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

ONC Update for NCVHS Featuring Research, Workforce, and "Element 3"

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Chief Scientific Officer

Office of the National Coordinator for Health Information Technology (ONC)
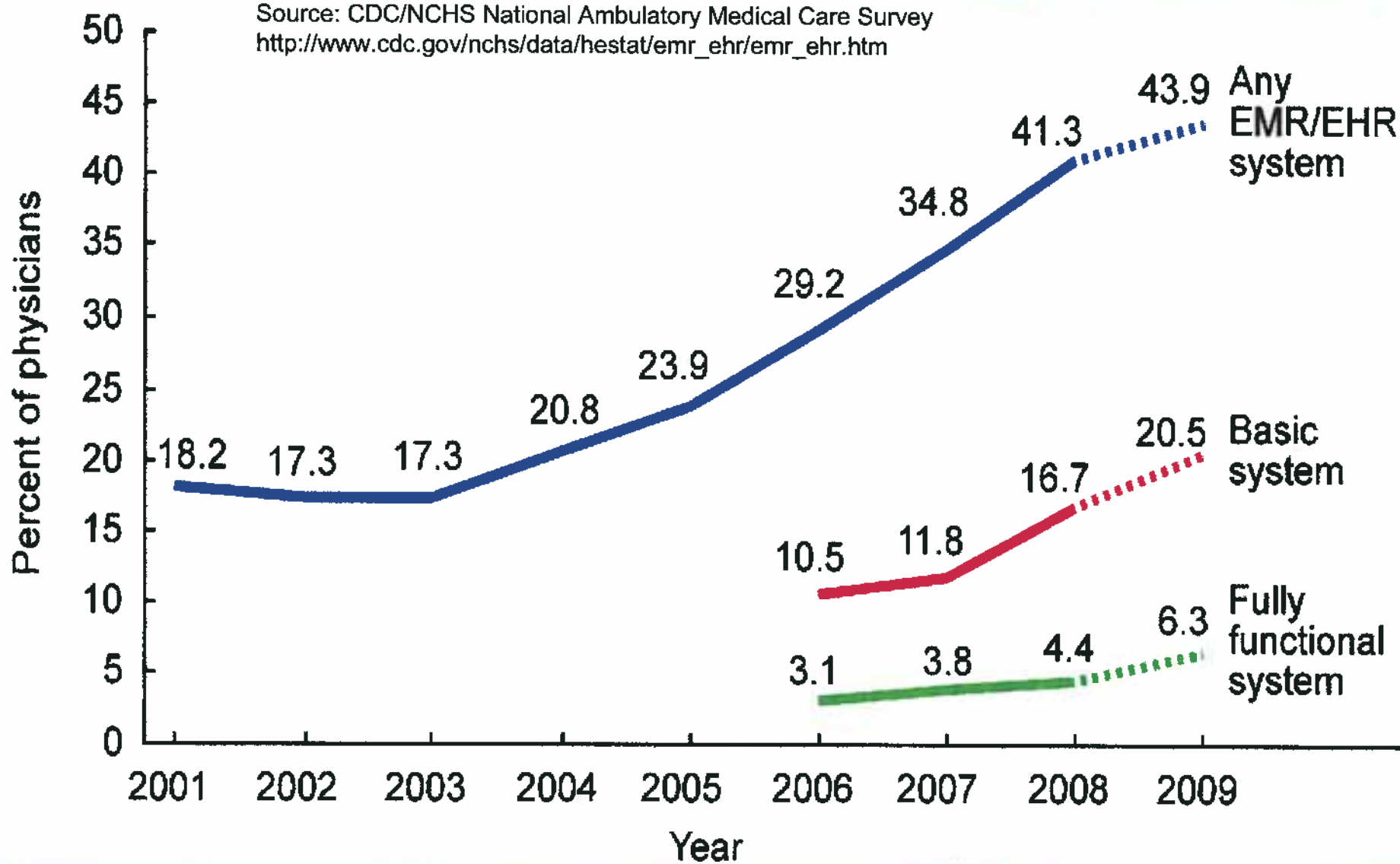
June 16, 2010

