

# **Overview of eHealth**

## **Roundtable on Health Literacy Institute of Medicine Board on Population Health and Public Health Practice**

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# Overview of Presentation

- What Problems Are We Trying to Solve with eHealth or Health Information Technology?
- The Role of Health IT in Improving Quality, Safety and Efficiency in Health Care
- Definitions: EHRs, PHRs, Health Information Exchange
- Levels of Adoption: EHRs, PHRs, Health Information Exchange
- Increasing Momentum Related to Health IT
- Impact on Health Literacy

# What Problems Are We Trying to Solve?

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## Concerns About Quality and Safety

- 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?

## Concerns About Rising Healthcare Costs

- Health care spending in the United States is expected to increase from 16% of the gross domestic product—or \$2 trillion, to 20% of the GDP—or \$4 trillion by 2016
- 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.

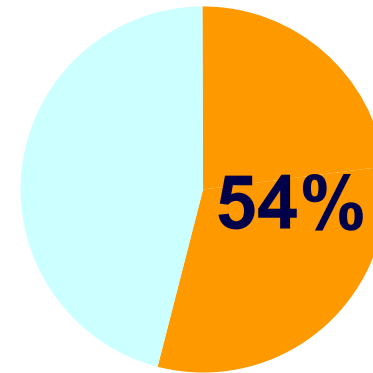
# What Problems Are We Trying to Solve?

## Continued Concerns About Access

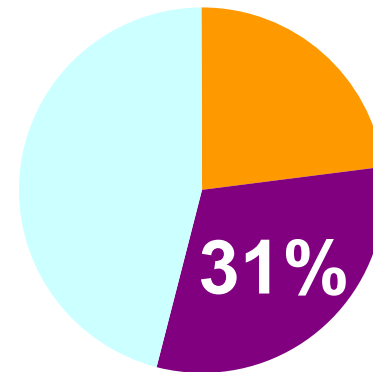
- With 47 million Americans uninsured, access will be a key component of the healthcare debate over the coming year
- Many states are trying to move forward health care reform efforts

# Concerns About Quality and Safety Consumer Perspectives

- Kaiser 2006 survey indicates over half of adults are dissatisfied with the quality of health care



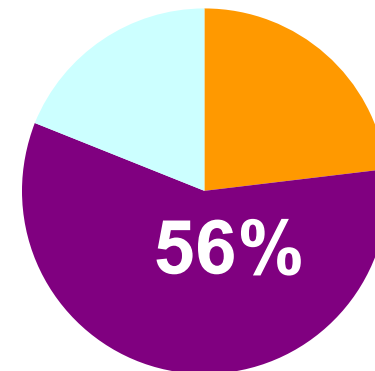
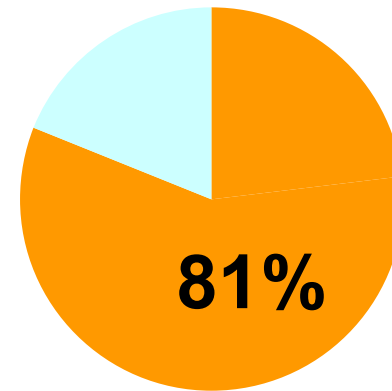
- ....And almost a third, “very dissatisfied”



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

# Concerns About Rising Healthcare Costs Consumer Perspectives

- 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”

