

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

Electronic Health Records: How to get there from here

Matheson Lecture

November, 2009

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Office of the National Coordinator
for Health Information Technology (ONC)



Still in the Cutting Room...

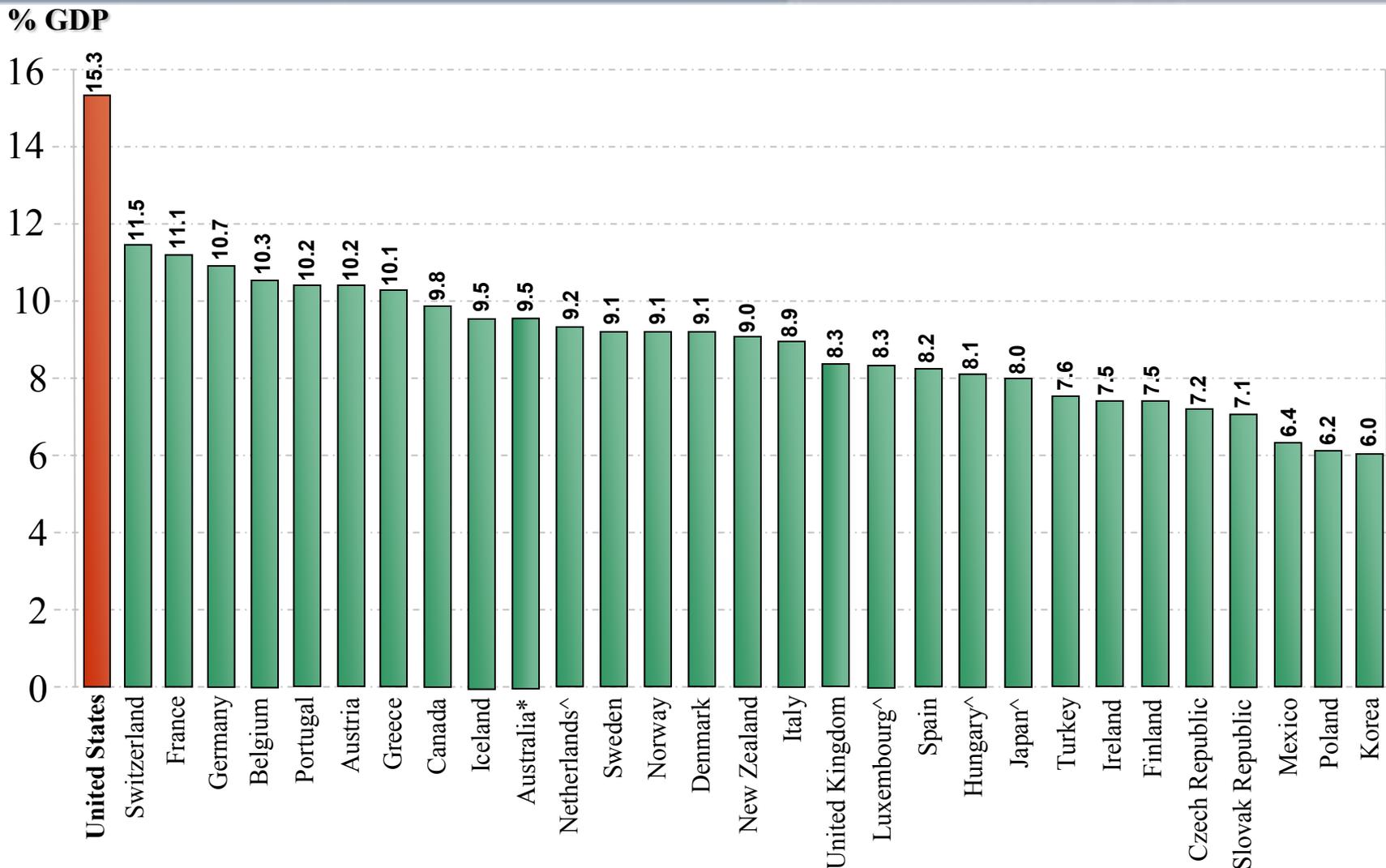


Agenda

- The Challenge
- Health IT and the Winds of Change
- Where We are Right Now
- A Nationwide Health IT Agenda under the “HITECH” Act
 - Plan
 - Progress
- Closing observation



Health Expenditure as a Share of GDP – OECD Countries#



- Source: Organisation for Economic Co-operation and Development (OECD) Health Data 2007, July 2007 (30 countries)

^ - 2004/2005
* - 2004

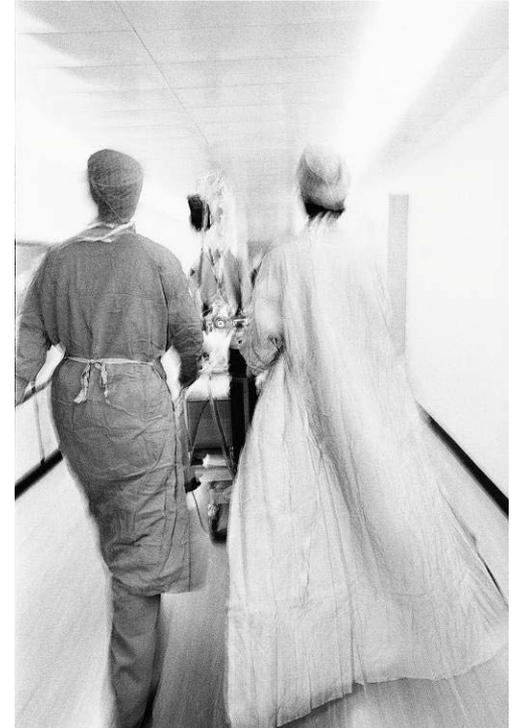
Challenges in U.S. Health Care

- Cost (16% of GDP and growing)
- Lags behind in many health indicators (32nd in infant mortality)
- Safety (~100,000 deaths per year due to preventable medical errors)
- Quality and efficiency
 - Enormous variation in cost and outcome
 - Care delivered does not follow best practices
 - More care (at more cost) does not equate to healthier people

Why is Health IT a Central Strategy for Health Care?

