

Health Information Technology's Role in Improving Quality and Assessing Drugs

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Agenda

- Health Information Technology (HIT) and Quality
- The Federal Health Information Policy Landscape
- Goals and Implications for Improving Quality



HIT and Quality



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Private Initiatives Promote Health Information Technology

Technology Trends

- Electronic health records (EHRs)
 - Provide real-time information at point of care
 - Coordinated care and disease management
- Electronic prescribing (eRx)
 - Transmits prescription data to pharmacies electronically
 - Nationwide adoption could eliminate 2.1 million adverse drug events (ADEs)

Regional Health Information Organizations (RHIOs)

- RHIOs are a collaborative of stakeholders in a specific geographic healthcare community
 - Share patient administrative and/or clinical information
 - 101 projects in 35 states
- RHIOs facilitate coordination of care
 - Can increase quality, safety, and efficiency

Industry Initiatives

- Employers and plans are offering personal health records (PHRs)
 - WellPoint, BCBS Association, Cigna, other AHIP members
- Continua Health Alliance
 - Consortium of electronics and health companies
 - Focus on personal telehealth services, e.g., disease management, remote monitoring

Health Information Technology and Quality Monitoring

Quality and HIT Are Interconnected and Together Drive Transparency in Health Care



HIE and Quality Improvement Influence Core Business Areas

Regulatory/Reimbursement

- Pay for performance (P4P) based on available data versus appropriate data and measures
- CMS seeks more data, e.g., eRx pilots, oncology demonstration project, and Part D plans
- Consumer information and health savings accounts (HSAs)
- Regulations and incentives to provide automated outcomes data

Policy

- Executive Order to promote transparency in federal health care programs
- American Health Information Community (the Community) Breakthrough Initiatives
- CMS' Initiatives: PHR, Beneficiary portal, VistA® EHR, MMA 646 and 649 demonstrations, Doctor's Office Quality-IT (DOQ-IT) project
- Pharmacy Quality Alliance performance metrics

Health Information Exchange (HIE) and Quality Improvement Influence Core Business Areas

Clinical Development

- Registries, alerts, and monitoring provide real-time clinical data
- Increase in FDA and CMS concurrent reviews of new products
- Framework for early (pre-EHR) shared clinical databases
- Availability of de-identified clinical databases for pharmaceutical research
- Agency for Healthcare Research and Quality (AHRQ) clinical effectiveness research using EHR data

Managed Markets/Sales

- Medicare Part D formulary review
- Medicare's Coverage with Evidence Development (CED) Policy
- High cost beneficiary disease management focus
- Medicaid and managed care cost monitoring and control initiatives
- Medication lists



The Federal Health Information Policy Landscape



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■ ■ ■ The Bush Administration: HIT Interoperability Will Facilitate Transparency in Quality and Cost of Health Care

August 2006 – President Bush signs Executive Order: **Promoting Quality and Efficient Health Care in Federal Government Administered or Sponsored Health Care Programs**

- Federal agencies with federal health insurance programs must encourage adoption of HIT standards
- Federal agencies must also require standardized systems in contracts or agreements
- Federal health plans must increase transparency in quality measurement and pricing, and promote quality and efficiency in health care.
- Federal agencies must comply with all directives by **January 1, 2007**

American Health Information Community Is Driving Federal HIT Initiatives

AHIC workgroups must consider potential breakthroughs, where using HIT produces tangible and specific value to the health care consumer and can be realized within a 2-3 year period

Consumer Empowerment

- My Personal Health Record
- My Medication History
- My Health Record Locator
- My Registration Information

Health Improvement

- **Electronic Health Record**
- **Electronic Prescribing**
- **Quality Monitoring and Reporting**
- Chronic Disease Monitoring
- Childhood Immunization Record
- Employee Empowerment Tool

Public Health Protection

- Emergency Information Network
- Biosurveillance and Pandemic Surveillance
- Adverse Drug Event Monitoring and Notification

AHIC Workgroups Focused on Discrete Issue Areas

Six workgroups make recommendations based on the following charges:

