

# The Community

## American Health Information Community

August 1, 2006  
8:30 a.m. - 1:00 p.m.



**U.S. Department of Health and Human Services  
Hubert H. Humphrey Building  
200 Independence Avenue, SW  
Room 800  
Washington, DC 20201**



# Electronic Health Records Workgroup Recommendation

Lillee S. Gelinas, RN, BSN, MSN, FAAN

August 1, 2006

# EHR Workgroup Recommendation

## Emergency Responder Use Case Recommendation

Under the leadership of ONC, an emergency responder use case should be developed and prioritized for the attention of HITSP and the other ONC lead initiatives. The use case should describe the role that an emergency responder electronic health record will provide, comprising, at a minimum, demographic, medication, allergy and problem list information that can be used to support emergency and routine health care activities. The use case should leverage the work in related activities from the AHIC EHR Workgroup and elsewhere. In order to meet the needs of a variety of follow-up activities, this use case should be available in October of 2006.

**Accept**

**Table**

**Reject**



# Quality: Improving Care Through Information

Carolyn M. Clancy, MD  
Director, Agency for Healthcare Research  
and Quality

August 1, 2006

# Current Landscape

- Numerous reports confirm substantial gap between best possible and actual care.
- Increasing demands from purchasers that providers demonstrate quality delivered.
- Public reporting of performance leads to improvements.
- Recognition of urgent need to align disparate monitoring initiatives.
- Initiatives that link payment with performance have proliferated in the private sector.
- Consumer-directed approaches require valid information on quality and cost of care.

# Challenges and Enablers

- Quality assessment has been tightly linked with site of care or individual clinicians; few integrated or episode-based metrics.
- Robust measures not yet developed for all physician specialties.
- Quality alliances – collaboration between providers, purchasers, consumers and accreditors – have produced uniform public reporting for hospitals (HQA) and physicians (AQA).
- HQA and AQA addressing gaps in existing measure sets, and need for measures that span care delivery.
- Efficient data capture remains an aspiration – current electronic health records do not support.

# Opportunities to Advance Automation

- Examine options for and feasibility of accelerating use of clinical electronic data for chart abstraction and use of administrative data.
- Examine effective strategies used to capture clinical data electronically in successful private sector initiatives (e.g., Bridges to Excellence).
- Review challenges encountered by health care organizations with full electronic health records in reporting on quality of care.
- Identify emerging best practices that link quality assessment and clinical decision support.



# HQA's Role in Quality Measurement

Charles N. Kahn III  
President, Federation of American  
Hospitals

August 1, 2006



# Current Landscape

- What is HQA?
  - Public-Private partnership of hospitals, consumers, employers, labor, private payers, CMS, AHRQ, JCAHO and others
  - Promotes hospital quality agenda through measurement and reporting
- HHS reports HQA measures on Hospital Compare Website
- HQA currently asks hospitals to report on 21 clinical measures
- HQA will expand hospital reporting in FY '07, DRA mandates additional measures through FY '08 and P4P in FY '09

# Near-Term HQA Direction

- Formalizing HQA Structure
  - Priority setting for hospital quality and performance agenda
  - Selecting measures
  - Governance
  - Collection
  - Reporting
- Developing business model
- Seek consensus on refined model by year end

# Issues for AHIC

- False impression that the current direction of HIT and EHR proliferation in hospitals will make measurement seamless
- Encourage strategy to develop HIT and EHRs that materially contribute to measurement



# Automating Quality Reporting with Electronic Health Records

Kristine Martin Anderson  
Principal, Booz Allen Hamilton

August 1, 2006

# Collecting Accurate Quality Data: Resource Intense and Complex

## Patient Information

- Mix of paper and electronic systems
- Varied information locations
- Free text, narrative data capture



## Algorithms

- Chart review
- Clinical staff
- Significant quality training
- Labor intensive and time consuming