Lack of Information:

- Leads to 1 in 7 hospital admissions
 - When care providers do not have access to previous medical records.
- 12% of physician orders are not executed as written
- 20% of laboratory tests unnecessary
 - Requested because previous studies are not accessible.
- Medication errors
 - Complicate 1 in 6.5 hospitalizations
 - Occur in 1/20 outpatient Rx's



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Office of the National Coordinator (ONC)

Executive Order, April 2004:

Then President Bush created the National Coordinator position

- To advance the vision of developing a nationwide interoperable health information technology infrastructure
- To achieve the goal of widespread adoption of interoperable electronic health records (EHR) by **2014: “majority of Americans”**

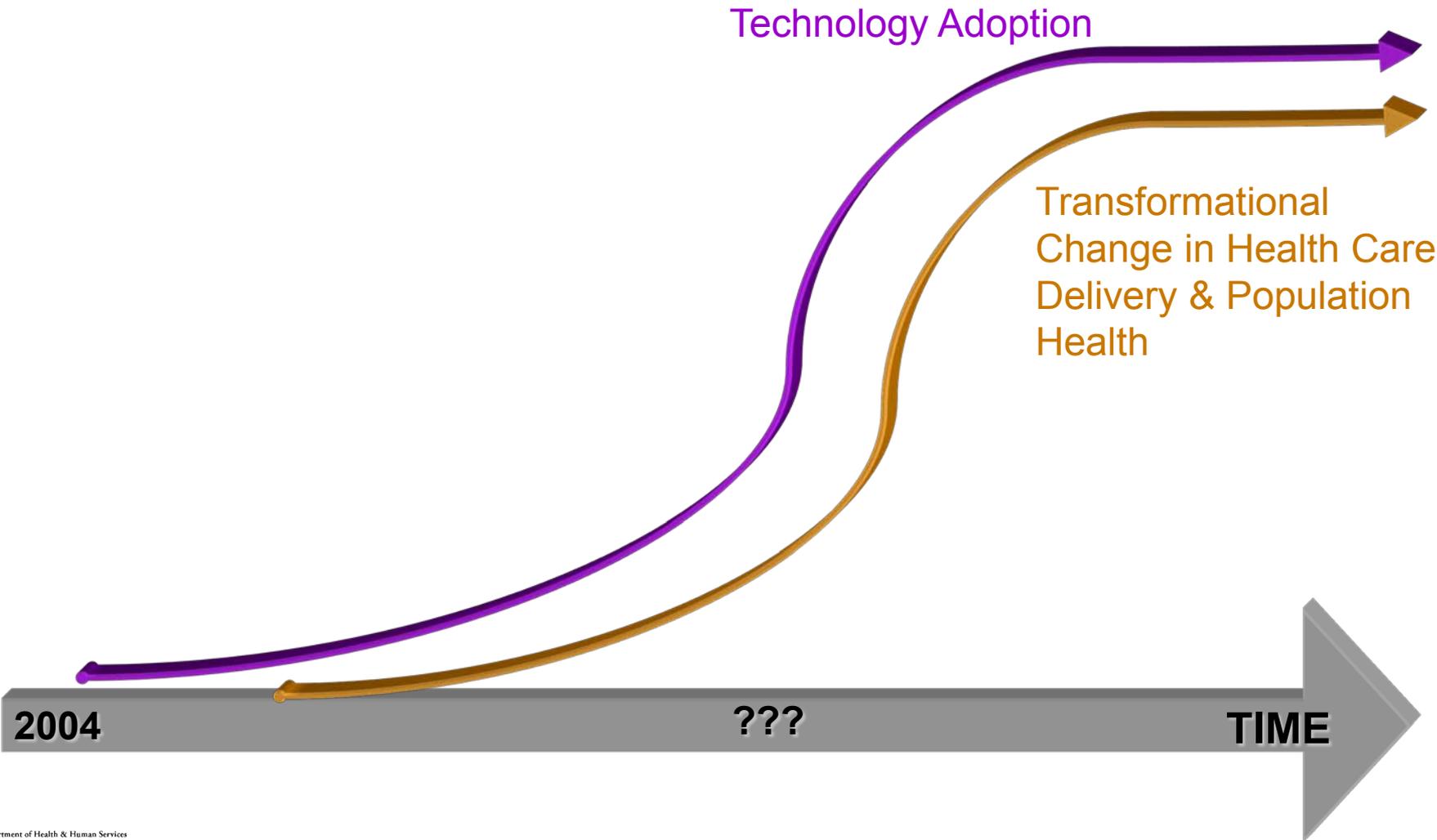
Key Role for the Office of the National Coordinator (ONC):

Provide **leadership** for the development and nationwide implementation of an **interoperable health information technology infrastructure** to improve

- The quality and efficiency of health care and
- The ability of consumers to manage their health

This established a National Health IT Agenda

Envisioning a “Tipping Point”



Bush Administration Approach to Reach the Tipping Point

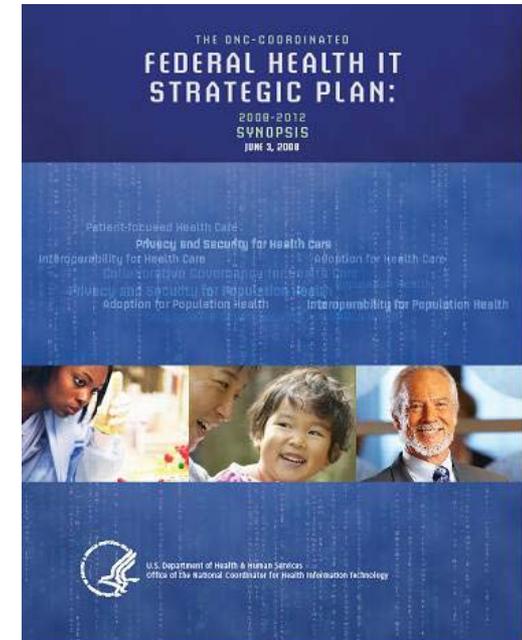
- Modest funding for ONC (\$60 million/yr)
- Leverage health IT expenditures of other federal agencies
- Rely on private sector investments

Fundamental problem of misaligned economic incentives: *Those who benefit from IT (payers) were not those who were expected to pay for it (providers).*

2008 Health IT Strategic Plan

Two transformational goals:

1. Health care and personal health
2. Population health
 - Research
 - Quality improvement
 - Public Health
 - Emergency Preparedness



President Obama's First Weekly Address

Saturday, January 24th, 2009



*“To lower health care cost, cut medical errors, and improve care, **we’ll computerize the nation’s health records in five years, saving billions of dollars in health care costs and countless lives.**”*



American Recovery and Reinvestment Act (ARRA)

TITLE XIII—HEALTH INFORMATION TECHNOLOGY

SEC. 13001. SHORT TITLE; TABLE OF CONTENTS OF TITLE.

(a) **SHORT TITLE.**—This title (and title IV of division B) may be cited as the “Health Information Technology for Economic and Clinical Health Act” or the “HITECH Act”.



TITLE IV—MEDICARE AND MEDICAID HEALTH INFORMATION TECHNOLOGY; MISCELLANEOUS MEDICARE PROVISIONS

OFFICE OF THE SECRETARY

OFFICE OF THE NATIONAL COORDINATOR FOR HEALTH INFORMATION TECHNOLOGY

(INCLUDING TRANSFER OF FUNDS)

For an additional amount for “Office of the National Coordinator for Health Information Technology”, \$2,000,000,000, to carry out title XIII of this Act, to remain available until expended: *Pro-*

Dr. David Blumenthal – New National Coordinator for Health IT



“To increase the effective use of electronic health systems, private and public agencies and groups must accomplish, at a minimum, the following tasks:

- 1. Get doctors, hospitals, and other health care providers to acquire and use electronic health records.*
- 2. Get those electronic health records to “talk to one another” by becoming interoperable.*
- 3. Get providers to use EHRs to improve quality and efficiency in the provision of health care services.”*

(The Federal Role in Promoting Health Information Technology, Commonwealth Fund, 2009)



With HITECH...

