

The Give Teens Vaccines Study

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Organization:	The Children's Hospital of Philadelphia Pediatric Research Consortium
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Summary: Immunization rates were 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 historically much attention has been focused on the immunization of infants and young children, recent licensing of new vaccines for adolescents has broadened the population that requires timely vaccination. However, effectively delivering adolescent vaccines, especially the quadrivalent human papillomavirus (HPV) vaccine, has been challenging. According to a recent National Immunization Survey, rates of HPV vaccination are the lowest of 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). This study is comparing 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 employs 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 reminds 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 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:

- Conduct a qualitative study to better understand decisionmaking at the point of care and generate hypotheses to inform interventions to increase vaccine receipt. **(Achieved)**
- Test the benefit of clinician-directed versus family-directed decision support, delivered using the EHR, on receipt of HPV (primary outcome) and other vaccines for adolescent girls. **(Achieved)**
- Assess the acceptability of this intervention among parents and its effect on HPV vaccine communication and decisionmaking. **(Ongoing)**

2011 Activities: The focus of activity was on placing reminder calls to parents; providing vaccine alerts to clinicians; and delivering quarterly feedback reports to clinicians at intervention sites with the rates of captured immunization opportunities for each provider and practice and the entire care network. In addition, a survey was conducted as part of a nested cohort study to understand in greater detail the impact of the decision support interventions on families and their decisionmaking process. Data collection and analysis of this survey has been completed.

Results of the pilot study conducted in 2010, involving interviews with 20 parent-clinician-adolescent triads, were presented at the annual meeting of the Pediatric Academic Societies in April 2011. Dr. Fiks also presented these results at the International Shared Decision Making meeting in the Netherlands in June 2011.

An article titled “[HPV vaccine decision making in pediatric primary care: a semi-structured interview study](#)” was published in *BMC Pediatrics* in November 2011, discussing the qualitative sub-study of clinicians, mothers, and adolescent girls. The contract was extended by 6 months and will now end in March 2012. The project team will use this time to develop a manuscript on the progress of the clinical trial.

Preliminary Impact and Findings: For HPV doses 1, 2, and 3, the combined family and clinician decision support intervention was the most effective, shortening time to receipt of each dose by 151, 68, and 93 days and increasing vaccination rates by 9 percent, 8 percent, and 13 percent, respectively, compared to no intervention. The clinician-focused intervention was superior to the family-focused group for HPV dose 1, but inferior for doses 2 and 3. The intervention had little effect on Tdap (tetanus, diphtheria, and acellular pertussis vaccine) and MCV (meningococcal vaccine).

Target Population: Pediatric*, Teenagers

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

* *This target population is one of AHRQ's priority populations.*