

Using Information and Information Technology to Improve Quality and Effectiveness: National, State and Local Trends

Nursing Informatics: Building Connections for Patient-Centered Records

**Janet M. Marchibroda
Chief Executive Officer
eHealth Initiative**

Overview of Presentation

- A Little Bit About Us....the eHealth Initiative
- What Problems Are We Trying to Solve
- Our Shared Multi-Stakeholder Vision for a Better Health Care System...and the Role of Health IT
- The Policy Landscape: Momentum for Health IT: Congress, Administration, the States
- Current Trends in Health Information Exchange

eHealth Initiative Mission

- **Independent, non-profit, multi-stakeholder organization** based in Washington, D.C.
- **Our mission is to improve the quality, safety, and efficiency of healthcare** through information and information technology

eHealth Initiative

Multi-Stakeholder Membership

- Consumer and patient groups
- Employers and healthcare purchasers
- Health care information technology suppliers
- Health plans
- 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 organizations

eHI Works at the National *and* Local Levels

- eHI has built a coalition of more than 200 state, regional and community-based collaboratives focused on improving quality through health information exchange – “eHI’s Connecting Communities Coalition”
- eHI has been on the ground, providing direct technical support to leaders in more than 20 states who are developing and implementing plans for improving health and healthcare through health information exchange

What Problems Are We Trying to Solve?

Concerns About Quality

- U.S. adults receive about half of recommended health care services.
- Barely half of adults (49%) receive preventive and screening tests according to guidelines for their age and sex
- Preventable medical errors in hospitals cause 120,000 deaths per year
- 1.5m preventable adverse drug events every year

What Problems Are We Trying to Solve?

Rising Healthcare Costs

- Healthcare spending is 16% of GDP and rising
- 21% of employers report it is "very likely" and 28 percent reported that it was "somewhat likely" that they would increase the amount that employees pay for health insurance in the coming year
- Health insurance premiums for workers and their employees have increased by 87% since 2000, while workers' earnings have risen by only 20% over the same time period

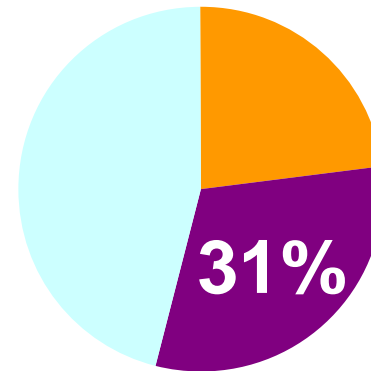
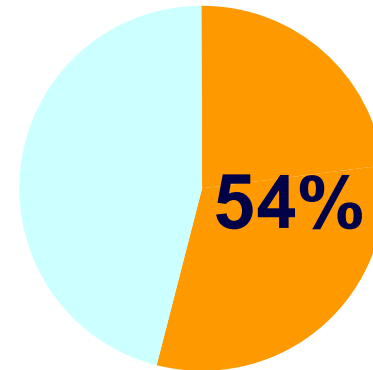
What Problems Are We Trying to Solve?

Chronic Disease is Growing Problem

- More than 125 million Americans had at least one chronic care condition in 2000, and this number is expected to grow to 157 million by the year 2020.
- While 12.7% of the population during the year 2000 was age 65 or older, this number is expected to grow to 20 percent by the year 2030.
- People with chronic conditions absorb a majority of healthcare spending in the U.S., accounting for 78% of all health care spending in 1998.

Consumer Dissatisfaction with Healthcare

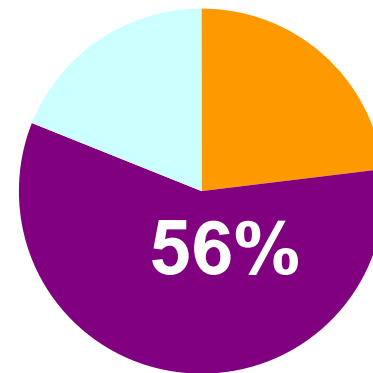
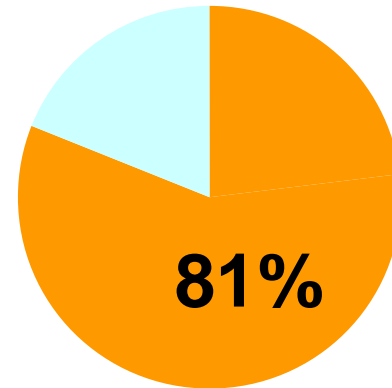
- Kaiser 2006 survey indicates over half of adults are dissatisfied with the quality of health care
-And almost a third, “very dissatisfied”



