Disclosure: Session I4

In compliance with continuing education requirements, all presenters must disclose any financial or other associations with the manufacturers of commercial products, suppliers of commercial services, or commercial supporters as well as any use of unlabeled product(s) or product(s) under investigational use.

CDC, our planners, content experts, and their spouses/partners wish to disclose they have no financial interests or other relationships with the manufacturers of commercial products, suppliers of commercial services, or commercial supporters with the exception of the following speakers:

Sharon Humiston of Children’s Mercy Hospital, wishes to disclose her employer receives funding from the Pfizer Foundation, which in turn covers 5% of her salary and benefits. This Foundation is separate from, but related to Pfizer, the vaccine manufacturer. Dr. Humiston is also a consultant to IAC (not for profit) and UCLA (state university).

Planning committee discussed conflict of interest with each presenter to ensure there is no bias.

Content will not include any discussion of the unlabeled use of a product or a product under investigational use with the exception of the following speakers:

Rebecca Vanucci of Massachusetts Department of Public Health Immunization Program will discuss the use of HPV vaccines in a manner not approved by the U.S. Food and Drug Administration, but in accordance with ACIP recommendations.

CDC did not accept commercial support for this continuing education activity.
HPV & ORAL HEALTH: BACKGROUND INFO

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Cancers of the head and neck occur in a number of anatomical areas:

- Oral cavity
- Pharynx
- Larynx
- Paranasal sinuses
- Nasal cavity
- Salivary glands
Where is the oropharynx?
Natural History of HPV Infection

- E.g., Cervical precancers & certain cancers
- Typically doesn’t cause health problems
- Name given to HPV found in mouth and throat

- SERIOUS HEALTH PROBLEMS
- MOST OF TIME GOES AWAY ON ITS OWN
- ORAL HPV
Natural History of HPV Infection

- **E.g., Cervical precancers & certain cancers**
- **Typically doesn’t cause health problems**
- **Name given to HPV found in mouth and throat**

- ~80-85% of people acquire any HPV infection at some point in their lives
- ~90% of infections clear in 1-2 years in healthy individuals
- Almost all cervical cancers are caused by HPV infections that persist >2 years

**Serious Health Problems**
- Most of the time goes away on its own
- Oral HPV
Oral HPV

- HPV in mouth and throat
- “Low Risk”: warts in mouth, throat

Source: http://www.cdc.gov/std/hpv/stdfact-hpvandoropharyngealcancer.htm
Laryngeal Papillomatosis

- Rare
- Hoarse voice
- HPV types 6 and 11
- Treatment, but no cure
- Costly

Image: UC Davis Center for Voice & Swallowing
Oral HPV

• HPV in mouth and throat
• “Low Risk”: warts in mouth, throat
• “High Risk”: head and neck cancers

Incidence

• 7% of people have oral HPV
• Only 1% have HPV type 16
  (type causes oropharyngeal cancer)

Source: http://www.cdc.gov/std/hpv/stdfact-hpvandoropharyngealcancer.htm
Based on 2010 to 2014 data, ~41,000 new cases of HPV-associated cancers occurred in the U.S. each year.
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For females (23,716 cases):
- Oropharynx: 3,297 (14%)
- Cervix: 11,670 (49%)
- Vagina: 833 (4%)
- Vulva: 3,802 (16%)
- Anus*: 4,114 (17%)

For males (17,322 cases):
- Oropharynx: 13,976 (81%)
- Penis: 1,240 (7%)
- Anus*: 2,106 (12%)

Cancer probably caused by HPV type

HPV types 16/18
HPV types 31/33/45/52/58
Other HPV types
HPV-negative*

Targeted by bivalent and quadrivalent vaccines
Targeted by 9-valent vaccine

Sex / Cancer Site

Cervix
Vagina
Vulva
Anus
Rectum
Oropharynx

Women

Penis
Anus
Rectum
Oropharynx

Men

Average number of cases per year

0 1,000 2,000 3,000 4,000 5,000 6,000 7,000 8,000 9,000 10,000 11,000 12,000 13,000
HPV-Associated Oropharyngeal Cancer Rates by Race, Ethnicity, and Sex, United States, 2009–2013

Viens et al, MMWR, 2016
Percentage of New Cases by Age Group: Oral Cavity and Pharynx Cancer

Source: SEER 8 2009–2013, all races, both sexes
How common is OPC?

