



Connect to Care

# Making Health Information Technology Work: For the Future of Health and Care

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**Program Director**

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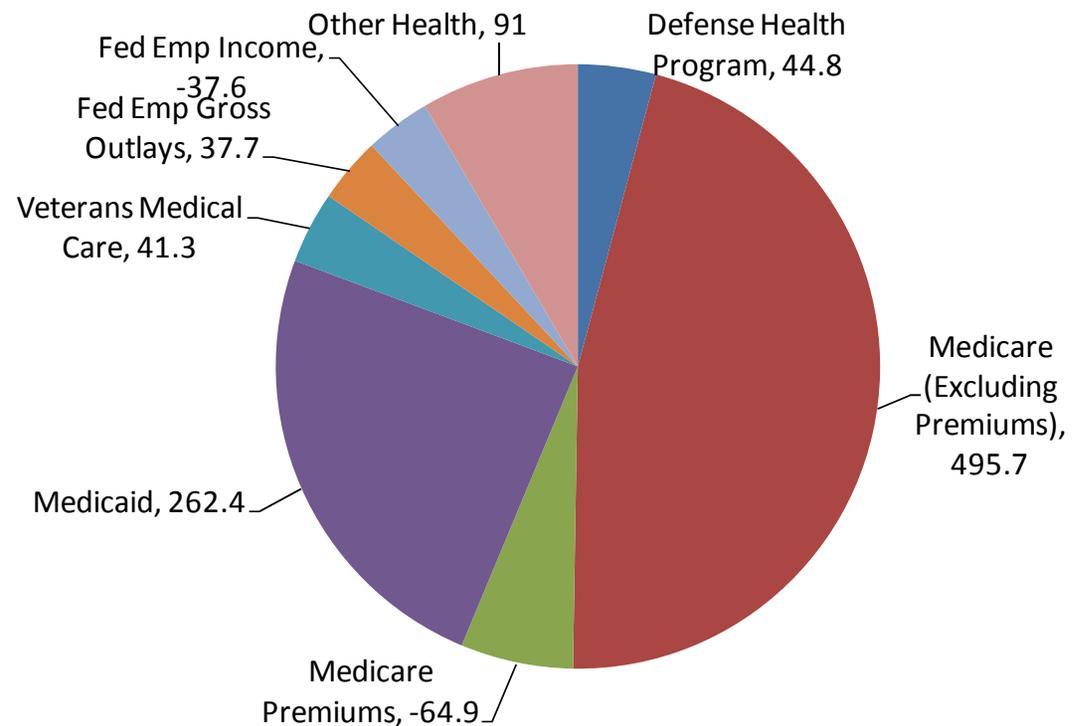
Office of the National Coordinator for Health IT



# Background

- **Health Care spending in the United States is over \$2 Trillion per Year**
- **Spending continues to grow each year at approximately 6.5% per year**
- **Federal spending is estimated to be \$870 B in 2009 of total health care spending**

**Basic assumption is that investment in Health IT will save money through efficiencies, and improve the quality of care delivered.**





## Phase 1

2004 – 2008

### Foundation for Health Information Exchange Established



#### **In April, 2004**

- Executive Order 13335: Office of the national coordinator created
- Executive Order 13410: Federal federal agencies required to implement HHS Secretary recognized standards and cost & quality transparency

#### **In the last four years, ONC worked with Federal, States and private sector to:**

- Harmonize interoperable standards
- Create Health IT certification for functionality, security, and interoperability
- Launch the Nationwide Health Information Network
- Address Policy variations

***The Tipping Point for Phase 2 is Now at Hand***



## Phase 2 Health IT 2009 - 2014

**Federal government now prepared to operationalize completed foundation**

**The “Stars” are Aligned for Success**

- Widespread demand for healthcare reform
- The technology is mature
- Funding for implementation promised
- Policy issues identified

**Federal agencies and state governments are prepared to move forward**





## President Obama's Commitment to Electronic Health Systems



*In remarks at the White House –  
February 4, 2009*

"We'll be on our way to computerizing all of America's medical records, which won't just eliminate inefficiencies, save billions of dollars and create tens of thousands of jobs – but will save lives by reducing deadly medical errors."

