# An Evaluation of an Interactive Social Media Web site for Parents who are Concerned about Immunizing their Children

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**Summary:** Immunizations are one of the most significant public health achievements of the 20th century, preventing more than 2 million deaths per year worldwide. However, as the incidence of vaccine-preventable diseases has declined, public concern has shifted from disease transmission to vaccine safety. An increasing number of parents in developed countries now believe the risks of vaccines outweigh their benefits. Research has shown that parents who decline or delay immunizations greatly increase their children’s risk of pertussis (whooping cough), varicella (chicken pox), and measles infections. Research also shows that the health information that vaccine-hesitant parents obtain from the Internet is often inaccurate and biased.

Effective intervention strategies are needed to reduce parental concerns about immunizations. The objective of this study is to develop and evaluate an interactive social media Web site for parents who have concerns about vaccines. The Web site features an interactive vaccine scheduler as well as various social media applications including a blog, a discussion forum, and a chat room. It is also a resource for providers who are interested in obtaining information about the latest vaccine-related concerns and discussing vaccine-related topics with other providers.

The Web site will be piloted among patients and physicians of Kaiser Permanente Colorado (KPCO), a closed-panel, group-model health maintenance organization that provides integrated health care services to the Denver-Boulder Metropolitan Area. The Web site will be moderated by physicians and vaccine researchers at the KPCO Institute for Health Research. Use of the Web site will be qualitatively and quantitatively assessed over time and will include a longitudinal assessment of the pilot cohort’s knowledge, attitudes, and beliefs about immunizations. This pilot investigation will inform future research to implement a larger, integrated behavioral health intervention to reduce parental concerns about vaccinations and increase immunization rates.

**Specific Aims:**

- Design and develop an interactive, social media Web site devoted to immunizations. *(Ongoing)*
- Conduct a qualitative, formative evaluation of the social media Web site using focus groups. *(Achieved)*
- Qualitatively and quantitatively evaluate Web site usability through one-on-one testing sessions with end users. *(Ongoing)*
- Pilot test the social media Web site with a representative cohort of end users over a 6-month followup
2011 Activities: The interactive social media Web site was developed. Vandiver Group, Inc., built the Web site platform, and Dr. Glanz and his team wrote the Web site content. Significant consideration was given to deciding on the tone of the Web site. Dr. Glanz took a pro-information approach that includes validating concerns about vaccination and providing high-quality educational information. While the Web site is inherently pro-vaccine, Dr. Glanz did not want it to be so overt that undecided parents would be turned off.

Focus groups were conducted among parents who refused, delayed, or accepted vaccines for their children. Feedback from the focus groups was analyzed and the Web site is being modified to reflect the input from the focus group participants. One such modification was the addition of a table of all vaccines used by KPCO and the ingredients in those vaccines. The research team has received several requests from KPCO pediatricians to use the ingredient table in their practices, so the practices can share copies of the table with their patients. The research team also created a video that is prominently featured on the Web site. The video features two KPCO pediatricians who are married and have children and discuss childhood vaccination.

As last self-reported in the AHRQ Research Reporting System, project progress and activities are mostly on track and project budget spending is roughly on target. They are slightly behind due to initial delays with Web site development, but do not expect this to affect their overall project deadlines.

Preliminary Impact and Findings: The feedback from the focus groups was very positive. All participants liked the Web site, regardless of whether they refused, delayed, or accepted vaccines for their children. Participants reported that the tone of the Web site was inclusive, informative, and unbiased. Several participants remarked that they were happy to see that the money did not come from a private organization, or an organization known for pushing a particular vaccine agenda. Participants appreciated the information explaining the diseases, and some even requested additional information. The interactive vaccine scheduler and the video were also popular features of the Web site. Criticisms included that participants felt that the interactive tool that explains aluminum levels present in vaccines was not clear, and they wanted to see more photographs of fathers on the Web site. Parents wanted additional information about vaccines as well as clearly cited references.

Target Population: Other Conditions: Pertussis, Varicella, Measles, Pediatric*

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.