Workgroup	Broad Charge	Specific Charge – Within One Year:
Quality	<p>Make recommendations so that HIT can:</p> <ul style="list-style-type: none"> Provide the data needed for development of quality measures for patients and health care stakeholders Automate the measurement and reporting of a comprehensive current and future set of measures Accelerate the use of clinical decision support that can improve performance on those measures. <p>Also, make recommendations for how performance measures should align with the capabilities and limitations of HIT</p>	<p>Make recommendations that specify how certified HIT should capture, aggregate, and report data for a core set of ambulatory and inpatient quality measures</p>
Electronic Health Records	<p>Widespread adoption of certified EHRs, minimizing gaps in adoption among providers</p>	<p>Secure exchange of standardized current and historical laboratory results for clinical care</p>
Chronic Care	<p>Deploy widely available, secure technology solutions for remote monitoring and assessment of patients and for communication between clinicians about patients</p>	<p>Widespread use of secure messaging between clinicians and patients about care delivery; through pilots and demonstrations, explore reimbursement, integration, and the impact of secure messaging</p>

AHIC Workgroups Focused on Discrete Issue Areas (cont'd)

Workgroup	Broad Charge	Specific Charge
Consumer Empowerment	Widespread adoption of a PHR that is easy-to-use, portable, longitudinal, affordable, and consumer-centered	A pre-populated, consumer-directed, and secure electronic registration summary eventually linked with pre-populated medication history; through pilots, demonstrate and measure value
Confidentiality, Privacy, and Security	Make recommendations regarding the protection of personal health information to secure trust, and support appropriate interoperable electronic health information exchange	Make actionable confidentiality, privacy, and security recommendations on specific policies that best balance the needs for appropriate information protection and access to support, and accelerate the implementation of the consumer empowerment, chronic care, and EHR-related breakthroughs
BioSurveillance	Implement the informational tools and business operation to support real-time nationwide public health event monitoring and rapid response management across public health and care delivery communities and other authorized government agencies	Ambulatory care and emergency department visit, utilization, and lab result data from health care and public health systems electronically transmitted to public health agencies within 24 hours

ONC provides core staffing for these six workgroups



ONC Awards Contracts to Foster HIT Adoption and Interoperability

Standards Harmonization

- Initial 90 Health Information Technology Standards Panel (HITSP) standards on biosurveillance, consumer empowerment, and EHRs
- HITSP approved an initial 24 interoperability specifications in September 2006, now open for public comment

Compliance Certification

- ONC and the Community unanimously adopted all Certification Commission for HIT(CCHIT) criteria for certification of ambulatory EHRs
- Certification of inpatient EHRs will begin in 2007

Privacy and Security

- RTI International and National Governors' Association convening health care professionals, consumers, and other stakeholders in 34 states
- Address variations in privacy and security practices affecting data exchanges, identify best practices, and increase local expertise and trust

National Health Information Network (NHIN) Prototype Architecture

- Four consortia led by Accenture, Computer Science Corporation (CSC), IBM, and Northrop Grumman
- All four consortia will work together to ensure that information can move seamlessly between each of the four networks

RHIO Best Practices

- RHIOs in California, Colorado, Florida, Indiana, Maine, Massachusetts, Rhode Island, Tennessee, and Utah were selected because of their HIE activities and progress
- Report released September 1, 2006

CMS is a Critical Test Bed

CMS Strategic Action Plan 2006-2009: HIT Is a Key Component

- HIT is a key enabler for advancing personalized health care for the beneficiary through:
 - » PHRs
 - » Medicare beneficiary portal (my.medicare.gov)
 - » Clinical decision support
 - » eRx, EHRs
- HIT is necessary to assess quality and supporting transparency around cost and quality
 - » Enable the beneficiary and provider to make more informed health care decisions through the use of cost and quality comparison tools
 - » Support the development of further and more accurate quality measures
- E-Services essential to support Baby Boomer demand
- Transition to ICD-10 codes is a necessary modernization step to improve accurate payments and quality monitoring
- HIT can also support and improve integrity efforts in the Medicare and Medicaid programs

■ ■ ■ The FDA, CDC and AHRQ: Monitor and Distribute Information about Medication Safety

FDA, CDC and AHRQ are the primary agencies involved in Adverse Drug Event data collection and research funding around medication errors and quality-improvement

- **FDA** monitors drugs and requires post-market studies for certain products
 - » Primary programs are FDA MedWatch, MedWatch+, and CDC-FDA Vaccine Adverse Event Reporting System (VAERS)
 - » Most studies rely on the manufacturer to monitor, collect, and report data
 - » FDA plans to partner with MIT to develop monitoring software to detect “safety concerns”
- **CDC** oversees the National Electronic Injury Surveillance System-Cooperative Adverse Event Surveillance project (NEISS-CADES)
 - » Conducts nationally representative surveillance for ADEs *treated* in hospital emergency departments
 - » Will not collect data on ADEs not treated or treated outside of emergency rooms
- **AHRQ** funds research and compiles data on HIT and quality monitoring initiatives
 - » AHRQ national resource center provides the latest information on computerized physician order entry (CPOE), EHRs and eRx
 - » Specific programs look at safety-net provider quality



