A National Healthcare Information Infrastructure: Are We Making Progress?

The Role of Health Information Technology in Quality

The Quality Colloquium
Cambridge, MA

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Overview of Discussion

• Signs of Momentum for the Health Information Technology Agenda
  – Overview of National Efforts
  – Overview of Activities at the State, Regional and Local Level
• What This Means for Quality
eHealth Initiative Mission

Independent, non-profit, multi-stakeholder consortium whose mission is to improve the quality, safety, and efficiency of healthcare through information and information technology
Our Diverse Membership

- Consumer and patient groups
- Employers, healthcare purchasers, and payers
- Health care information technology suppliers
- Hospitals and other providers
- Pharmaceutical and medical device manufacturers
- Pharmacies, laboratories and other ancillary providers
- Practicing clinicians and clinician groups
- Public health agencies
- Quality improvement organizations
- Research and academic institutions
- State, regional and community-based health information organizations
eHealth Initiative Strategy

• Identify and develop consensus among diverse stakeholders on common principles, standards and policies for health information exchange
  – Organizational
  – Legal
  – Financial
  – Technical
  – Clinical

• Provide seed funding and technical support to those engaged in health information to support quality, safety and effectiveness in healthcare
Why Information Technology Matters
What Problems Are We Trying to Solve?

• Looming Healthcare Crisis
  – Americans age 65+ will increase from 12% of population in 1997 to 20% of population in 2030
  – Rising healthcare costs - premiums increased 12.7% in 2002
  – Physicians leaving practice and nursing shortage
  – 45 million of U.S. population uninsured

• Quality and Safety Challenges
  – 44,000 to 98,000 deaths due to medical error costing $37.6 billion annually
  – Adverse drug events in 5% to 18% of ambulatory patients
  – American adults on average receive only 54.9% of recommended healthcare
What Problems Are We Trying to Solve?

- U.S. healthcare system highly fragmented....data is stored--often in paper forms—in silos, across hospitals, labs, physician offices, pharmacies, and insurers
- Public health agencies forced to utilize phone, fax and mail to conduct public health surveillance, detection, management and response
- Physicians spend 20 - 30% of their time searching for information...10 - 81% of the time, physicians don’t find information they need in patient record
- Clinical research hindered by paper-based, fragmented systems – costly and slow processes
Health Information Exchange Value

• Standardized, encoded, electronic HIE would:
  – Net Benefits to Stakeholders
    • Providers - $34B
    • Payers - $22B
    • Labs - $13B
    • Radiology Centers - $8B
    • Pharmacies = $1B
  – Reduces administrative burden of manual exchange
  – Decreases unnecessary duplicative tests

Center for Information Technology Leadership 2004
National Landscape
Understanding the National Agenda

• Enormous momentum around HIT and health information exchange both within Administration and Congress

• Key themes
  – Need for standards and interoperability
  – Need for incentives
  – National standards – implemented locally within regions
  – Public-private sector collaboration
Increasing Interest in Pay for Performance and Quality

- Senate Finance Committee and House Ways and Means introduced bills on P4P
- Large private sector purchasers and CMS increasing interest in quality within ambulatory care… *Bridges to Excellence* a key player
- National Quality Forum getting consensus on ambulatory care measures
- MedPAC recommends pay for performance
Increasing Interest in HIT

• Members of Senate and House have also introduced legislation related to HIT….more to come in the Fall
• President created sub-cabinet level position – National Coordinator for Health Information Technology and David J. Brailer, MD, PhD appointed in July 2004
• Secretary Leavitt has made interoperability and HIT a key part of his agenda over the coming year
Overview of Relevant Legislation

• S. 1418 – “Wired for Health Care Quality Act” - introduced 7/20/05 – combination of Senate HELP and Frist/Clinton

• S. 1356 – “Medicare Value Purchasing Act of 2005” – introduced 6/30/05

• H.R. 3617 – “Medicare Value-Based Purchasing for Physician Services Act of 2005” – introduced 7/29/05

• DRAFT Bill – “Health Information Technology Promotion Act of 2005” – to be introduced after recess

• H.R. 2234 – “21st Century Health Information Act of 2005” – introduced 5/10/05
Common Themes