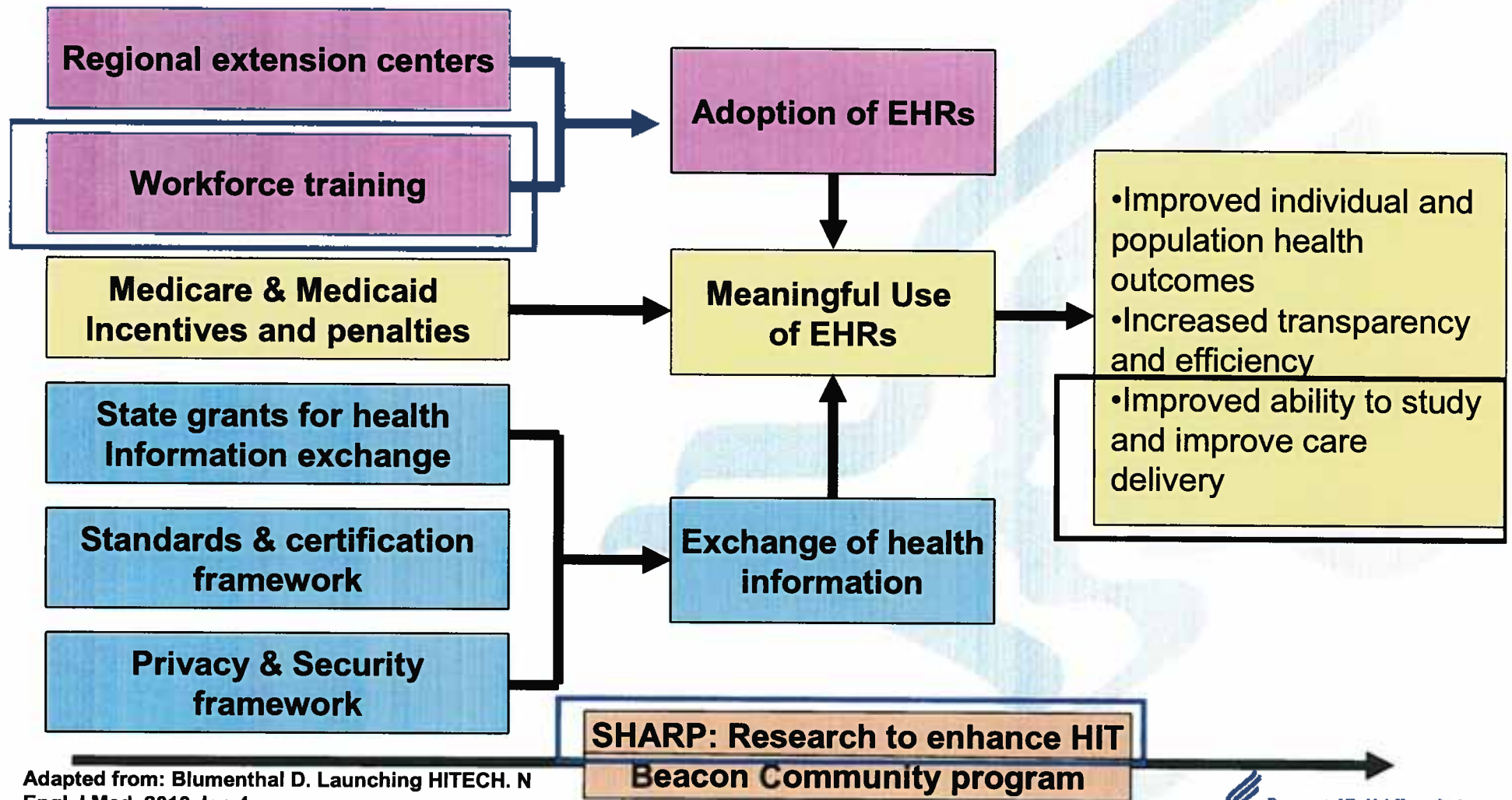# Film Still in the Cutting Room…

EHR Use by U.S. Office-based Physicians

Source: CDC/NCHS National Ambulatory Medical Care Survey
http://www.cdc.gov/nchs/data/hestat/emr_ehr/emr_ehr.htm

ONC/CMS Program to Get to Meaningful Use

Regional extension centers → Adoption of EHRs

Workforce training

Medicare & Medicaid Incentives and penalties → Meaningful Use of EHRs

State grants for health Information exchange

Standards & certification framework → Exchange of health information

Privacy & Security framework

SHARP: Research to enhance HIT
Beacon Community program

- Improved individual and population health outcomes
- Increased transparency and efficiency
- Improved ability to study and improve care delivery

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12 Key Workforce Roles Supporting the HITECH Agenda for Health Care and Public Health