- 20 measures for CMS today, more to be added
- Private payors request data independently
- Increased requirements to support P4P and consumer driven health

**Measure - The percent of acute myocardial patients who have received a beta blocker within 24 hours of arrival at the hospital**

**Automation Scenario**



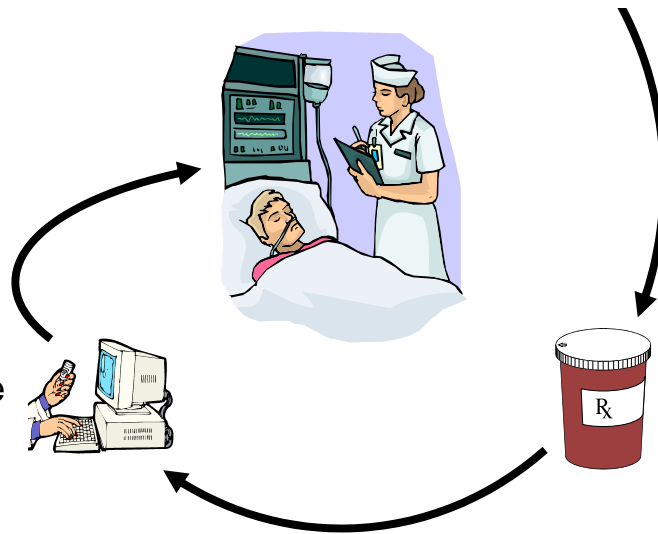
The hospital has an established standing order for all patients identified as heart attack (AMI) patients. The order set prompts physicians to order oxygen, aspirin, a beta blocker and other therapeutic interventions.



The nurse administers the medication and documents the event in an electronic medication administration record (e-MAR).



The electronic health record transmits the order for the beta blocker to the pharmacy, where the order is verified, filled and the drug is dispensed.



# Lack of Standards are Major Barriers to Automated Measurement

- Documentation can occur in many places in the medical record, complicating search algorithms and confusing the results
- Clinical documentation is often unstructured and uses non-standardized nomenclature
- Clinical documentation is often the last module implemented by hospitals, as it requires significant change management for clinicians, who are often already feeling burdened with CPOE
- There is insufficient active and passive encouragement of documentation that would automate quality measurement

# Quality Measurement Relies on Linkages Between Ambulatory & Inpatient Records, Which Often Do Not Exist

- Data that indicate some contraindications would be present in ambulatory records

