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An Evidence-Based Protocol to Improve HPV Vaccine Initiation Rates at a County Immunization Clinic

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Purpose: Human Papillomavirus (HPV) is responsible for 26,900 cancer cases each year in the United States, including cervical, penile, and throat cancers. The 9-valent HPV vaccine (HPV 9) can provide nearly 100% protection against cancer-causing strains of HPV with two to three doses, depending on age of series initiation. Despite this, only 68.9% of American teenagers receive even one dose, far below the Healthy People 2020 goal of 80% series completion.

Methods: Vaccine rates were examined via chart review before and after an evidence-based, multi-modal protocol to increase rates was implemented at a nurse-run, walk-in immunization clinic. Protocol steps included use of standing orders, an educational session for all staff targeting beliefs about the vaccine and recommendation skills, and a script to encourage "same way/same day" recommendation practices. Healthcare providers practiced recommending HPV 9 on the same day and in the same way as other adolescent vaccines, including Tdap and MenACWY. Staff completed a 13-question knowledge survey designed by the National Area Health Education Centers immediately following the educational session. Non-clinician staff were included in protocol implementation.

Results: Vaccine initiation rates increased from 17.9% in 2017 to 35.5% in 2018 ($p=0.019$) overall and from 20.8 in 2017 to 41.9% in 2018 ($p=0.041$) among male patients. Rates also increased among female patients, from 13.9% in 2017 to 27.3% in 2018, but this increase was not statistically significant ($p=0.233$). 87.5% of staff responded to the knowledge survey; 100% of respondents reported comfort with same way/same day recommendation practices.

Conclusion: This project provides support for targeting healthcare provider beliefs about vaccines and skills in recommending them as a method to increase vaccination rates. Use of same way/same day recommendation practices, workflow-focused interventions, and inclusion of non-clinician staff in care could improve quality of care and decrease HPV-related disease. Future studies could track insurance status and implement multi-modal protocols in other settings.

Title:

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Keywords:

adolescent health, public health and vaccine

Abstract Summary:

Human Papillomavirus (HPV) is responsible for 26,900 cancer cases each year in the USA, but not all teenagers are vaccinated against it. This project examines vaccine initiation rates before and after implementation of a multi-modal protocol at a nurse-run immunization clinic. Rates increased with use of same way/same day recommendations.

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