

Improvements and Upgrades to the Electronic Preventive Services Selector

Principal Investigator:	McCormack, Lauren, Ph.D., M.S.P.H.
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Summary: In October 2006, the Agency for Healthcare Research and Quality (AHRQ) introduced the [Electronic Preventive Services Selector \(ePSS\)](#), an interactive tool that provides real-time decision support for clinicians as they select preventive services for patients. The tool cross-references patient characteristics, such as age, gender, and selected behavioral risk factors, with the recommendations of the U.S. Preventive Services Task Force (USPSTF), covering 79 separate preventive services topics. The search results provide a summary of recommendations tailored to a given patient, including screening tests, counseling topics, and information on preventive medications. The ePSS was originally designed as a Web-based tool, but has subsequently been made available for all mobile platforms.

This project's evaluation of the current ePSS provided an opportunity to improve its content to help providers better engage patients in discussions of preference-sensitive recommendations and develop new tools and resources requested by health care providers. In order to make recommendations for changes to the ePSS, a range of formative research methodologies were used, including interviews with clinicians, ethnographic observation of clinicians using the tool with patients, and a user survey on facilitators and barriers to ePSS use in clinical settings, along with users' preferences for enhancements. Over the course of the project, a 10-person technical expert panel (TEP), consisting of clinicians, researchers, and health technology experts, provided suggestions and feedback to the project team. Content was assessed by the following criteria: 1) ability to enhance clinicians' communication with patients about USPSTF recommendations; and 2) ability to increase clinicians' awareness, understanding, and consideration of USPSTF recommendations. The project team also developed a strategy for developing and integrating updated content into the ePSS seamlessly to ensure a functional product, as well as a plan for enhancing the features and functionality of the ePSS.

Project Objectives:

- Identify and engage a technical expert panel to provide feedback in the research design, findings from the analysis, and final recommendations. **(Achieved)**
- Conduct formative research with tool users to understand barrier and facilitators to use as well as preferences for enhancements. **(Achieved)**
- Identify, develop, and prioritize a subset of recommendations for new ePSS content. **(Achieved)**
- Develop and test new content and functionality that improves the utility of ePSS with clinicians. **(Achieved)**

2012 Activities: Following the formative research phase that was conducted in 2011, the focus of activity in 2012 was on developing and testing the new content and functionality of the ePSS. This included the development of new resources that allow clinicians to provide patients with information on individual

USPSTF recommendations. AHRQ was involved in the iterative process of reviewing materials before they were tested on the appropriate audiences. Three rounds of testing were conducted to see if the newly developed materials helped patients better understand the USPSTF recommendations and make shared decisions with their clinicians. The TEP continued to be engaged in the process of providing feedback on the analysis and final recommendations.

In addition to improving the content and functionality of the ePSS, the project team developed a clinician's guide to help improve communication with patients about the USPSTF recommendations. A Web-based clinician guide is a longer, more in-depth shared decisionmaking guide that clinicians can explore over time. A Quick Guide, available both online as a PDF with graphics and on a mobile device in a simpler, graphic-free format, was designed to be accessed 'on the go', or when clinicians only have a few minutes of free time.

The project concluded in March 2012.

Impact and Findings: The project team analyzed 6 months of ePSS system data and user analytics, conducted interviews with clinician users of the tool, observed clinicians using the tool with patients, and conducted user surveys. Key findings emerged across the formative research and subsequent rounds of materials testing. Overall, clinicians were interested in providing their patients with ePSS-related handouts. However, when a particular preventive service or screening was not recommended for an individual, patients often had difficulty understanding and accepting that not getting a service was appropriate. By testing draft materials with health care consumers, the project team confirmed that most participants in the testing believed that screening is always beneficial, with one participant even stating that "screening is a right." The idea that testing can lead to harm, including risk from the screening test itself or having false positives lead to unnecessary further testing and treatment, was difficult for most patients to understand. Several participants in the materials testing reported that the information about risk factors in the handouts was some of the most useful information. At the same time, they suggested adding more information on the incidence of each health condition.

The project team collected input, mostly positive, from the TEP members and clinicians on the draft patient materials and clinician guide. As per the feedback, the content was edited to ensure the use of active, declarative statements and to eliminate unnecessary information. Additional utility and content revisions were made based on clinician feedback.

Through the course of formative research, development, and testing of the current improvements to the ePSS, the project team had the opportunity to consider additional improvements and future directions for the tool. In general, the ePSS was found to be a promising platform for disseminating further information and resources about preventive services. The project team recommended that AHRQ consider incorporating the following content into the tool:

- Video clips modeling effective clinician and patient communication
- Specific talking points for clinicians
- Clinical discussion materials, such as additional charts and graphics, that clinicians could use to discuss recommendations with their patients
- Information about routine vaccination schedules

Target Population: General

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

Business Goal: Knowledge Creation
