

# FACT SHEET

## AHRQ's Health IT Portfolio: Federal Partnerships in Improving Health Care Quality

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.

Since 2004, the Health IT Portfolio at the Agency for Healthcare Research and Quality (AHRQ) has funded research projects that are critical to improving health care for all Americans. Having invested in grants and contracts in more than 200 communities throughout the Nation, the Health IT Portfolio has expanded significantly over the years to include funding for projects that address cutting-edge, health IT-related issues.

In addition to funding various health IT-related projects, the Health IT Portfolio—

- Anticipates the future needs of the health care system and supports development of innovative health IT solutions.
- Identifies and fills current gaps in knowledge about health IT.
- Leverages the capability of health IT to improve the quality, safety, efficiency, and effectiveness of health care.

### Key Acronyms

**CDS** - clinical decision support

**CPOE** – computerized provider order entry

**EHR** - electronic health record

**EMR** - electronic medical record

**Health IT** - health information technology

**HIE** - health information exchange

**HITRC** - Health Information Technology Research Center

**PHR** - personal health record

### AHRQ and Its Federal Partners

AHRQ has a key role in developing and disseminating evidence and evidence-based tools on how health IT can improve health care quality, safety, efficiency, and effectiveness. Given the scope and complexity of implementing health IT to improve the Nation's health care system, AHRQ's Health IT Portfolio recognizes the benefits of leveraging resources with other Federal



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agencies with common programmatic interests to facilitate quality improvement through the use of health IT. Some of AHRQ's most notable collaborations in this regard have been with the following agencies:

- Centers for Medicare & Medicaid Services (CMS)
- Office of the National Coordinator for Health Information Technology (ONC)
- National Science Foundation (NSF)
- National Institutes of Health (NIH)
- Indian Health Service (IHS)

This fact sheet describes AHRQ Health IT Portfolio projects where the Portfolio served as a research partner with other Federal agencies to generate evidence or evidence-based tools or for which the Portfolio provided joint funding with other Federal entities to advance the quality of health care through the use of health IT.

## Centers for Medicare & Medicaid Services (CMS)

**Development of an Electronic Health Record Format for Children.** The AHRQ Health IT Portfolio, in collaboration with CMS, one of its sister Agencies in the Department of Health and Human Services (HHS), has developed the Children's Electronic Health Record (EHR) Format—a database of requirements that provides a blueprint for the child-specific functionality that EHR developers can integrate into their systems. This project was conducted in response to the 2009 Children's Health Insurance Program Reauthorization Act (CHIPRA) directive to the HHS to develop a "format" or set of requirements that includes the need for EHRs to be "accessible, interoperable, viewable, and compatible with other EHR standards."

More than 20 child-specific topics are addressed in the Format, including prenatal and newborn screening tests, immunizations, growth data, information for children with special health needs, and child abuse reporting.

Access the Children's EHR Format at <http://healthit.ahrq.gov/childehrformat>.

**Pilot Projects in E-prescribing.** In 2005, AHRQ and CMS collaborated on a major project involving pilot testing of electronic prescribing (e-prescribing) standards. Through a nearly \$6 million award from HHS, five grantee teams were selected to test several systems of electronic data transmission standards to determine how efficiently and effectively prescriptions and prescription-related information could be sent to and received by the providers and pharmacies participating in e-prescribing for Medicare Part D beneficiaries.

The five pilot project sites, representing the States of Minnesota, Massachusetts, Ohio, California, and Virginia, included partnerships and collaborations with local nursing and physician practices, hospitals, health care consortiums, insurance providers, universities, and EHR and e-prescribing vendors. One project became the first to evaluate how e-prescribing standards work in certain long-term care settings and assessed the impact of e-prescribing on the workflow among prescribers, nurses, the pharmacies, and payers. Another evaluated 47 primary care clinics in its State to establish differences in practice culture, workflow, and efficiency and determine issues in the adoption of e-prescribing. Other pilots conducted needed research into ambulatory drug safety and the impact of e-prescribing on physician workflows and sought to determine changes in drug use, clinical outcomes, and patient satisfaction as a result of e-prescribing. In addition, how e-prescribing standards work in a variety

of practice settings, geographic areas, and e-prescribing technologies was evaluated along with how prescriber and vendor characteristics influence e-prescribing adoption and what "best features" of vendor software improve medication-related safety outcomes.

AHRQ led the effort to evaluate and summarize the projects' findings.

The final reports for each of these projects and the evaluation report are available at <http://healthit.ahrq.gov/erxpilots>.

**Technical Assistance for Health Information Technology and Health Information Exchange in the Medicaid and Children's Health Insurance Program (CHIP).** From September 2007 until May 2012, CMS partnered with AHRQ to provide a technical assistance program to Medicaid and CHIP agencies to help them develop, implement, or participate in health IT and health information exchange (HIE). AHRQ's technical assistance program developed and provided a wide range of resources and tools to assist Medicaid and CHIP agencies in improving the delivery and coordination of care. These resources helped to improve the proactive management of the health of Medicaid and CHIP beneficiaries through the use of health IT. The program was a resource for agencies needing assistance with plans for using or implementing health IT, including HIEs to support internal and external business and operating needs and the efficient delivery of quality services.

The program included the following components:

- A repository of information relevant to Medicaid and CHIP to support the technical assistance and disseminate best practices.

- Over 50 technical assistance events, including Webinars, Web-based and in-person workshops, and Community of Practice (CoP) meetings.