• Grant and loan programs, for providers and regional health information technology networks – most link to use of standards and adoption of “quality measurement systems”
• Value-based purchasing programs – measures related to reporting of data, process measures including HIT, and eventually outcomes
• Role of government
• Multi-stakeholder group to achieve consensus on standards: technical standards and those related to privacy and security
Four RFP’s on Interoperability and Health Information Sharing Policies

1. Contract to develop, prototype, and evaluate feasibility and effectiveness of a process to unify and harmonize industry-wide health IT standards development, maintenance and refinements over time

2. Contract to develop, prototype, and evaluate compliance certification process for EHRs, including infrastructure or network components through which they interoperate

3. Contract to assess and develop plans to address variations in organization-level business policies and state laws that affect privacy and security practices, including those related to HIPAA

4. Six contracts for the development of designs and architectures that specify the construction, models of operation, enhancement and maintenance, and live demonstrations of the Internet-based NHIN prototype
Office of National Coordinator for Health Information Technology

• On August 19, 2005 Federal Register announced formal formation of the office

• Purpose: provides leadership for the development and nationwide implementation of an interoperable HIT infrastructure to improve quality and efficiency of healthcare and the ability of consumers to manage their care and safety
$139 million in grants and contracts for HIT

- Over 100 grants to support HIT – 38 states with special focus on small and rural hospitals and communities - $96 million over three years
- Five-year contracts to five states to help develop statewide networks – CO, IN, RI, TN, UT - $25 million over five years
- National HIT Resource Center: collaboration led by NORC and including eHealth Initiative, CITL, Regenstrief Institute/Indiana University, Vanderbilt and CSC - $18.5 million over five years
Centers for Medicare & Medicaid Services Linking Quality and HIT

- Section 649 – Pay for Performance Demonstration Programs – link payment to better outcomes and use of HIT – launched last month
- Quality Improvement Organizations playing a critical role…. Doctors Office Quality – Information Technology Program (DOQ-IT) – technical assistance for HIT in small physician practices included in eighth scope of work
- Chronic Care Demonstration Program – linking payment to better outcomes – IT a critical component
- Section 646 “area-wide” demonstration expected this summer
Overview of Activities at State, Regional and Local Levels
Why State and Regional Activities?

• Wide-spread recognition of the need for health information technology and exchange/interoperability at the national level

• While federal leadership and national standards are needed, *healthcare indeed is local* and leadership is needed at the state, regional and community levels across the country

• Collaboration and development of consensus on a shared vision, goals and plan is needed among multiple, diverse stakeholders at the *state and regional level* in order to effectively address healthcare challenges through HIT and health information exchange
eHealth Initiative’s Connecting Communities for Better Health Program

- $11 million program in cooperation with DHHS
- Provides seed funding to regional and community-based multi-stakeholder collaboratives that are mobilizing information across organizations
- Mobilizes pioneers and experts to develop resources and tools to support health information exchange: technical, financial, clinical, organizational, legal
- Disseminates resources and tools and creates a place for learning and dialogue across communities
eHealth Initiative’s Connecting Communities for Better Health Program

• Creates and widely publicizes a pool of “electronic health information exchange-ready” communities to facilitate interest and public and private sector investment

• Builds national awareness regarding feasibility, value, barriers, and strategies
eHI State and Regional HIT Policy Summit Initiative

- Extension of eHI’s Connecting Communities for Better Health Program and in collaboration with the Agency for Healthcare Quality Research and Quality National Resource Center.
- Catalyzing efforts by supporting and facilitating dialogue amongst state and regional policy-makers, healthcare leaders and business community on vision, principles, priorities for how HIT and health information exchange can address state and regional healthcare challenges.
- Raising awareness of legislative or regulatory barriers to the use of HIT and health information exchange at the state level.
- Bringing the experiences of state and regional experiences to the national policy dialogue on HIT.
AHRQ National Resource Center for HIT

Goal: Increase the adoption of health information systems to improve patient safety and quality of care and conduct research on take-up and impacts

• eHealth Initiative Foundation proud partner of AHRQ National Resource Center for HIT which is led by National Opinion Research Center (NORC). Other partners include:
  • Three academic thought leaders:
    – Indiana University/Regenstrief
    – Vanderbilt University
    – Center for Information Technology Leadership / Partners
  • Burness Communications: Policy-focused Public Relations
  • BL Seamon Corporation: Logistical and coordination support
  • Computer Sciences Corporation: Technology design and support services
Survey of Over 100 State, Regional and Community-Based Initiatives

• 109 respondents from 45 states and the District of Columbia
• Covered aspects related to goals, functionality, organization and governance models, information sharing policies, technical aspects, funding and sustainability
Key Findings from Survey

- Health information exchange activity is on the rise.