The United States joins the community of nations making **significant nationally coordinated** investments in health IT

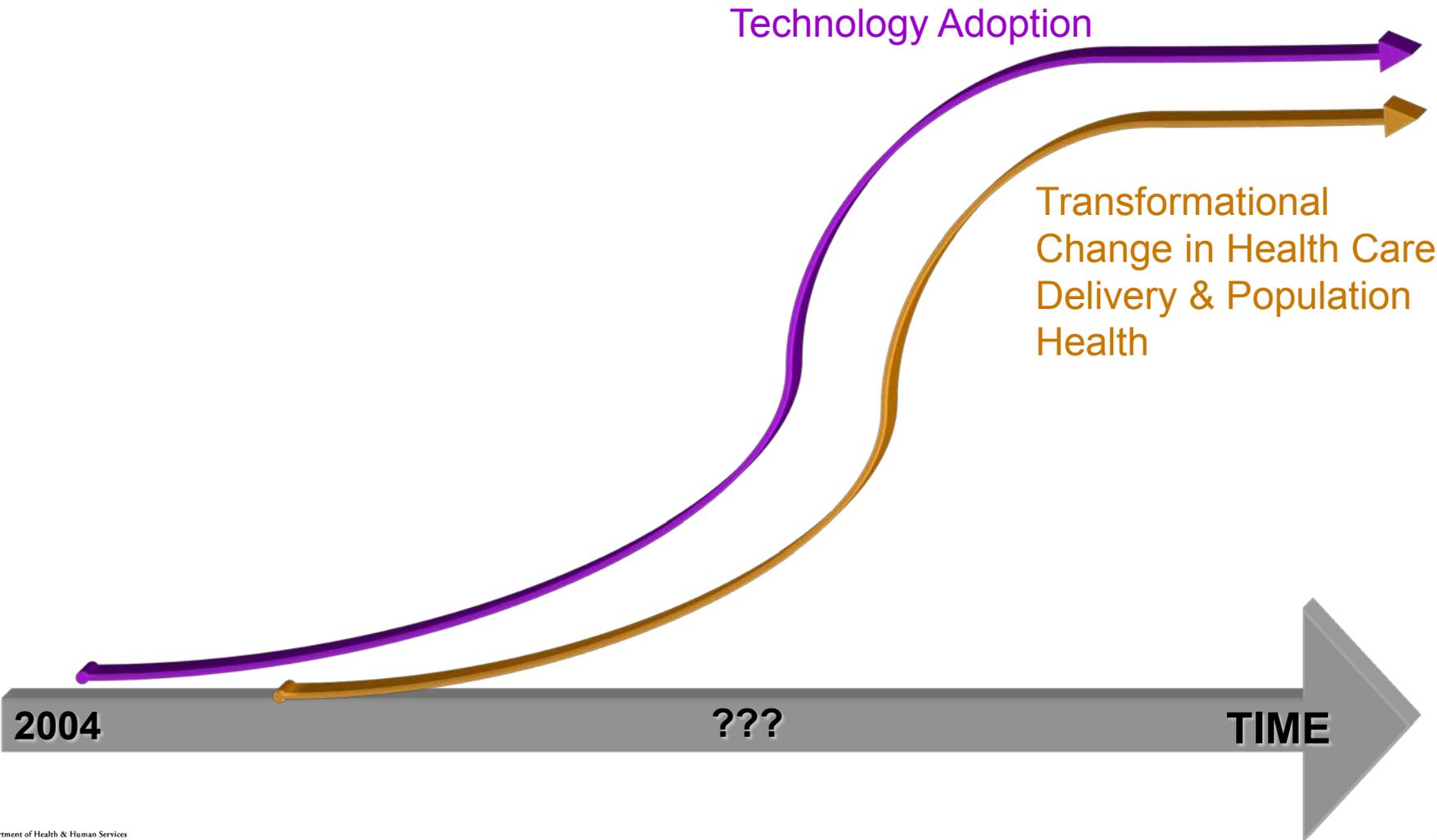


Agenda

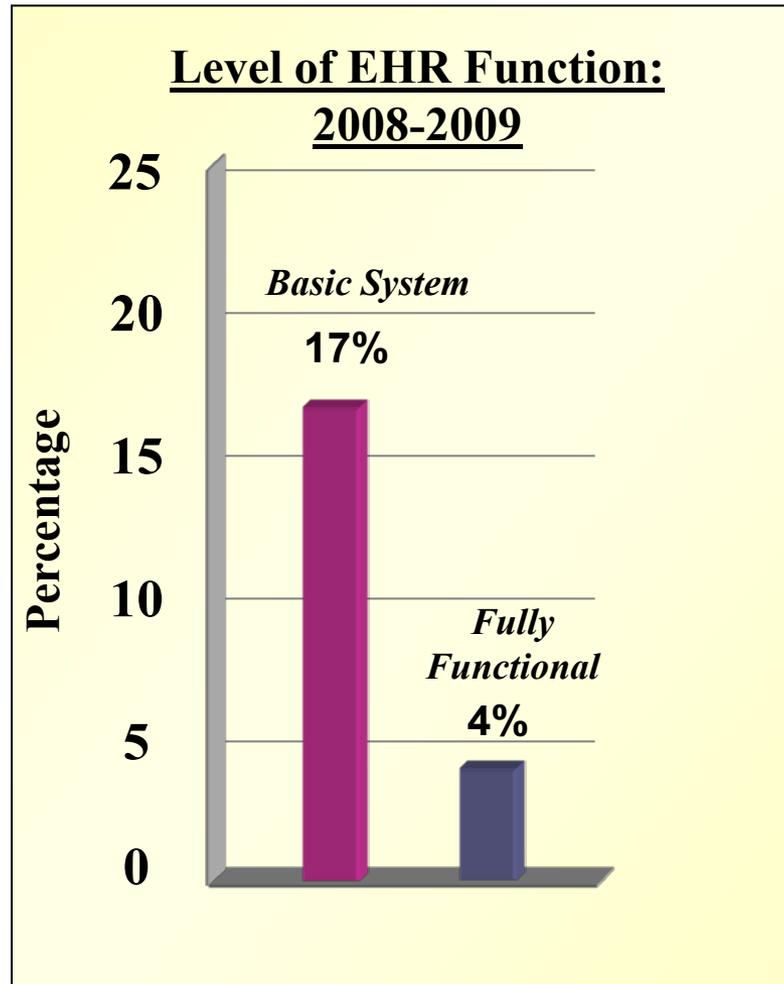
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Envisioning a “Tipping Point”



EHR Adoption: Where are we in office practices?



Adoption in Hospitals: Jha et al. NEJM 2009

- By panel definition:
 - 1.5% have comprehensive system
 - 10.9% have basic system
 - Installed across major clinical units

Table 2. Selected Electronic Functionalities and Their Level of Implementation in U.S. Hospitals.

