

The Give Teens Vaccines Study

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Organization:	The Children's Hospital of Philadelphia Pediatric Research Consortium
Contract Number:	290-07-10013-4
Project Period:	September 2009 – March 2012, Including No-Cost Extension
AHRQ Funding Amount:	\$500,000
Summary Status as of:	December 2010

Target Population: Teenagers

Summary: Immunization rates have been designated as one of the leading health indicators for the Nation by Healthy People 2010. They are particularly useful as measures of the quality of pediatric care because immunization schedules are clearly delineated, nationally standardized, and structured to protect children and adolescents from life-threatening illnesses. While much attention has historically been focused on the immunization of infants and young children, recent licensing of new vaccines for adolescents has broadened the population requiring timely vaccination. However, effectively delivering adolescent vaccines, especially the quadrivalent human papillomavirus (HPV) vaccine, has been challenging. According to the most recent National Immunization Survey, rates of HPV vaccination are the lowest for all adolescent vaccines.

The Children's Hospital of Philadelphia (CHOP) Pediatric Research Consortium (PeRC) is evaluating the impact of clinician-focused and patient/family-focused health information interventions on HPV vaccination rates among adolescents. The PeRC network serves as an integrated pediatric care delivery system, with shared administrative structure and a shared state-of-the-art electronic health record (EHR), EpicCare, which is certified by the Certification Commission for Health Information Technology. This study compares the effectiveness of targeting immunization decision support at families versus clinicians by conducting two parallel trials: a cluster-randomized trial aimed at clinicians and a family-level randomized trial. The planned intervention will employ multiple evidence-based strategies to influence HPV vaccine delivery and receipt in primary care. For clinicians, these include education, clinical decision support, audit, and feedback on vaccination success measured as the proportion of eligible patients seen by a clinician and given the vaccine during each month of the study. Family-focused decision support will remind parents and their adolescent child that the vaccine is due through phone calls that provide educational information on the vaccine, and offer links to additional information on a Web site designed for this project that combines content available through the CHOP Vaccine Education Center.

The evaluation of these two distinct approaches will provide information on the impact of these alternate strategies, alone or in combination, on HPV vaccination rates. The study will advance understanding of how to use health information technology (IT) to engage adolescents and families with clinicians in health decisions and will inform future interventions aimed at improving health for children and adolescents.

Project Objectives:

- Determine the impact of clinician-focused, EHR-based decision support at the point of care on the receipt of HPV vaccine among adolescents. **(Ongoing)**

- Determine the impact of family-focused, health IT-based decision support on HPV vaccine receipt (main outcome) and families' uncertainty regarding HPV vaccination (exploratory). **(Ongoing)**

2010 Activities: The family-focused reminder calls and the clinician-focused vaccine alert systems were tested, and went live on May 9, 2010. The alerts have been appearing at the intervention sites whenever a patient encounter is opened in the EHR for a patient due to receive a study vaccine.

At the start of the study, the lead investigator visited the 11 intervention sites and presented information about the study, as well as information on vaccine safety, efficacy, and potential health benefits. Since then, the project team has been delivering feedback reports to clinicians at intervention sites on a quarterly basis, listing the rates of captured immunization opportunities for each provider and practice, as well as the entire care network.

The project team conducted a pilot study involving interviews with 20 parent-clinician-adolescent triads, to learn more about how communication and decisionmaking between clinicians, parents, and adolescent girls may impact HPV vaccine receipt.

A cohort study nested within the larger trial is currently underway to understand in greater detail the impact of the decision support interventions on families and their decisionmaking process. The survey instrument was developed, pilot-tested, and is currently being fielded.

Preliminary Impact and Findings: Results of the pilot study are being prepared for presentation at the annual meeting of the Pediatric Academic Societies during April 2011. They will also be discussed at the International Shared Decision Making meeting in the Netherlands during June 2011.

As of December 2010, over 20,000 families and 22 primary care practices have been enrolled in the clinical trial. Data analysis will begin in summer 2011 and will show the relative impact of phone calls and provider alerts for each dose of the HPV vaccine. Additional analyses will help the project team better understand the impact of these systems among adolescents of different ages. The impact of the intervention in suburban and urban settings will also be considered. Beginning in the summer of 2011, the project team will also be analyzing the results of the nested cohort study.

Strategic Goal: Develop and disseminate health IT evidence and evidence-based tools to improve health care decisionmaking through the use of integrated data and knowledge management.

Business Goal: Knowledge Creation