Source: 2006 Kaiser Family Foundation “Health Care in America Survey”

Consumer Dissatisfaction with Healthcare

- **Eight in ten are dissatisfied with the cost of health care in this country**
- **.....With a majority “very dissatisfied”**



Source: 2006 Kaiser Family Foundation “Health Care in America Survey”

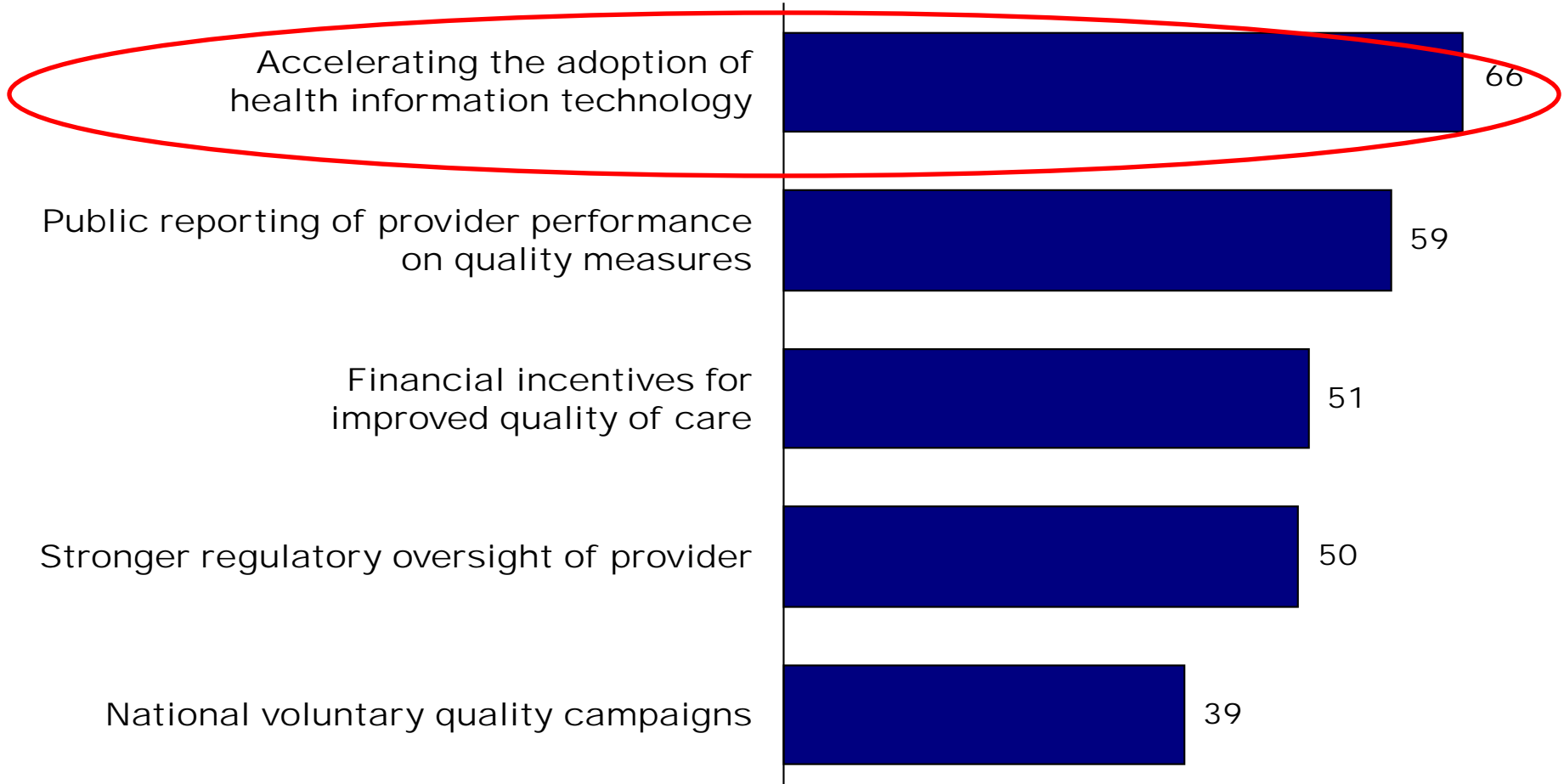
Strategies for Addressing Healthcare Challenges

- “Transparency” in Quality and Efficiency
- Financial Incentives for Improved Health Care (“Pay for Performance”)
- Consumer Engagement and Activation
- Health Information Technology

Key Strategies for Improving Quality and Safety According to 2007 Commonwealth Fund Survey of Health Care Opinion Leaders

“Below is a list of key strategies that have been proposed for improving quality and safety of care. How effective do you think these strategies are?”

