Human Services (MDHHS) purchased a license to screen the film in Michigan.
Purpose of Film Screenings

• Human papillomavirus (HPV) causes most cervical cancers, as well as cancers of the vagina, vulva, penis, anus, rectum, and oropharynx (cancers of the back of the throat, including the base of the tongue and tonsils).

• By viewing this documentary, people will have a greater understanding of HPV and learn how HPV-associated cancers and genital warts can be prevented.

• https://www.youtube.com/watch?v=wOdN2fuq-zQ

• Volunteering to share this video in your community is encouraged.
References


• Michigan Cancer Surveillance Program
WATCH YOUR MOUTH!
ORAL CANCER AND THE HPV CONNECTION

Alyssa Nowak, MPH
Adult & Adolescent Immunization Coordinator
Michigan Dept. of Health & Human Services
Division of Immunization
OVERVIEW

• Review of Human papillomavirus (HPV)
• Burden of HPV Infection & Disease
• HPV Vaccine
• Cancer Prevention Through HPV Vaccination: An Action Guide for Dental Health Care Providers
WHAT IS HPV?

• HPV, also known as human papillomavirus, is a group of more than 150 related viruses
• HPV is transmitted through intimate skin-to-skin contact
• HPV is extremely common and often clears on its own
• Some HPV infections can go on to cause genital warts and cancers
• HPV vaccine can prevent infection with the types of HPV that most commonly cause cancer
HPV
How bad is it?
HPV TYPES DIFFER IN THEIR DISEASE ASSOCIATIONS

~40 Types

Mucosal sites of infection

High risk (oncogenic)
HPV 16, 18 most common

Low risk (non-oncogenic)
HPV 6, 11 most common

Cutaneous sites of infection

~ 80 Types

Cervical Cancer
Anogenital Cancers
Oropharyngeal Cancer
Cancer Precursors
Low-Grade Cervical Disease

Genital Warts
Laryngeal Papillomas
Low-Grade Cervical Disease

"Common"
Hand and Foot Warts
HPV INFECTION

Most females and males will be infected with at least one type of mucosal HPV at some point in their lives

- Estimated 79 million Americans currently infected
- 14 million new infections every year in the US
- HPV infection is most common in people in their teens and early 20s

Most people will never know that they have been infected
**PROBLEM**

- Low HPV vaccination rates
- ~32,500 cases of HPV cancers each year
- Causes 6 types of cancer and nearly ALL cases of cervical cancer

**HPV IS LINKED WITH:**

- **90%** of cervical & anal cancers
- **70%** of oropharyngeal cancers
- **60%** of penile cancers
### NUMBER OF HPV-ASSOCIATED AND HPV-ATTRIBUTABLE CASES MICHIGAN

- **Definition of HPV Associated cancers** based on Viens et al. MMWR 2016

- **Data Source**: Michigan Cancer Surveillance Program (MCSP), Division of Vital Records and Health Statistics. Based on data released Jan 2019. Yearly average is calculated using data from 2012-2016

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HPV-ASSOCIATED OROPHARYNGEAL CANCER RATES BY SEX, RACE AND ETHNICITY, U.S., 2010-2014

![Bar chart showing age-adjusted rate (cases per 100,000 persons) for HPV-associated oropharyngeal cancer by sex, race, and ethnicity in the U.S. from 2010 to 2014. The chart includes data for all races combined, White, Black, AI/AN, API, Non-Hispanic, and Hispanic. The rates are broken down by sex (women and men) for each race and ethnicity group.]

- **All races combined**
  - Women: 8.0
  - Men: 8.0

- **White**
  - Women: 1.8
  - Men: 8.5

- **Black**
  - Women: 1.5
  - Men: 6.8

- **AI/AN**
  - Women: 1.1
  - Men: 5.1

- **API**
  - Women: 0.6
  - Men: 2.2

- **Non-Hispanic**
  - Women: 1.8
  - Men: 8.5

- **Hispanic**
  - Women: 0.9
  - Men: 4.3
HPV vaccine is cancer prevention.

Talk to the doctor about vaccinating your 11–12 year old sons and daughters against HPV.

