

Improving the Rate of HPV Vaccination in Adolescents and Young Adults with Disability

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Introduction

Overview of the Project

The purpose of this DNP project was to implement and evaluate the effectiveness of a clinic protocol to improve the uptake of the HPV vaccine in adolescents and young adults aged 11 to 26 years old with disabilities in a pediatric primary care clinic.

According to the NIS-Teen report only 55.8% of adolescents were up to date on their vaccine. Adolescents with disabilities were not accounted for, therefore the standard of care in this population might not be as consistent as adolescents without disability.

Background and Significance

HPV is the most common sexually transmitted disease in the United States. (CDC, 2020). An approximate of **79 million Americans** are infected with HPV (CDC,2020).

HPV is the leading cause of cervical cancer with over 91% of cases attributed (National Cancer Institute [NCI], 2021).

It was estimated that in 2021, 14,480 new cases of cervical cancer were recorded (NCI, 2021). The estimated annual treatment cost of HPV associated cancer is \$8 billion dollars (Chesson et. al., 2012). Individuals with disabilities are at high risk of not being vaccinated with the HPV vaccine, and at higher risk of contracting HPV compared to those without disability (Chandupatla et al. 2019). We currently know that HPV vaccine is the best way to prevent HPV virus (CDC, 2020) and strong physician recommendations have been cited as the single best predictor for HPV vaccination (American Academy of Family Physician [AAFP]2021). What we need to know is the Evidence-based practice research on the improvement of physicians' recommendation of the HPV vaccination of individuals with disabilities.

Needs Assessment

Considering the current status of the HPV vaccine uptake of 55.8% (NIS-Teen report 2020), and the increase in HPV preventable cancer (NCI, 2021); *Globally:* In 2018, the World Health Organization recorded 311,000 deaths and a total of 570,000 new cancer cases. *Nationally:* In September 2020, the U.S cancer registry recorded 25,405 female and 19,924 male HPV-associated cancer. *State:* New Jersey ranked among states with low coverage of HPV vaccine at 44.9% in 2019 (CDC, 2020)

Aims and Objectives

Aims

The aim of this DNP project was to **improve** the uptake of the HPV vaccine for individuals' ages 11 to 26 years old with disability in a pediatric health clinic in Nutley, New Jersey

Objectives

Perform a three-month retrospective chart review.

Design a three-step clinic HPV vaccine protocol.

Conduct a **20 minutes** staff in-service about the use of the protocol.

Mail the CDC information on HPV vaccine to parents or caregivers of individuals with disabilities.

Use a clinic alert system to remind patients of their well-visit appointment.

During office visit, implement the "Same Way Same Day" vaccination improvement strategy. Perform a three-month prospective chart review.

Create a survey for staff to evaluate the clinic protocol.

Methodology

Project Design

A retrospective and a prospective approach was used for data collection during a pre and post implementation of the clinic protocol.

Setting

A pediatric care clinic in Nutley, New Jersey with an approximate monthly visit of 600 patients and 10 % of this number being individuals with disability ages 0-26 years old.

Project Population

Forty chart sample of unvaccinated adolescents and young adults with disabilities ages 11 to 26 years old.

Recruitment strategy

This project design consists of a retrospective and a prospective chart review. Subject recruitment was not necessary. A brief introduction of the project was provided to the clinic staff members pre-implementation *Consent*

In this quality improvement project, a waiver of consent process was adopted. However, duties of confidentiality was established under HIPAA privacy rule.

Result

Retrospective chart review included forty chart sample of adolescents and young adults with disabilities age 11 to 26 years old who had not been vaccinated with the HPV vaccine.

Gender

Male 62.5% (n=25) Female 37.5% (n=15) Age

Mean age of chart sample 13.9 years

HPV Vaccination

Unvaccinated retrospective chart Review = 100% (n=40)

Pre-implementation (Appointment scheduled) = 27.5% (n=11)

Post-implementation (Appointments Kept) = 7.5% (n=3)

Vaccinated prospective chart review = 7.5% (n=3)



HPV vaccine protects against HPV types that most commonly cause anal, cervical, oropharyngeal, penile, vaginal, and vulvar cancers.

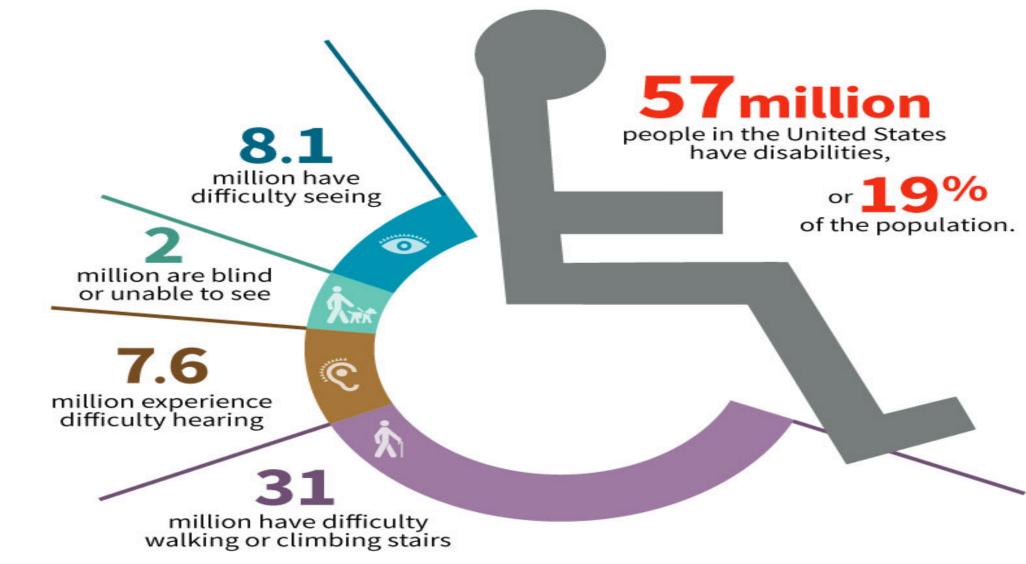
U.S., 27,000 people get cancer caused by HPV.

