

## Using Health Information Technology in Practice Redesign

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<b>Organization:</b>	RTI International
<b>Contract Number:</b>	290-2010-00024I-4
<b>Project Period:</b>	June 2012 – May 2015
<b>AHRQ Funding Amount:</b>	\$799,929

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**Summary:** Health information technology (IT) has the potential to improve the quality, safety, efficiency, and effectiveness of care. Yet anticipated benefits of health IT are difficult to achieve unless implementation and workflow challenges are identified and addressed.

The goal of this project is to understand the impact of implementing health IT-enabled care coordination on workflow in small community-based primary care clinics in various stages of practice redesign. These clinics, affiliated with Vanderbilt University Medical Center, are at different stages in adoption of a care coordination redesign program called My Health Team (MHT). The MHT program includes intensified patient engagement; dedicated care coordinators; and health IT tools to support care coordination redesign including registries, a shared care plan, alerts and reminders, at-home monitoring, and between-visit communication with patients. The research team will study technology-supported workflow for ambulatory care coordination of patients with diabetes in six clinics.

The project will employ a formal mixed-methods approach that uses direct observation, patient and staff interviews, surveys of staff and patients, artifact and spatial data, and software tracking in the clinics that have a common electronic health record but are in different phases of introducing practice redesign, including the health IT component of MHT. The data collection and analysis activities will be guided by the study's theoretical framework that combines two compatible workflow research models: the Systems Engineering Initiative for Patient Safety model and the Workflow Elements model. Combining this formal approach with iterative observations and analysis among these clinics over 12 months will generate a detailed understanding of changes in health IT-workflow interaction for each clinic over time and across clinics in various implementation phases (pre-, early-, or mature-MHT).

Study findings will be used to develop detailed workflow and information models for each clinic and phase, determine health IT enablers and barriers to care coordination workflow, and to develop a health IT-workflow interaction matrix for specific care coordination work activities derived from observations, interviews, and collected data.

### **Project Objective:**

- Understand the impact of implementing health IT-enabled care coordination on workflow within small community-based primary care clinics in various stages of practice redesign. **(Ongoing)**

**2012 Activities:** The project began in June 2012 and focused on development of the research and data analysis plans. The research plan includes an introduction of the problem and research question; a description of gaps in the literature and motivations for this project; a description of the conceptual model that guides the methodological design; and a description of the research approach including site selection and recruitment, data collection activities, and draft data collection tools. The data analysis plan provides

a summary of the study components and outlines the planned methodology for each analysis.

In addition, the team submitted the materials to AHRQ for the Office of Management and Budget clearance required to conduct the evaluation. The 60-Day Federal Register Notice was published October 31, 2012 (FR Doc. 2012–26596).

**Preliminary Impact and Findings:** This project has no findings to date.

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**Target Population:** Chronic Care\*, Diabetes

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

**Business Goal:** Knowledge Creation

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