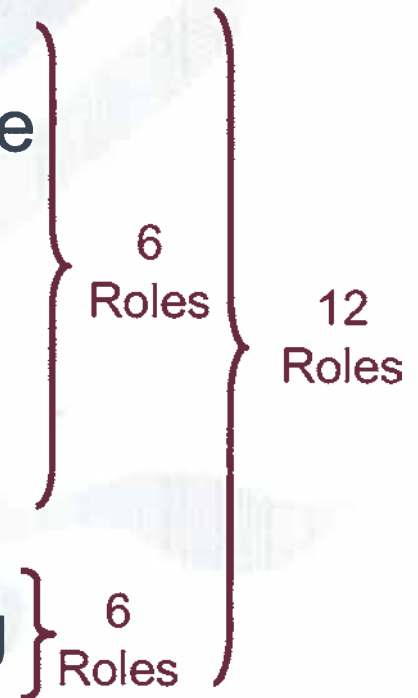- ## Six Roles Requiring Six Month Preparation
  - Assumes some relevant background (health or IT)
  - Four roles support EHR adoption process (mobile adoption teams)
  - Two roles provide ongoing support to practices that have adopted
- ## Six Roles Requiring 1-2 Year Preparation
  - Also assumes relevant background (health or IT)
  - Chief Clinician Information Officers
  - Software developers
  - Researchers and specialists

ONC Health IT Workforce Development Program

Four *Integrated* programs:

1. Community College Consortia to Educate Health IT Professionals

2. Curriculum Development Centers

3. Competency Examination for Individuals Completing Non-Degree Training

4. Assistance for University-Based Training

6 Roles

6 Roles

12 Roles

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SHARP Research Program

- **S**trategic **H**ealth (IT) **A**dvanced **R**esearch Projects
- Breakthrough research
- Four sites, with multiple collaborators, funded at $15M each for four years
- Each site addressing one theme:
  - Patient-centered cognitive support (Texas-Houston)
  - Security (U of Illinois)
  - Secondary use (Mayo Clinic)
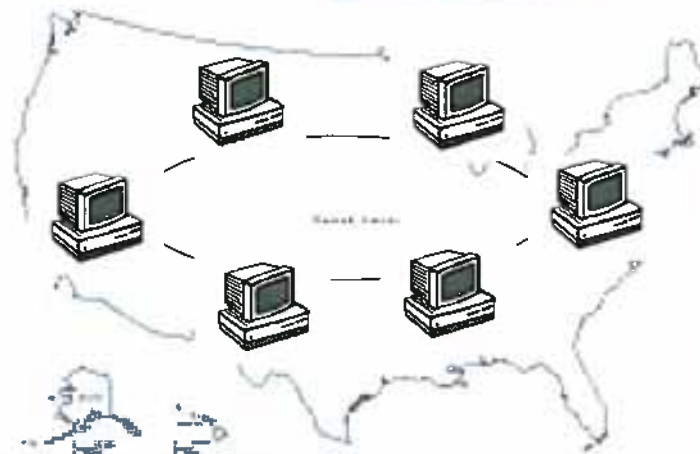 - Advanced network and application platforms (Harvard)