Electronic Functionality	Fully Implemented in All Units	Fully Implemented in at Least One Unit	Implementation Begun or Resources Identified*	No Implementation, with No Specific Plans
	<i>percent of hospitals</i>			
Clinical documentation				
Medication lists	45	17	18	20
Nursing assessments	36	21	18	24
Physicians' notes	12	15	29	44
Problem lists	27	17	23	34
Test and imaging results				
Diagnostic-test images (e.g., electrocardiographic tracing)	37	11	19	32
Diagnostic-test results (e.g., echocardiographic report)	52	10	15	23
Laboratory reports	77	7	7	9
Radiologic images	69	10	10	10
Radiologic reports	78	7	7	8
Computerized provider-order entry				
Laboratory tests	20	12	25	42
Medications	17	11	27	45
Decision support				
Clinical guidelines (e.g., beta-blockers after myocardial infarction)	17	10	25	47
Clinical reminders (e.g., pneumococcal vaccine)	23	11	24	42
Drug-allergy alerts	46	15	16	22
Drug-drug interaction alerts	45	16	17	22
Drug-laboratory interaction alerts (e.g., digoxin and low level of serum potassium)	34	14	21	31
Drug-dose support (e.g., renal dose guidance)	31	15	21	33

* These hospitals reported that they were either beginning to implement the specified functionality in at least one unit or had identified the resources required for implementation in the next year.

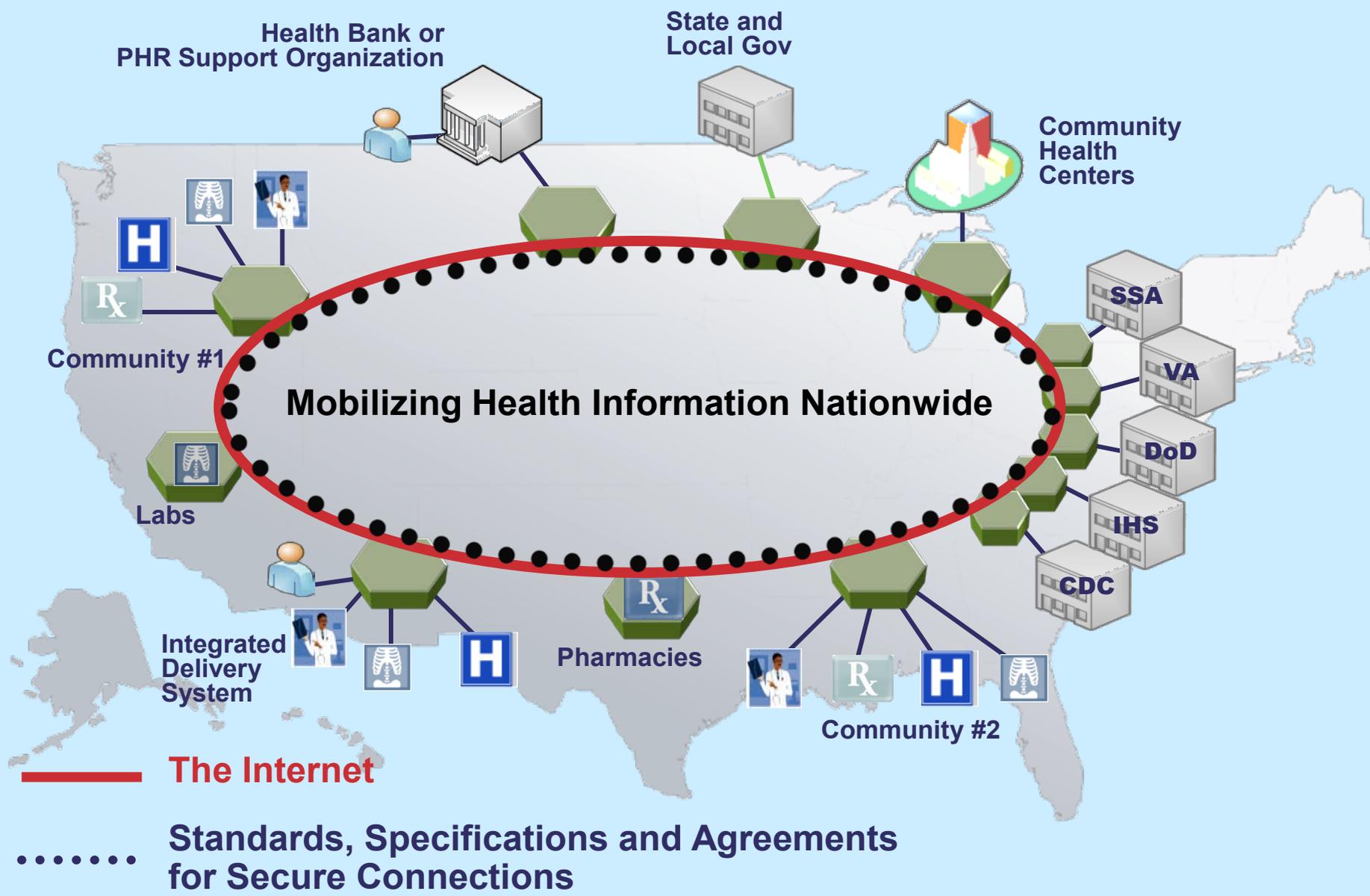
A slightly different way to look at the hospital data

Percent of hospitals fully implementing:

- Laboratory and radiology reports: 77%-78%
- Drug allergy/interaction alerts: 45%-46%
- Medication lists: 45%



Progress: The Nationwide Health Information Network



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HITECH Component View: Based on the Law

1. National coordination through a permanent ONC
2. Payment incentives to providers and hospitals who demonstrate *meaningful use* of certified EHRs (one estimate of net cost: \$17.2 Billion)
 - Beginning 2011
 - Through (government) Medicare or Medicaid
3. Six supportive grant programs authorized
4. Enhanced privacy and security provisions



1. National Coordination

- **ONC becomes a permanent organization**
- **Two Federal Advisory Committees**
 - Policy
 - Standards
- **Strategic Plan to be Revised**
- **Standards and Certification Criteria to be Formally Adopted**
- **Governance of Nationwide Health Information Network**



