

1-17-2018

Role of the Dental Community in HPV Vaccination Promotion

Thomas Luke Arnell
UVM Larner College of Medicine

Maeve Donnelly
UVM Larner College of Medicine

Alexis Nadeau
UVM Larner College of Medicine

Laura Till
UVM Larner College of Medicine

Collin York
UVM Larner College of Medicine

See next page for additional authors

Follow this and additional works at: https://scholarworks.uvm.edu/comphp_gallery

 Part of the [Community Health and Preventive Medicine Commons](#), and the [Health Services Research Commons](#)

Recommended Citation

Arnell, Thomas Luke; Donnelly, Maeve; Nadeau, Alexis; Till, Laura; York, Collin; Zargari, Pedram; Howard, Alan; Davis, Wendy; and Finley, Christine, "Role of the Dental Community in HPV Vaccination Promotion" (2018). *Public Health Projects, 2008-present*. 267.
https://scholarworks.uvm.edu/comphp_gallery/267

This Book is brought to you for free and open access by the Public Health Projects, University of Vermont College of Medicine at ScholarWorks @ UVM. It has been accepted for inclusion in Public Health Projects, 2008-present by an authorized administrator of ScholarWorks @ UVM. For more information, please contact donna.omalley@uvm.edu.

Authors

Thomas Luke Arnell, Maeve Donnelly, Alexis Nadeau, Laura Till, Collin York, Pedram Zargari, Alan Howard, Wendy Davis, and Christine Finley

T. Luke Arnell¹, M. Lauren Donnelly¹, Alexis Nadeau¹, Laura Till MS¹, Collin York¹, Pedram Zargari¹, Meredith Graves² PhD, Alan Howard MS¹, Christine Finley² APRN, Wendy Davis¹ MD
¹University of Vermont Larner College of Medicine ²Vermont Department of Health

Introduction

- Human Papillomavirus (HPV): Causes cervical, anal, vaginal, penile and oropharyngeal (OP) cancer.
- Nine-valent HPV vaccine: safe/effective; protects against strains associated with oncogenicity and anogenital warts.
- HPV vaccine uptake low due to knowledge gaps and concerns re: teen sexuality and vaccine safety/efficacy.¹
- Community/provider-focused strategies are more effective than educational campaigns to improve coverage.²
- Oral health care providers may help promote HPV vaccine delivery due to increasing awareness of link to OP cancers.³
- Project Goal:** Assess knowledge and current HPV vaccine counseling practices among dentists and dental hygienists to improve HPV vaccine promotion in routine dental practice and increase vaccine coverage and cancer prevention in Vermont.

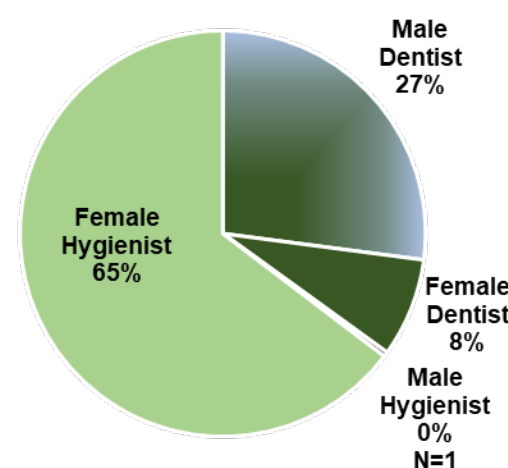
Methods

- Key Informant Interviews:** semi-structured interviews with dentist, dental hygienist, dental educator
 - Interview transcripts qualitatively analyzed with grounded theory approach.⁴
- Provider survey:** designed to assess knowledge, beliefs, practices and barriers regarding HPV vaccination
- Distributed to practicing VT dentists and dental hygienists via email and completed electronically; upon completion, could choose to receive HPV dental patient education materials
- Free response text analyzed using coding framework generated from the key informant interviews