#UCanStopHPV
HPV VACCINE COMPARISON

HPV Types Included in Vaccine

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<th>6</th>
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<th>18</th>
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<td>Quadrivalent</td>
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</table>

- Genital warts: 63% of cancers in body parts where HPV DNA is often found
- 10% of cancers in body parts where HPV DNA is often found

Adapted from Petrosky et al. MMWR. 2015.
HPV VACCINE RECOMMENDATION

Routine vaccination is recommended at age 11 or 12 years to prevent HPV cancers

The series can be started as young as 9 years of age

Catch-up/late vaccination

- Vaccination for females through age 26 years and males through age 21 years who were not previously vaccinated. Males aged 22 through 26 years may be vaccinated

- Vaccination is recommended through age 26 for gay, bisexual and other men who have sex with me (MSM), transgender people and people with certain immunocompromising conditions (including HIV infection)
**DOSING SCHEDULES**

**Starting the vaccine series before the 15th birthday**

Recommended schedule is 2 doses of HPV vaccine.
- Second dose should be administered 6–12 months after the first dose (0, 6–12 month schedule).
- Interval between dose one and dose two in a 2-dose schedule is 6-12 months

**Starting the vaccine series on or after the 15th birthday**

Recommended schedule is 3 doses of HPV vaccine.
- Second dose should be administered 1–2 months after the first dose, and the third dose should be administered 6 months after the first dose (0, 1–2, 6 month schedule).
- Interval between dose one and dose three in a 3-dose schedule is 6 months

*those with risk indicators may require a 3-dose schedule regardless of age at start*
Prevalence of HPV before & after introduction of HPV vaccine in the U.S.

HPV VACCINE SAFETY
<table>
<thead>
<tr>
<th>System</th>
<th>Collaborators</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccine Adverse Event Reporting System (VAERS)</td>
<td>CDC and FDA</td>
<td>Frontline, spontaneous reporting system to detect potential vaccine safety issues</td>
</tr>
<tr>
<td>Vaccine Safety Datalink (VSD)</td>
<td>CDC and 8 integrated health care systems</td>
<td>Large-linked database system used for active surveillance and research ~9.4 million members (~3% of US pop)</td>
</tr>
<tr>
<td>Clinical Immunization Safety Assessment (CISA)</td>
<td>CDC and 7 academic centers</td>
<td>Expert collaboration that conducts individual clinical vaccine safety assessments and clinical research</td>
</tr>
<tr>
<td>Post-Licensure Rapid Immunization Safety Monitoring Program (PRISM)</td>
<td>FDA and 6 partner organizations</td>
<td>Large distributed database system used for active surveillance and research ~170 million individuals (~53 of US pop)</td>
</tr>
</tbody>
</table>
OVER 10 YEARS OF HPV VACCINE SAFETY DATA

- HPV vaccines are safe

- Reactions after vaccination may include:
  - Injection site reactions: pain, redness and/or swelling in the arm where the shot was given
  - Systemic: fever, headaches

- HPV vaccines should not be given to anyone who has had a previous allergic reaction to the HPV vaccine or who has an allergy to yeast

- Brief fainting spells (syncope) and related symptoms (such as jerking movements) can happen soon after any injection, including HPV vaccine

- Patients should be seated or lying down during vaccination and remain in that position for 15 minutes
HPV vaccine safety studies have been very reassuring: HPV vaccine has a good safety profile.

CDC and FDA continue to monitor and evaluate the safety of HPV vaccines, along with all vaccines.

Clinicians can reassure parents who may have concerns that HPV vaccination is safe.

HPV VACCINE DURATION OF PROTECTION

- Studies suggest that HPV vaccine protection is long-lasting
- No evidence of waning protection
  - Available evidence indicates protection for at least 10 years
  - Multiple studies are in progress to monitor duration of protection
HPV vaccination is safe, effective, and provides lasting protection

**HPV Vaccine Is SAFE**
- Benefits far outweigh any potential risks
- Safety studies findings for HPV vaccination are reassuring and similar to MenACWY and Tdap vaccine safety reviews

**HPV Vaccine WORKS**
- Population impact against early and mid outcomes has been reported in multiple countries

**HPV Vaccine Protection LASTS**
- Studies suggest that vaccine protection is long-lasting
- No evidence of waning protection
OVER HALF OF OUR ADOLESCENTS ARE UNPROTECTED. WE CAN DO BETTER!!
HPV Vaccination Rates in Michigan
MCIR Data as of March 2019
Children Aged 13-17 Years

- Female: 64.7%
- Male: 62.2%
- Both: 63.4%

1+ Doses

- Female: 50.1%
- Male: 46.4%
- Both: 48.2%

*Complete with 2 or 3 HPV doses

Prepared by the Michigan Department of Health and Human Services using data from the Michigan Care Improvement Registry for the numerator and 2017 US Census Population estimates for the denominator.
Adolescent Vaccination Coverage, 13 through 17 years of age
Michigan Care Improvement Registry, 2007-2019