Getting to Meaningful Use: The "Element" View
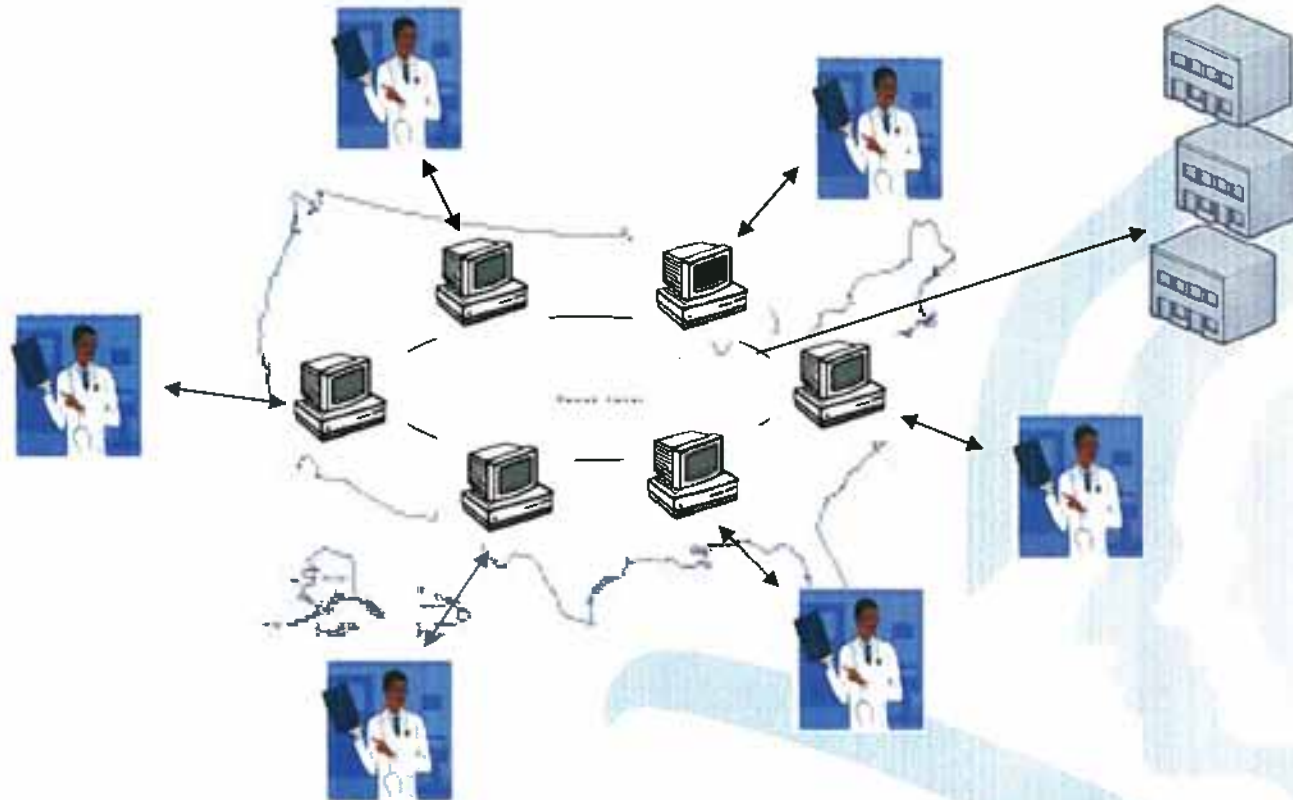
Element 1: Adopted Health IT Systems
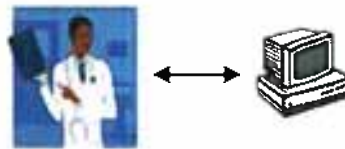