# Health IT is a Key Strategy for Addressing Health Care Challenges

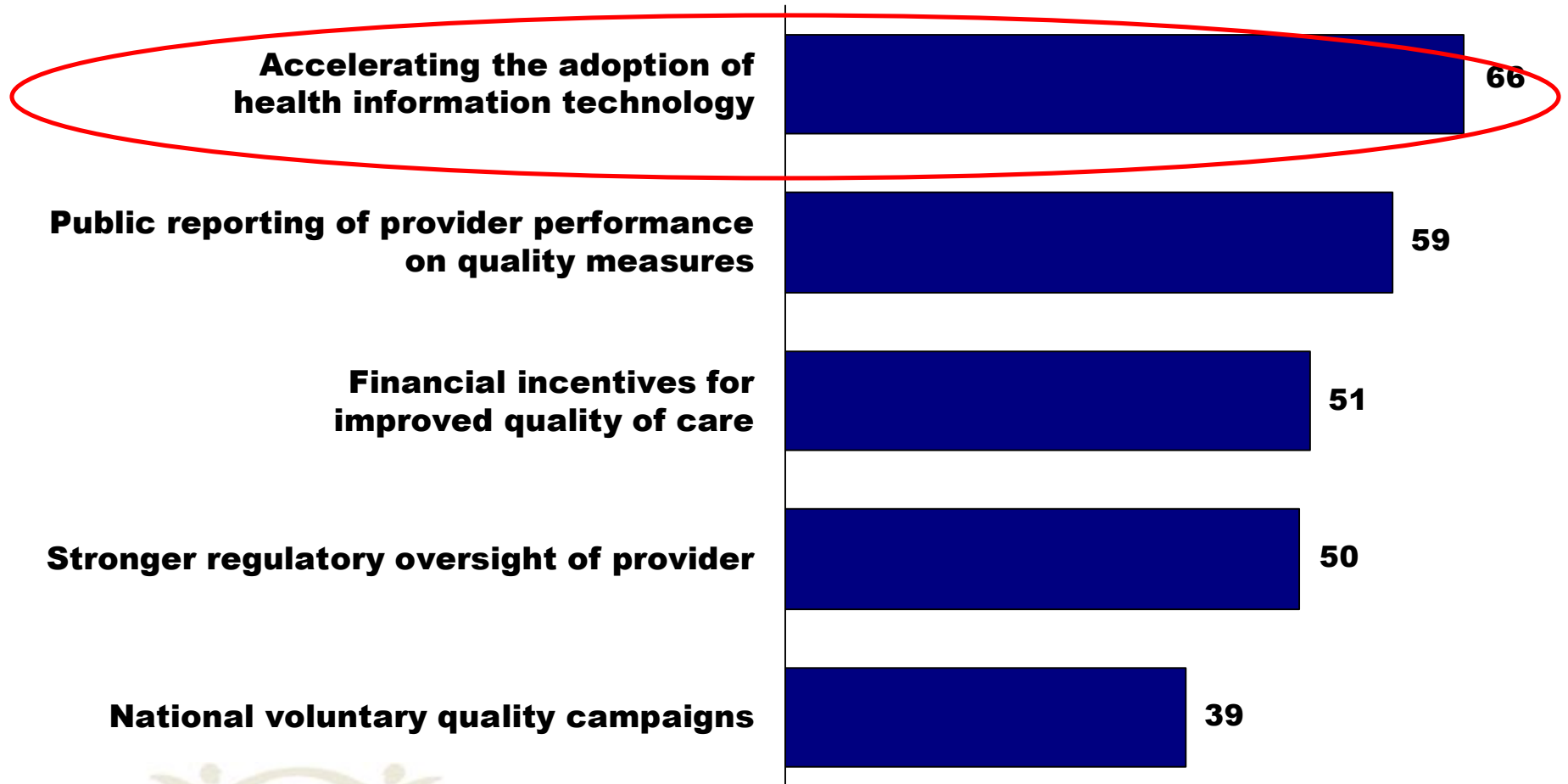
# Strategies for Addressing Healthcare Challenges

- “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.

# Role of Health IT in Improving Health and Health Care

- A recent study from the Center for Information Technology Leadership indicates that we can achieve \$44 billion in savings annually in reduced medication, radiology, laboratory, and hospitalization expenditures from 100% adoption of Computerized Provider Order Entry (CPOE) in the ambulatory care environment.
- The same study indicates that more than 2 million adverse drug events and 190,000 hospitalizations per year could be prevented using IT.
- A more recent study from CITL indicates that standardized healthcare information exchange among healthcare IT systems would deliver national savings of \$86.8 billion annually after full implementation and would result in significant direct financial benefits for providers and other stakeholders.