2. Payment Incentives and Meaningful Use

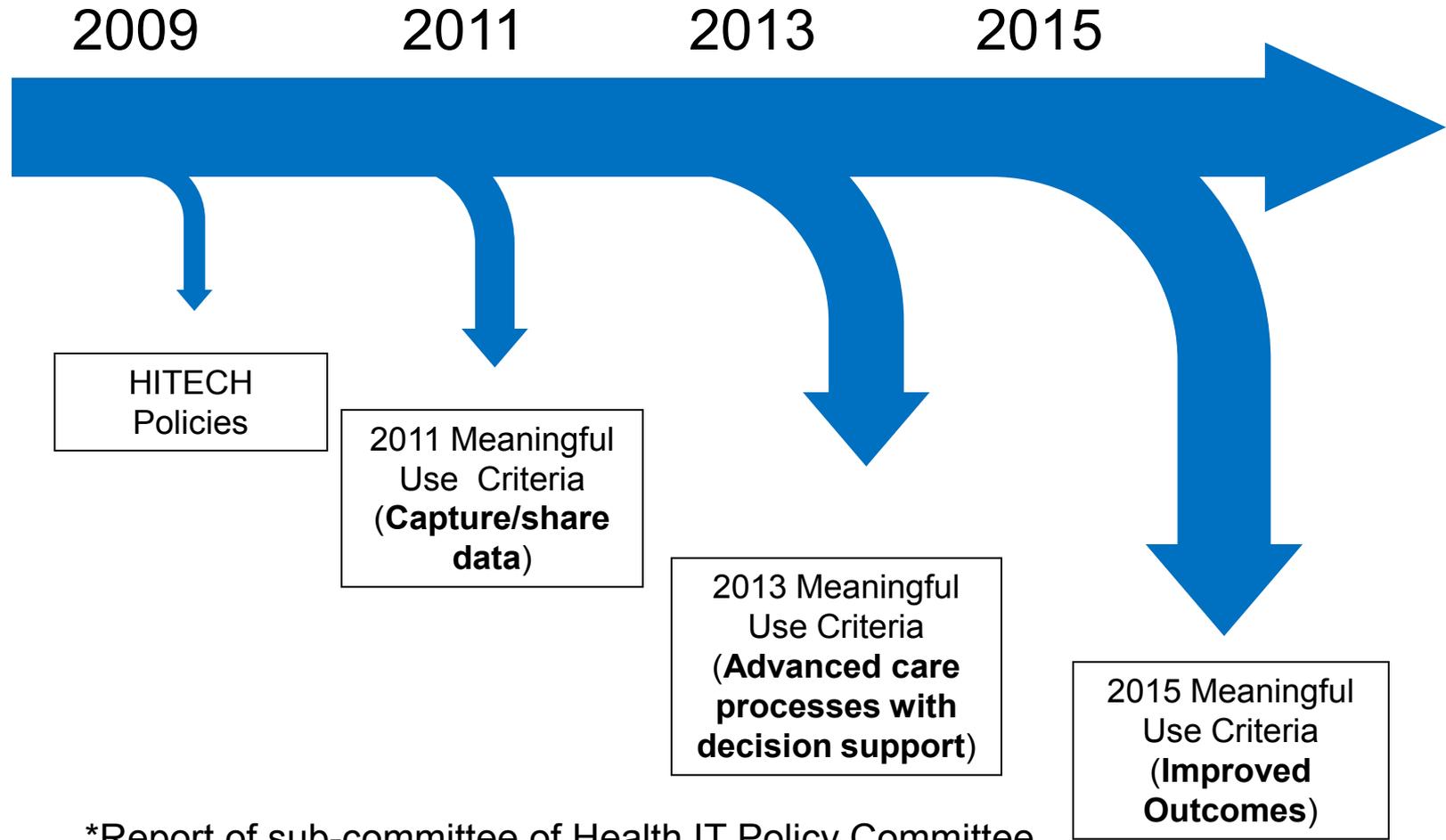
- *A hospital or eligible provider must be a **meaningful user** to receive payment incentives (up to \$44,000 per provider)*
- Changes the focus from technology potential to clinician behavior
- By law, a “meaningful user” must:
 1. Use a certified EHR
 2. Exchange health information
 3. Report quality measures



Meaningful Use is Being Defined

- Meaningful Use **Recommendations**: August 14, 2009 <http://healthit.hhs.gov/meaningfuluse>
- *Policy priorities for MU*
 - Improve quality, safety, efficiency and reduce disparities
 - Engage patients and families
 - Improve care coordination
 - Improve population and public health
 - Ensure adequate privacy and security

Meaningful Use Will Follow an “Ascension Path” *



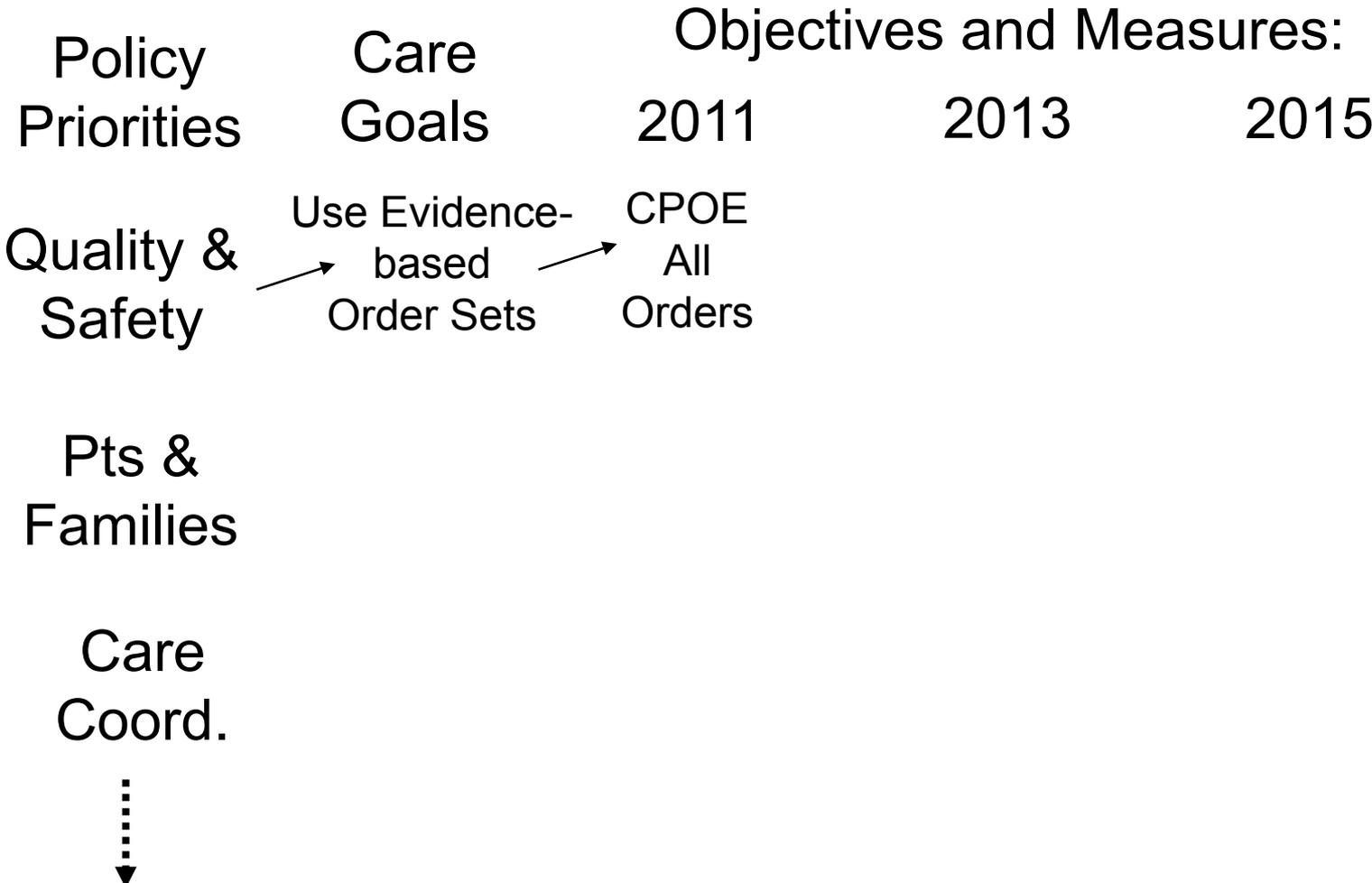
*Report of sub-committee of Health IT Policy Committee

Structure of Meaningful Use Recommendations

- Policy priorities (e.g. Improve quality and safety...)
 - Care goals (e.g. Use evidence based order sets)
 - Objectives and measures for 2011 (e.g. use CPOE for all orders)
 - Objectives and measures for 2013
 - Objectives and measures for 2015



Structure of Meaningful Use Recommendations



3. Grant Programs in HITECH

Mandatory programs of:

- Implementation assistance (Extension Program)
- Grants to states to promote health IT, emphasizing health information exchange
- Education: building health IT workforce

Optional programs of:

- *Grants to states and tribes for loan programs*
- *Demonstration program integrating Health IT in health professionals education*

Program of “Enterprise Integration Centers” shall be established through the National Institute of Standards and Technology.