The goal is not to move from “paper silos” to “electronic silos”

The goal is an electronic health system that ***sustains and requires the movement of interoperable health information*** supporting:

- Continuity of Care
- Population Needs (pandemics and other disasters)
- Bench to Bedside Research
- Disability Determination



## **Health Information Technology for Economic and Clinical Health Act (HITECH Act)**

- **Part of the American Recovery and Reinvestment Act of 2009**
- **Appropriates \$2B to the Office of the National Coordinator for Health IT (ONC)**
- **Provides incentive payments to meaningful users of electronic health records - \$36B (CBO estimate)**



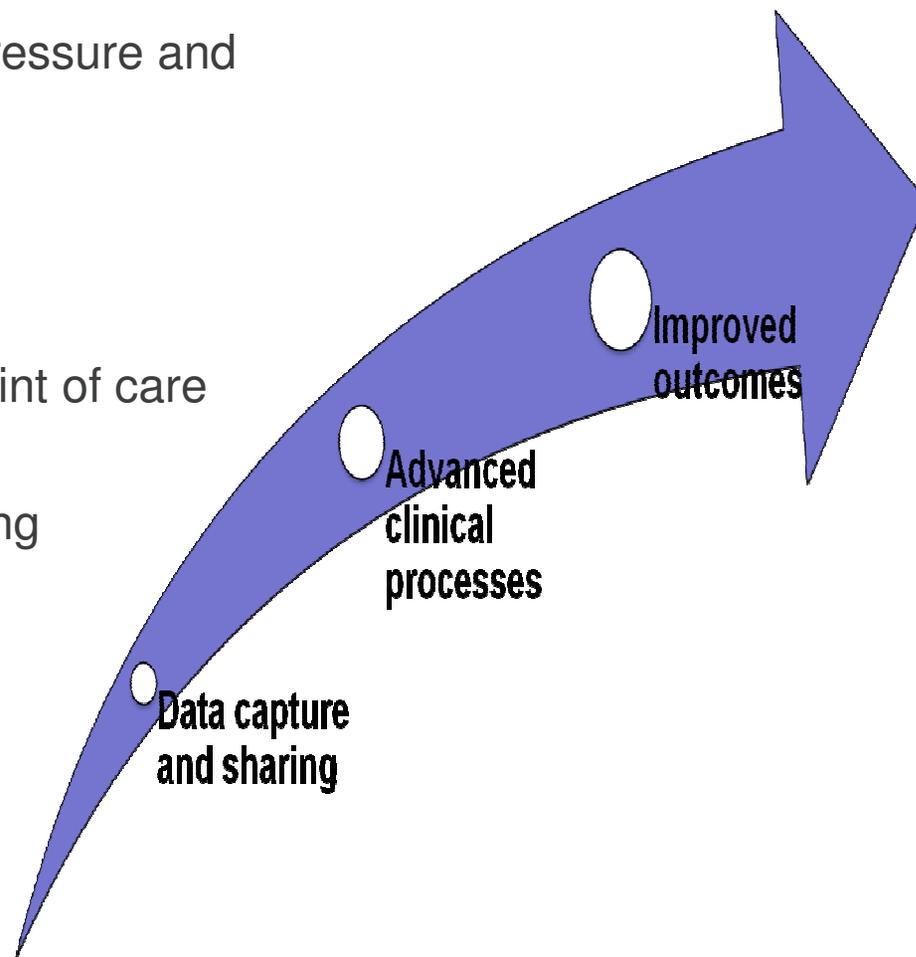
## Achievable Vision for 2015

- Prevention, and management, of chronic diseases
  - A million heart attacks and strokes prevented
  - Heart disease no longer the leading cause of death in the US
- Medical errors
  - 50% fewer preventable medication errors
- Health disparities
  - The racial/ ethnic gap in diabetes control halved
- Care Coordination
  - Preventable hospitalizations and re-admissions cut by 50%
- Patients and families
  - All patients have access to their own health information
  - Patient preferences for end of life care are followed more often
- Public health
  - All health departments have real-time situational awareness of outbreaks



## Bending the Curve Towards Transformed Health *Achieving Meaningful Use of Health Data : Example*

- **Goal**
  - 85% of patients with high blood pressure and cholesterol have it well controlled
- **Advanced care processes**
  - Use of evidence-based order sets
  - Clinical decision support at the point of care
  - Patient outreach and reminders
  - Quality benchmarking and reporting
- **Clinical data capture & sharing (can be queried and trended)**
  - Medication and Problem list
  - Laboratory tests and procedures
  - Prescription fill histories