- HPV-positive oropharyngeal cancer has surpassed cervical cancer as the most prevalent HPV cancer

- Oropharyngeal cancer in the U.S.
  - 8th most common cancer among **males**
  - 13th most common among **females**

5-year survival rate of 66%

Oropharyngeal Cancer

SIGNS/SYMPTOMS

1. Persistent sore throat
2. Earaches (usually unilateral, last a few days)
3. Hoarseness/persistent sore throat
4. Enlarged lymph nodes
5. Pain when swallowing/chewing
6. Unexplained weight loss
7. An ulcer or sore that does not heal within 2-3 weeks
8. Red, white, or black discoloration on soft tissues in the mouth

Some people may have no signs or symptoms so early detection is difficult!
Secondary Prevention of HPV-related Oropharyngeal Cancer
Screening for Oropharyngeal Cancers

- Difficult to detect at early stage (5 yr survival, <50%)
- No standardized screening test
- No FDA approved test for oral HPV infection
- No evidence that detection of oral HPV could be used to predict development of oropharyngeal cancer
HPV-related OPC is difficult to catch early
Unlike cervical cancer cells...

OPC cells are in crypts
Delayed Diagnosis of OPC

May be difficult to detect/more difficult than tobacco-related cancers to detect because

- The location of the lesion
- The symptoms may be subtle and painless
- The risk factors may not be discussed

National Cancer Institute, 2017; Saraiya M, Unger ER, Thompson TD, et al. 2015; Chaturvedi AK, Engels EA, Pfeiffer RM. 2011
HPV Vaccine

• **Effective** -- HPV vaccines has decreased
  • HPV infection
  • Genital warts
  • Precancers of the cervix

• **Safe** -- Has been studied for >10 years by medical and scientific experts; safety profile like other adolescent vaccines

• **Long-lasting**
Under-utilized

- 60% of girls received at ≥1 HPV dose (2016)

- 50% of boys received at ≥1 HPV dose (2016)
Oral HPV infection

Individuals 18 to 33 years of age

National Health and Nutrition Examination Survey, 2011 to 2014

Collaboration Between Pediatricians & Dentists

• We ask pediatricians to
  • Do an oral health risk assessment
  • Provide fluoride varnish
  • Provide anticipatory guidance & counseling
  • Refer to a dental home

• We are asking dentists to get the word out about HPV in a de-sexualized way

• These groups need to be on the same team for children’s health – referring, communicating, and collaborating!
Thanks you to:

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American Academy of Pediatrics
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Dr. Christina A. Demopoulos
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The American Dental Association’s Efforts Against HPV-Associated Cancers:
Being on the Right Side of History

R David Bradberry, DMD, FAAPD
Clinical Asst. Professor, Dental College Georgia
Children’s Hosp. of Atlanta; ADA Council on Access, Advocacy and Prevention
Dr. Bradberry’s Disclosures

None
Outline

1. Oral healthcare (OHC) professionals’ perspectives
2. Improving OHC professionals’ preparation
3. Suggestions for collaborating with OHC professionals
Oral healthcare professionals’ perspectives

A tale of two studies
Providers’ perceived role and needs

- Two methods
  - Focus groups with dentists ($n=33$) and dental hygienists ($n=48$)
  - Surveys from both provider types ($n=203$)
- From diverse practice settings & U.S. geographic communities

Findings
- Affirmed dental professionals’ roles in preventing HPV-related cancers
- Identified needs to overcome barriers to fulfilling prevention objectives: Practice environment & patient characteristics, “Sensitive” topic of HPV