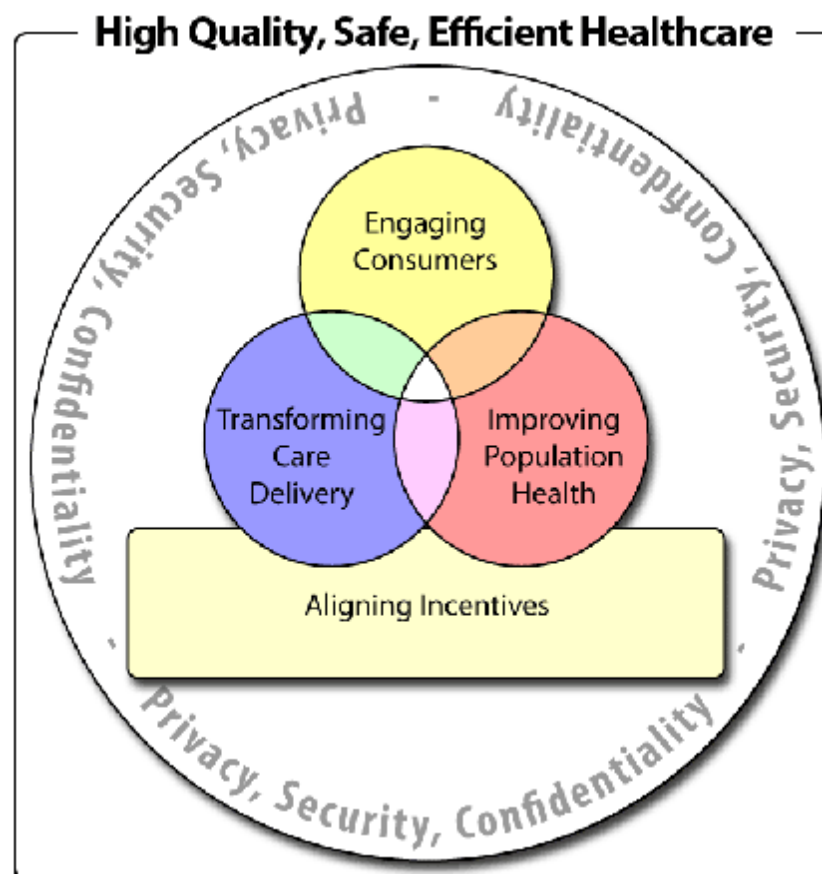
# Role of Health IT in Improving Health and Health Care

- Research from Brigham & Women's Hospital concluded that through use of CPOE, error rates were reduced by 55%, from 10.7 to 4.9 per 1,000 patient days.
- A recent study of intensive care patients by Kaiser Permanente found that when physicians used a CPOE system, incidents of allergic drug reactions and excessive drug dosages dropped by 75 percent, and the average time spent in the intensive care unit dropped from 4.9 days to 2.7 days, reducing costs by 25 percent.

# eHealth Initiative Blueprint

## Our Shared Vision

- A high-performing healthcare 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.



# Definitions

- **Electronic Health Record.** Electronically maintained information about an individual's health status and health care
- **Personal Health Record.** Electronic record on a patient's health, which is controlled by the patient
- **Health Information Exchange.** The mobilization of health care information electronically across organizations and disparate information systems

# Levels of Adoption

## Electronic Health Records and CPOE

- EHRs in physician offices are 17-25%, 17 % based on high quality surveys
- Solo practitioners are 12.9 - 13%, 13% based on high quality surveys
- Large physician offices are 19 - 57%, 39% based on high-quality surveys
- EHRs in hospitals are 16+ - 59%+, with no best estimates based on high-quality surveys
- CPOE in hospitals are 4-21%, with 5% based on high quality surveys.

# **Levels of Adoption Personal Health Records or “Consumer-Facing Applications”**

- According to a Pew Internet & American Life research study, 79% of Internet users (95 million American adults) have searched online for information on at least one major health topic.
- A more recent Pew survey indicated that adults living with a disability or chronic disease are less likely than others to go online, but once they are online, they are more likely to look for health information.

# Levels of Adoption Personal Health Records or “Consumer-Facing Applications”

- According to an October 2005 research report supported by the Markle Foundation, 60% of Americans support the creation of a secure online "personal health record" service that would allow consumers to:
  - Check and refill prescriptions;
  - Get results over the Internet;
  - Check for mistakes in the medical record; and
  - Conduct secure and private email communication with your doctor or doctors.