- The key driver moving states, regions and communities toward health information exchange is perceived provider inefficiencies with rising healthcare costs also seen as important driver.

- HIE efforts recognize importance of privacy and security.

- Organization and governance structures are shifting to multi-stakeholder models with the involvement of providers, purchasers and payers.

- Advancements in functionality to support improvements in quality and safety are evident.
Key Findings from Survey

• Health information exchange efforts are delivering more information and increasingly using standards for data delivery.

• Securing funding to support initial start-up costs and ongoing operations is still recognized as the greatest challenge for all health information exchange initiatives and organizations.

• Funding sources for both upfront and ongoing operational costs still rely heavily upon government funds but alternative funding sources for ongoing sustainability are beginning to emerge.
Stage of Health Information Exchange Programs

Stage 1
- 12%
- Recognition of the need for HIE among multiple stakeholder groups in your state, region, or community

Stage 2
- 14%
- Getting organized
- Defining shared vision, goals, & objectives
- Identifying funding sources
- Setting up legal & governance structures

Stage 3
- 15%
- Transferring vision, goals, & objectives to tactics and business plan
- Defining needs and requirements
- Securing funding

Stage 4
- 37%
- Well under-way with implementation – technical, financial, and legal

Stage 5
- 12%
- Fully operational health information organization
- Transmitting data that is being used by healthcare stakeholders
- Sustainable business model

Stage 6
- 11%
- Demonstration of expansion of organization to encompass a broader coalition of stakeholders than present in the initial operational model

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Significant Drivers: Rank Order

- Inefficiencies experienced by providers
- Rising healthcare costs
- Increased attention on HIT at national level
- Availability of grant funding for HIE
- Demand for performance information from purchasers or payers
- Public health surveillance
Functionality Provided by Advanced Stage Initiatives

- Enrollment and eligibility checking – 43%
- Results delivery – 36%
- Disease or chronic care management – 32%
- Quality performance reporting – 27%
- Public health case management – 25%
Who’s Involved?

- Hospitals – 61%
- Primary care physicians – 48%
- Specialty care physicians – 37%
- Health plans – 37%
- Public health departments – 33%
- Employers and purchasers – 27%
Most Difficult Challenges for Health Information Exchange

- Securing upfront funding
- Engaging health plans and purchasers in coverage area
- Achieving sustainability
- Accurately linking patient data
- Addressing governance and organizational issues
Getting the Incentives Right: Overview of Parallel Pathways for Quality Healthcare

Framework for Aligning Incentives with Quality and Efficiency And HIT Capabilities
Working Group for Financing and Incentives – Leadership and Goals

• Working Group Co-Chairs:
  – Marianne E. DeFazio, C.E.B.S.
    Director, Global Health Benefits, IBM
  – John Glaser, PhD
    Vice President and Chief Information Officer, Partners HealthCare System

• Goals
  – Achieve multi-stakeholder consensus on a set of principles and policies for financing and incentives to improve health and healthcare through HIT adoption and health information exchange
  – Targeting physician offices and regional and community-based health information organizations and initiatives
Key Findings

• Value of HIT accrues to many stakeholders, including clinicians, health plans, hospitals, purchasers, patients and public health

• Incentive amounts offered should be meaningful

• Purchaser or payer sponsors of the incentive program should represent a meaningful proportion of the clinician’s patient panel

• Any applications covered by the program should be “interoperable” and standards-based

• Certification and accreditation can offer providers, purchasers and payers confidence

• Policies related to information sharing should be built into expectations

• Emerging health information exchange initiatives, networks and organizations should be leveraged to facilitate effective and efficient information sharing
Key Findings