Prepared by the Michigan Department of Health and Human Services using data from the Michigan Care Improvement Registry for the numerator and US Census estimates for the denominator.
*Prior to January 2018 the HPV measure was 3+ doses; subsequent years include adolescents complete with 2 or 3 doses of HPV.
HPV Vaccination Rates in Michigan by Age Group and Sex, March 2019

1+ Females Complete* Females 1+ Males Complete* Males

9-10y 2.6% 0.7% 2.5% 0.6%
11-12y 40.9% 39.7% 14.4% 13.6%
13-15y 64.1% 62.6% 47.4% 44.9%
16-18y 66.4% 61.0% 54.8% 47.6%
19-26y 64.0% 48.5% 33.6% 19.5%

Prepared by the Michigan Department of Health and Human Services using data from the Michigan Care Improvement Registry for the numerator and 2017 US Census Population estimates for the denominator.

*Complete with 2 or 3 HPV doses; synonymous with HPVUTD in NIS-Teen data.
REASONS PARENTS WON’T INITIATE HPV VACCINATION FOR THEIR CHILDREN

- Not sexually active
- Not recommended
- Safety concern/Side effects
- Not needed or necessary
- Lack of knowledge

Stokley et al. MMWR. 2014.
You have the power to reduce the incidence of human papillomavirus (HPV) cancers and pre-cancers among patients in your care. **HPV cancer prevention starts with you.**

Oral health professionals play a critical role in combating growing rates of HPV-positive oropharyngeal cancers, which affect the tonsils and the base of the tongue. **Oral health professionals should strongly and clearly recommend HPV vaccination to all age-eligible patients.**

I encourage YOU to educate your patients and parents of age-eligible children about the link between HPV and oropharyngeal cancers and advocate for HPV vaccination as cancer prevention.
HPV CANCER PREVENTION STARTS WITH YOU!
**ACTION STEPS TO REDUCE THE BURDEN OF HPV CANCERS WITHIN YOUR COMMUNITY**

**Actions At-A-Glance**

Visit the action associated with each item below for detailed guidance.

<table>
<thead>
<tr>
<th>Action Description</th>
<th>Action Code</th>
</tr>
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<tbody>
<tr>
<td>Know your unique role</td>
<td>Action 1</td>
</tr>
<tr>
<td>Practice cancer prevention</td>
<td>Action 2</td>
</tr>
<tr>
<td>Refer patients for vaccinations</td>
<td>Action 3</td>
</tr>
<tr>
<td>Collaborate</td>
<td>Action 4</td>
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<tr>
<td>Engage your team</td>
<td>Action 5</td>
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<tr>
<td>Create a pro-immunization environment</td>
<td>Patient Education Tools</td>
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</table>
ACTION 1: KNOW YOUR UNIQUE ROLE

Reduce the incidence of HPV cancers by promoting HPV vaccination

Read the statement released by ADA urging dentists to educate themselves and their patents about the connection between HPV and oropharyngeal cancer

Adolescent patients often see YOU more than their doctor, use this opportunity to advocate for HPV vaccine!
ACTION 2: PRACTICE CANCER PREVENTION

Post HPV vaccine information in patient waiting rooms

Include a question about immunizations on the medical history form

Begin discussion about the HPV vaccine while taking your patient’s comprehensive health history and when performing routine oral screenings
ACTION 3: REFER PATIENTS FOR VACCINATIONS

Refer patients to their PCP and stress importance of vaccination!

If a patient does not have a PCP, share your recommendations and encourage them to contact the local health department to receive the HPV vaccine.

Distribute HPV-related educational resources to your patients.
ACTION 4: COLLABORATE

Consider partnering with pediatricians and primary care providers to ensure continuum of care

Develop clear, concise messages with your partners to promote timely HPV vaccination
ACTION 5: ENGAGE YOUR TEAM

Educate your entire team about the link between HPV and oropharyngeal cancer

Create a cancer prevention culture in your office by providing staff the right language to speak professionally and confidently about the HPV vaccine

Review the ADA’s Evidence-based Clinical Practice Guidelines for the Evaluation of Potentially Malignant Disorders in the Oral Cavity

https://jada.ada.org/article/S0002-8177(17)30701-8/fulltext
COMMON QUESTIONS ASKED BY PARENTS

How should you respond?
WHY DOES MY CHILD NEED THE HPV VACCINE?

- **HPV vaccination works.**
  - Infections with HPV types that cause most HPV cancers and genital warts have dropped 71 percent among teen girls.
  - Talk to your child's doctor about HPV cancer prevention at ages 11-12.