Through the program, AHRQ reached agency staff from all 50 States, the District of Columbia, the Virgin Islands, and American Samoa and published over 700 documents in the repository.

Through the course of the technical assistance program, AHRQ convened several CoPs. The CoPs were conceived as open, collegial platforms for Medicaid and CHIP staff to use for exchanging up-to-date information on health IT and HIE issues and to share their questions and experiences related to those issues. At various points in the project, CoPs formed to address these topic areas:

- Privacy and security
- Sustainability and funding
- Use of health IT for children (CHIP and children's issues in health IT and HIE CoP and health IT for children's health care quality CoP)
- Collaboration between Medicaid and other health IT initiatives (collaborative activities between Medicaid and Regional Extension Centers [RECs]/State HIE grantees CoP and Medicaid involvement in State HIE CoP)
- Managing multiple health IT projects in Medicaid and CHIP

Resources developed through this project are available at <http://healthit.ahrq.gov/Medicaid-SCHIP>.

### **Office of the National Coordinator for Health Information Technology (ONC)**

AHRQ, in collaboration with ONC, leads the Health Information Technology Research Center (HITRC),

which was funded under the Health Information Technology for Economic and Clinical Health Act.

The HITRC incorporates input from relevant sources, including—

- Other Federal agencies with demonstrated experience and expertise in information technology services.
- Users of health IT, such as providers and their support and clerical staff and others from the health care and health IT industry involved in the care and care coordination of patients.

The purposes of the HITRC are to—

- Provide a forum for the exchange of knowledge and experience.
- Accelerate the transfer of lessons learned from existing public and private sector initiatives, including those currently receiving Federal financial support.
- Assemble, analyze, and widely disseminate evidence and experience related to the adoption, implementation, and effective use of health IT that allows for the electronic exchange and use of information including through the RECs.
- Provide technical assistance for the establishment and evaluation of regional and local health information networks to facilitate the electronic exchange of information across health care settings and improve the quality of health care.
- Provide technical assistance for the development and dissemination of solutions to barriers to the exchange of electronic health information.
- Learn about effective strategies to adopt and utilize health IT in medically underserved communities.

## National Science Foundation (NSF)

### **Advancing Health Services Through System Modeling Research.**

In September 2009, AHRQ and the NSF convened a workshop (<http://healthit.ahrq.gov/engineeringhealth>) to define a research agenda for how industrial and systems engineering may support health services research and health care delivery redesign, with a focus on health IT.

The objectives of the workshop were to—

- Articulate a vision for an ideal health care delivery system.
- Determine why current efforts to apply industrial and systems engineering knowledge to health care have not resulted in meaningful change.
- Propose a research and action agenda to enable industrial and systems engineering to substantially contribute to the realization of an ideal health care delivery system.

The research agenda can be found at <http://healthit.ahrq.gov/engineeringhealthfinalreport>.

The two agencies subsequently developed a joint grant solicitation (available at [http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=504720](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504720)) to address the research challenges and agenda set forth in the workshop, foster collaborations between health services researchers and industrial and systems engineers, and fund research projects that address systems modeling in health services research, with a specific emphasis on the supportive role of health IT.

Several grants were awarded that addressed the following: ensuring balanced workload distribution for a patient-centered medical home model;

developing health IT interfaces to alert health care providers to errors during blood transfusion and other complex procedures; providing a tool for improving rapid response operations in hospitals; examining the role of screening and treatment for depression among women living with HIV/AIDS; creating simulations for studying coordinated care systems aimed at reducing readmissions and medical errors; and studying the use of hospital transitional care units.

## National Institutes of Health (NIH)

### **Improving Guideline Development and Implementation.**

Researchers at Yale University have designed a research program, cofunded by the National Library of Medicine, NIH, and AHRQ, intended to reduce guideline ambiguities, improve efficiency, and create and evaluate tools that promote authoring of comprehensive and implementable guidelines. Derived from this program, the Building Recommendations in a Developer's Guideline Editor (BRIDGE-Wiz) tool formalizes and systematizes a process for creating implementable guideline recommendation statements by using a wizard approach to answering questions (such as under what circumstances, who, what level of obligation, purpose, and to whom, how, and why?). Overall, users found that BRIDGE-Wiz facilitated the development of clear, transparent, and implementable guideline recommendations.

## Indian Health Service (IHS)

**Health Information Technology to Support Integration of Self-Management Support in Primary Care Delivery.** In 2007, the IHS Chronic Care Initiative (CCI) began to implement strategies to improve the

health status of patients and populations affected by chronic conditions and to reduce the prevalence and impact of those conditions. This project, conducted in collaboration with AHRQ, was designed to support the improvement of the delivery of prevention and care management services through the IHS CCI.

Self-management support (SMS) is the care and encouragement of people with chronic conditions to help them understand their central role in managing their illness, make informed decisions about care, and engage in healthy behaviors. Two questions arising from IPC work on SMS are (1) What elements (e.g., goal setting, action planning, followup) can be integrated into the EHR to help prompt and document SMS within a newly designed model of care? and (2) What key measure(s) should be collected from the EHR to drive performance improvement? The project also sought to understand, develop, and test EHR elements that improve the delivery, documentation, and tracking of SMS services.

## Additional Information

For more information about AHRQ's Health IT Portfolio, go to [healthit.ahrq.gov](http://healthit.ahrq.gov).

For more programmatic information, contact—

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