



AHRQ's Early Grant and Contract Initiatives

Health IT Conference

June 2, 2010

Rebecca Roper

Erin Grace



Topics

- Transforming Healthcare Quality through Information Technology (THQIT) Initiative
- State and Regional Demonstration for Health Information Exchange



Transforming Healthcare Quality through Information Technology (THQIT) Initiative

Rebecca A. Roper, MS, MPH

AHRQ

June 2, 2010



THQIT Agenda

- On-going efforts to synthesize and disseminate findings
 - Groups and individual projects
- Request for grantees' continued collaboration after end of project period
- Dissemination to multiple stakeholders



Transforming Healthcare Quality through Health IT (THQIT):

- 118 Individual Projects

AHRQ: \$ 116.2 Million





THQIT, The Beginning

- Funding Opportunity Announcements
- Scientific Peer Review
- Grants Management Officials
- Project Officers from Across AHRQ
- AHRQ's National Research Center (<http://healthit.ahrq.gov>)



AHRQ Website

<http://healthit.ahrq.gov>

AHRQ National Resource Center For Health IT - Mozilla Firefox

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http://healthit.ahrq.gov/portal/server.pt?open=512&objID=650&PageID=0&parentname=ObjMgr&parentid=106&mode=2&dummy=

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AHRQ Agency for Healthcare Research and Quality Advancing Excellence in Health Care

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Key Topics

Background information and the latest evidence on key topics from the field of health IT.

- Clinical Decision Support
- Computerized Disease Registries
- Consumer Health IT Applications
- Electronic Medical Record Systems
- Electronic Prescribing
- Health IT in Small and Rural Communities
- Health Information Exchange
- Telehealth

All Key Topics

AHRQ NATIONAL RESOURCE CENTER

HEALTH INFORMATION TECHNOLOGY

Best Practices Transforming Quality, Safety, and Efficiency

From the Field: Sharing Experience and Findings From AHRQ-Funded Projects

- Report on Engaging Consumers in Health IT Development
- Researchers Help Rural Hospitals Get Health IT Boost
- Sarah Bush Lincoln Health Center Connects Hospital, Clinics Through EMRs

Click on the map to access project-specific information on the AHRQ health IT portfolio.

Overview of Health IT Portfolio-Sponsored as of 2008

KNOWLEDGE LIBRARY

Access over 6,000 resources in the areas of Organizational Strategy, Technology, Value of Health IT, Laws and Standards, Organizations, and Operations.

Access the Library

Upcoming Events

- 09/20 NCHN Regional Meeting: Health Information Technology Initiatives
- 09/24 CBI's Access Federal Stimulus Incentives for Electronic Health

Done

Highlights

New Report Shows Consumer Health Informatics Applications Can Improve Health Care Outcomes

A new report issued by AHRQ found that consumer health informatics applications can help improve health care processes, such as medication adherence. These applications may also improve clinical outcomes, including smoking cessation. The benefits of using such applications apply to a variety of clinical conditions, including cancer, smoking, diabetes mellitus, physical activity, and mental health disorders.

Researchers at the Johns Hopkins University Evidence-based Practice Center, Baltimore, MD, conducted a review of over 140 articles on the use of consumer health informatics applications. The researchers learned that while some applications offer significant promise and potential to positively impact select clinical outcomes, in many areas more research is needed to definitively gauge their impact.

The full report, *Impact of Consumer Health Informatics Applications*, and its abstract are available at <http://www.ahrq.gov/clinic/tip/chiapptp.htm>.

Featured Tools

New AHRQ-Funded Reports on the Usability of Electronic Health Record (EHR) Systems

To explore the opportunity to improve EHR system usability, AHRQ commissioned the creation of two reports that synthesize the existing research and evidence in this area and suggest common methods to evaluate EHR usability going forward.