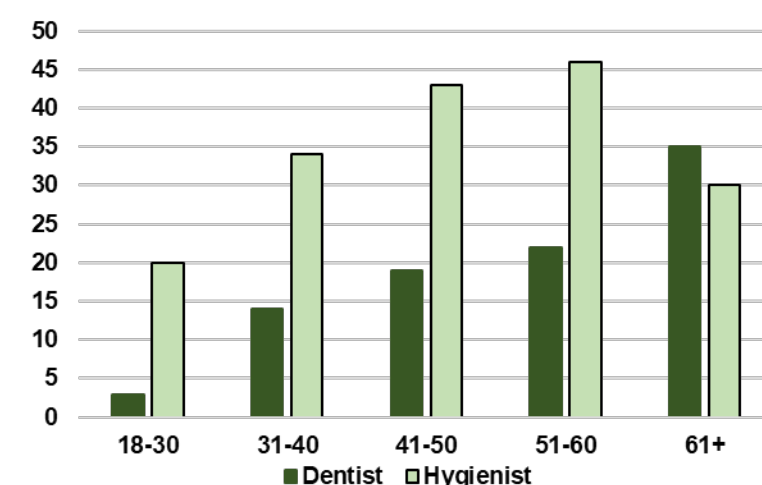
Demographics

- Sent to 392 dentists and 559 dental hygienists with response rate of **34%**
- 266 completed surveys were eligible for analysis (93 dentists, 173 hygienists)
- 27% of respondents requested HPV educational materials

Completed Surveys by Gender & Profession



Survey Response by Age and Profession



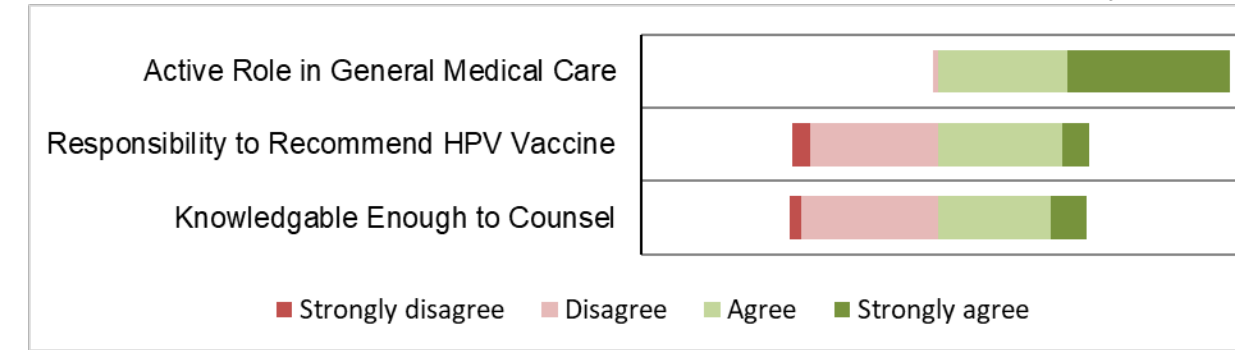
Survey Results

Knowledge Assessment

- No difference between dentists and hygienists on 6/7 True/False questions re: HPV vaccine knowledge
- Dentists (78%) more accurate than hygienists (63%) re: "HPV vaccination causes serious side effects" (p<.05)