Percent responding “very effective/effective”



Source: Commonwealth Fund Health Care Opinion Leaders Survey, July 2007.

Barriers to Progress

- Lack of Standards Adoption for Interoperability
- Alignment of Incentives: a Business Case for the Use of Electronic Health Information
- Concerns about Privacy and Security
- Workflow Issues Within the Practice

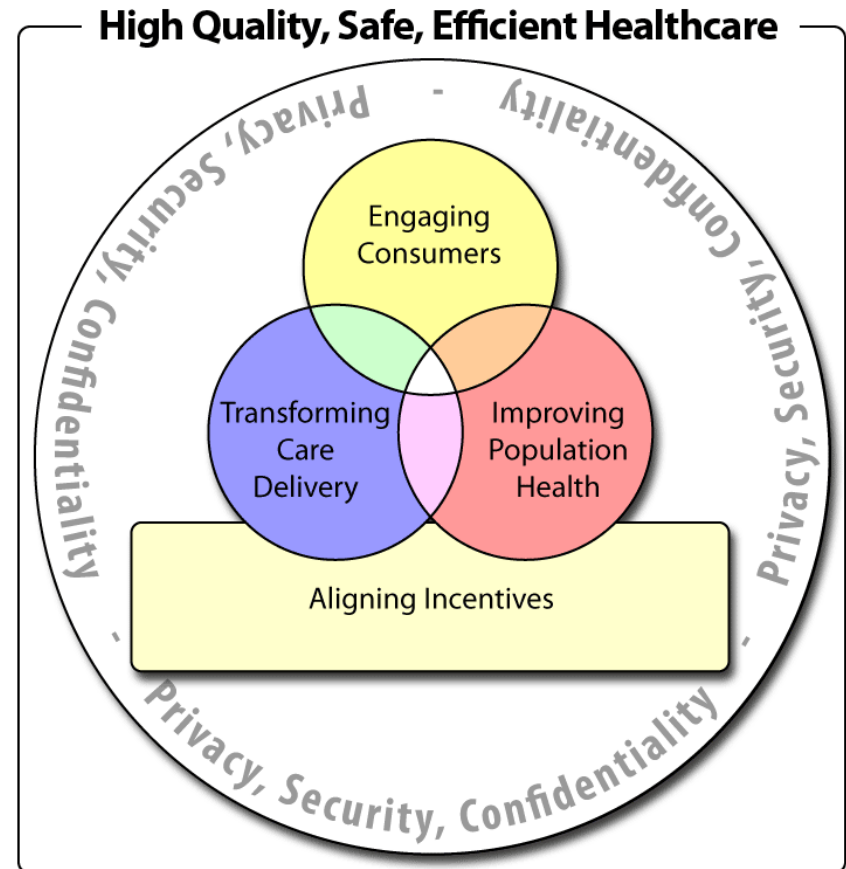
eHealth Initiative Blueprint: *From Consensus to Common Action*

- A shared vision, principles, strategies and actions for improving health and healthcare through information and information technology
- Six-month process involved nearly 200 organizations representing every stakeholder in health care
- Health IT is not an end unto itself, but a means to an end...
- How can health IT support health care improvement strategies?