- [Electronic Health Record Usability: Evaluation and Use Case Framework](#) synthesizes the literature and best practices regarding the usability of EHRs, and it provides a set of use cases to evaluate information design in primary care IT systems.
- [Electronic Health Record Usability: Interface Design Considerations](#) provides recommended actions to support the development of an objective EHR usability evidence base and formative policies to systematically improve the usability of EHR systems.

For a full list of reports, tools, and other resources on the usability of health IT systems and applications, search the [Knowledge Library](#).



Transforming Healthcare Quality through Health IT (THQIT): September 2004 – January 2010

- **40 Cooperative Agreements, THQIT Implementation I (HS-04-011)**
 - \$ 53.6 Million from AHRQ, plus in-kind support
 - 24 No-cost extensions
- **38 P-20 THQIT Planning Grants (HS-04-010)**
 - \$ 7.1 Million from AHRQ
 - 15 No-cost extensions
- **24 R-01 THQIT Value Grants (HS-04-012)**
 - \$ 33.0 Million from AHRQ
 - 22 No-cost extensions
- **16 Cooperative Agreements, THQIT Implementation II (HS-05-013)**
 - \$ 22.5 Million from AHRQ, plus in-kind support
 - 14 No-cost extensions

THQIT Synthesis and Dissemination

- Follow-up, Synthesize, and Disseminate yields many more WINNERS



AHRQ's Interest



- No expiration date
- Send articles to AHRQ
JournalPublishing@ahrq.hhs.gov
- Include grant citation in your presentations and publications