4. Key Privacy Provisions

- Appoint a Chief Privacy Officer
- Breach notifications – for protected health information
- Prohibition on the sale of EHR data or protected health information without authorization
- Patient's right of access to information in electronic form



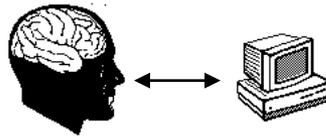
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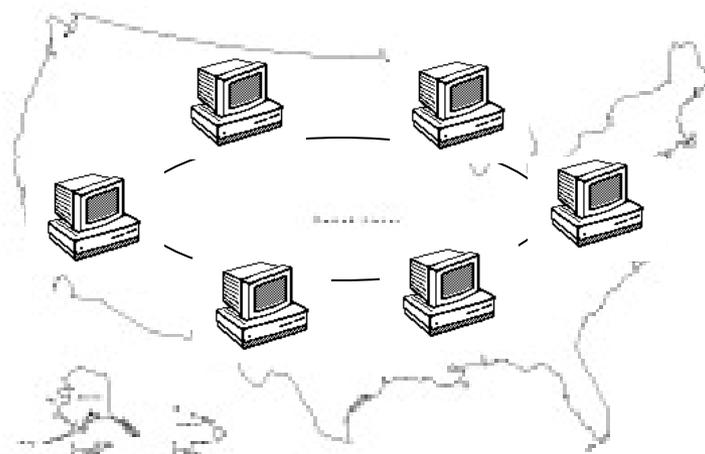


The “Two Element” View: Based on Implementation

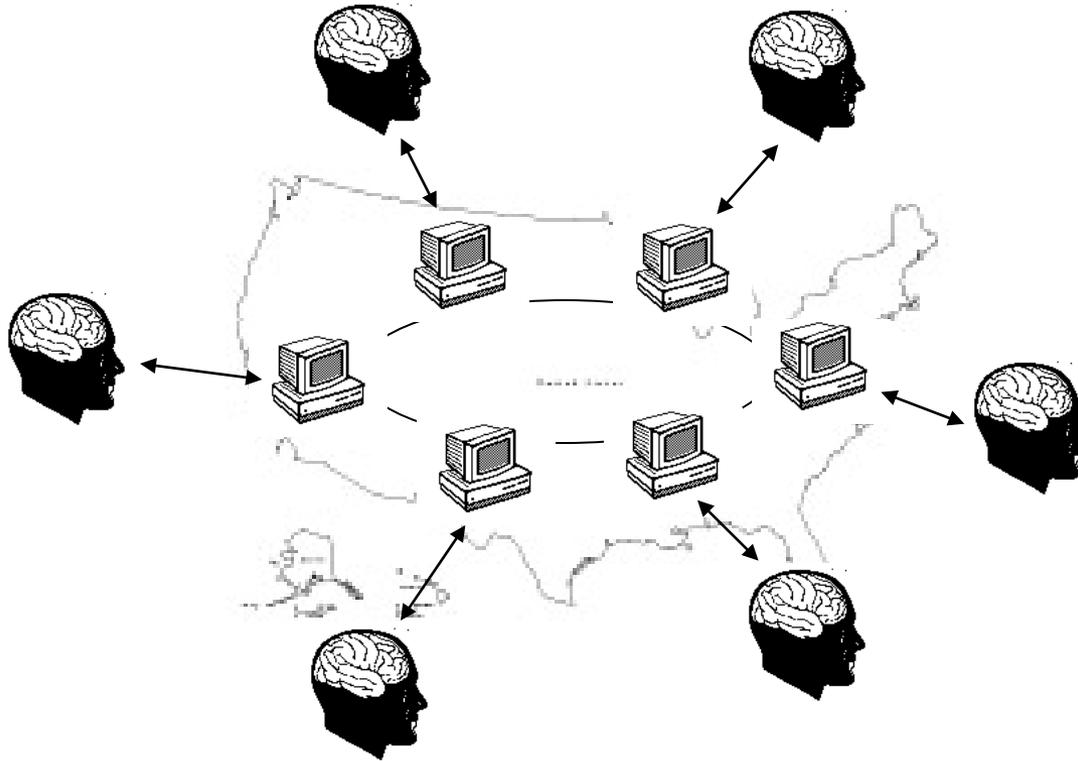
Element 1: **Adopted** Health IT Systems



Element 2: A **Trusted Pathway** to Exchange Information



Combining the Elements Enables **Meaningful Use**

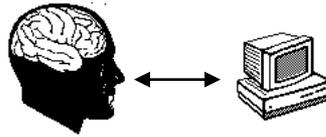


Statutory Components of MU

1. Adoption of certified EHRs
2. Health information exchange
3. Quality reporting

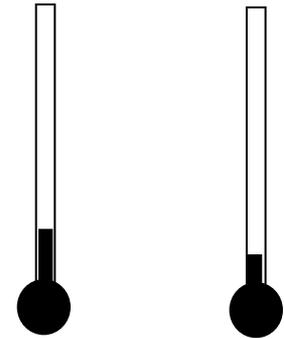
Building Element 1

Adopted Health IT Systems



Primary Initiatives:

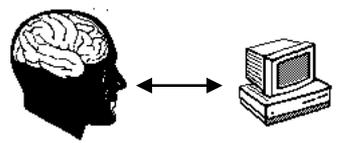
- Payment Incentives
- Regional Extension Centers Grants
- Health IT Workforce Grants
- Certification



Practices Hospitals
Progress 2009

Element 1: Progress

Adopted Health IT Systems



Regulation defining MU being drafted

- Incentives
- Regional Extension Centers Grants
- Health IT Workforce Grants
- Certification

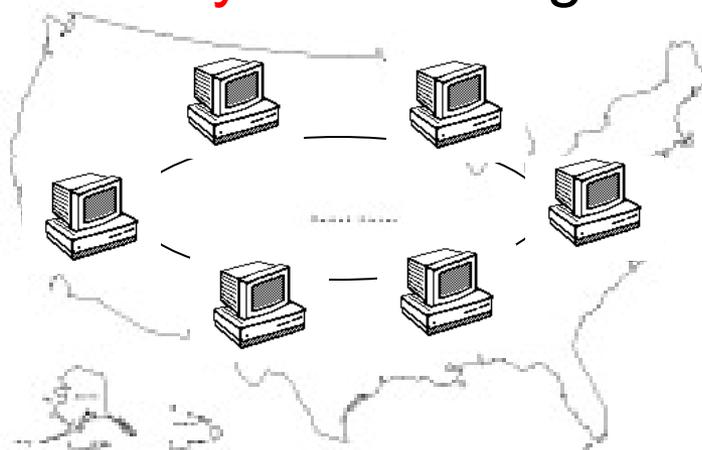
Funding Opportunity Issued August 20

“Interim final rule” to be issued by December 31

Funding Opportunity Issued “Soon”