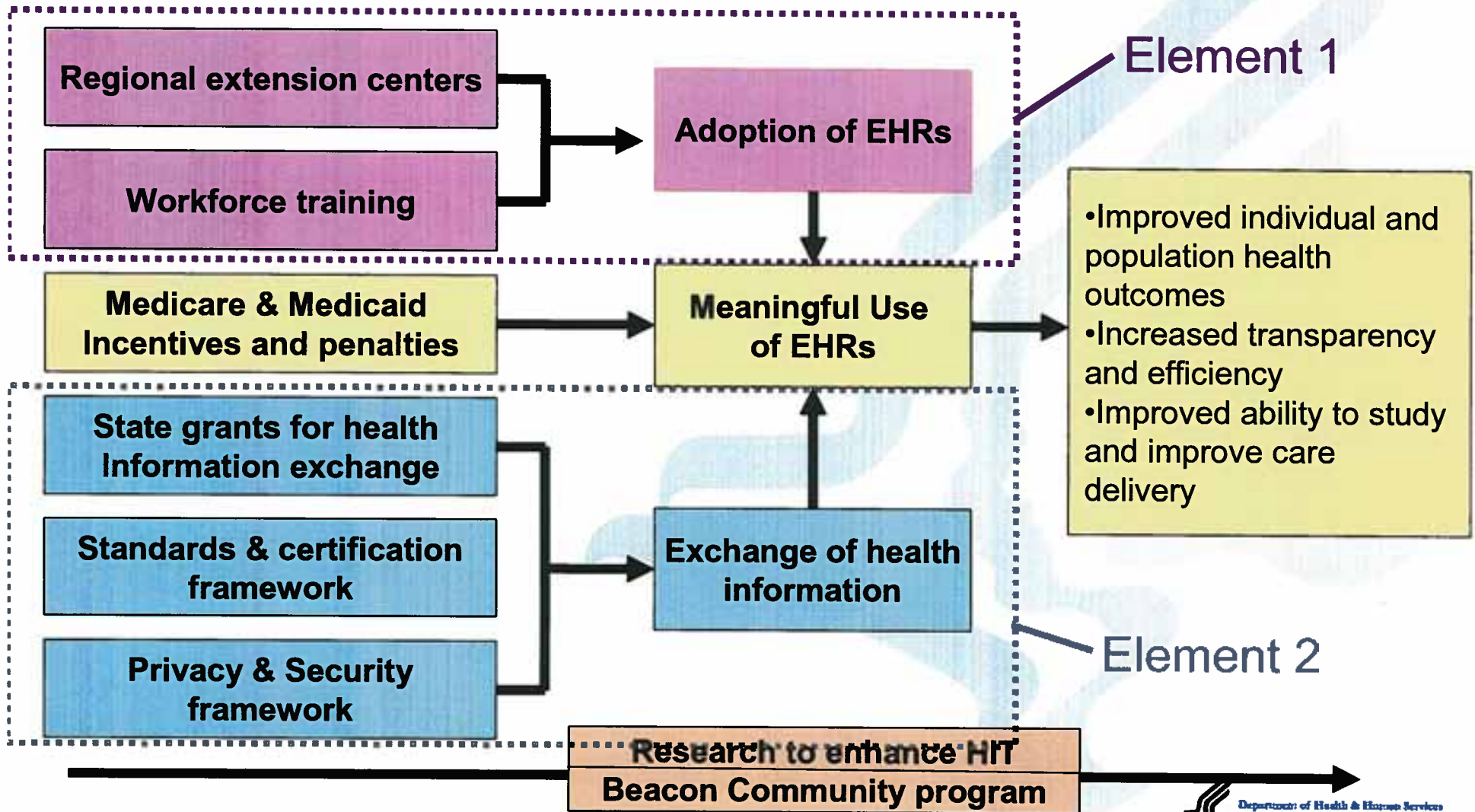Element 2: A Trusted Pathway to Exchange Information
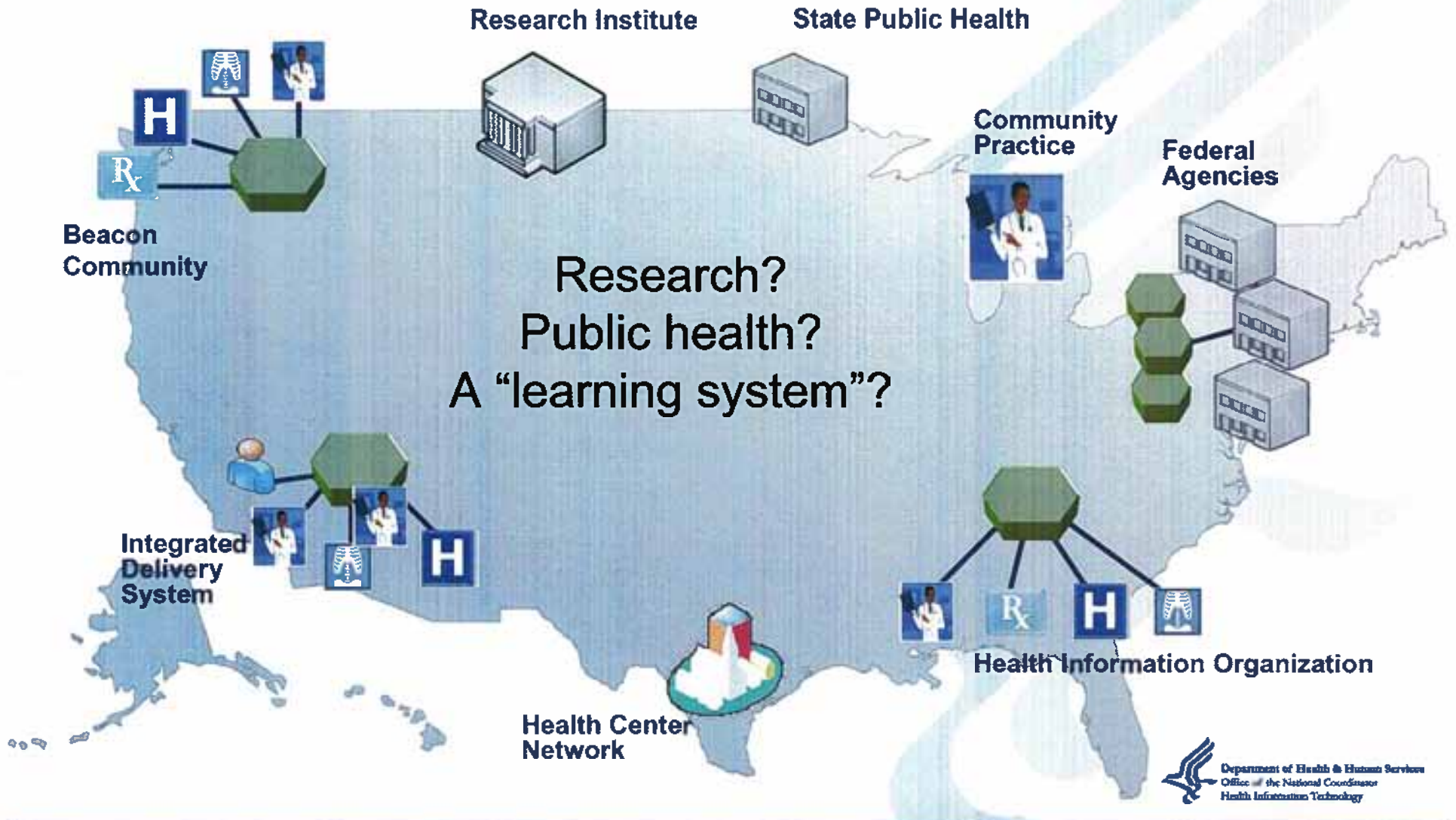
Combining Elements 1 and 2 Enables Meaningful Use