Assessing dentists’ HPV-related health literacy for oropharyngeal cancer prevention (in JADA)

- 4 focus groups (33 dentists) during regional 2016 dental conference
- Questions designed to assess 4 competencies: access, understand, appraise, and apply
- Findings indicate areas for intervention:
  - Creating awareness of trusted informational sources
  - Increasing HPV knowledge & understanding the multiple patient (e.g., age) and practice (for example, open operatories) appraisal factors
  - Enhancing the communication skills of dentists with patients is needed to improve HPV-related cancer prevention education

https://jada.ada.org/article/S0002-8177(17)30747-X/pdf
Improving OHC professionals’ preparation

What is available to OHC professionals now?

Policy statements; News outlets; Training opportunities; Collaborations
American Academy of Pediatric Dentistry (AAPD)

- AAPD is the authority on children's oral health and dental care
- This statement originated in Council on Clinical Affairs
- Adopted in 2017
- OOPC = oral and oropharyngeal cancers

http://www.aapd.org/media/Policies_Guidelines/P_HPV_Vaccinations.pdf
The AAPD encourages oral health care providers to:

- **Educate** patients, parents, and guardians on the serious health consequences of OOPC and the relationship of HPV to OOPC.
- **Counsel** patients, parents, and guardians regarding the HPV vaccination, in accordance with CDC recommendations, as part of anticipatory guidance for adolescent patients.
- **Routinely examine** patients for oral signs of and changes consistent with OOPC.
- **Follow current literature** and consider incorporating other approaches for HPV prevention in their practices so as to minimize the risk of disease transmission.
American Dental Association (ADA)

- US professional association established in 1859
- >160,000 members, approx 83% family practice
- Statement on HPV and Squamous Cell Cancers of the Oropharynx the ADA Council on Scientific Affairs

Key Points

- Encourages dentists to **educate themselves and their patients** about the relationship between HPV and oropharyngeal cancer, especially the growing prevalence of these cancers in younger non-smokers and non-drinkers.

- “The ADA will continue to **provide guidance** to the dental profession about HPV-associated oropharyngeal cancer, promote early oropharyngeal cancer detection, and expand public awareness of the oncogenic potential of some HPV infections.”
Mouth Healthy

Patient friendly website

Brought to you by the ADA

Because I Saw My Dentist.com
Georgia Dental Assoc.

AGD Impact April 2017

The monthly newsmagazine for the Academy of General Dentistry (AGD)
THE RISE OF
HPV-RELATED ORAL CANCER

By Kelli Reiner

March 2005. In Blacksburg, VA, AACD, of Midlothian, Virginia, had an appointment for a routine dental checkup.

He was diagnosed with oral cancer, which led to a series of surgeries and treatments. His prognosis was grim, but he was determined to fight back.

The rise of HPV-related oral cancer has been on the rise in recent years, with an increase in cases among younger individuals. This is largely due to the widespread use of human papillomavirus (HPV) vaccines, which have been shown to significantly reduce the risk of developing oral cancer.

In the past, oral cancer was often diagnosed late, when the cancer had already spread to other parts of the body. However, with early detection and treatment, the survival rate for oral cancer has improved significantly.

The American Academy of Oral and Maxillofacial Surgeons (AACD) has partnered with the American Cancer Society to promote awareness of oral cancer and the importance of regular dental checkups.

For more information, visit www.agd.org.
Communication tips for dentists recommended in this article

TIPS FOR TALKING WITH PATIENTS ABOUT HPV AND ORAL CANCER

Consider these tips to improve dentist-patient communication about HPV and oral cancer:

- Make brochures or other educational literature on HPV-related oral cancers available in your practice’s reception area. Visit www.agd.org/factsheets to download AGD’s latest oral health fact sheet on oral cancer to distribute to patients or use during your discussion.

- Establish your practice’s philosophy on how to approach HPV and oral cancer, and make sure your team is comfortable broaching the subject with patients.