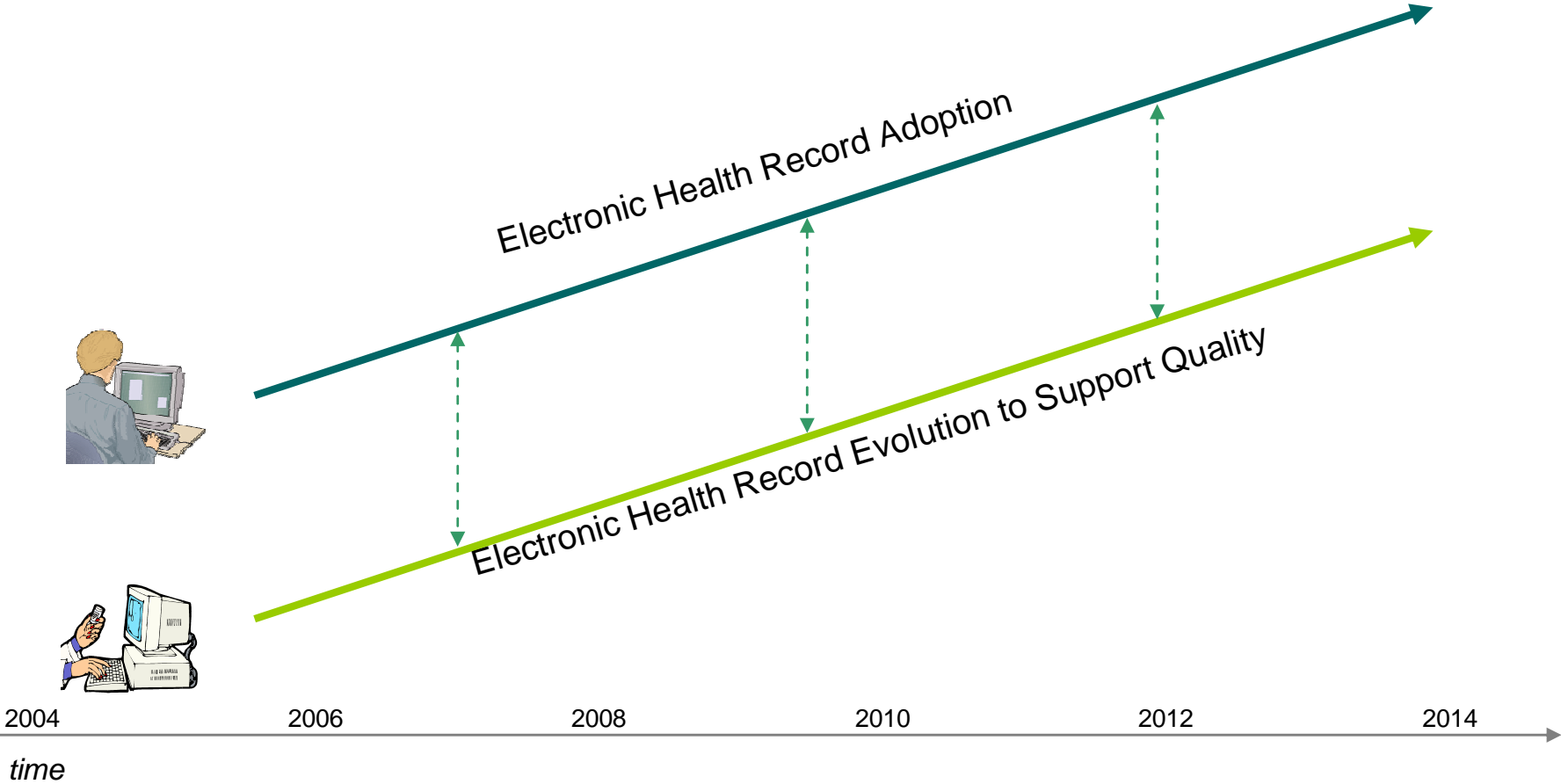
**Example:** For patients admitted with an AMI it is important to urgently discover allergies, history of pulmonary disease, history of diabetes or hypoglycemia, etc.

- Ambulatory records need to be accessible quickly to ensure compliance with time-based standards of care.

**Example:** A patient with chest pain gets an EKG in an ambulance. In order to meet door to balloon requirements, the EKG must make it to a cardiologist who can be expected to intervene. The transfer of waveform data to an EMR is a critical need but unmet in many healthcare entities because waveform storage and dissemination is outside of the traditional perception of EMR's.



# We Cannot Automate Quality Reporting Simply by Increasing Adoption Current Generation EHRs





# AQA and the AHIC

Douglas E. Henley, M.D.  
Executive Vice President/CEO, American  
Academy of Family Physicians

August 1, 2006

# The AQA

## Broad Alliance of Key Stakeholders

- Physicians, consumers, employers, payers participate in a transparent process to determine:
  - Performance measures for implementation across payers, and
  - How to report data publicly and with clinicians

## AQA Steering Group Members:

- AARP, AHRQ, AMA,
- American Academy of Family Physicians (AAFP)
- American College of Physicians (ACP)
- American College of Surgeons (ACS)
- American Medical Association (AMA)
- American Osteopathic Association (AOA)
- America's Health Insurance Plans (AHIP)
- National Partnership for Women and Families
- Pacific Business Group on Health (PBGH)
- The Society of Thoracic Surgeons (STS)