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

ONC/CMS Program to Get to Meaningful Use

Element 1

Element 2

- Regional extension centers
- Workforce training

→ Adoption of EHRs

- Medicare & Medicaid Incentives and penalties

→ Meaningful Use of EHRs

- State grants for health Information exchange
- Standards & certification framework
- Privacy & Security framework

→ Exchange of health information

- •Improved individual and population health outcomes
- •Increased transparency and efficiency
- •Improved ability to study and improve care delivery

Research to enhance HIT
Beacon Community program

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Elements 1 and 2 are not Enough!

Research Institute

State Public Health

Community Practice

Federal Agencies

Beacon Community

Research?
Public health?
A "learning system"?

Integrated Delivery System

Health Center Network

Health Information Organization

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Need an "Element 3"

Research Institute

State Public Health

Community Practice

Federal Agencies

Beacon Community

Integrated Delivery System

Health Center Network

Health Information Organization

Element 3 in Words

Highest level goal:

- By 2015, a federated, integrated learning system for health care quality improvement and population health.

Term Definitions:

- <u>Learning system</u>: Data related to individual patients and the care they receive is continuously aggregated, analyzed, and thereby transformed into knowledge that is used to improve care.
- <u>Population health</u>: Activities customarily associated with public health; basic, translational, and clinical research; and emergency preparedness.
- <u>Federation</u>: Decision makers can assemble from different organizations and locations the data they need without knowing where the relevant data reside.
- <u>Integration</u>: Ability to merge data and analyze them in unanticipated ways to discover relationships and generate knowledge.

Element 3 Scenario

- Any authorized person could broadcast a question and have that question applied automatically to relevant data distributed across the nation.

- If the question is "simple" (e.g. <numerator>/<denominator>), the answer would be returned automatically.

- If the question is more complicated, sites across the country with relevant data could return de-identified cases for analysis by the originator of the question.

Observations

- Meaningful Use is necessary but not sufficient for E3

- E3 can't be built on data feeds to persistent databases

- The ONC interoperability framework and services built into the new NHIN can support E3

- There are many E3 players already
  - Government has the biggest business case
  - Some will have negative business case to participate

Components of an E3 Plan

- Recognition of the need
  - All data are fundamentally reusable
- A single technical architecture
  - Not N architectures for N domains
- Explicit data definitions and standards
- A policy and governance structure
  - Resolve consent and data ownership issues
  - Needs a "home"