• Coordination and collaboration within the region or community is critical.
  – Widespread of adoption of HIT across physician practices may not be possible without broad-based community collaboration and coordination.
  – Physician practices ordinarily contract with a large number of purchasers and payers.
  – As a result, incentives offered by a small number of purchasers or payers generally are not effective.
  – In addition, most of the data required to deliver care within physician practices resides somewhere else (hospital, lab, pharmacy, health plan, etc.) and therefore collaboration and coordination are necessary to facilitate the transmission of data to the point of care.
Key Findings

• Benefits of Coordination and Collaboration within the Region or Community
  – Providing leverage to achieve widespread participation,
  – Reducing the potential for the “free rider” effect (in which some purchasers and payers to reap the benefits of HIT adoption without sharing the costs),
  – Reducing the burden created by physician practices participating in multiple reporting initiatives, and
  – Significantly reducing the per participant cost of both transmitting and receiving common data elements for various healthcare needs
Parallel Pathways: All Roads Lead to Improved Quality and Value

- Aligning Incentives with
  - Quality capabilities
  - Physician HIT capabilities
  - Health information exchange capabilities
Agreed-Upon Principles for Financing and Incentives

• Any incentive program focused on quality should also include some direct or indirect incentive for the health information technology (HIT) infrastructure required to support improvements in quality.

• Financing and incentive programs should seek to align both costs and benefits related to HIT and health information exchange.
Agreed-Upon Principles for Financing and Incentives

• Any financing or incentive program implemented by either the public or private sector involving HIT should:
  – Result in improvements in quality, safety, efficiency or effectiveness in healthcare.
  – Incentivize only those applications and systems that are standards-based to enable interoperability and connectivity.
  – Address not only the implementation and usage of HIT applications but also the transmission of data to support information needs at the point of care, both of which are required to support quality care delivery.
  – Allow for internal quality improvement or external performance reporting as mutually agreed upon by purchasers/payers and providers.
### Parallel Pathways and Progression

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<tr>
<th>Area of Focus</th>
<th>Phase I</th>
<th>Phase II</th>
<th>Phase III</th>
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<tr>
<td>Quality Capabilities</td>
<td>1. Create an environment that supports improvements in quality and safety 2. Agree on and report common set of standardized measures to be reported over the three phases 3. Leverage claims data and manual chart abstraction</td>
<td>1. Expand capabilities to utilize clinical information 2. Report measures that leverage expanded clinical data capabilities</td>
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<td>1. Engage practicing clinicians, hospitals and other providers, purchasers, payers and consumers in HIE initiative 2. Launch HIE capability utilizing agreed upon technical and information sharing standards 3. Develop sustainable model based on agreed-upon services</td>
<td>1. Operate secure health information exchange, making available to all authorized healthcare organizations who agree to terms for information sharing 2. Send standardized data to physician practices and quality reports to purchasers and payers with consent.</td>
<td>1. Expand services to provide value to users as appropriate.</td>
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Quality Expectations

PHASE I
1. Create an environment that supports improvements in quality and safety.
2. Agree on and report common set of standardized measures to be utilized over the three phases.
3. Leverage claims data and manual chart abstraction.

PHASE II
1. Expand capabilities to utilize clinical information.
2. Report measures that leverage expanded clinical data capabilities.

PHASE III
1. Report achievement of certain outcomes and processes.
Physician Practice HIT Capabilities

**PHASE I**
1. Direct usage of HIT by physicians with certain basic functionalities

**PHASE II**
1. Direct usage of HIT with expanded functionalities
2. Secure, standards-based connectivity between HIT and clinical data sources

**PHASE III**
1. Robust IT-supported clinical environment supporting chronic care management
2. EHR with integrated decision support and ability to accept and integrate structured, computable data from other organizations
Health Information Exchange Capabilities

**PHASE I**
1. Engage practicing clinicians, hospitals and other providers, purchasers, payers and consumers in HIE initiative
2. Launch HIE capability utilizing agreed upon technical and information sharing standards
3. Develop sustainable model based on agreed-upon services

**PHASE II**
1. Operate secure health information exchange, making available to authorized healthcare orgns who agree to terms for information sharing
2. Send standardized data to physician practices and quality reports to purchasers and payers w/consent.

**PHASE III**
1. Expand services to provide value to users as appropriate.
Financial Incentives

PHASE I
1. Reward use of standards-based HIT
2. Reward reporting of subset of measures based on data derived from manual chart abstraction and claims.