- **HPV vaccination prevents cancer.**
  - More than 29,000 cases of cancers each year could be prevented with HPV vaccination.
  - Same as the average attendance for a baseball game.
  - Talk to your child's doctor about HPV cancer prevention at ages 11-12.

HPV vaccination is important because it prevents cancer.
HPV is a very common virus that infects both males and females. The HPV vaccination can help protect your child from the cancers and diseases caused by the virus.
ARE YOU SURE THE HPV VACCINE IS SAFE? I HAVE READ STORIES ON THE INTERNET THAT SAY OTHERWISE...  

It sounds like you want what’s best for your child and have concerns about the safety of the HPV vaccine, is that right?

I have researched HPV vaccine including safety. Can I share with you what I have learned?

HPV vaccine has been carefully studied for many years by medical and scientific experts. Vaccines, like any medication can cause side effects. With HPV vaccination, this could include pain, swelling and/or redness where the shot is given, or possibly a headache.

No serious side effects have been associated with HPV vaccine.
YOU WOULD DO ANYTHING TO PROTECT YOUR CHILD FROM CANCER. BUT HAVE YOU DONE EVERYTHING?

HPV vaccine is cancer prevention for boys and girls. Just two shots at ages 11–12 provide safe and lasting protection against the infections that cause HPV cancer. Ask your child’s doctor or nurse for HPV vaccine.

HPV VACCINE IS CANCER PREVENTION AND YOU ARE THE KEY!
TOGETHER, WE CAN PREVENT CANCER!

We can prevent more than 30,000 cancers every year with timely vaccination of HPV vaccine!
QUESTIONS?

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Answering Questions About HPV Vaccine: A Guide for Dental Professionals

Make a strong recommendation.
Ask parents if their child has completed the Human Papilloma Virus (HPV) vaccine series. Let them know that you strongly support giving the HPV vaccine to children 11-12 years of age or older. Encourage them to prevent HPV-associated cancers.

Be ready to accurately answer parents’ questions.
Unbeknownst to parents know that HPV causes oncogenic/pathogen disease in children. Discuss the risks of HPV in children and adolescents. Suggest families consult their pediatrics for more information and access facts about HPV vaccine from the Centers for Disease Control and Prevention (CDC) to help you with the conversation: https://www.cdc.gov/vaccines/hcp/prof-patient/HPV/index.html

Below are some things that parents might say and tips on how to respond.

HPV VACCINE IS IMPORTANT
- Almost everyone will be infected at some time in their lives. Your patients can protect your children from the cancers caused by the virus by completing the HPV vaccine series before age 13.
- Why is HPV called a recommended vaccine at ages 9 or 15?
  - The vaccine option is growing and raises some concerns since it is administered at age 9.
  - HPV vaccine is kept to protect those born with multiple cancers.

HPV VACCINE IS SAFE
- Is HPV vaccine unsafe?
  - The HPV vaccine is very safe. More than 30 million doses have been given in the US and has been studied for more than ten years by medical and scientific experts. The vaccine is very safe and effective for people at risk of HPV-related cancer.
- Are there any side effects of HPV vaccine?
  - HPV vaccine is safe and well-tolerated. Side effects include a sore throat or headache, fever, or swelling in the arm where the vaccine was given. If the side effect does not subside, the patient should contact their healthcare provider.

HPV VACCINE IS EFFECTIVE
- How effective is the vaccine for young people?
  - HPV vaccine is very effective. It is 90% effective at preventing infection from HPV types 16 and 18, which cause most cervical and anogenital cancers. If a person develops an infection, the vaccine is even more effective at preventing HPV-related cancers.
- Have you heard about the HPV vaccine?
  - Not only can HPV infection cause cervical cancer, it can also cause diseases such as anal cancer, throat cancer, and skin cancer.

HPV YOU ARE THE KEY TO CANCER PREVENTION
- Although HPV is highly infectious, we can prevent and control its spread by vaccinating.

For More Information: aap.org/forhealth • aap.org/hpvvodkist • email: HPVVap@AAP.org

Oropharyngeal Cancer (OPC) and HPV Prevention in Children

5 Key Points that Dental Professionals Need to Know

1. OPC is also known as squamous cell carcinoma of the oropharynx, including the base of the tongue and tonsils.

2. OPC incidence is rapidly increasing. This cancer has been on the rise due to HPV spread.

3. OPC incidence is rapidly increasing. This cancer has been on the rise due to HPV spread.

4. A significant link between HPV infection and OPC has been established.

5. OPC incidence is rapidly increasing. This cancer has been on the rise due to HPV spread.

HPV vaccine is safe and effective.

American Academy of Pediatrics

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Michigan Department of Health and Human Services