



## CANCER PREVENTION & RESEARCH INSTITUTE OF TEXAS

Award ID:  
PP160079

Project Title:  
Leveraging a Community Network for Cancer Prevention to Increase HPV Vaccine Uptake and Completion among Pediatric Patients in a Safety Net Healthcare Setting

Award Mechanism:  
Evidence-Based Prevention Programs and Services

Principal Investigator:  
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Entity:  
Baylor College of Medicine

### Lay Summary:

Need Each year, there are 26,900 cases of human papillomavirus (HPV)-associated cancers in the United States. Cervical cancer is the most common HPV-associated cancer, with 12,000 new cases each year. Other HPV-associated cancers are anal, vulvar, penile, vaginal, and oropharyngeal cancer, with the incidence of the latter expected to surpass that of cervical cancer by 2020. While effective screening tools have been responsible for the dramatic decline in the incidence of cervical cancer over the last several decades, similar tools do not exist for other HPV-associated cancers. Furthermore, screening has been unable to eliminate staggering health disparities in cervical cancer incidence and mortality. Vaccination against HPV is thus imperative to prevent cervical and non-cervical cancers in men and women and reduce cancer health disparities.

There are currently 3 commercially licensed HPV vaccines, which are administered as a three-dose series to adolescent males and females. However, despite the potential of the vaccine to prevent against cancer, vaccine coverage in the U.S. and Texas is unacceptably low. Nationally in 2014, only 40% of teenage girls and 22% of teenage boys completed the vaccine series. Coverage in Texas lags behind, with coverage rates of 34% and 18% among teenage girls and boys, respectively. Within Harris Health System, the county's safety net provider, vaccine series completion is similar among girls and boys, 26% and 30% respectively, but remains lower than the national and state average for girls. Comprehensive, systems-based interventions are needed to address missed opportunities for initiating and completing the HPV vaccine.

Overall Project Strategy The Community Network for Cancer Prevention (CNCP) is an academic-community partnership between Baylor College of Medicine, Harris Health System, and several academic and community-based healthcare institutions that aims to reduce the burden of cancer among medically underserved populations in Harris County, Texas. With CPRIT funding, the CNCP currently leads two comprehensive cancer prevention programs that aim to increase cervical, colorectal, and breast cancer screening and diagnostic follow-up primarily among patients within Harris Health System. We strongly believe our highly successful CNCP model can effectively be adapted to improve HPV vaccine initiation and completion among medically underserved pediatric patients within the Harris Health System.

Our proposed project uses a comprehensive approach to address barriers that exist at multiple stages within the continuum of vaccine delivery. Specifically we propose: 1) an effective patient (parent) education model to increase parents' awareness of the benefits of the HPV vaccine and promote vaccination of their age-eligible children; 2) provider training to teach providers to engage in effective provider-parent vaccine discussions and give a strong vaccine recommendation; 3) a tiered tracking, reminder/recall, and patient navigation system to ensure completion of the HPV vaccine series; and 4) ongoing assessment and feedback of vaccination rates to providers to increase their motivation to use evidence-based strategies to increase vaccine uptake and completion.

**Specific Goals** With these 4 evidence-based strategies as the pillars of a comprehensive, multi-level intervention, the proposed project will 1) increase the proportion of pediatric patients at Harris Health System who initiate the HPV vaccine series; 2) increase the proportion of pediatric patients who complete the HPV vaccine series; and 3) promote continuous performance improvement through ongoing process evaluation and reporting. The proposed project will serve an estimated 23,490 medically underserved pediatric patients and their families over the project period, as well as 226 healthcare providers. It will involve an estimated 41,691 encounters with patient/parent-targeted activities and 1,356 encounters with provider-targeted activities (total: 42,618 encounters). Collectively, these activities will increase HPV vaccine completion at Harris Health by 60% over the initial project period.

**Significance and Impact** The proposed project will significantly increase the number and proportion of adolescent patients within Harris County's safety net healthcare system who are protected by the HPV vaccine against HPV-associated cancers. Additionally, it will establish a comprehensive model that can be used in other healthcare systems to enhance the uptake and completion of the HPV and other anti-cancer vaccines. These efforts will contribute to the CPRIT's goal to increase the vaccination rate for vaccines shown to reduce the risk of cancer. Most importantly, as vaccine-protected adolescents mature into adulthood, it will ameliorate the unjust cancer health disparities that continue to hinder Texas' and the nations' commitment to health equality.