# Issues with Automated Reporting of AQA Measures

- EHRs not yet 'robust' in ability to seamlessly collect and report quality data
- Requires specificity of performance measures to allow EHR programming for data aggregation and reporting
- Requires programming which allows for 'exemptions' b/o contraindications, allergies, side effects, patient choice
- Requires consistent use of the same quality measures by all
- Need to get away from administrative data

# Short-term Opportunities to Automate Reporting

- Community can consider developing use cases for quality reporting
- Recommendations/directions to HITSP regarding the need establish HIT standards to allow such quality data collection, aggregation, and reporting
- Criteria/standards then become part of certification process by the CCHIT



# AQA & Health Data Sharing & Aggregation

George J. Isham, M.D., M.S.  
Medical Director and Chief Health Officer  
HealthPartners

Co-chair  
AQA Data Aggregation & Sharing Workgroup

August 1, 2006

# AQA Data Sharing & Aggregation

- Recognized the need for common standards and rules for health data sharing and aggregation to support a national strategy for quality measurement
- Mutual stakeholder interest and common responsibility to promote data stewardship activities
- Resulted in:
  - Endorsement of data sharing & aggregation principles
  - Development of white paper promoting a National Health Data Stewardship Entity
  - Establishment of HIT subgroup to align & apply modern HIT with the mission & goals of AQA
  - Proposed AQA pilot project

# Enablers to Quality Reporting

- Key principles that guide the development and use of HIT systems and components that support quality reporting
  - AQA principles endorsed April 2006
- Standard approach for EHRs to routinely produce quality data based on AQA and HQA approved measures
- Uniform operating rules and standards for sharing and aggregating health data, implementation guidance and establishing a framework for collecting & analyzing data
  - National Health Data Stewardship Entity



# Short-term Opportunities: AQA Pilots

- Leverage the experience of existing aggregation efforts to evaluate the most effective processes for measuring performance and aggregating and reporting this information
- Six sites:
  - California Cooperative Healthcare Reporting Initiative
  - Indiana Health Information Exchange
  - Massachusetts Health Quality Partners
  - Minnesota Community Measurement
  - Phoenix Regional Healthcare Value Measurement Initiative
  - Wisconsin Collaborative for Healthcare Quality
- Learning laboratories to link public and private data sets and assess clinical quality, cost of care and patient experience
- Leadership from pilot sites can provide a national framework for measurement, data sharing and reporting



# Employer Perspective

Randall L. Johnson  
Director, Human Resources Statistics  
Initiatives, Motorola

August 1, 2006

# “We Have Reached the Tipping Point”

- Issues: \$6,300, \$12,000, 55%, 98,000, 46 million, Medicare
- Improve quality by 40% and remove 30% of costs:
  - Measurement, transparency and disclosure
  - Information, tools and incentives for patients
  - Pay for performance
- Progress
  - Leapfrog and Bridges to Excellence
  - Consumer Purchaser Disclosure Group
  - Care Focused Purchasing Coalition and HRPAs Coalitions
  - Hospital Quality Alliance
  - AQA—an alliance for ambulatory and surgical care
  - eHealth Initiatives
- National Quality Forum (NQF)—Response to “Tower of Babel”
- AHIC

# Barriers and Enablers to Quality Reporting

- Barriers
  - Funding deficiencies?
  - Many different HIT initiatives...different HIT approaches
  - Desire by some to move slower to make it perfect
    - Different perceptions of “crisis” by different stakeholders
    - Change in culture is tough!
- Enablers
  - Reached “tipping point” of understanding “we must act now!”
  - NQF and similar initiatives leading to nationwide uniformity
  - Collaboration between:
    - Private with public (CMS and AHRQ)
    - Medical community with purchasers and consumers