eHealth Initiative Blueprint

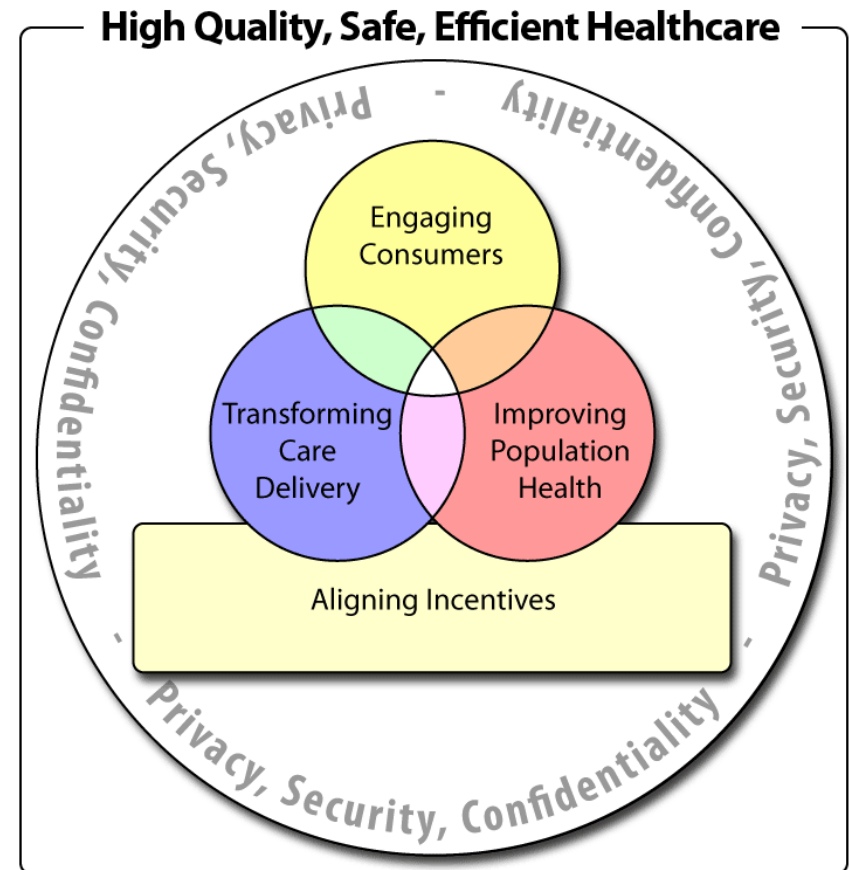
Our Shared Vision

- A high-performing health care system:
 - where all those engaged in the care of the patient are linked together in secure and interoperable environments
 - where the decentralized flow of clinical health information directly enables the most comprehensive, patient-centered, safe, efficient, effective, timely and equitable delivery of care where and when it is needed most – at the point of care.



eHealth Initiative Blueprint: Five Key Areas of Focus

- Engaging Consumers
- Transforming Care Delivery
- Improving Population Health
- Aligning Incentives
- Managing Privacy, Security and Confidentiality



eHI Blueprint Co-Chairs

- **Engaging Consumers**
 - Rachel Block, United Hospital Fund, Co- Chair
 - Leonard Lichtenfeld, MD, FACP, American Cancer Society, Co-Chair
- **Transforming Care Delivery at the Point of Care**
 - Michael J. Berkery, American Medical Association, Co-Chair
 - William F. Jessee, MD, FACMPE, FACPM, Medical Group Management Association, Co-Chair
- **Improving Population Health**
 - J. Marc Overhage, MD, PhD, Regenstrief Institute and Indiana Health Information Exchange, Co-Chair
 - Brian Keaton, MD, FACEP, American College of Emergency Physicians, Co-Chair
- **Aligning Financial and Other Incentives**
 - John Glaser, PhD, Partners HealthCare System
 - Allan Korn, MD, FACP; BlueCross BlueShield Association
- **Managing Privacy, Security and Confidentiality**
 - Robert D. Marotta; HLTH Corporation/WebMD
 - Mark Frisse, MD, MBA, MSc; Vanderbilt Center for Better Health

Engaging Consumers

Blueprint Shared Vision

- Patients will be fully engaged in their own healthcare, supported by information and tools that enable informed consumer action and decision making, working hand-in-hand with healthcare providers.
- Tools that support consumer engagement are well designed and customized to the diversity of consumers.
- These tools are integrated into the delivery of care, and are conveniently available outside healthcare settings as well.

Transforming Care Delivery Blueprint Shared Vision

- Patient care is high quality, patient-centered, for a lifetime, and reflects a coordinated and collaborative approach.
- Complete, timely and relevant patient-focused information and clinical decision support tools are available, as part of the provider's workflow, at the point of care.
- High quality and efficient patient care is supported by the deployment and use of interoperable health IT and secure data exchange between and across all relevant stakeholders.

Improving Population Health Blueprint Shared Vision

- Electronic healthcare data and secure health information exchange are utilized to facilitate the flow of reliable health information among population health and clinical care systems to improve the health status of populations as a whole.
- Information is utilized to enhance healthcare experiences for individuals, eliminate health disparities, expand knowledge about effective improvements in care delivery and access, support public health surveillance, and assist researchers in developing evidence-based advances in areas such as diagnostic testing, illness and injury treatment, and disease prevention.

