

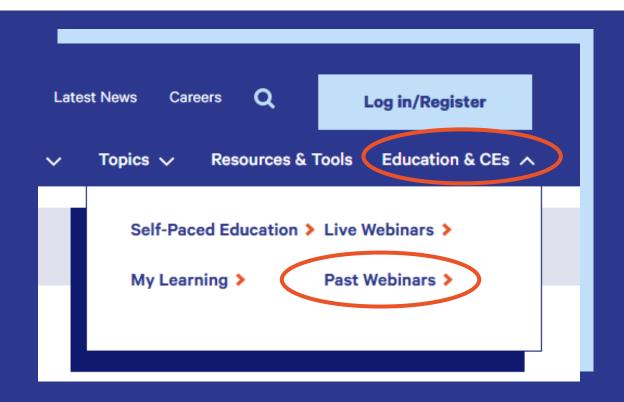
Human Papillomavirus (HPV) and Dentistry: What Every Provider Should Know

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Webinar

Human Papillomavirus (HPV) and Dentistry: What Every Provider

Should Know





7-8 p.m. ET



Moderator

Josefine Ortiz Wolfe, PhD, MBA, MPH, RDH
CareQuest Institute for Oral Health



Presenter

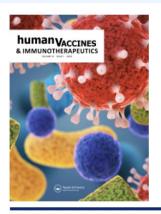
Lilliam Marie Pinzon, DDS, MS, MPHKansas City University

1 CE Credit

Learning Objectives

- **Define** human papillomavirus (HPV), including etiology, modes of transmission, and connection to oropharyngeal cancer.
- Discuss the role of dental providers in early detection of oropharyngeal cancer.
- Describe patient-centered strategies to educate patients about HPV health risks and prevention.







Human Vaccines & Immunotherapeutics

ISSN: 2164-5515 (Print) 2164-554X (Online) Journal homepage: www.tandfonline.com/journals/khvi20

Understanding dental hygienists' knowledge, attitudes, and practices regarding HPV vaccination

Paula M. Cuccaro , Jihye Choi , Kawtar Zouaidi , Efrat K. Gabay , Michael Mackert & Josefine Ortiz Wolfe

To cite this article: Paula M. Cuccaro , Jihye Choi , Kawtar Zouaidi , Efrat K. Gabay , Michael Mackert & Josefine Ortiz Wolfe (2025) Understanding dental hygienists' knowledge, attitudes, and practices regarding HPV vaccination, Human Vaccines & Immunotherapeutics, 21:1, 2511484, DOI: 10.1080/21645515.2025.2511484

To link to this article: https://doi.org/10.1080/21645515.2025.2511484





Poll Questions

- 1. Most sexually active people will get HPV at some point in their life.
 - a) True
 - b) False
- 2. HPV causes which of the following health conditions? (select all that apply):
 - a) Anal cancer
 - b) Vulvar cancer
 - c) Penile cancer
 - d) Herpes

Questions from: Cuccaro, P. M., Choi, J., Zouaidi, K., Gabay, E. K., Mackert, M., & Ortiz Wolfe, J. (2025). Understanding dental hygienists' knowledge, attitudes, and practices regarding HPV vaccination. *Human Vaccines & Immunotherapeutics*, *21*(1). https://doi.org/10.1080/21645515.2025.2511484



Human Papillomavirus (HPV) and Dentistry: What Every Provider Should Know

Lilliam M Pinzón DDS, MS, MPH
Associate Professor
Kansas City University
College of Dental Medicine



Conflict of Interest

I have no conflict of interest to declare



Learning Objectives

 Define HPV: etiology, transmission, and its link to oropharyngeal cancer (OPC).

Discuss the role of dental providers in early detection of OPC.

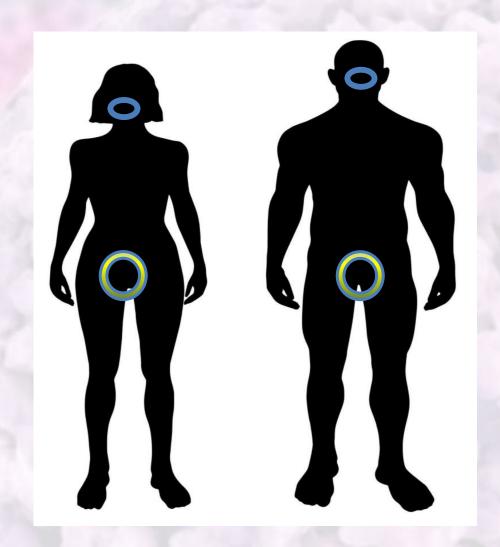
 Describe patient-centered strategies to educate patients on HPV risks and prevention.



What is HPV?

- Human Papillomavirus (HPV) is the most common sexually transmitted infection (STI) worldwide.
- Over 200 types exist; 40–50 affect mucosal regions.