# Opportunities to Advance Automation

- Values
  - Directionally correct but imperfect now is better than perfect later
  - Outcomes measures are better than process measures
  - Reduce the “tower of Babel” with NQF and national uniformity
- Focus on process improvement that improves efficiency AND reduces misdiagnosis, other errors and careless work
- Establish EMR and other HIT capacity to collect data and pay for efficient and quality performance based on outcomes

# Opportunities to Advance Automation

- Capacity for innovative care delivery and payment such as:
  - Online visits, group visits and other types of “connections”
  - Care coordination of chronic conditions
  - Simultaneous access to EHR, diagnosis and appropriate care
- Implement using private demonstration projects as well as public/private collaborations



# Discussion on Quality

- Options for AHIC Next Steps
- Potential Draft Broad and Specific Charges

# Options for AHIC Next Steps

1. Form a work group to address barriers and enablers in short and longer term
2. Prioritize quality measurement and reporting through ONC contractors (HITSP, CCHIT, and NHIN) alone
3. Defer to AQA and HQA



# Potential Draft Broad and Specific Charges

## **Broad Charge:**

Make recommendations to the American Health Information Community so that HIT can provide the data needed for the development of quality measures that are useful to patients and others in the health care industry, automate the measurement and reporting of a comprehensive current and future set of quality measures, and accelerate the use of clinical decision support that can improve performance on those quality measures. Also, make recommendations for how performance measures should align with the capabilities and limitations of health IT.

## **Specific Charge:**

Make recommendations to the American Health Information Community that specify how certified health information technology should capture, aggregate and report data for a core set of ambulatory and inpatient quality measures.



Department of Health & Human Services  
Office of the National Coordinator for  
Health Information Technology

# Nationwide Health Information Network Update for American Health Information Community

John W. Loonsk, MD  
Office of the National Coordinator  
for Health Information Technology

Wes Rishel  
Gartner Group

August 1, 2006

# Nationwide Health Information Network

“ ...foster widely available services that facilitate the accurate, appropriate, timely, and secure exchange of health information.”

# NHIN Project Status

- Four consortia working on:
  - Architectures
  - Prototypes that validate those architectures
- Produced several architecture products:
  - Standards needed
  - Services needed
  - Functional requirements
- NHIN public fora:
  - Functional Requirements (June, 2006)
  - Security, Services and Systems (October, 2006)
  - Prototypes and Business Models (January, 2007)

# NHIN Functional Requirements - Definition

- Specify necessary behaviors of a system or systems
  - “The record locator shall return the location of data in health care provider systems”
- Not drawing network boundaries
  - Consider all needs to meet the goal
- Not policy statements
  - Note and record

# Goals of First NHIN Forum

- Review functional requirements work to date (over 1100)
- Get broad spectrum of input
- Increase awareness of challenges in advancing the NHIN
- Produce comments, gaps, refinements and issues for National Committee on Vital and Health Statistics
  - Will identify common requirements
  - Describe architecture variations
  - Deliver first set of functional requirements in September

# “Steps” to the NHIN

## **NHIN vision and breakthroughs / use cases**

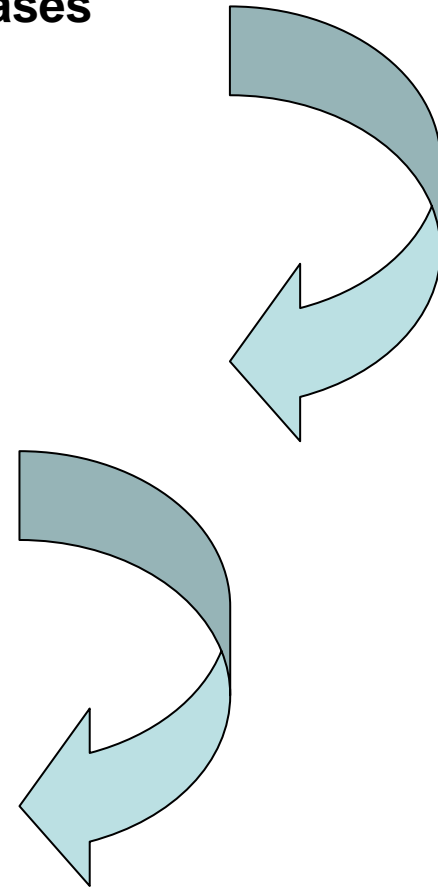
- Initial architecture
  - Validating prototypes
    - Standards needs
      - Policy implications