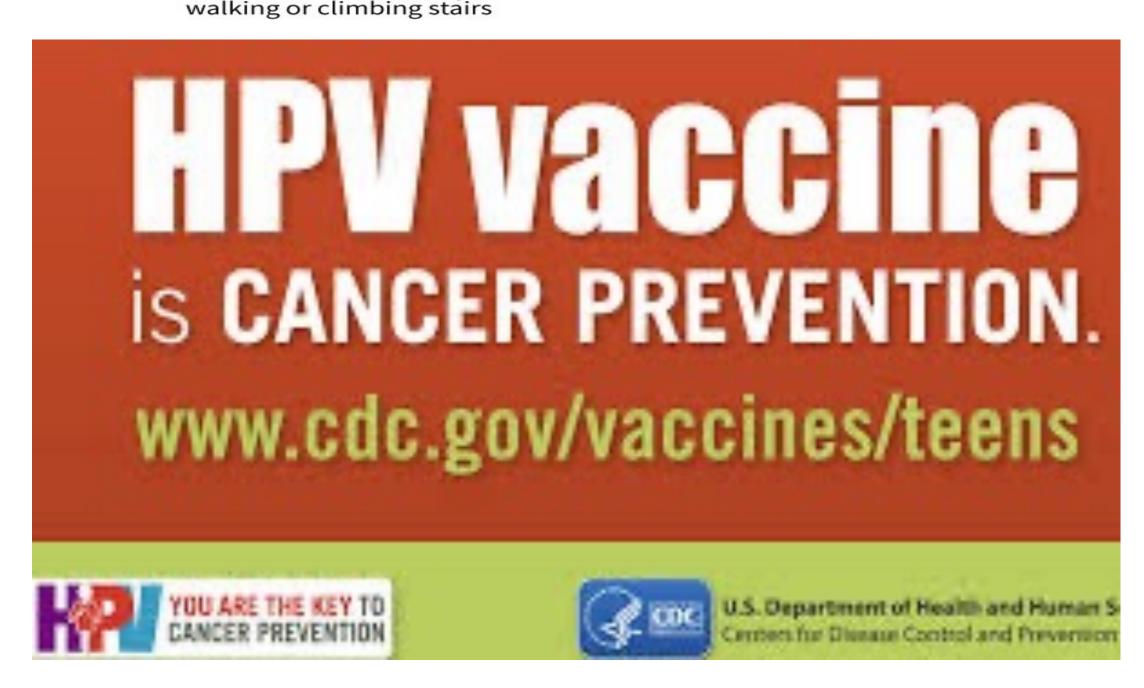


That's 1 person every 20 minutes of every day, all year long.

Most of these cancers can be prevented by HPV vaccine.

American Disabilities





Discussion/Implications

It is anticipated that the implementation of the clinic protocol at the primary care practice, will improve providers recommendation and the uptake of HPV vaccine in adolescents and young adults ages 11 to 26 years old with disability will increase. Although the office medical assistant and provider are encountering setbacks from caregiver, the focus on clinical practice guidelines about HPV vaccine has improved tremendously. Additionally, the delivery of a comprehensive level of care in this population is anticipated. Finally, it is believed that this quality improvement project will provide a foundation for vaccine dialogue between the provider, caregivers of / individuals with disability.

References

Center for Disease Control and Prevention (2021a). *Genital HPV prevention; Fact Sheet* https://www.cdc.gov/std/hpv/stdfact-hpv.htm Center for Disease Control and Prevention (2020c). 2008 to 2019 HP 2020 HPV vaccination coverage trend report: Center for Immunization and Respiratory diseases https://www.cdc.gov/vaccines/imz-managers/coverage/teenvaxview/data-reports/hp2020/trend/hpv.html

National Cancer Institute (2019). *Human Papillomavirus (HPV) Vaccines*. https://www.cancer.gov/about-cancer/causes-prevention/risk/infectious-agents/hpv-vaccine-

sheet#:~:text=The%20trials%20that%20led%20t o%20approval%20of%20Gardasil%209%20foun d,that%20it%20targets%20(6)

National Vaccine Advisory Committee (2016).

Overcoming Barriers to Low HPV Vaccine
Uptake in the United States: Recommendations
from the National Vaccine Advisory Committee:
Approved by the National Vaccine Advisory
Committee on June 9, 2015. *Public health reports*(Washington, D.C.: 1974), 131(1), 17–25.
https://doi.org/10.1177/003335491613100106

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