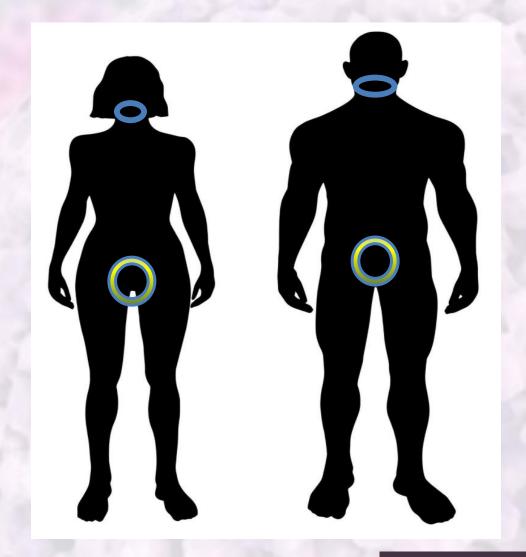
 At least 12 are oncogenic, especially HPV-16 and 18.





HPV and Cancer

- HPV causes nearly all cervical cancers and many oropharyngeal cancers (OPC).
- OPC now surpasses cervical cancer as the most common HPV-related cancer in the U.S.





Signs of OPC

- Sore throat
- Lump in the nose, neck, throat, mouth, gums, or lips
- Trouble breathing, speaking, chewing, swallowing, opening the mouth fully, or moving the tongue or jaw
- Ear pain
- Change in voice



HPV-OPC by the Numbers

- Globally, HPV causes ~730,000 cancers/year.
- In the U.S., ~59,660 new oral/oropharyngeal cancers expected in 2025; 70–90% are HPV-positive.



Miles Bannister, and Kim W Ah-See Br J Gen Pract 2014;64:e742-e744



Risk Factors for HPV-OPC

 Major risks: multiple oral sex partners, early sexual debut, immunosuppression, poor oral hygiene.

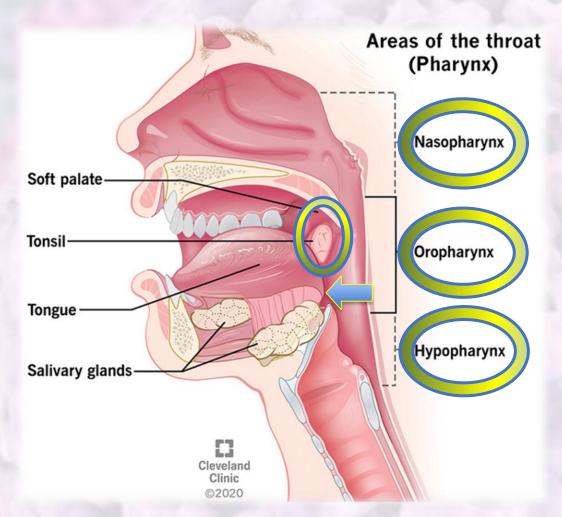
HPV-positive OPC affects mostly males aged 40–59.



Barriers to Early Detection

 Lesions often occur in hard-tovisualize areas.

- No FDA-approved oral HPV screening tests exist.
- Detection tools remain limited in dental settings.





Poll Question #1

Generally, most HPV infections resolve spontaneously within 2 years.

(Source: Rutkoski et al., 2020)

A. True

B. False



Reduce Risk Factors

- Eat well
- Physical activity
- Don't smoke or use tobacco
- Avoid alcohol
- Get vaccinated against HPV



Poll Question #2

We have a vaccine against HPV currently approved by FDA in the USA.

(Source: Rutkoski et al., 2020)

A. True

B. False



HPV Vaccination Overview

- HPV vaccines targeting types 16 and 18 are highly effective.
- The Centers for Disease Control and Prevention (CDC) recommends routine vaccination at ages 9–12, with catch-up through age 26.





HPV Vaccination Uptake in the U.S.

- Vaccines show 88–93% efficacy against oral HPV.
- 2025 guidelines emphasize gender-neutral vaccination, starting at age 9.





The Role of the Dental Team

Dental teams can educate, screen, and refer. Their recommendations strongly influence vaccine uptake. National groups support expanded dental roles.





Barriers Faced by Dental Professionals

 Barriers include discomfort, time limits, lack of training, and legal concerns.

Only 9% of U.S. dentists feel equipped to counsel on HPV.



Poll Question #3

I am comfortable discussing sexual history/topics with patients?

(Source: Kepka et al., 2019)

A. Yes

B. No





PINZON LABORATORY IN COLLABORATION WITH KEPKA'S LABORATORY HUMAN PAPILLOMAVIRUS (HPV)

> J Cancer Educ. 2020 Oct;35(5):1017-1025. doi: 10.1007/s13187-019-01561-y.