# Levels of Adoption Personal Health Records or “Consumer-Facing Applications”

- The Commonwealth Fund recently conducted a survey of consumer views about key health care issues. Ninety four percent felt that having easy access to medical records was very or somewhat important and 93% felt the same way about “all your doctors having easy access to your medical records.”
- According to research conducted by the eHealth Initiative Foundation in June 2006, 70% of Americans in the Gulf Coast favor secure, electronic health information exchange that is “protected and exchanged under current medical privacy and confidentiality standard procedures”.

# Levels of Adoption Health Information Exchange

- 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

# Increasing Momentum for Health IT Adoption

# Momentum Within Congress

- 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.
- More than 19 bills related to health IT were introduced both in the House and Senate during 2007, most notably the *Wired for Health Care Quality Act of 2007* (S. 1693) approved by the Senate HELP Committee in August 2007, and a companion bill introduced in the House in early October 2007, both of which include several provisions related to health IT.

# Administration Provides Leadership: Four Cornerstones of Value-Driven Health Care

- **Adopt Interoperable Health Information Technology.** Accelerating the adoption and utilization of health information technology (IT) by the medical community will produce better care and fewer medical errors. These systems must be interoperable – that is, based on common standards that ensure that IT systems can effectively “talk” to one another – to ensure doctors and patients reap the full benefits of health IT.
- **Measure and Publish Quality Information.** To make better-informed decisions about their health care providers and treatment options, consumers need information on the quality of care.
- **Measure and Publish Price Information.** Consumers also need price data in order to make responsible decisions on purchasing health care.
- **Promote Quality and Efficiency of Care.** Health care stakeholders – including providers, patients, insurance plans and payers – can participate in arrangements that reward those who provide, pay for, and consume high-quality, competitively-priced health care.

# Administration

## Addresses Standards

- Actions Within the Office of the National Coordinator
  - Standards Harmonization (HITSP)
  - Standards Certification (CCHIT)
  - Prototypes and Now Trial Implementation of the Prototypes
- Current American Health Information Community (AHIC) is transitioning to the private sector

# Administration Addresses Funding and Technical Support

- **ONC – Funding for Trial Implementations of the Nationwide Health Information Network (NHIN)**
- **AHRQ – Resource Center, Grants**
- **CDC – Biosense, Health Alert Network, Outbreak Management System**
- **CMS – QIOs provide technical assistance, demonstration projects, new payment models being tested, New EHR Demo**
- **HRSA – technical assistance**

# What's Happening at the State Level?

## State Legislative Activity on the Rise

- In 2005 and 2006<sup>1</sup>:
  - 38 state legislatures introduced 121 bills which specifically focus on health IT
  - 36 bills were passed in 24 state legislatures and signed into law.
- In 2007:
  - 217 bills introduced in 50 states, focused on HIT
  - 19 bills were passed in 16 states and signed into law
- In 2008 so far:
  - 56 bills introduced in 22 States

Source:

eHI State Legislation Tracker  
[www.ehealthinitiative.org](http://www.ehealthinitiative.org)

<sup>1</sup> Source: [www.ehealthinitiative.org](http://www.ehealthinitiative.org), State Legislative Tracking System; eHealth Initiative. *States Getting Connected: State Policy Makers Drive Improvements in Healthcare Quality and Safety Through IT*. Washington, D.C.: eHealth Initiative; August 2006.

# What's Happening at the State Level?

## Governor Leadership

- 20 Executive Orders issued by U.S. governors in 15 states, calling for health IT (eight in 2007)
  - Arizona, 2005
  - California, 2006, 2007
  - Florida, 2004
  - Georgia, 2006, 2007
  - Illinois, 2006
  - Indiana 2007
  - Kansas, 2004, 2007
  - Mississippi, 2007
  - Missouri, 2006, 2007
  - North Carolina, 1994
  - Tennessee, 2006
  - Texas, 2006
  - Virginia, 2006, 2007
  - Wisconsin, 2005
  - Washington, 2007

Source: [www.ehealthinitiative.org](http://www.ehealthinitiative.org), State Policy Tracking System

# Impact on Health Literacy

- eHealth has the opportunity to significantly improve health literacy or exacerbate the problem
- With the increase in consumer-facing applications and electronic health records in clinician offices we have the opportunity... ***right now*** ...to have impact

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