## **More business needs / use cases**

- Refined architecture
  - Pilot implementations
    - Standards needs
      - Policy implications
        - » Certification criteria

## **More business needs / use cases**

- Initial NHIN Services
  - ...



# The First NHIN Forum - “Step”

- Forum material:
  - [www.hhs.gov/healthit/NHIN\\_Forum1.html](http://www.hhs.gov/healthit/NHIN_Forum1.html)
- Opportunity to speak on NHIN needs – very positive
- Many needs and desires expressed
- Initial progress in reconciling
  - Expectations
  - Practical issues of implementation



# NHIN Consortia Representatives

- Accenture
  - Garret Wu
- Computer Sciences Corporation
  - J. Marc Overhage, MD PhD
- IBM
  - Casey Webster
- Northrop Grumman
  - Robert Cothren, PhD

# NHIN Discussion Point - Incremental Development

NHIN services will develop incrementally as they mature and demonstrate value. In this kind of “organic” development, what architectural considerations are necessary to deal with:

- Differing emphasis and capabilities in different regions?
- Providers without EHR's who want NHIN services?

# NHIN Discussion Point - Information Retrieval

There are several models for retrieving patient information in the existing NHIN consortia:

1. Via patient directory that also uses summary data in a regional repository
2. Via patient directory that includes information on what kinds of data can be found at different organizations
3. Via patient directory that exclusively indicates that patient data exists at an organization, but with no indication of what those data are

When a clinician retrieves patient data from another organization, what are the functional, performance, and sensitivity issues associated with each approach?

# NHIN Discussion Point – Emergency Response

In the Gulf Coast aftermath, when an entire region had seriously degraded infrastructure, the ability of electronic prescribing networks and the Veterans Health Administration systems to retrieve data about evacuees was put on display.

- Could the existing NHIN prototype architectures have responded to this crisis in this way?
- What architectural approaches could enhance NHIN capabilities to respond?

# NHIN Discussion Point – Patterns of Information Exchange

At least two major patterns of information flow have been discussed as components of a NHIN architecture:

- **Pull:** clinicians retrieving data from the network at the time that they want to retrieve them
- **Push:** data (such as reports of labs, referrals and public health data) being sent to an EHR or data user as soon as they are ready

What are the architectural issues associated with the two different approaches?

# NHIN Discussion Point – Consumer Needs

The support of consumer needs was a significant part of the discussion at the forum.

What architectural considerations are necessary to support consumer centricity in information management and access?

# NHIN Discussion Point – Trust Model

Even with the prospect of national provider ID's, there are still many issues and two major models for “trust” capabilities for clinician users of NHIN systems. The models include:

- **Centralized trust:** the network tracks the identity of clinicians that can use network data
- **Delegated trust:** the network tracks organizations that are authorized to access the network and each organization keeps track of its users

What are the architectural issues related to scale, cross privileges, auditing, push model, consumer users, weakest-link security for these models?

# NHIN Discussion Point – Secondary Use

What architectural considerations are necessary to support the ready availability of data for secondary uses like; research, quality reporting and disease monitoring?



# NHIN Discussion Point – Transforming Data

Standard data seems to be an inevitable part of NHIN exchange, but at least initially, transforming data into standard form will be a necessary part of achieving NHIN functions.

- What are the architectural issues associated with data transformation occurring in the network vs. at the provider site?