Summary of THQIT Initiative is

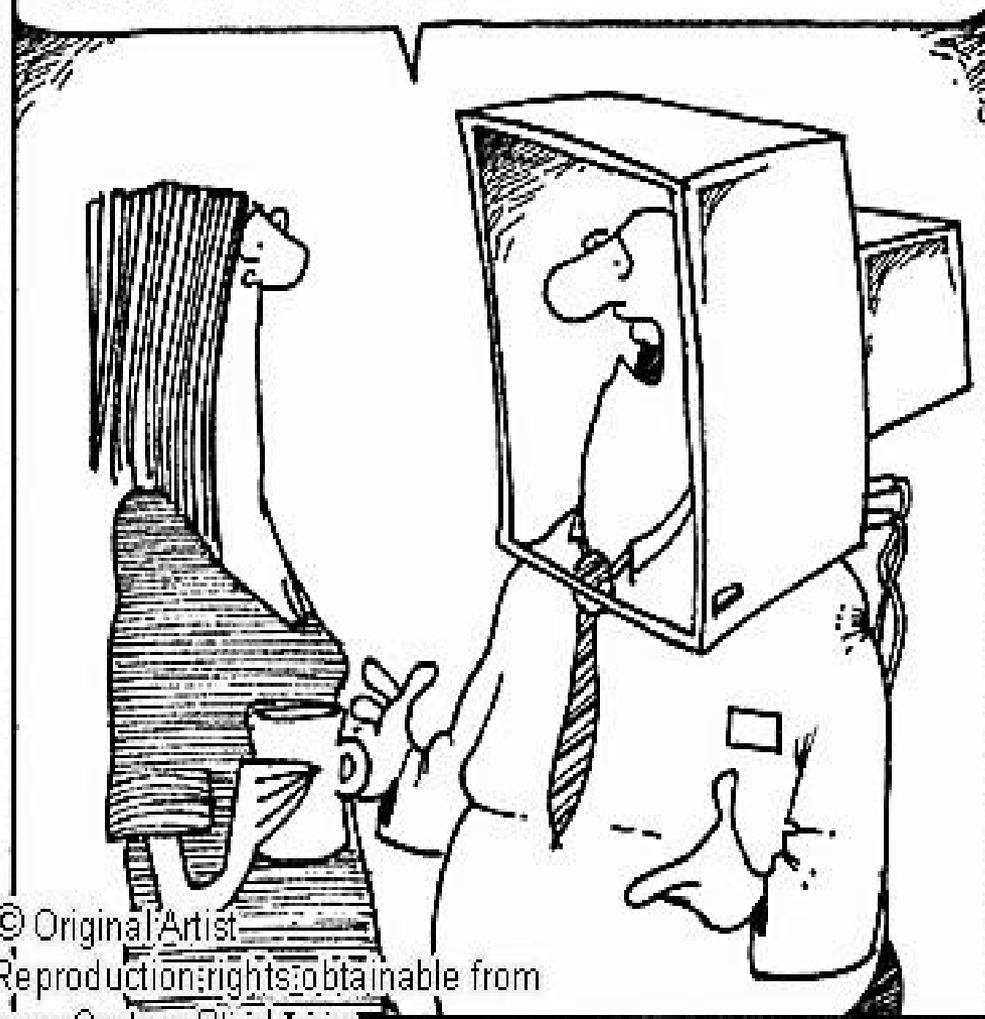




On-going THQIT Activities:

- AHRQ: THQIT Success Stories for Different Audiences
- THQIT Value Grants, Programmatic Assessment of Peer-reviewed Publications
 - Julie McGowan, Contract
- THQIT Synthesis: Mathematica, Contract
 - Sue Felt-Lisk
 - Jim Walker

IT'S THE ONLY WAY I CAN GET
SOME OF MY PATIENTS TO LISTEN TO ME!



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THQIT Success Stories



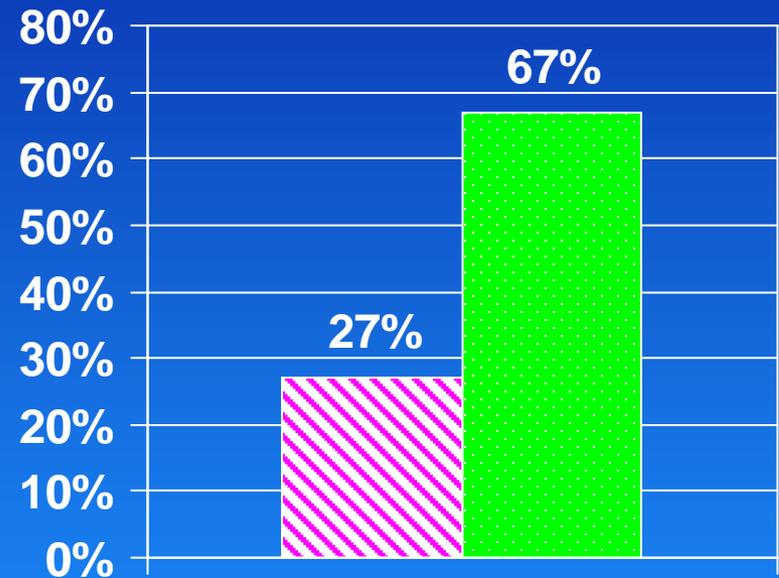
- Varied Target Audiences
- Easy-to-understand 1-page summaries of research project and its momentum to go forward
 - Capture reader's understanding of who benefited by health IT implementation
 - Illustrations
 - Demonstrated, significant improvement in outcome(s)
 - Resiliency, Adaptability, Sustainability, Transferability of intervention, etc.
 - Quotes from different perspectives
- Plus, succinct, substantive ~2-page detail discussion



Web-based EMS Provides Improved Cardiac Care



- Web-based quality reporting system with Clinical Decision Support
 - EMS-based ECG
 - Patient Hospital Data
- Improve quality of care delivered by EMS responder to patient that may have had a heart attack
- Dr. Harry Selker, AHRQ grant UC1 HS015124



Percent Patients receiving Cardiac Care in 90 Minutes





HIE Increases Children's Access to Care and Reduction in ED Visits



- Underserved Population
- Public and Private Agencies partnered to improve access and quality of care
- Community health workers facilitate navigation finding Primary Care Physician; Insurance
- Dr. Bergner, AHRQ Grants (P20 HS014908; US1 HS016129)