Privacy

Blueprint Shared Vision

- High-performing healthcare system where:
 - All those engaged in the care of the patient are linked together in secure and interoperable environments,
 - The decentralized flow of clinical health information directly enables the most comprehensive, patient-centered, safe, efficient, effective, timely and equitable delivery of care [1]

[1] *Institute of Medicine, 2001.*

Aligning Incentives

Blueprint Shared Vision

- Health care providers are rewarded appropriately for managing the health of patients in a holistic manner.
- Meaningful incentives help accelerate improvements in quality, safety, efficiency and effectiveness.
- Quality of care delivery and outcomes are the engines that power the payment of providers.

eHI Consensus Legislation: Purpose and Process

- **Purpose:** The Consensus Legislation is designed to address legislative issues relating to:
 - Engaging consumers and protecting privacy
 - Transforming care delivery and improving population health
 - Aligning financial incentives and financing
 - Standards for interoperability and the role of government

Consensus Legislation: Workgroups and Co-Chairs

- **Engaging Consumers and Protecting Privacy**
Co-Chairs
 - Deven McGraw, Center for Democracy & Technology
 - Gerry Hinkley, Davis Wright Tremaine
- **Transforming Care Delivery and Improving Population Health**
Co-Chairs
 - J. Marc Overhage, MD, PhD, Indiana Health Information Exchange
 - Louis Diamond, MD, Thomson Healthcare
- **Aligning Incentives and Financing:**
Co-Chairs
 - Robert Doherty, American College of Physicians
 - Toshiki Masaki, Ford Motor Company
- **Standards for Interoperability and the Role of Government**
Co-Chairs
 - Joel Slackman, BlueCross BlueShield Association
 - Thomas Fritz, Inland Northwest Health Services

eHI Consensus Legislation: Purpose and Process

- Agreement among work groups and Leadership that we have a draft well-vetted by eHI membership
- Now out for public vetting with broader group of stakeholders
- Finalize in September 2008

Environmental Overview

Congress: House and Senate

- Congress has played a considerable role in driving the adoption of health IT, with several bills having been introduced over the last several years that address key barriers to health IT adoption, including:
 - Standards for interoperability
 - Funding, and
 - Authorization of bodies to provide coordination and technical assistance
- More than nineteen bills related to health IT were introduced both in the House of Representatives and Senate during 2007

Congress: House and Senate

- **Wired for Health Care Quality Act (S.1693)**
 - Still stalled in Senate from holds
- **House Energy and Commerce Committee PRO(TECH)T Act**
- **Language in the Medicare Bill on Electronic Prescribing**

Congress: PRO(TECH)T Act

- Energy & Commerce Subcommittee Markup on HIT held on June 25
- Legislation officially introduced June 24
 - the Protecting Records, Optimizing Treatment, and Easing Communication through Healthcare Technology Act of 2008, PRO(TECH)T Act
 - Changes were made since the draft bill was written, in response to comment from stakeholders including eHI.
 - The Health Subcommittee met on June 25 to discuss and amend bill.
 - Subcommittee members agreed to favorably forward the bill on to the full committee.
 - A full committee markup could be held in July.
 - 3 amendments were discussed, but none were voted on during the markup.

Congress: PRO(TECH)T Act

- Codifies Office of the National Coordinator
- Requires ONC to develop a strategic plan for the development, adoption, use and certification of health IT, with adequate privacy and security protections for electronic exchange
- FACA HIT Policy Committee
- FACA HIT Standards Committee

Congress: PRO(TECH)T Act

- Codifies Health IT Resource Center
- Grant Programs:
 - For HIT/HIE:
 - For Workforce Development
- Security Provisions
- Several Privacy Provisions

Congress: Senate Wired Act

- After stalling for months over privacy concerns of Sen. Leahy and Sen. Snowe, and also funding and Stark exemption concerns of Sen. Coburn, negotiations seem to be moving forward to bring out a revised version of the Wired Act that might overcome the opposition of those three senators.
 - No details are available yet, but any movement in the Senate would provide a second forum for ongoing discussion of the most controversial aspects of the House bill: primarily security and privacy issues revolving around consent and audit trails.