Building Element 2

A **Trusted Pathway** to Exchange Information

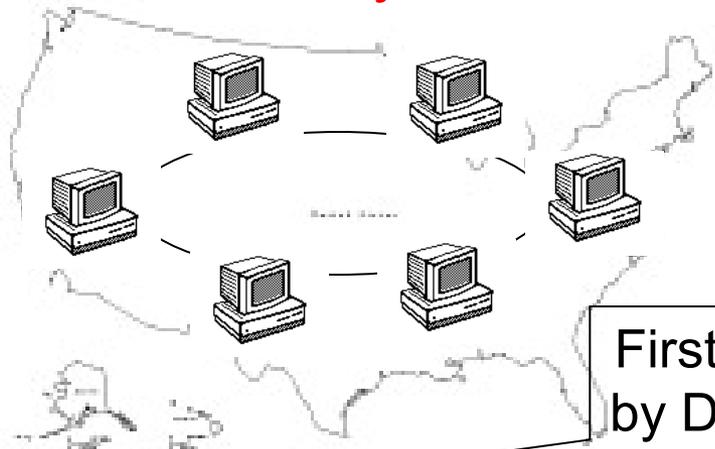


Primary Initiatives:

- Standards
- Grants to States
- Nationwide Health Information Network
- Privacy and Security

Element 2: Progress

Element 2: A **Trusted Pathway** to Exchange Information



First set adopted by December 31, 2009

Funding Oppy Issued August 20

- Standards
- Grants to States
- Nationwide Health Information Network
- Privacy and Security

CPO, new regulations, State activities
In very limited production

Standards

- Health IT Standards Committee makes recommendations for standards
- Focus on meaningful use
- Recommendations released August 20, 2009 as advice
 - Content and vocabulary (clinical operations WG)
 - Quality measures (clinical quality WG)
 - Privacy and security standards (P&S WG)
- “Interim Final Rule” to be issued before end of 2009

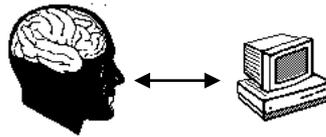
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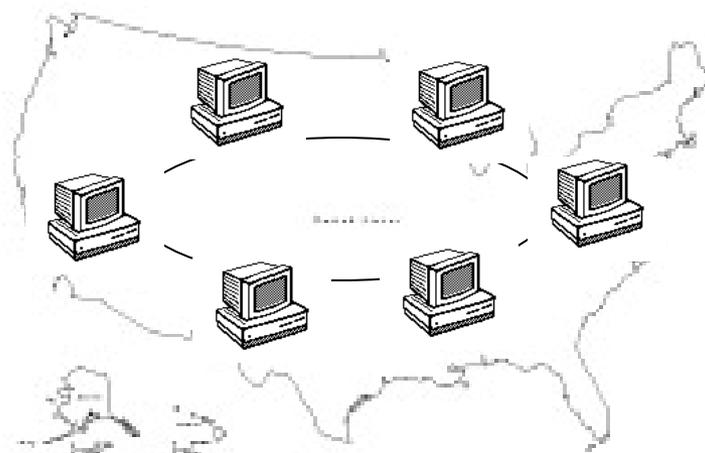