Children's Average Number of ED Visits/Year





Formulary Decision Support: May Lower Medication Costs



- E-Prescribing system with
 - Dosing; Potential Interactions
 - Formulary decision support: Color-coded relative costs: green, blue, red
 - Electronic or fax prescription to the pharmacy
- On-going Projects to investigate further
- Dr. Joel Weissman, AHRQ Grant (R01 HS015175)
- Physicians prescribed lower-cost medications 3.3% more often with system
- **Estimated savings of \$39.10/patient/year**
- Suggest that e-prescribing could improve patient outcomes



More Success Stories

- Sample of Successful Projects ending in 2009
- Rebecca.Roper@ahrq.hhs.gov
- AHRQ Annual Meeting, 2010
 - Presentation of Examples of THQIT Success Stories



June 4, 9:30 – 10:30 am

- **Session 4.7 Translation of Findings to other Care Settings**
 - **Project ECHO, Dr. Sanjeev Arora**
 - **Extension for Community Healthcare Outcomes**
 - **Tennessee Health Information Exchange, State Regional Demonstration Project, Dr. Mark Frisse**
 - **Virtual Patient Advocate, Dr. Brian Jack**



Programmatic Review of THQIT Value Grants

- Julie McGowan of Indiana University, forthcoming
- 15 of 24 THQIT Value Grantees had at least one peer-reviewed publication included in this programmatic summary



Areas of Value (RFA-04-012)

- Clinical, including medical errors, effectiveness, and CDS systems.
 - 24 articles
 - 6 grants
- Organizational, including access to health care and coordination of care.
 - 14 articles
 - 5 grants
- Financial, including costs and productivity.
 - 9 articles
 - 3 grants
- Other, including patient satisfaction, transparency, readiness for health IT adoption, and so on, and the five long-term goals of the THQIT initiative
 - 12 articles
 - 3 grants

THQIT Synthesis





THQIT Synthesis

- Background Review
 - Final Reports
 - Publications

- Grantee Surveys (early 2011)

- Group of Follow-up Grantee interviews
 - Depth, Clarification

- Tool/Guideline



At Large, Answers Sought:

- Project Characteristics for success or not in terms of:
 - Incentives
 - Impediments
 - Strategies
 - Building Coalitions
 - Adequacy of Training
 - Retaining Manpower
 - Additional Funding
 - Working with Vendors

- To what extent are factors same/different by type of health IT or healthcare setting?

- Post-grant Experience:
 - Maintenance, Modifications, Sustainability, Transferability



Programmatic Answers Sought:

- Mechanism
 - Cooperative Agreement (Implementation grants)
 - R01 (Value grants)
 - P-Grant (Planning Grant)
- Factors Associated with timely completion of grants/cooperative agreements
 - Partnership building
 - Vendors
 - Role of other support
 - IRB
 - Previous grant experience
 - No-cost Extension
 - Staff turnover
 - Institutional commitment
 - Evaluation Plan
 - Dissemination



Reports

- Multiple Stakeholders
 - Planning grants
 - Implementation grants
 - Value grants



In conclusion

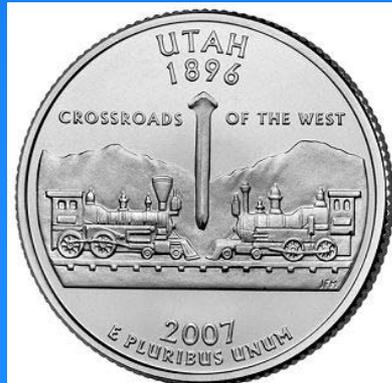
- On-going efforts to synthesize and disseminate findings of THQIT projects in groups and individually
 - Keep AHRQ informed
 - Acknowledge AHRQ's support



State and Regional Demonstration Projects (SRD) for Health Information and Exchange