Congress: E-Prescribing in Medicare

- **The legislation, the Medicare Improvements for Patients and Providers Act of 2008, would**
 - Provide positive incentives for practitioners who use qualified e-prescribing systems in 2009 through 2013.
 - Require practitioners to use qualified e-prescribing system in 2012 and beyond or face penalties
 - Reduction in payments of up to 2% to providers who fail to e-prescribe.
 - Exceptions for low-volume prescribers
 - Secretary may establish a hardship exception
 - GAO study on effects of incentives upon adoption of e-prescribing

Congress: E-Prescribing in Medicare

- **The legislation, the Medicare Improvements for Patients and Providers Act of 2008, would**
 - Secretary shall contract with a consensus-based entity (e.g. NQF) to:
 - Set priorities for performance measurement
 - Endorse and maintain performance measures
 - Promote development of EHRs
 - Report annually

Administration: E-Prescribing of Controlled Substances

- On June 27, the Drug Enforcement Administration (DEA) released a proposed rule to allow the e-prescribing of controlled substances.
 - Currently, controlled substances cannot be transmitted electronically.
- The new rule would require that prescribers have their identities and licensure verified before they e-prescribe.
 - Transmitting controlled substances would require a password as well as a “token” (such as a smart card or thumb drive).

Administration: E-Prescribing of Controlled Substances

- The DEA has proposed a series of steps by the prescriber and the dispenser to maintain the integrity and security of the process.
- Third party audits of the prescribing systems of both the pharmacy and the physician's service provider would have to be performed annually.
- The proposed rule is open for public comment until September 25.

Administration: ONC Budget

- The Senate Appropriations Committee voted on June 26 to maintain funding for the Office of the National Coordinator for Health IT (ONC) at last year's level, \$60.5 million.
- The House Appropriations Committee is considering increasing ONC funding by \$1.4 million,
 - For a possible total of \$61.9 million.
- The House subcommittee bill includes a report which
 - Praises ONC's strategic plan,
 - Criticizes the Office for not being clear about what resources will be need to achieve its goals,
 - Makes clear that the committee expects a privacy and security framework from ONC as soon as possible.
- Neither bill would accommodate the Administration's requested funding level of \$66.2 million.
- Next steps: Both chambers agree on a common version

ONC-Coordinated Federal Health IT Strategic Plan

- Five year plan
- Released June 3, 2008
- Goals, objectives and strategies

- Link

<http://www.hhs.gov/healthit/resources/reports.html>

ONC-Coordinated Federal Health IT Strategic Plan

- **Two Primary Goals:**
 - Patient-focused Health Care: Enable the transformation to higher quality, more cost-efficient, patient-focused health care through electronic health information access and use by care providers, patients and their designees
 - Population Health: Enable the appropriate, authorized, and timely access and use of electronic health information to benefit public health, biomedical research, quality improvement and emergency preparedness

ONC-Coordinated Federal Health IT Strategic Plan

- Four Objectives or Themes
 - Privacy and security
 - Interoperability
 - Adoption
 - Collaborative governance

States: eHI's Analysis of State Legislative Activity

- State legislatures are increasingly recognizing the importance of IT in driving health and healthcare improvements.
- In 2005 and 2006:
 - 38 state legislatures introduced 121 bills which specifically focus on HIT
 - 37 bills were passed in 24 state legislatures and signed into law.
- In 2007:
 - 208 bills which specifically focus on HIT have been introduced in 50 state legislatures
 - 30 bills passed in 19 state legislatures and signed by the Governor to become law
- **In 2008 so far:**
 - **111 bills introduced in 31 state legislatures**
 - **31 of the 111 bills introduced have been signed into law in 15 state legislatures in 2008**

Overview of eHI's Survey of State, Regional and Community-Based Health Information Exchange Initiatives

Top Level View

- Fourth Annual Survey of Health Information Exchange at the State, Regional and Community Levels, Conducted by the eHealth Initiative Foundation
- 130 initiatives responded to survey:
 - 20 are just getting started (stage 1 or 2)
 - 68 are in the process of implementation (stage 3 or 4)
 - 32 are operational (stage 5, 6 or 7)
 - 5 are no longer moving forward
 - 5 organizations did not respond to stage of development question
- Thirty of the 2006 respondents reported an advancement in their stage of development

Most Important Drivers

- Improving quality (94%)
- Improving patient safety (80%)
- Addressing inefficiencies experienced by providers (61%)
- Addressing rising health care costs (59%)

Sources of Upfront Funding: All 2007 Respondents

Source of Funding	2007	2006
Hospitals	53%	24%
Federal Government	44%	42%
State or Local Grants and Contracts	43%	29%
Payers	32%	12%
Philanthropies	31%	23%

Taking a Closer Look at the 32 Operational Initiatives Offers Insights

- **Definition of Operational (Stage 5, 6 or 7): Fully operational health information organization, transmitting data that is used by health care stakeholders**
- **Three quarters are no longer dependent on “non-operating revenues” (e.g. grants)**
- **All operational initiatives reporting in 2006 are still operational**