A Multi-state Evaluation of Oral Health Students' Knowledge of Human Papillomavirus-Related Oropharyngeal Cancer and HPV Vaccination

Holdunn Rutkoski ¹, Djin L Tay ², Barbara L Dixon ³, Lilliam M Pinzon ³, Ryan Mooney ², James R Winkler ³, Deanna Kepka ⁴ ⁵

Affiliations + expand

PMID: 31222578 PMCID: PMC6923618 DOI: 10.1007/s13187-019-01561-y

> J Cancer Educ. 2018 Aug;33(4):907-914. doi: 10.1007/s13187-017-1165-z.

Pilot Test of Survey to Assess Dental and Dental Hygiene Student Human Papillomavirus-Related Oropharyngeal Cancer Knowledge, Perceptions, and Clinical Practices

Holdunn Rutkoski ¹, Brynn Fowler ², Ryan Mooney ², Lisa Pappas ³, Barbara L Dixon ⁴, Lilliam M Pinzon ⁴, James Winkler ⁴, Deanna Kepka ⁵

Affiliations + expand

PMID: 28091963 DOI: 10.1007/s13187-017-1165-z

> Hum Vaccin Immunother. 2020;16(2):436-444. doi: 10.1080/21645515.2019.1649550. Epub 2019 Oct 4.

The perspectives, barriers, and willingness of Utah dentists to engage in human papillomavirus (HPV) vaccine practices

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Katherine L Harris ^1, D Tay ^2, D Kaiser ^3, A Praag ^3, H Rutkoski ^4, B L Dixon ^5, L M Pinzon ^5, J R Winkler ^5, D Kepka ^2 ^3 Affiliations + expand
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PMID: 31361179 PMCID: PMC7062442 DOI: 10.1080/21645515.2019.1649550

> Prev Med Rep. 2019 Jul 17:15:100957. doi: 10.1016/j.pmedr.2019.100957. eCollection 2019 Sep.

US oral health students' willingness to train and administer the HPV vaccine in dental practices

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Deanna Kepka <sup>1 2</sup>, Holdunn Rutkoski <sup>3</sup>, Lisa Pappas <sup>1</sup>, Djin L Tay <sup>1 2</sup>, James R Winkler <sup>4</sup>, Barbara Dixon <sup>4</sup>, Alan Velazquez <sup>5</sup>, Lilliam M Pinzon <sup>4</sup>
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Affiliations + expand

PMID: 31372330 PMCID: PMC6661379 DOI: 10.1016/j.pmedr.2019.100957

> BMC Oral Health. 2022 Mar 14;22(1):72. doi: 10.1186/s12903-022-02108-2.

Cross-cultural adaptation of a Spanish version of a previously validated HPV survey that evaluates dental students' knowledge, perception and clinical practices in Latin America

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Lilliam M Pinzon <sup>1</sup>, Alan Velazquez <sup>2</sup>, Holdunn Rutkoski <sup>3</sup>, Djin L Tay <sup>1</sup>, Lara Martel <sup>1</sup>, Carmen Drury <sup>4</sup>, Shauna Ayres <sup>5</sup>, Barbara Dixon <sup>1</sup>, James R Winkler <sup>1</sup>, Deanna Kepka <sup>6</sup>
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Affiliations + expand

PMID: 35287664 PMCID: PMC8922929 DOI: 10.1186/s12903-022-02108-2



Pinzon Lab Research on HPV & Dental Providers

 Pinzon Lab surveyed U.S. and Latin American dental and hygienist students and Utah dentists.

 Findings showed knowledge gaps but high willingness to engage in prevention.



HPV Knowledge by State

State	Overall HPV Knowledge (% Adequate)	General HPV Knowledge (% Adequate)	HPV-OPC Knowledge (% Adequate)
Arizona	35	45	25
California	38	50	22
Colorado	40	55	28
Idaho	33	40	20
Nevada	30	42	18
Tennessee	28	38	15
Texas	30	40	17
Utah	32	44	19

▶ J Cancer Educ. Author manuscript; available in PMC: 2021 Oct 1.

Published in final edited form as: J Cancer Educ. 2020 Oct;35(5):1017–1025. doi: 10.1007/s13187-019-01561-y ☑

A Multi-State Evaluation of Oral Health Students' Knowledge of Human Papillomavirus Related Oropharyngeal Cancer and HPV Vaccination

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PMCID: PMC6923618 NIHMSID: NIHMS1532476 PMID: <u>31222578</u>



Call to Action

Dental teams must go beyond detection—educate, advocate, collaborate, and transform practices into cancer prevention hubs.



Question and Answer



Share your QUESTIONS!

Submit questions for the panelists in the Q&A box



Thank You to Our Speakers

Join us in creating a system that is accessible, equitable, and integrated.



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Lilliam Marie Pinzon, DDS, MS, MPH **Kansas City University** Impinzon.dds.ms.mph@gmail.com



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Beyond Compliance: Cultivating a Culture of Safety and Ethics in Dentistry

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