Project Officer, Erin Grace

AHRQ's SRDs



Faces of the SRDs





State and Regional Demonstrations

- State and Regional Demonstrations in Health IT (referred to as SRDs)
- CO, IN, RI, TN, and UT in 2004; DE in 2005
- 5-year, \$5 million contracts
- Support data sharing and interoperability activities on a State or regional level
- To improve the quality, safety, effectiveness and efficiency of healthcare for patients and populations



SRD Requirements

- Exchange of lab and prescription drug data among unrelated entities
- Conduct an analysis of the role of the Medicaid program
- Complete an evaluation of the project
- Develop a sustainability model



2004: Setting the Stage

- New ONC (April 2004)
- Pre-HITECH
- Pre-HIE software
- 2004 eHI “Annual Survey of State, Regional and Community-Based Health Information Exchange Organizations” reported 9 “fully operational” HIEs



Colorado – Summary

- Formed CORHIO
- 4 Initial Partners – Denver Health, Kaiser Permanente of Colorado, The Children’s Hospital, and University of Colorado Hospital
- Focus on Point of Care exchange
- Data to be exchanged – laboratory results, radiology images/reports, medication history, problem lists, EKG images and reports
- Federated model



Colorado In Operation

- Went live December 2008
- Data exchanged: lab results, radiology reports, EKG reports, medication history, and problem lists
- 1.4 million individuals included in the eMPI
- Over 200 registered users



Delaware - Summary

- DHIN
- Data Sharing Partners – over 5 major hospitals/hospital systems, labs, provider offices
- Initial focus on results delivery
- Data to be exchanged: lab results, radiology reports, ADT reports



Delaware in Operation

- Went live May 2007
- Data currently exchanged: lab results, radiology reports, medication history, EKG reports, problem lists, public health reporting
- As of early 2010, 194 practices enrolled with over 1,400 users and over 800,000 unique patients in the MPI



Indiana - Summary

- Regenstrief, INPC, IHIE
- Data Sharing Partners: Hospitals, labs, imaging centers, physician offices, health plans
- Initial focus: assess effects of HIE on productivity, patient quality, safety, satisfaction, and sustainable business model



Indiana in Operation

- Went live 1995
- Almost 10 million patients in database
- 39 hospitals, 3 labs, 11 imaging centers, 5 health plans, almost 200 physician practices, 2 public health departments
- Data exchanged: lab results, radiology results, cardiology diagnostic events, gastro study results, diagnoses, procedures, transcribed reports, medication history
- Services – clinical messaging, quality reporting, research, medication hub, public reporting



Rhode Island - Summary

- *currentcare*
- RI Department of Health and RIQI
- Data sharing partners: labs, nursing homes
- Initial focus on sharing lab data and meds for nursing home partners
- Consumer control of data sharing



Tennessee - Summary

- Mid-South e-Health Alliance (MSeHA)
 - Project Team from Vanderbilt Regional Informatics
- Data Sharing Partners: EDs, hospitals, ambulatory sites, labs, Medicaid
- Initial focus: labs, medication history, demographics, ADTs, radiology results, diagnosis codes, allergy lists, problem lists
- Built on infrastructure developed at Vanderbilt University



Tennessee in Operation

- Went live May 2006
- Over 5 million records
- Over 1.25 million patients
- Data currently exchanged: lab results, medication history, ADTs, ICD-9s, microbiology reports, chest x-rays
- 15 hospitals, 14 clinics, 3 counties, 2 States



Utah - Summary

- UHIN
- Data Sharing Partners: hospitals, physician offices, labs, Medicaid, across the State
- Initial focus: adding clinical document exchange to administrative exchange platform
- Initial data exchange: medication history and lab results



Utah in Operation

- Went live with UHINt 2.0 in 2007
- Results delivery
- Currently testing new infrastructure – cHIE live May 2010
- Planned data exchange: lab orders and results, medication history, formulary and benefit information, MPI implementation, EMR-lite