- Add a section to patient questionnaires that indicates whether the patient would like to speak with the provider in private about oral cancer concerns.
“Human Papillomavirus (HPV) and Head and Neck Cancer”

Objectives

- The increasing incidence of oral cancer in young people
- The molecular events involved in carcinogenesis associated with HPV, particularly with regard to the early proteins E6 and E7
- The social habits associated with tongue cancer
- The public health initiatives associated with HPV vaccination

This webinar is part of the members-only free CE program and was presented in collaboration with American Association of Oral and Maxillofacial Surgeons.
National Oral Health Conference
The Premier Meeting for Dental Public Health

- Presented by
  - American Association of Public Health Dentistry (AAPHD)
  - Association of State and Territorial Dental Directors (ASTDD)

- April 2018 NOHC included a session “Promoting the HPV Vaccine: An Opportunity for Medical-Dental Collaboration”
### ADA Collaboration with the HPV Roundtable

**Developed with representation from:**
- American Academy of Family Physicians
- American Association of Public Health Dentistry
- American Cancer Society
- Head and Neck Cancer Alliance

**The Action Guide message:**
Oral health professionals play a critical role in combating growing rates of HPV-positive oropharyngeal cancers...
Oral health professionals should strongly and clearly recommend HPV vaccination to all age-eligible patients.

## Actions At-A-Glance

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

<table>
<thead>
<tr>
<th>Action Description</th>
<th>Action</th>
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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>
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<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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</tbody>
</table>
Collaboration with the ADA

- MD Anderson Cancer Center
  - HPV Prevention (vaccine)
  - Tobacco Cessation
- HPV Roundtable of the American Cancer Society
  - National coalition of public, private and voluntary organizations
  - Mission is to reduce the incidence and mortality from HPV related cancers

April is Oral Cancer Awareness Month

- Opportunity for dental practices to participate in community-wide education and prevention
- Ideas for OHC professionals:
  - Host cancer screening events at your office throughout the month
  - Sponsor a “fun run” to boost awareness and fundraise
  - Offer stickers for each patient to wear after they receive their oral cancer screening
How Dentists can help... practically

- Place information about the vaccine within their offices.
- Communication between patients' primary physician and dentist... and vice-versa.
- Incorporate a HPV vaccine question within their health histories.
- Share information about the HPV vaccine with parents and caregivers.
Summary

- HPV as a cause of oropharyngeal cancer is important news for general and public health oral healthcare professionals.
- The AAPD and ADA have published statements on HPV, which have focused attention on the issues.
- News, training opportunities, and important collaborations are springing up!
Thank You,
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Dental HPV Project in Massachusetts

Rebecca Vanucci
Immunization Outreach Coordinator
Massachusetts Department of Public Health
National Immunization Conference
May 17, 2018
State Vaccine Promotion Efforts:

Massachusetts
Massachusetts Coalition for HPV-Related Cancer Awareness
HPV cancer rates rising ~31,500 a year

Oropharyngeal cancer now surpassed cervical cancer as most common

HPV Vaccination can prevent ~28,000 of those cancers

Dental providers as advocates

No screening for Oropharyngeal cancer
Massachusetts HPV cancer incidence compared to US HPV cancer incidence


MA Oral HPV Prevention Taskforce

- Dept. of Public Health Comp. Cancer
- Advocacy Organizations
- MA Chapter of AAP
- Dental Professionals
- Dept. of Public Health Immunization Program
- Widow/Advocate
Dental Toolkit

• Geared for dental professionals
• Contains:
  • office brochures
  • tear off “prescription” pads with information about HPV vaccines
  • posters for the dental practice
  • talking tips for interacting with patients

Download free dental materials for HPV related cancer prevention education at www.teammaureen.org
Connect
• Dental world
• Cancer partners

Meet
• Conference calls
• In-person

Collaborate
• Presentations
• Projects
Questions?

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