Multi-Stakeholder Workshops: A First Step

- Convened by IOM
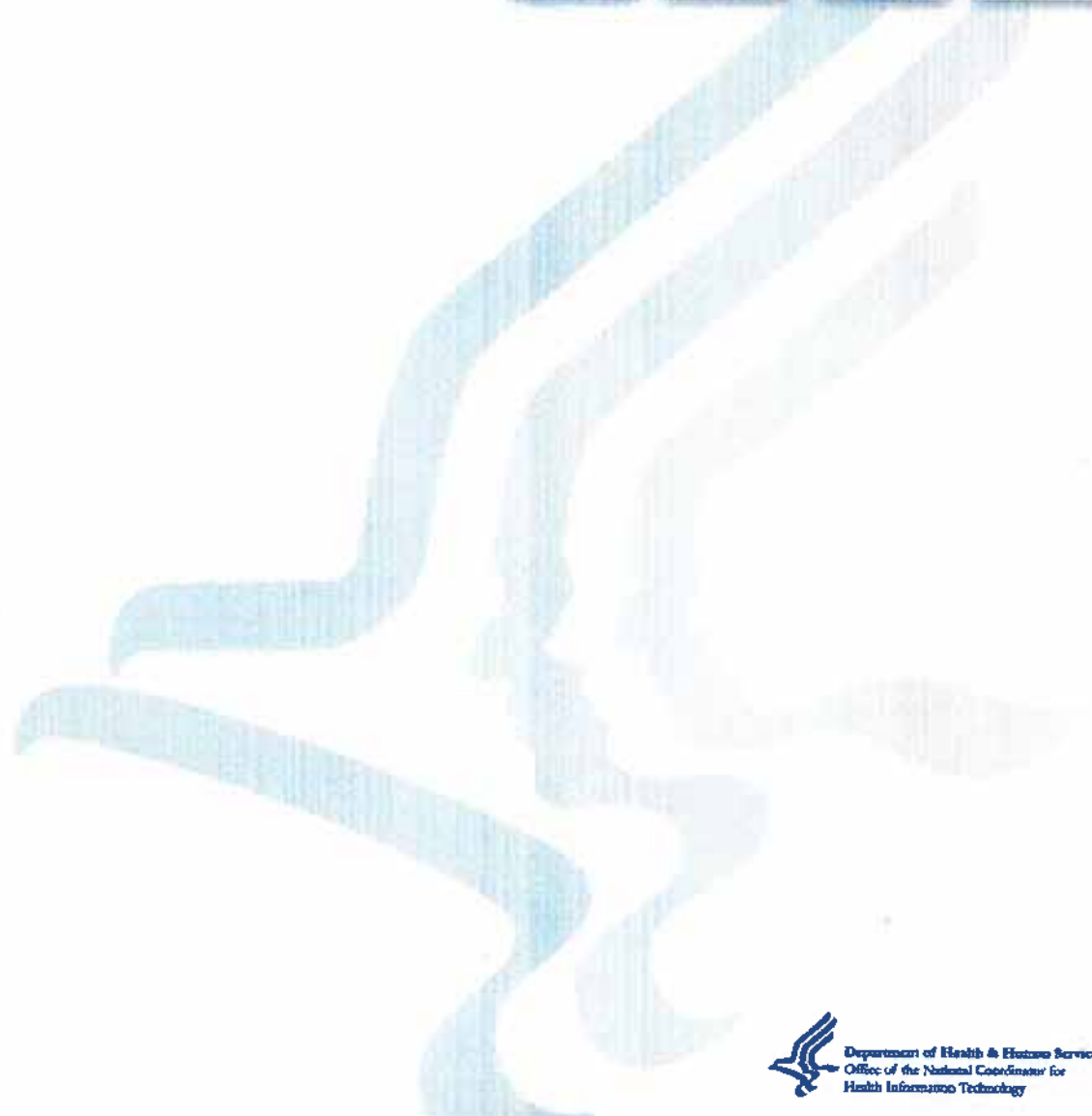- Sequence of three workshops: July, Sept, Oct
- Report by December 31, 2010

Thanks and Write to Me:

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Additional Slides

The Nationwide Health Information Network (NHIN)

A set of **policies**, **standards** and **services** that enable the Internet to be used for secure and meaningful exchange of health information to improve health and health care.

- Services
- Standards
- Policies
- Trust Fabric

NHIN Exchange and NHIN Direct

- **NHIN Exchange (original project begun in 2005)**
  - Group of participants who have agreed to be part of NHIN Collaborative
  - Focus on patient lookup & summary record exchange
  - Several important efforts live
    - Social security-MEDVirginia
    - VA-DoD-KP
- **NHIN Direct (new initiative)**
  - Designed to support 2011 MU exchanges
  - Simpler "push" scenarios
  - Initial implementation this fall