PHASE II
1. Reward use of interoperable HIT with connectivity with clinical data sources
2. Reward reporting of expanded set of performance measures that require clinical data sources

PHASE III
1. Reward electronic documentation of improved clinical outcomes and processes
2. Phase out rewards for HIT
Value Derived from the Framework
Value for Patients

**PHASE I**
1. Improvements in quality and safety

**PHASE II**
1. Safer, higher quality care
2. Improved convenience since their providers have better access to the patient’s data

**PHASE III**
1. Significantly improved quality and efficiency of care
2. Reduced healthcare costs
Value for Clinicians

PHASE I
1. Common set of expectations
2. Simplified reporting
3. Financial support for HIT adoption

PHASE II
1. More info to support care delivery at point of care
2. Significant improvements in quality, safety and efficiency
3. Enhanced revenue
4. Decreased intrusion in their practice for chart reviews

PHASE III
1. Delivering the best care they can for their patients
2. Enhanced revenues based on quality improvement
Value for Purchasers and Payers

PHASE I
- Communicate common set of expectations and incremental roadmap for getting to outcomes
- Consolidate duplicative reporting processes
- Achieve immediate gains in quality

PHASE II
- More info to support care delivery at point of care
- Enhanced efficiency, timeliness and accuracy of reporting
- Improved ability to target areas in need of focus
- Significant improvements in quality, safety and efficiency

PHASE III
- Full migration to payment based on outcomes and processes
- Flexible HIT infrastructure to support changing needs and expectations
Scope of Work Underway

- Set of Common Principles, Policies and Standards to Support the Principles of Parallel Pathways for Quality Healthcare Framework – Aligning Incentives with Both Quality and Efficiency Goals as well as HIT Capabilities in the Physician Practice and Health Information Exchange Across Markets

- Release of First Draft Targeted for September 2005

- Part of a Broader Set of Tools Designed to Support States, Regions and Communities in Developing a Sustainable Model for HIT Adoption and Health Information Exchange
Development of Common Principles, Guides and Policies for Health Information Exchange

- Getting started, engaging stakeholders
- Assessing your environment
- Developing shared vision, goals, objectives and plans
- Developing organizational and governance structure
- Developing and implementing sustainability model
- Agreeing upon policies for information sharing
- Developing and operating technical infrastructure
- Supporting process change and adoption among stakeholders
Assessing the Environment: Key Deliverables from our Work

- Market characteristics that will create “fertile ground” for health information exchange and alignment of incentives

- High-level assessment tool that markets can use

- Assessment of at least five markets
Developing and Implementing Sustainable Business Model: Key Deliverables

• High-level cost model for several common use cases for market-level HIT adoption and health information exchange.

• Sample business models to align costs and value

• Results from our teaming with “learning laboratories” – markets experimenting with aligning incentives with quality and HIT/health information exchange
Tools for Implementation: Engaging Physicians, Plans and Purchasers

- Vision, principles and strategies for getting to a “transformed practice” (eHI Working Group for Small Practices)

- “Tool-kits for Engagement” Targeting Physicians, Purchasers and Health Plans
  - Articulation of value: why the status quo no longer works and the value that will be created with migration
  - High level “implementation guides” (how do I get started?)

- “Tool-Kits for Implementation”
  - Set of common principles for developing and disseminating technical specifications for performance measures*
  - Set of “technical implementation guides” for utilizing data from electronic applications to support performance measurement collection and reporting targeting technical players*
  - Sets of “how-to guides” for small physician practices, health plans, and purchasers interested in collecting, analyzing for improvement, and reporting measures
Key Take-aways

• Health information technology is here
• Interoperability is the name of the game
• Rapid changes in policy at the national, state and local levels
• Every stakeholder group is trying to figure out how this fits within their strategy
• Enormous opportunity to merge the quality agenda with the HIT agenda
Likely to see the following

• Standards for interoperability – public-private collaboration
• Standards for assuring privacy and security
• Aligning incentives with both quality and efficiency goals as well as HIT and health information exchange within markets
Leverage Points for Quality

• Engagement in emerging state and regional initiatives
  – Priority setting for HIT within the state or region
  – Development of health information exchange networks
• Building quality and efficiency goals into the emerging health information exchange activities
• Aligning measurement expectations with HIE capabilities
• Collaboration and coordination are critical
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