

AHNS Cancer Prevention Service Community Service Award Proposal

Background

The Indiana University Department of Otolaryngology and Head and Neck Surgery participate in an annual Head and Neck screening event with the Indiana University (IU) Student Outreach Clinic for the underserved population in Indianapolis, Indiana. Involving medical student, resident, and faculty volunteers to evaluate patients with thorough otolaryngologic exams, smoking cessation education, and patient navigation services has allowed for serving up to 50 patients within the past 2 years. Specific areas we aim to strengthen is improving patient education and implementation of HPV vaccination and vaccine-specific education with cancer screening.

According to America's Health Rankings, the State of Indiana ranks 40th in HPV vaccination rates overall, and rates of vaccination uptake in the urban underserved of downtown Indianapolis are even lower. Indiana also has documented higher rates of HPV-mediated cancer as a consequence.^{1,2} Prior literature has low HPV vaccination rates in underserved populations specifically due to inadequate knowledge and awareness of HPV, communication barriers, access to care, and/or medical mistrust.³⁻⁵ Research studies have highlighted that underserved populations who have received HPV vaccine education were more likely to receive the vaccination and recommend it to others.^{3,4} There remains a gap in the effectiveness of HPV vaccine education and subsequent pursuit of the vaccine for oropharyngeal cancer risk. Specifically, underserved communities may consist of adults from diverse racial/ethnic minority populations introducing language barriers and variation in awareness rates further emphasizing need for cross-cultural educational materials in multiple languages.⁶⁻⁸

This proposal provides a framework for an HPV vaccine workshop including two main facets: **1) an interactive educational session** with materials provided in multiple languages and **2) HPV vaccine administration** in the underserved Indianapolis student outreach clinic population. This workshop will serve as a pilot for a recurring HPV vaccination program integrated into future IU Student Outreach Clinics. This program will be conducted under supervision of faculty from the Indiana University Department of Otolaryngology–Head and Neck Surgery.

The Targeted Population:

Any patient who attends the IU Student Outreach Clinic for routine care with the Internal Medicine, Ophthalmology, and/or Dentistry departments may attend the workshop. Patient navigators from the other services will be recommended to refer patients to the workshop based on their risk factors (tobacco use, poor oral health, radiation exposure, etc).

The Methods:

During the workshop, there will be two teams present to either administer vaccinations or go through educational materials. We anticipate educating 20-40 patients with 4-5 receiving vaccination with grant support.

Education Session:

Prior to the workshop, the education team will communicate with the IU Student Outreach Clinic leadership team to identify common languages and ethnic populations seen at the clinic to inform language-specific educational pamphlets. Volunteers will initiate a patient-centered interaction

that identifies the following: language spoken, patient specific vaccine status, any vaccine hesitancy, and any other relevant demographic factors. A 5–10-minute educational session will continue involving the patient in understanding the risk of HPV in oropharyngeal cancer and will be offered to have the HPV vaccine. Topics include overview of what HPV is, its prevalence/how it can be spread, risk involved with oropharyngeal and other cancers (cervical), and how the vaccine works.

Vaccine administration:

Volunteers will inform patients of risks and benefits of vaccine administration and obtain informed consent. Vaccines will be stored in appropriate units until administration. Volunteers may also perform a head and neck clinical examination to screen for cancer at this time. After vaccine administration, patients will be provided a care bag including: toothbrush, toothpaste, floss kit, and information about the Indiana Quit Now tobacco cessation service.

Timeline

April 2026-May 2026: Purchase of language-specific pamphlets, Finalize purchase of HPV vaccines through private, institutional rate or public health partnership (State vs County Health Department).

June 2026: Recruitment of volunteers and conduct workshop

July 2026: Analyze Outcomes

The Expected Outcome/Impact on Community and Knowledge of H&N Cancer Prevention

HPV vaccination is a critical prevention strategy for HPV-associated oropharyngeal squamous cell carcinoma, which continues to rise in incidence. Accompanying this with head and neck clinical examination for cancer screening can assess an individual patient's immediate risk for cancer and referral further evaluation. Language specific education pamphlets will improve cross-cultural barriers that may have hindered educational conversations in prior screening days.

Primary Outcomes: 1) Number of patients receiving HPV education, 2) Number of HPV vaccines administered

Secondary Outcomes: 1) Pre/post survey of change in HPV knowledge, 2) Number of interprofessional students educated on HPV vaccination and HPV-mediated cancers

The Estimated Cost of Project

HPV Vaccine cost: \$650.00 – Sources for obtaining vaccines include Indiana Immunization Coalition, which provide free vaccination to uninsured individuals. This amount would be for obtaining vaccines for patients who do not meet eligibility criteria for free vaccines or storage units for vaccines.

Educational Materials including language specific HPV Pamphlets: \$200.00 – The volunteer team will work to obtain pamphlets from the Indiana State Department of Health for free. If unable to do so, this amount will be used for translator services, printing services for survey administration, and office supplies for workshop use.

H&N cancer care kit: \$150.00 – As mentioned above, the kit will include the following: Toothbrush, toothpaste, floss, a QR code for information about the Indiana Quit Now tobacco cessation service.

References

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