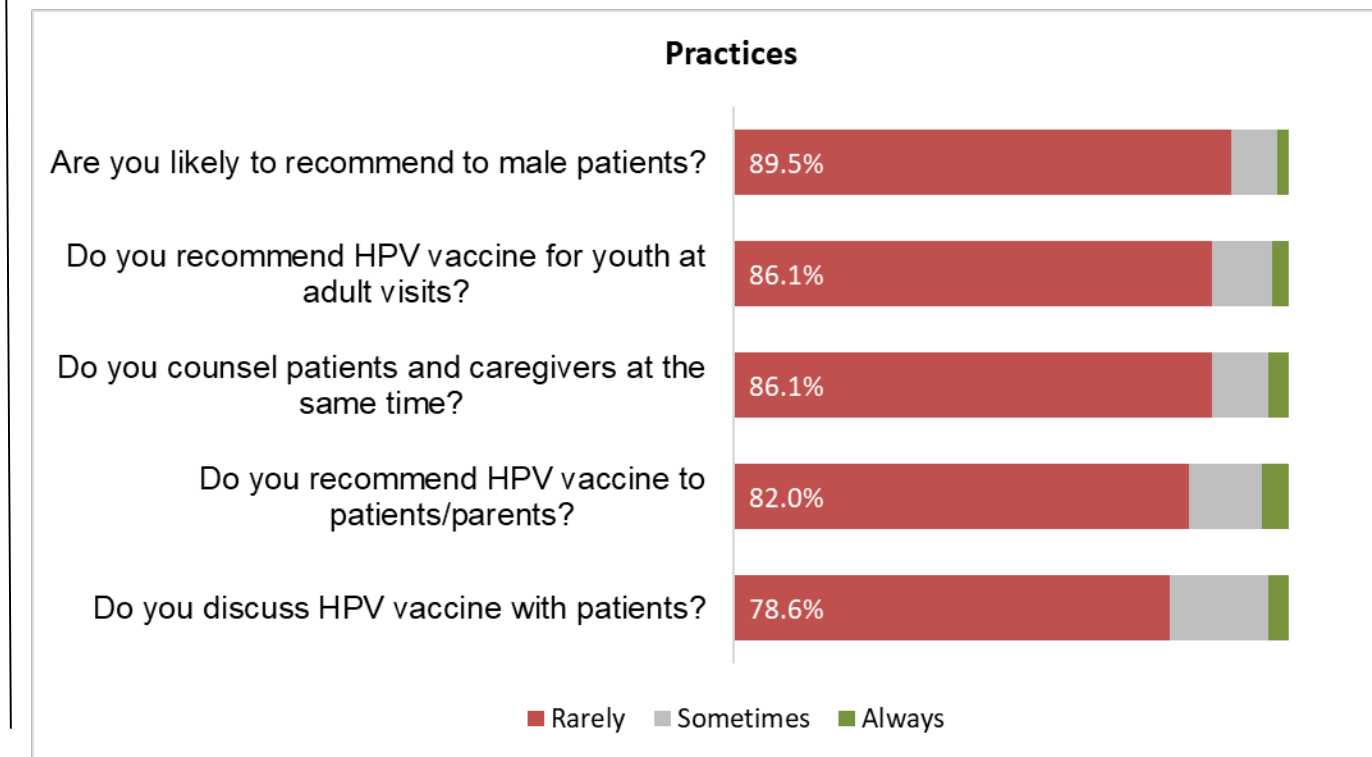
Provider Beliefs

- 90% believe it is important to play an active role in general medical care, but ~50% lack the knowledge to recommend the vaccine and/or believe it is not their responsibility.



