

## Using Short Message System (SMS) to Improve Health Care Quality and Outcomes Among HIV-Positive Men

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<b>Contract Number:</b>	290-06-0001-7
<b>Project Period:</b>	May 2009 – March 2011
<b>AHRQ Funding Amount:</b>	\$399,950
<b>Summary Status as of:</b>	December 2010

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**Target Population:** HIV/AIDS, Men\*

**Summary:** More than 230 million cell phones were used in the United States in 2006. Those who frequently have higher rates of cell phone use include younger adults, socioeconomically disadvantaged populations, less-educated young adults, and people who rent or move frequently. Higher levels of use have also been associated with lower levels of self-reported health status and higher levels of participation in health-compromising behaviors. Given the pervasiveness, low cost, and convenience of cell phone technology, short message system (SMS) messages (i.e., text messaging) may be particularly well suited to achieve frequent communication with patients and health-related message delivery where and when these messages can be most effective.

This project studies the potential of SMS to support the adoption and maintenance of healthy behavior among people who live with HIV/AIDS and are treated in an ambulatory care setting. The research entails a thorough review of existing literature and the development and implementation of an SMS-based intervention that provides health communication messages tailored to an individual's medication and appointment adherence, risk-taking behaviors, social support, general health and wellness, and involvement in health care. The clinical and systemic goals are to develop an intervention that is straightforward, relatively inexpensive, and easily implemented in ambulatory HIV/AIDS care settings. The intervention must be acceptable and useful to people living with HIV/AIDS and must have a positive influence on health care quality and outcomes. The project will evaluate the implementation process and outcomes.

### Project Objectives:

- Conduct a thorough review of existing literature, paying close attention to work that has been completed on innovative uses of text messaging in health communication strategies. **(Achieved)**
- Develop and implement an SMS-based intervention to improve health care quality and outcomes by providing tailored health communication messages to HIV-positive patients who are treated in ambulatory care settings. **(Achieved)**
- Conduct a process evaluation on implementation and determine the feasibility and potential for implementing the intervention in other ambulatory care settings. **(Ongoing)**
- Conduct an outcome evaluation that focuses on patient satisfaction and the impact of the intervention on targeted knowledge, attitudes, beliefs, intentions and behaviors, health care quality, and outcomes measures. **(Upcoming)**

**2010 Activities:** The project team developed and pre-tested the SMS intervention, and implementation began in July 2010. The first draft interim report was submitted to the Agency for Healthcare Research and Quality in August 2010 and the second draft interim report was submitted in November 2010. Since that time the focus of activities has primarily been on data collection. Data analysis that will inform the final report is expected to be completed in the first quarter of 2011.

**Preliminary Impact and Findings:** There are no findings to report at this time.

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**Strategic Goal:** Develop and disseminate health IT evidence and evidence-based tools to support patient-centered care, coordination of care across transitions in care settings, and use of electronic exchange of health information to improve quality of care.

**Business Goal:** Knowledge Creation

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\* *AHRQ Priority Population*