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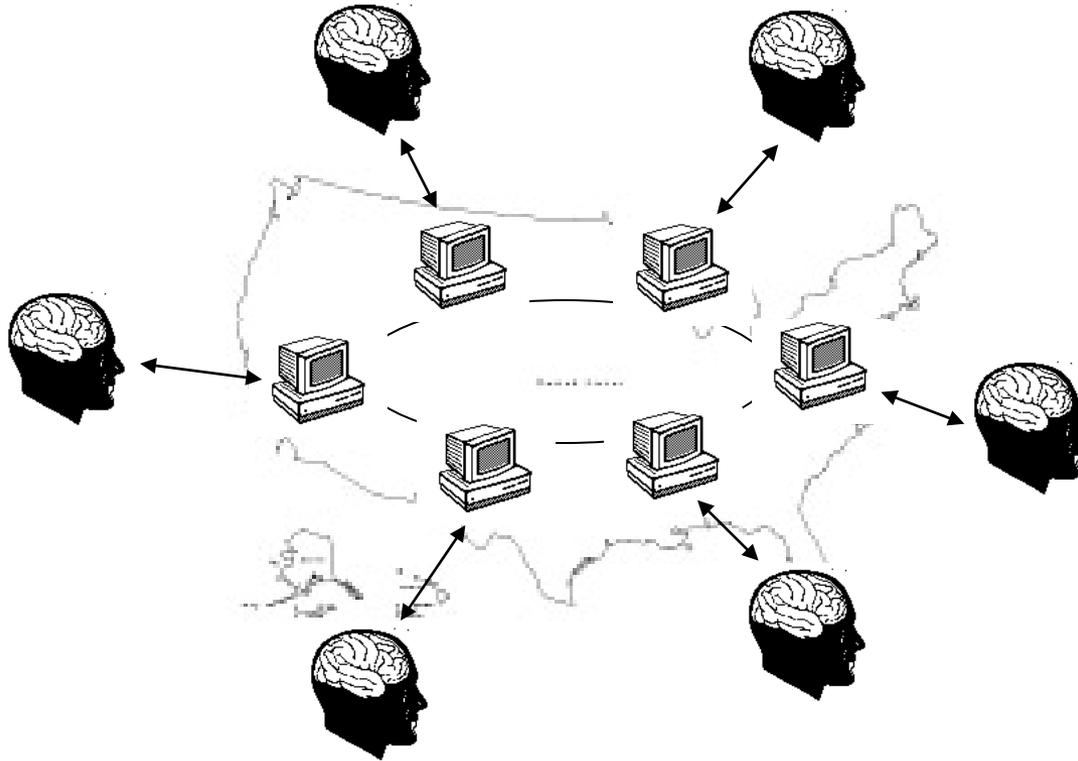
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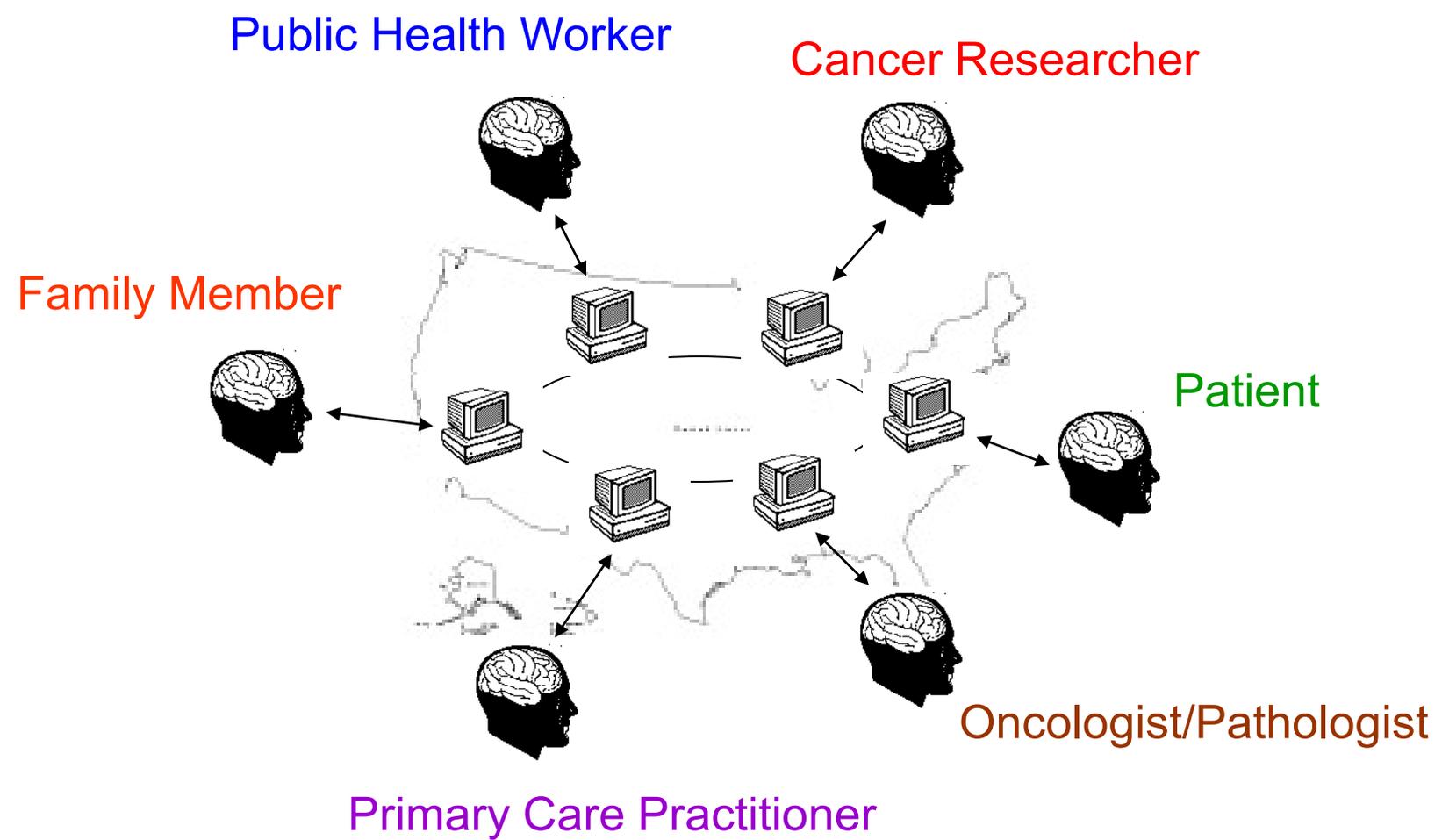
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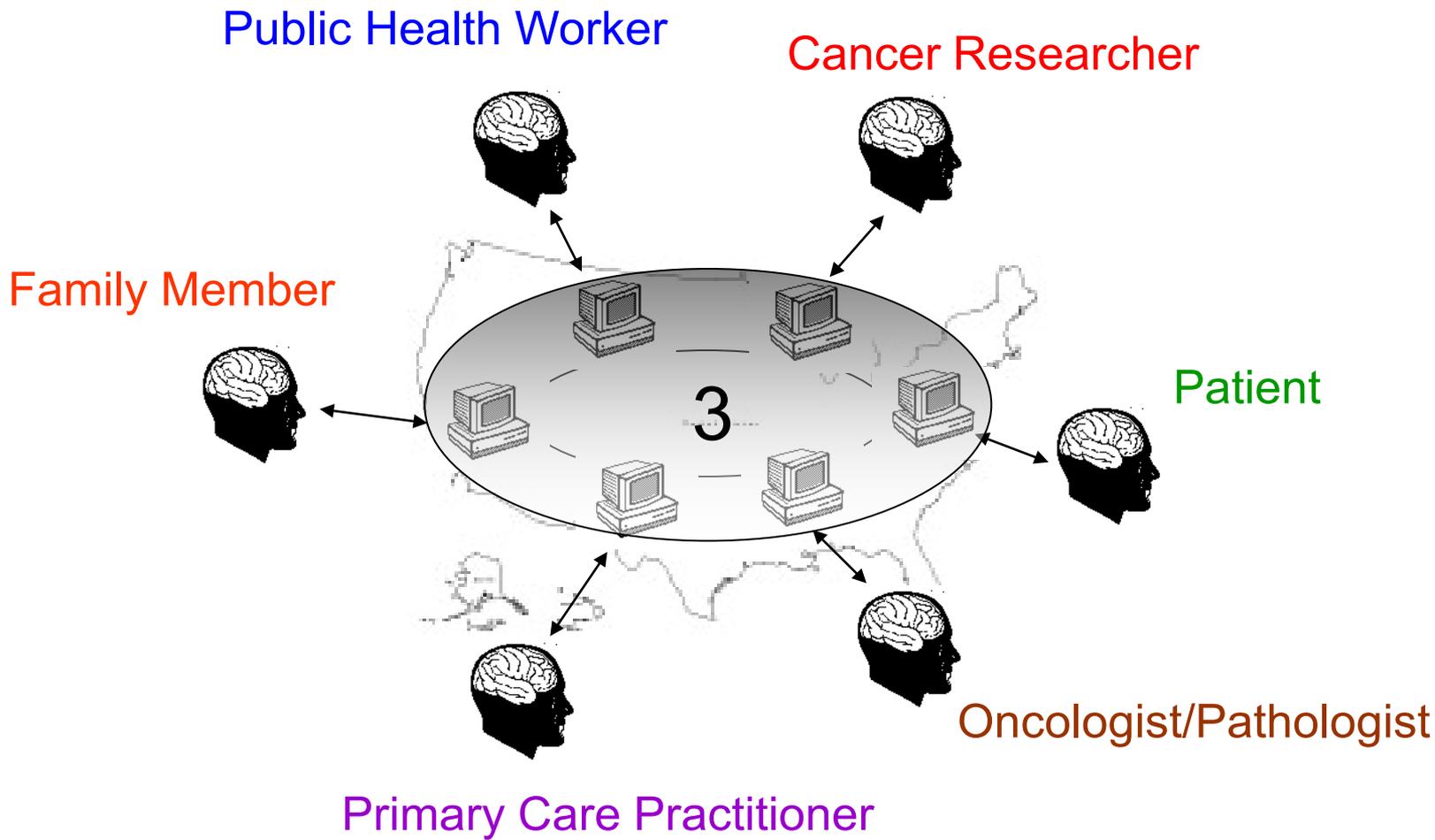
Statutory Components of MU

1. Adoption of certified EHRs
2. Health information exchange
3. Quality reporting

The Two Elements Won't Take Us All the Way



Need an Element 3!



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Thanks and Write to Me:

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