

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 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 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) has evaluated 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 a shared administrative structure and state-of-the-art electronic health record (EHR). This study compared the effectiveness of targeting immunization decision support to families versus clinicians by conducting two parallel trials: a cluster-randomized trial aimed at clinicians, and a family-level randomized trial. The intervention employed multiple evidence-based strategies to influence HPV vaccine delivery and receipt in primary care. For clinicians, these included education, clinical decision support, and 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 included phone calls to remind parents and their adolescent child(ren) that vaccine was due, and a link to a Web site designed for this project that features content from the CHOP Vaccine Education Center.

The evaluation of these two distinct approaches provides information on the impact of these alternate strategies, alone or in combination, on HPV vaccination rates. The findings from this study help to advance understanding of how to use health information technology (IT) to engage adolescents and families with clinicians in health decisions, and 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)**
- To 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)**
- To assess the acceptability of this intervention among parents and its effect on HPV vaccine communication and decisionmaking. **(Achieved)**

2012 Activities: The focus of activity was on analysis of the clinical trial data and preparation of a manuscript, [Effectiveness of Decision Support for Families, Clinicians, or Both on HPV Vaccine Receipt](#) published in *Pediatrics*. Results of the clinical trial were presented at the National Immunization Conference Webinar in March, at the annual meeting of the Eastern Society for Pediatric Research in April, at the annual meeting of the Pediatric Academic Societies in May, and at the North American Primary Care Research Group Practice-Based Research Network Meeting in June.

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, 8, 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.*