Practices

- Both dentists and hygienists rarely discuss or recommend HPV vaccination

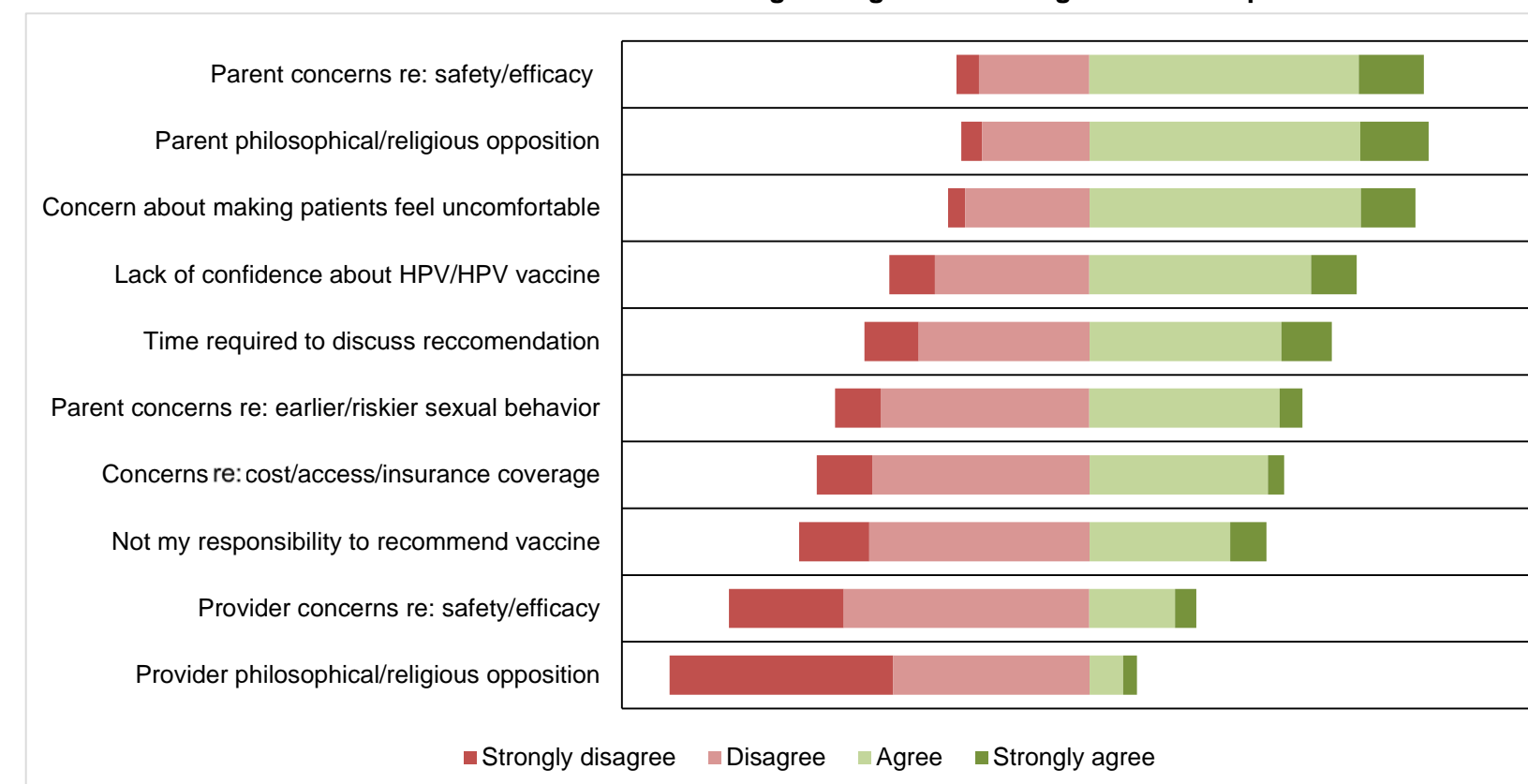


Barriers

Respondent Perception of Potential Barriers to Recommending HPV Vaccine

- Four barrier categories extracted from key informant interview analysis: provider knowledge/education, patient sensitivity, provider role/responsibility, practice constraints
- Categories were equally represented in analysis of survey free response text
- Provider perception of parental concerns/opposition is a greater barrier than their own
- Dentists/hygienists agree on top 4 barriers:
 - Not responsibility of dental provider (27%)
 - Lack of confidence in knowledge (19%)
 - Time constraints (14%)
 - Parent philosophical/religious opposition (11%)

Strength of agreement/disagreement with potential barriers:



In their own words: dental providers on recommending HPV vaccine

"Patients or their parents [would be] wondering why their dentist is recommending a vaccination for a sexually transmitted disease. Some patients look at dental providers as treating teeth only, and they don't connect oral health to the rest of their body." - Dentist

"People do not come for an oral prophylaxis to hear about STDs. I have enough trouble getting patients to floss. This is not my area to discuss. I discuss oral cancer and diabetes, as these issues effect the periodontium." -Dental hygienist



"You may be ahead of your time. We have not received guidance from the American Dental Association that dentists should be involved in the discussion of this vaccine." -Dentist

"Some parents' response is the insinuation that their child (children) would engage in sexual activity and it is none of my business. But this trend will change as more oral health care professionals broach the subject with their patients." -Dental hygienist

Conclusions

- Targeted provider education regarding HPV vaccine and guidelines for oral health care providers may help to address knowledge gaps and increase confidence.
- Providers may also need system supports to incorporate HPV vaccination counseling into practice.
- Although key informant interview analysis was not presented, barriers identified through this process aligned well with barriers reflected in survey results.
- Oral health care providers may overestimate parental philosophical and religious objections to vaccine administration, but further study is needed to confirm this hypothesis.
- High uptake of offered HPV dental patient educational materials suggests unmet need and motivation to incorporate into clinical practice.

References

- Miller, K., S.E. Dilley, and W.K. Huh, *Lessons learned from domestic and international human papillomavirus vaccination programs: a review.* Am J Obstet Gynecol, **2017**.
- Niccolai, L.M. and C.E. Hansen, *Practice- and Community-Based Interventions to Increase Human Papillomavirus Vaccine Coverage: A Systematic Review.* JAMA Pediatr, 2015. **169**(7): p. 686-92.
- Daley, E., et al., *Prevention of HPV-related oral cancer: assessing dentists' readiness.* Public Health, 2014. **128**(3): p. 231-8.
- Bernard, H.R., *Research Methods in Anthropology: Qualitative and Quantitative Methods 3rd Edition.* 2002: Altamira Press.

Acknowledgments

- Karen Royer RDH, Ellen B. Grimes, RDH, MA, MPA, Ed.D, and Wendy Everhart, DDS
- Matthew F. Daley, MD Kaiser Permanente Colorado Institute for Health Research
- Damon Silverman MD (ENT) and Lori Racha MD (Pediatrics), UVM Medical Center
- Vaughn Collins, Executive Director, & Jo-Anne Conant, Manager, VT State Dental Society
- Team Maureen Non-Profit Org.