32 Operational Initiatives: Types of Data Exchanged

Data Type	2007	2006
Outpatient Episodes	84%	70%
Laboratory	73%	70%
Inpatient Episodes	64%	65%
Radiology Results	63%	61%
Enrollment/Eligibility	62%	75%
Dictation/Transcription	58%	61%
Pathology	58%	48%
ED Episodes	58%	77%

32 Operational Initiatives: Services Offered

- Results Delivery (75%)
- Clinical Documentation (63%)
- Consultation/Referral (54%)
- Enrollment or Eligibility Checking (54%)
- Alerts to Providers (48%)
- Electronic Referral Processing (35%)
- Reminders (33%)
- Disease or Chronic Care Management (32%)
- Quality Improvement Reporting for Clinicians (29%)
- Public Health Reporting (Lab) (28%)
- Quality Performance Reporting for Purchasers or Payers (26%)
- Public Health Surveillance (24%)
- Disease Registries (24%)
- Public Health Case Management (21%)
- Patient Access to Information (12%)

32 Operational Initiatives: Sources of Start-Up Funding

Funding Source	2007	2006
Federal Government	52%	44%
Hospitals	48%	17%
Private Payers	30%	24%
Philanthropies	30%	32%
State Government	30%	21%

32 Operational Initiatives: Sources of Revenue for Ongoing Operations

Funding Source	2007	2006
Hospitals	58%	54%
Payers – Private	46%	19%
Physician Practices	46%	33%
Payers – Public	38%	18%
Laboratories	33%	42%
Federal Government	29%	17%
Philanthropic Organizations	29%	21%
State or Local Government	21%	26%
Purchasers/Employers	17%	0%
Pharmacies	13%	11%
Pharmaceutical Companies	4%	6%

Key Survey Take-Aways

- Health information exchange initiatives are continuing to mature
- Some are no longer moving forward—which is expected...
- Most difficult challenge is that related to the development of a sustainable business model—current reimbursement system provides a disincentive for information sharing
- There are a number of advanced stage initiatives that are generating revenue to support ongoing operations through “services”
- Increasingly hospitals are a funding source, and payers are increasing their investment as well

What's Coming Soon

- eHI will provide a comprehensive profile of HIE initiatives that are fully operational (Late July)
- Full report on all initiatives (End of Summer)
- Reports will be available comparing your HIE with national, regional or local efforts (Fall)

What We're Doing to Help

- Consensus on policy, principles, strategies and actions: Blueprint and Consensus Legislation
- Electronic Prescribing Report and accompanying guides for health plans, consumers and soon...prescribers
- eHI's Partnership for Connecting Communities
 - Building the “business case” – evaluating the feasibility of using electronic health information for key health care needs:
 - Drug safety
 - Chronic care management
 - Outcomes and effectiveness research

Key Insights on Value of Clinical Electronic Data

- eHI multi-stakeholder Leadership conducts in-depth review of the data needed for ***current health care-related processes:***
 - Care delivery
 - Quality improvement and performance reporting
 - Chronic care and disease management
 - Post-market surveillance and drug safety—assessing the risks and benefits of medications
 - Public health needs
 - Consumer access to clinical information

Near-Term Opportunities for Using Electronic Health Information for Current Health Care-Related Processes

- What We Asked Our Leadership Participants
 - Describe Current Health Care Process and How Health IT Helps
 - What “Functions” Support This Health Care Process and Who Conducts Them Today?
 - What are the Data Needs and Where Does it Come From?
 - Who Benefits From This Health Care Process and What is Being Spent on this Process Today in the U.S.?
 - What is the Impact of Using Electronic Health Information and Health IT?
 - Describe the Most Critical Actions That Could be Taken (and By Whom) to Accelerate the Use of Electronic Health Information to Support this Health Care Process

