

Educating School Nurses about Human Papillomavirus (HPV) Associated Cancers and the Importance of HPV vaccination



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Objectives

To assess and improve school nurse knowledge of HPV-associated cancers

Introduction

- It is established that the incidence of HPV associated oropharyngeal cancer is on the rise with recent statistics from the Center for Disease Control and Prevention (CDC) showing an increased incidence relative to cervical cancer.
- While the HPV vaccination is readily available and may have an impact on preventing these associated cancers, vaccination rates remain low.
- Some barriers to vaccination include fear of potential side effects, stigma associated with a sexually transmitted disease, and misinformation.
- Additional community education could help to diminish these barriers.
- The HPV vaccination series can begin at age nine.
- In addition to pediatricians, school nurses are often involved in childhood and adolescent healthcare, and are an integral part of patient education.
- Thus, it is important to assess the nurses' knowledge of the HPV vaccination, and educate them about HPV-associated cancers.

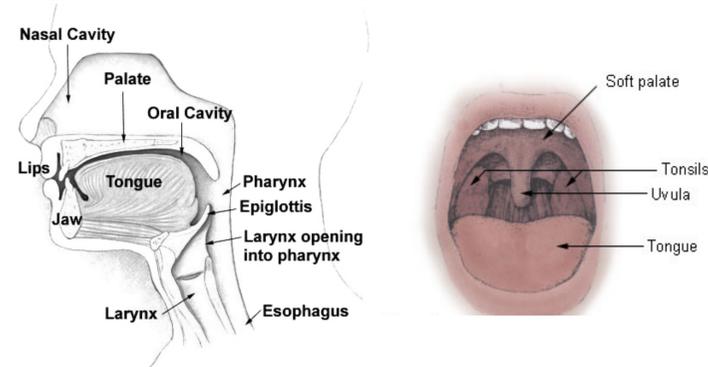


Figure 1: Anatomy of the Pharynx and Oral Cavity. Oropharyngeal squamous cell carcinoma is a cancer of the mucous lining of the back of the throat. The oropharynx is a subsite of the throat that include the tonsils, soft palate, and back of the tongue or what we call the base of tongue.

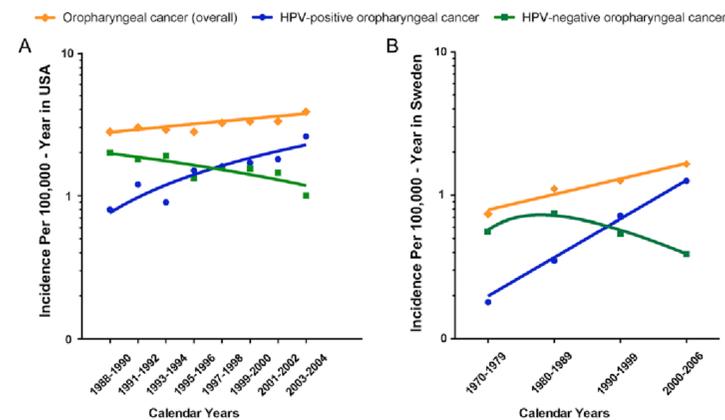


Figure 2: The rise of HPV-associated throat cancer. The incidence of HPV-associated throat cancer has been steadily rising over the past few decades (blue line). The incidence of HPV-related throat cancer now exceeds the incidence of HPV-related cervical cancer and over 70% of oropharyngeal cancer is HPV-related.

Methods

A brief audience response survey administered via PollEverywhere (www.poll.everywhere.com) with participants using their cell phones to anonymously submit responses, was given to school nurses at a regional conference to assess participants' baseline knowledge about HPV oncogenesis. Education was provided by a head and neck surgeon regarding HPV related cancers and the role of vaccination. A post intervention electronic survey was completed by participants to assess change in knowledge and expected practice changes after receiving this education.

Table 1: Pre-Education Survey questions

Question Number	Question
1	Who can HPV affect?
2	What percent of adults have been exposed to HPV?
3	Can HPV cause cancer?
4	If you think HPV can cause cancer, what kinds of cancer can it cause?
5	Is there a way to prevent HPV infection?

Results

In the pre-education survey, there were 39 respondents. Of those who completed the survey, 95% of participants knew that HPV could cause cancer and 90% specified that it can cause cervical, anal, vaginal, and throat cancer. The majority of participants (97%) were aware of a way to prevent HPV infection. The post-education survey given after the educational session was completed by 121 participants. Of these respondents, 90% indicated that this education session caused a change in their knowledge about HPV, with 83.2% indicating that they would make some type of change in their daily work.

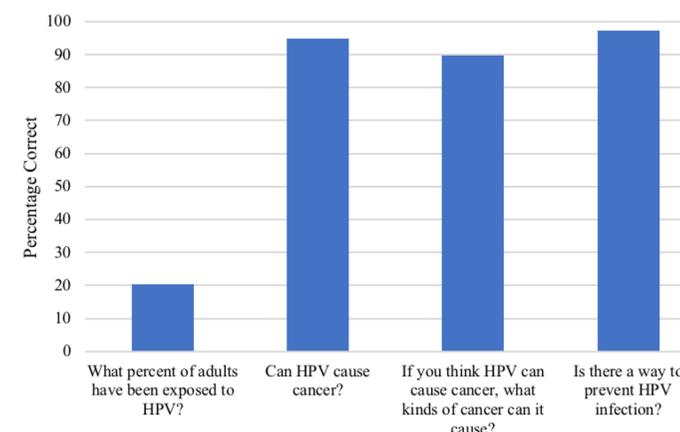


Figure 3: Responses to the Pre-Education Survey

Table 2: Post-Education Survey

Post-Education Survey Questions	
Question	Question Type
Please rate the change in your knowledge about human papilloma virus (HPV)	Multiple choice
What was the most significant thing you learned about HPV?	Free response
As a result of the HPV education, in my daily work, I will:	Multiple Choice
Comments related to program content	Free response
Overall Continuing Education Evaluation - Choose the Statements Which Apply	
Response Option	Percentage
I gained new strategies/skills/information which I can apply in my practice	80.0
I plan to implement new strategies/skills/information into my practice	57.6
I plan to make changes in my practice which will likely improve the health of my patients	44.8
This activity will not change my practice because my current practice is consistent with what was taught	8.8
This activity will not change my practice because I do not agree with the information presented	0.0
Overall Continuing Education Evaluation - What types of changes do you anticipate making	
Response Option	Percentage
Modify treatment plans	42.7
Change screening/prevention practices	29.0
Incorporate different diagnostic strategies	16.9
Change the way I communicate with patients, families, and the health-care team	64.5
I do not expect to change my practice	10.5
Not applicable	1.6

Conclusions

This project shows the importance of community education. While some nurses may be aware of the association of HPV with head and neck cancers, after an educational session, the majority of participants indicated a change in their knowledge and anticipated a change in practice due to the information provided. A simple educational intervention to community health workers and school healthcare providers can be impactful in the community understanding of HPV oncogenesis and role of vaccination.



SCAN! What is HPV? - Penn State Health Head and Neck Surgery

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