Selected Accomplishments

- CORHIO – robust eMPI
- DE – significant provider participation
 - Over 50% of DE providers
 - Over 85% of lab transactions
 - Over 80% of hospitalizations
- IN – expansion across State, quality reporting



Selected Accomplishments

- RI – policies and procedures for “Opt-In” model of patient participation
- TN – Multi-state region, transferable architecture, robust evaluation
- UT – transition from administrative data exchange to clinical data exchange, national leader in data standardization guidelines



SRDs on the National Scene

- DHIN – State HIE grantee, NHIN contractor, HISPC
- CORHIO – State HIE grantee, REC grantee, HISPC
- IHIE – State HIE participant, Beacon Committee grantee, NHIN contractor, HISPC



SRDs on the National Scene

- RIQI – State HIE grantee, REC grantee, Beacon Community grantee, HISPC
- TN – SHARP grant participant, Staff now ED of eHealth for the State
- UT – State HIE participant, REC partner, HISPC



SRDs on the National Scene

- HIT Standards Committee Members
 - J. Marc Overhage (IN)
 - Gina Perez (DE)
- HIT Policy Committee
 - Art Davidson (CO)
- ONC Consultant
 - Mark Frisse (TN)
- National eHealth Collaborative (NeHC)
 - Art Davidson (CO)
 - Laura Adams (RI)



What Have We Learned?

- There is no “one-size fits all” or a “how to” manual
- Engage a broad range of stakeholders
- Have a sound business plan – understand what your community and stakeholders are interested in
- Secure funding early in the planning process
- Keep participation costs as low as possible



What Have We Learned?

- Each type of architecture has its own set of pros and cons – know what works for your community
- Patient identification and matching is a core challenge in HIE
- Technology development is influenced by policy and operational considerations, and vice versa
- Identify clinical settings that are expected to have high impact



What Have We Learned?

- Set realistic expectations for quality and cost metrics
- Develop evaluation metrics early on
- Incorporate flexibility into evaluation approaches
- Include liability insurance costs in your planning



More Information

- AHRQ National Resource Center for Health IT <http://www.healthit.ahrq.gov>
 - Liability Coverage for Regional Health Information Organizations
 - Lessons Learned from AHRQ's State and Regional Demonstrations in Health IT (coming soon)
 - Synthesis of AHRQ State and Regional Demonstrations in Health IT (coming September 2010)

Search for AHRQ-Funded Health IT Projects



AHRQ-Funded Projects - Microsoft Internet Explorer

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Back Forward Stop Home Search Favorites

Address: http://healthit.ahrq.gov/portal/server.pt?open=512&objID=6548&parentname=CommunityPage&parentid=38&mode=2&in_hi_userid=3882&cached=true

Go Links

- Demonstration Projects
- Summary Health IT Portfolio as of 2008
- Clinical Decision Support Initiative
- Medicaid - SCHIP
- HEALTH IT TOOLS
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Key Topics

Background information and the latest evidence on key topics from the field of health IT.

- Clinical Decision Support
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- Health IT in Small and Rural Communities
- Health Information Exchange

MA
RI
CT
NJ
DE
MD
DC

Location: All Technology: Health Information Exchange (HIE)

Care Setting: All Principal Investigator: All

Community: All Target Population: All

AHRQ Business Goals: All

Health IT Strategic Goals: All

findings from the AHRQ project portfolio.
[Read More](#)

Health IT Implementation Stories

Narratives that describe how AHRQ grants and contracts are using IT to transform health care.
[Read More](#)

Project News and Publications

Access published articles and news items that describe outcomes and best practices from the AHRQ project portfolio.
[Read More](#)

Discussions not available on http://healthit.ahrq.gov/

Done Trusted sites

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QUESTIONS???

Rebecca.roper@ahrq.hhs.gov

Erin.grace@ahrq.hhs.gov