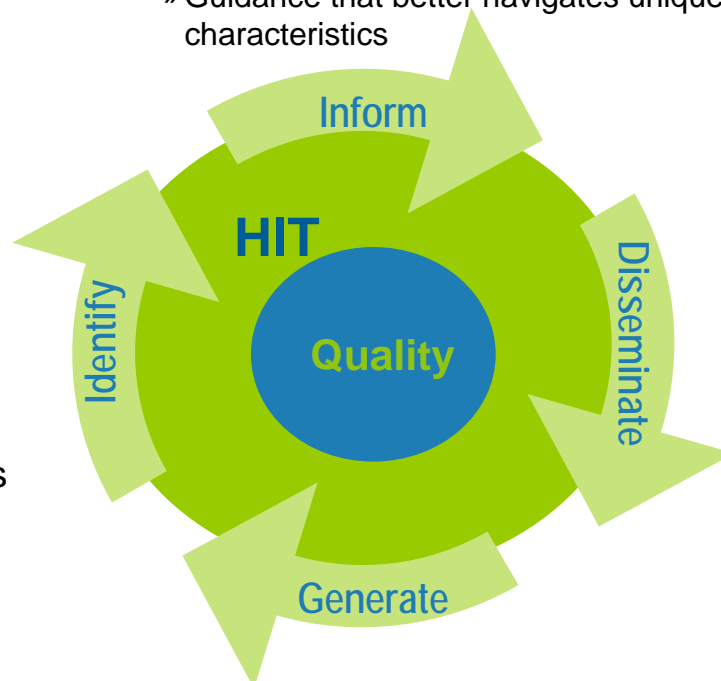
Goals and Implications for Quality Improvement and Drug Assessment



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How Will Overall Quality Evolve with HIT

- Inform new or revise existing clinical guidelines
 - » Guidelines that better address multiple co-morbidities
 - » Guidance that better navigates unique patient characteristics
- Research and tools to identify new and evolving quality
 - » Population-based vs. patient specific
 - » Link to genomic findings
 - » Sophistication of monitoring and related implications
- EHR, decision support, portals, registries
 - » Tools that provide prompts, alerts and education pursuant to EBM
 - » Transparency initiatives that provide comparative quality and cost data
- Tracking and generation of quality metrics and clinical information
 - » HIT adoption rates
 - » Selected quality metrics – process vs. outcomes
 - » Growing accurate patient longitudinal data



■ ■ ■ The Fate of Drug Assessment in an Automated Healthcare Environment

- Depends on:
 - » What HIT tools are adopted
 - » Type of data that is available
 - » The stakeholders to whom the data is accessible
 - » How that data is interpreted

■■■ Significant Challenges Stand in the Way: HIT Is Unable to Achieve Full Potential Impact on Assessing Drugs and Improving Quality

- **No standard definition of medication error (ME) or adverse drug event (ADE)**
- **Current ADE and ME reporting programs and requirements are limited**
- **The industry must address enormous knowledge deficits**
 - » Assess ADE incidence rates across health care settings
 - » Understand how current policies contribute to ADEs (including drug formularies)
 - » Quantify risk, cost, and quality
- **Physicians have been slow to adopt and implement EHR and eRx systems**
 - » Concerns about workflow interruptions and business process change
 - » Fear of quality metrics
 - » Liability issues

How Can We Overcome These Obstacles?

- Partner with a state HIE or RHIO to gain access to de-identified community-based health information to study drug efficacy and safety
- Build an improvement model; Industry could leverage recommendations in Institute of Medicine's *Preventing Medication Errors*
 - » Position pilot projects to conduct research to fill government knowledge deficits
 - » Consider impact of formulary design on quality and medication safety
 - » Examine impact of coverage gaps on quality of care
- Foster demand for adoption of eRx and EHRs
- Suggest that JCAHO condition hospital accreditation on adoption of automated ADE monitoring systems
- FDA could require Phase IV studies to detect any rare or long-term adverse effects over a much larger patient population and a longer period of time
 - » Incorporate findings into drug labeling and information available through eRx and EHR systems
- Other options?