



CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

Award ID:
PP140183

Project Title:
Multi-component Interventions to Increase HPV Vaccination in a Network of Pediatric Clinics

Award Mechanism:
Evidence-Based Prevention Programs and Services

Principal Investigator:
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Entity:
The University of Texas Health Science Center at Houston

Lay Summary:

High-risk human papillomavirus (HPV) types cause about 70% of cervical, 90% of anal, 60% of oral, and 40% of vaginal, vulvar, and penile cancers. Low risk HPV types cause 90% of genital warts. HPV-related morbidity and mortality can be reduced through vaccination. Despite evidence of safety and efficacy, and endorsement by professional organizations, HPV vaccination rates are well below the 2020 Healthy People target of 80%. HPV initiation rates in our target population are lower than those in Houston: 38% vs. 56% for girls and 25% vs 38% for boys aged 11-17 years. Data from the 2008-2010 NIS-Teen survey found that provider and healthcare system factors were important determinants in parents' decisions to vaccinate their child against HPV. The single most important determinant was receiving a recommendation from a healthcare provider. However, only 40% of physicians report routinely recommending HPV vaccination for 11-12 year old girls and only 33% report recommending it for 11-12 year old boys. A recent review of healthcare professionals' communication practices about vaccines for sexually-transmitted infections found that providers were hesitant to recommend HPV vaccine due to lack of knowledge about vaccine safety, efficacy, and current recommendations as well as misperceptions about parental barriers to vaccination.

The overall goal of our project is to increase initiation and completion of HPV vaccination among male and female patients ages 11-21 in a pediatric clinic network with 48 clinics in 5 counties in the greater Houston area. Our specific goals and objectives are:

- (1) Deliver a multi-component program to healthcare professionals at Texas Children's Pediatrics (TCP) clinic network to increase knowledge and communication skills regarding HPV and the HPV vaccine. We aim to deliver the program to 1,000 healthcare professionals.
- (2) Increase HPV vaccination initiation among male and female patients 11-21 years of age at TCP clinics. We will reach approximately 113,700 unvaccinated patients. We aim to increase HPV vaccine series initiation by 10% over baseline or 16,700 patients.
- (3) Increase HPV vaccination completion among male and female patients 11-21 years of age at TCP clinics. We will reach approximately 25,000 patients due for a second or third

dose of HPV vaccine. We aim to increase HPV vaccine series completion within one year by 10% over baseline, accounting for an additional 5,350 second and third doses administered.

To accomplish these goals, we will: (1) Develop, pretest, and implement a multi-component project targeting providers and the healthcare system; (2) Conduct process evaluation to monitor project implementation, inform interpretation of results, ensure sustainability, and guide adaptation for dissemination; (3) Evaluate the effect of the project on provider attitudes and practices; (4) Evaluate the effectiveness of the project on vaccination rates; (5) Plan for dissemination of successful components of the project to all clinics in the TCP network and to other similar healthcare systems.

Over the past year we formed a collaborative partnership of researchers, healthcare providers, and administrators from The University of Texas School of Public Health, Baylor College of Medicine, and the TCP clinic network. We worked with medical and professional staff at TCP to identify ways to improve initiation and completion of HPV vaccination using technology and data systems currently in place to ensure the sustainability of strategies we find to be effective and to facilitate dissemination to other sites. We identified evidence-based strategies that were effective in a range of settings and populations at increasing vaccination rates in children and adults, but have not yet been widely used for HPV vaccination. We selected several strategies previously shown to be effective, including provider reminders, provider assessment and feedback, client reminder and recall systems, and reducing out-of-pocket costs. We will implement these strategies using TCP data and technology systems and evaluate their effectiveness at increasing HPV vaccine initiation and completion. Our project will extend the evidence on effectiveness of these strategies to HPV vaccination.

The need to focus on providers and healthcare systems, as proposed in this application, is supported by the literature, including several recent systematic reviews and by the President's Cancer Panel's recent report that concluded: "Targeted efforts should be made to address factors that keep providers from strongly recommending HPV vaccines". CDC estimates that HPV vaccination initiation would reach over 90% if providers' recommendations for HPV vaccination were similar to recommendations for other adolescent vaccines because parents cite healthcare providers as their most frequent and trusted source of vaccine information.