

## Health Information Technology: Overview

The mission of AHRQ is to improve the quality, safety, efficiency, and effectiveness of health care by:

- Using evidence to improve health care.
- Improving health care outcomes through research.
- Transforming research into practice.

### Introduction

Over the past 35 years, the Agency for Healthcare Research and Quality (AHRQ) and its predecessor agencies have made development of informatics an agency priority. In addition, AHRQ-supported research has played a central role in identifying the need for improvements where health IT was applicable. As the Nation's lead research agency on the quality, safety, efficiency, and effectiveness of health care in America, AHRQ has a central role in the movement to adopt health IT.

### AHRQ's Health IT Portfolio

AHRQ's health IT initiative targets communities and regions as they plan and implement health IT projects. The initiative awarded its first grants and contracts in October 2004, and to date, includes more than \$166 million in grants and contracts in 41 States to support and stimulate investment in health IT. An important feature of our approach is that we use knowledge transfer from early adopters to new adopters, technical assistance to those we fund, and a research and evaluation

component that identifies technologies and strategies that work, so that each iteration does not repeat mistakes but builds on learning. Through these and other projects, AHRQ and its partners will identify challenges to health IT adoption and use, solutions and best practices for making health IT work, and tools that will help hospitals and clinicians incorporate new IT successfully. The following comprise AHRQ's current HIT portfolio:

- **State and Regional Demonstrations (2004-2010).** Six States (CO, DE, IN, RI, TN, and UT) have been awarded 5-year contracts of \$1 million a year each over 5 years to identify and support State and regional data sharing and interoperability activities and to demonstrate measurable improvements in care resulting from clinical data exchange. The demonstrations allow access to patient information at the point of care, connect systems of various local health care providers for better care coordination, and allow public and private health care providers to share



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patient data. The six States are developing a variety of approaches with different technical, business, and governance models.

- **HIT Grants (2004-2007).** AHRQ has awarded over 100, 3-year grants for planning, implementation, and testing the value of health IT investment set in the context of quality improvement or patient safety. Also included are smaller investments that test the clinical impact of specific instances of health IT implementation.
- **National Resource Center for Health IT (2004-2009).** This 5-year contract provides technical assistance and resource support to AHRQ and HRSA grantees and contractors; develops models and tools; maintains knowledge library and produces case studies and other materials to capture lessons learned; and hosts national teleconferences on current issues in HIT adoption.
- **Privacy and Security Solutions for Interoperable Health Information Exchange (HIE) (2005-2007).** In 2005, AHRQ awarded a contract to RTI International in a national effort to address privacy and security policy questions with HIEs. Under the contract, RTI has subcontracted with 33 States and Puerto Rico to assist them with doing the following:
  - Identifying variations in organization-level business privacy and security policies and practices that affect electronic HIE.
  - For those practices that States consider desirable, documenting and incorporating them into proposed solutions; and for those with a negative impact, identifying the source(s) of the policy or practice and proposing alternatives to meet the same need.
- Incorporating State and community interests, and promoting stakeholder identification of practical solutions and implementation strategies through an open and transparent consensus-building process.
- Leaving behind in States and communities a knowledge base about privacy and security issues in electronic HIE that endures to inform future HIE activities.

RTI will provide several interim reports on progress and a final report in the summer. A national meeting of all participants will be held on March 5-6, 2007, in Bethesda, MD.

- **Ambulatory Safety and Quality Initiative (pending 2007).** This open grant solicitation is to explore the use of health IT and related policies and practices to establish and enhance patient-centered care in ambulatory settings. The components are: Improving Quality through Clinician Use of Health IT, Enabling Patient-Centered Care through Health IT, and Enabling Patient Safety and Quality Measurement through Health IT.
- **E-Prescribing Grants (2006-2007).** These 1-year grants and contract are to fulfill the Medicare Modernization Act of 2003 requirement that the Secretary test, review, and approve standards for electronic prescribing for Part D beneficiaries. Significant additional work has been done on how e-prescribing improves the safety, efficiency, and effectiveness of healthcare. These grants are excellent examples of public and private partnerships that advance the use of health IT to improve quality and safety of care.

## Testing in the Real World

These projects constitute a real-world laboratory for examining health IT at work. They cover a variety of applications. They also look at the impact of HIT in specific clinical settings and as applied to particular health conditions. Some of the areas being studied are as follows:

- Examining health IT effectiveness in various types of information exchange, including medical referrals, transferring radiology and other test results, and information sharing among care “teams.”
- Assessing the impact of e-prescribing for different age groups and medical conditions.
- Using health IT for patient safety improvement, providing for “blame free” reporting of adverse events and close calls.
- Exploring health IT applications for chronic diseases, especially diabetes and asthma.
- Demonstrating a patient-centered wellness application.
- Determining the effectiveness of health IT in the emergency unit setting.
- Using health IT in creating an evidence base for treatment of particular conditions.

**Full Collaboration and Technical Assistance to Communities and the Industry.** AHRQ shares findings, tools, and technical support through the National Resource Center for Health IT (NRC). The NRC provides direct technical assistance and consulting services to AHRQ projects involved in developing, testing, and using health IT applications, with a particular focus on addressing challenges to health IT implementation in rural and small community settings. In addition, the NRC serves as the link between the health care community at large and the

researchers and experts who are on the front lines of health IT. As the central repository for lessons learned from AHRQ’s health IT initiative, the NRC encourages adoption of health IT by disseminating the latest tools, best practices, and research results from this unique real-world laboratory.

**Emerging Lessons.** As the AHRQ portfolio of health IT projects conclude their implementation and research, they are demonstrating the potential of health IT to improve health and health care. Their collective experience offers an important learning opportunity for other health IT implementations across the country. Topics for which AHRQ shares the lessons learned include:

- Knowing where to begin.
- Electronic health records.
- Computerized provider order entry.
- Clinical decision support.
- Health information exchange.
- Executive management.
- Leadership and project management.
- Cost and sustainability.
- Telehealth.
- Electronic prescribing.

Data, issues, and proposed best practices gathered from a broad cross-section of the country are now being compiled and analyzed and can be used by HIE developers, policymakers, and the health care industry nationwide as they work to build trust in electronic health data exchange.

## For More Information

For additional information on AHRQ projects on health information technology, go to [www.healthit.ahrq.gov](http://www.healthit.ahrq.gov). or contact: Jon White, M.D., at [jonathan.white@ahrq.hhs.gov](mailto:jonathan.white@ahrq.hhs.gov).