# American Health Information Community

Looking Forward:  
Goals, Objectives, and Strategies

# Strategic Framework

- Original Strategic Framework was released in July of 2004
- Articulated 4 goals and 12 strategies
- Vetted, discussed, and refined goals and strategies over the last two years to produce the updated strategic framework
  - Reflects market based orientation
  - Will be used to develop internal performance measures
  - Communication vehicle with public and private partners

## Each Strategy Fits into One of Three Categories:

1. Strategy has been initiated and specific actions are being taken
2. Strategy is under active consideration and requires further discussion
3. Strategy is for future discussion

# 10 Initiated Strategies

## Goal 1: Inform Health Care Professionals

**Strategy 1.1.1:** Simplify health information access and communication among clinicians

- EHR Workgroup is focusing on access to needed clinical information
- EHR Workgroup recommendations to AHIC in May

**Strategy 1.2.3:** Lower risk of EHR adoption

- CCHIT Contract
- CMS DOQ-IT Initiative

# 10 Initiated Strategies

## Goal 2: Interconnect Health Care

**Strategy 2.1.1:** Establish well-defined health information standards

- Privacy and Security Solutions (PASS)
- CCHIT contract

**Strategy 2.1.2:** Ensure federal agency compliance with health information standards

- FHA
- NIST

**Strategy 2.1.3:** Exercise federal leadership in health information standards adoption

- Workgroup's recommendations

**Strategy 2.3.1:** Support the development and implementation of appropriate privacy and security policies, practices, and standards for electronic health information exchange

- Privacy and Security Solutions (PASS)
- Workgroup recommendation to create a privacy and security subgroup
- HHS Policy Council

# 10 Initiated Strategies

## **Goal 3: Personalize Health Management**

**Strategy 3.1.2:** Expand access to personal health management information and tools

- Consumer Empowerment Workgroup recommendations

**Strategy 3.2.1:** Promote adoption of remote monitoring technology for communication between providers and patients

- Chronic Care Workgroup recommendations

# 10 Initiated Strategies

## Goal 4: Improve Population Health

**Strategy 4.1.1:** Enable simultaneous flow of clinical care data to and among local, state, and Federal biosurveillance programs

- Biosurveillance Workgroup recommendations

**Strategy 4.4.1:** Foster the availability of field EHRs to clinicians responding to disasters

- Gulf Coast Digital Health Information Recovery Contract
- Rapid response EHR initiative



# 6 Strategies for Active Consideration

## Goal 1: Inform Health Care Professionals

### Objective 1.2: Low Cost and Low Risk EHRs

#### Strategy 1.2.1: Foster economic collaboration for EHR adoption

*Hospitals, public health agencies and health plans are interested in supporting physician adoption of EHRs. Yet, they face legal and practical barriers to this type of collaboration. Policies that allow such collaboration when not contrary to public interest would increase health information technology uptake.*

# 6 Strategies for Active Consideration

## Goal 1: Inform Health Care Professionals

### Objective 1.2: Low Cost and Low Risk EHRs

#### Strategy 1.2.2: Lower total cost of EHR purchase and implementation

*The costs of EHRs are high because a large amount is spent on custom integration and accessing non-standard information systems. Also, the cost of consultants, training, and implementation of these specialized systems is high. In addition to allowing disparate parties to collaborate in installing EHRs, efforts that lower the total cost of ownership will enable many providers to use these tools.*

# 6 Strategies for Active Consideration

## Goal 2: Interconnect Health Care

### Objective 2.2: Sustainable Electronic Health Information Exchange

#### **Strategy 2.2.1: Stimulate private investment to develop the capability for efficient sharing of health information**

*The United States lacks the capacity for widespread and low cost health information sharing. There is nothing in health care similar to the carriers that operate and compete in telephony or broadband. To develop this capability in health care, a common technical architecture and substantial private sector investment is required. These will together create supply side entry of offerings that will in turn allow more hospitals and physicians to access these tools.*