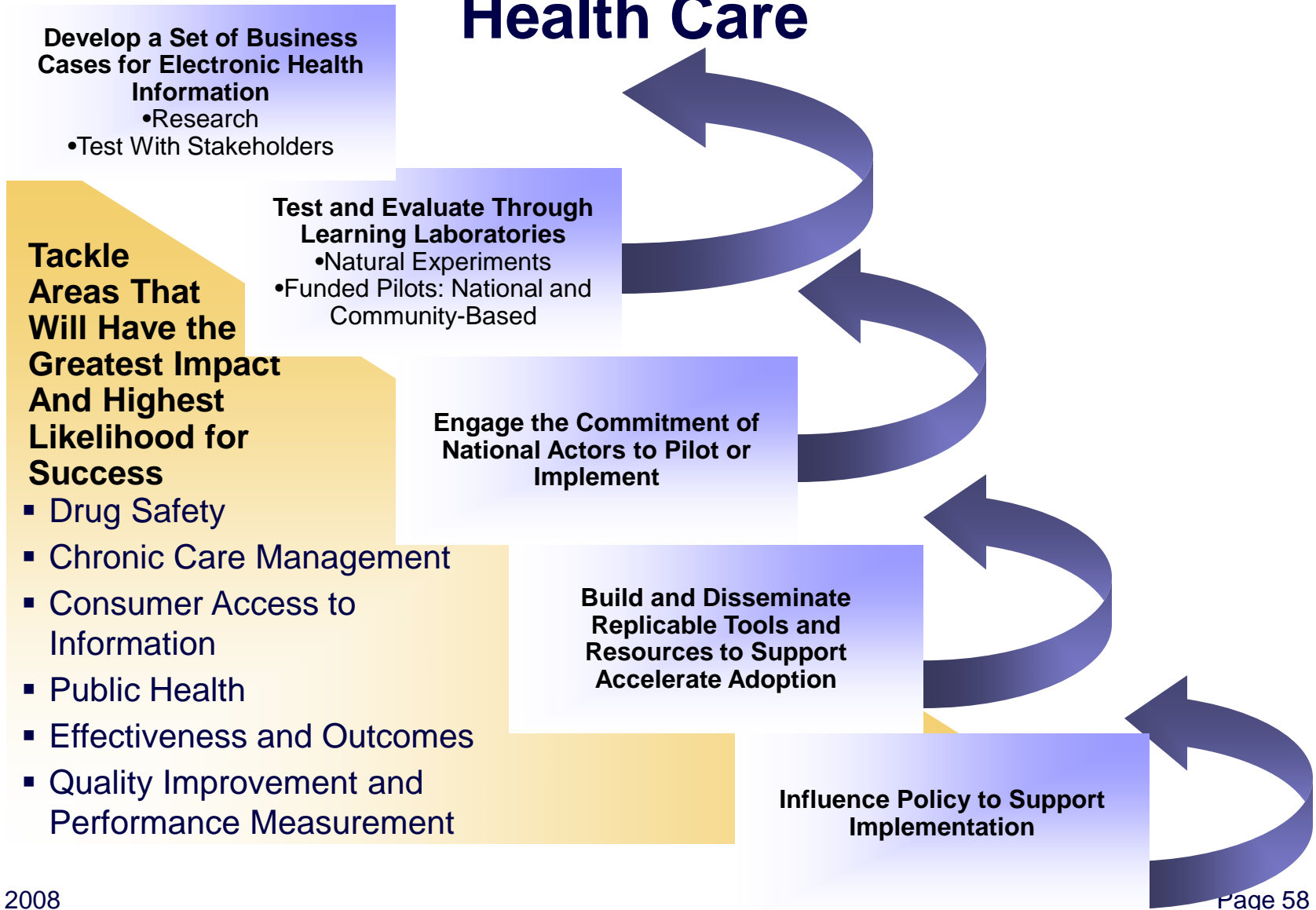
What We Found

- Common data types needed
- Much of the data resides in clinical systems
- The most frequently data types needed are laboratory data and medication history
- Similar “beneficiaries”
- Existing revenue (expense) streams today that can be leveraged

Next Steps

- Complete the Financing Framework
- Move to greater detail regarding what's needed
- Make the “value case” to “beneficiaries”
- Recommend public and private sector coordination and common action
- Incorporate recommendations into Blueprint Consensus processes
- Test and evaluate feasibility and value through learning laboratories: drug safety, chronic care management, research on effectiveness and outcomes, possibly others in 2008

Our Approach for Building a Sustainable Model for Higher Quality, More Effective Health Care



Closing Remarks

- **Health care IT makes health improvement strategies better....**
- It's not an end unto itself
- Will require finding common ground and building social capital across all the stakeholders in the healthcare system
- Requires focus at multiple levels: national, state and local

Closing Remarks

- Key barriers still stand in the way:
 - Aligning incentives
 - Getting to standards adoption
 - Concerns about privacy
 - Work flow changes required
- We have an enormous opportunity to drive significant improvements in the quality, safety and efficiency of healthcare
- Let's work together to make this happen!

Questions?

Janet Marchibroda
Chief Executive Officer
eHealth Initiative

Janet.marchibroda@ehealthinitiative.org

202.624.3270

www.ehealthinitiative.org