# 6 Strategies for Active Consideration

## Goal 2: Interconnect Health Care

### Objective 2.2: Sustainable Electronic Health Information Exchange

#### **Strategy 2.2.4: Support state and local governments and organizations to foster electronic health information exchange**

*Health care continues to be delivered locally and regionally, and it is difficult for a top-down federal solution to meet the needs of America's diverse communities. Many states are developing strategies to foster health information exchange, but local and regional efforts are also occurring as well. States have unique laws that affect privacy and security, licensure, practice of medicine, insurance, liability, and have a natural interest in improving health care for their citizens. Therefore, the states are the natural units for health information exchange customization, and should be supported and guided in this new role.*

# 6 Strategies for Active Consideration

## Goal 3: Personalize Health Management

### Objective 3.1: Consumer Use of Personal Health Information

#### Strategy 3.1.1: Establish value of personal health records, including consumer trust

*Personal health records (PHRs) are in the early stage of development, and no standard exists today to ensure that they meet a minimum set of requirements. Additionally, PHRs today are generally not linked to the clinical information within EHRs, requiring extensive manual data entry and knowledge of particular details of medical information. Although PHRs have the capability to give consumers better control over their care, consumers have no history from which to assess whether they should place their trust in PHRs.*

# 6 Strategies for Active Consideration

## Goal 4: Improve Population Health

### Objective 4.2: Efficient Collection of Quality Information

#### **Strategy 4.2.1 Develop patient centric quality measures based on clinically relevant information available from interoperable longitudinal electronic health records**

*Much of quality measurement is currently provider focused – to assess performance of individual providers on a limited number of metrics. Most of health care dollars, however, are spent on patients whose care spans multiple providers and settings. As interoperable health information becomes available, there will be the ability to assess care at the patient-level across the continuum of care. This will allow tremendous opportunity for systemic improvement in our health care delivery system, supported by more informed public policy and decisions.*

# 16 Strategies for Future Discussion

## Goal 1: Inform Health Care Professionals

**Strategy 1.1.2:** Increase support for clinicians to use EHRs

**Strategy 1.3.1:** Increase investment in sources of evidence based knowledge

**Strategy 1.3.2:** Increase investment in tools that can access and integrate evidence based knowledge in the clinical setting

**Strategy 1.3.3:** Establish mechanisms which will allow clinicians to empirically access information and other patient characteristics that can better inform their clinical decisions

**Strategy 1.4.1:** Ensure low-cost EHRs for clinicians in underserved areas

**Strategy 1.4.2:** Support adoption and implementation by disadvantaged providers

# 16 Strategies for Future Discussion

## Goal 2: Interconnect Health Care

**Strategy 2.2.2:** Use government payers and purchasers to foster interoperable electronic health information exchange

**Strategy 2.2.3:** Adapt federal agency health data collection and delivery to NHIN solutions

**Strategy 2.3.2:** Develop and support policies to protect against discrimination from health information



# 16 Strategies for Future Discussion

## **Goal 3: Personalize Health Management**

**Strategy 3.3.1:** Promote consumer understanding and provider use of personal genomics for prevention and treatment of hereditary conditions

**Strategy 3.3.2** Promote multi-cultural information support

# 16 Strategies for Future Discussion

## Goal 4: Improve Population Health

**Strategy 4.1.2:** Ensure that the nationwide health information network supports population health reporting and management

**Strategy 4.2.2:** Ensure adoption of uniform performance measures by health care stakeholders

**Strategy 4.2.3:** Establish standardized approach to centralized electronic data capture and reporting of performance information

**Strategy 4.4.2:** Improve coordination of health information flow during disasters and crises

**Strategy 4.4.3:** Support management of health emergencies

# The Community

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## PUBLIC INPUT



# The Community

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Next Community Meeting

Tuesday, September 12, 2006