## What is required to achieve the President's goal?

- ✓ **Stimulating adoption of electronic health records**
  - financial incentives
- ✓ **Stimulating interoperability**
  - make sure all certified records have the capacity to exchange information
  - development of an agency or group in local markets that forges connections among health providers and then facilitates the flow of information among these entities
- ✓ **Creating incentives to use EHRs to improve quality and efficiency**
  - vendors of records must produce user-friendly systems
  - assist providers during implementation
  - reward adoption
- ✓ **Stimulating technical progress**
  - a commitment to research and development



# The Federal Health Architecture Mission

**“If you want to go fast,  
walk alone.”**

**“If you want to go far,  
walk together.”**



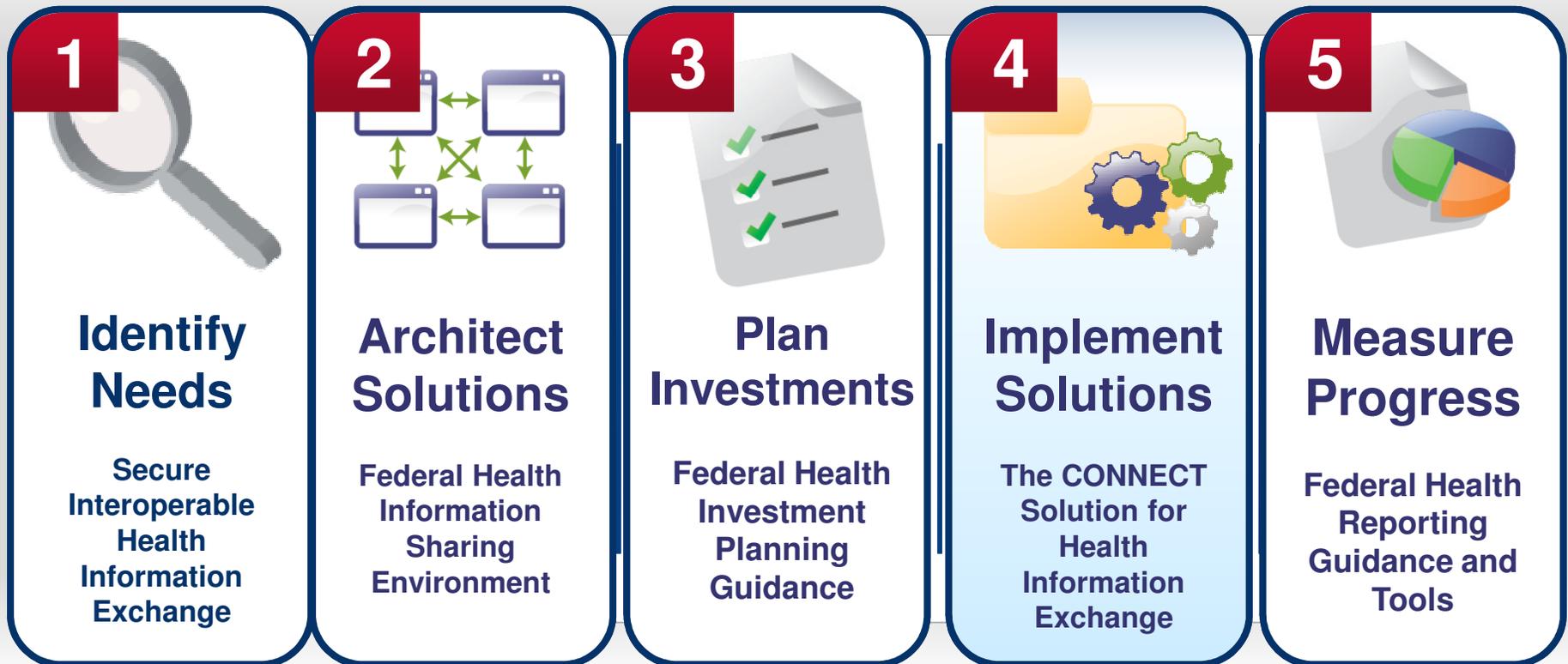
Working together to provide the tools and solutions to support the development and exchange of interoperable health information within the federal government and with the tribal, state, local and private sector, thereby, enabling better care, increased efficiency, and improved access to care for American citizens.

***“Secure Exchange of Interoperable Health Information”***



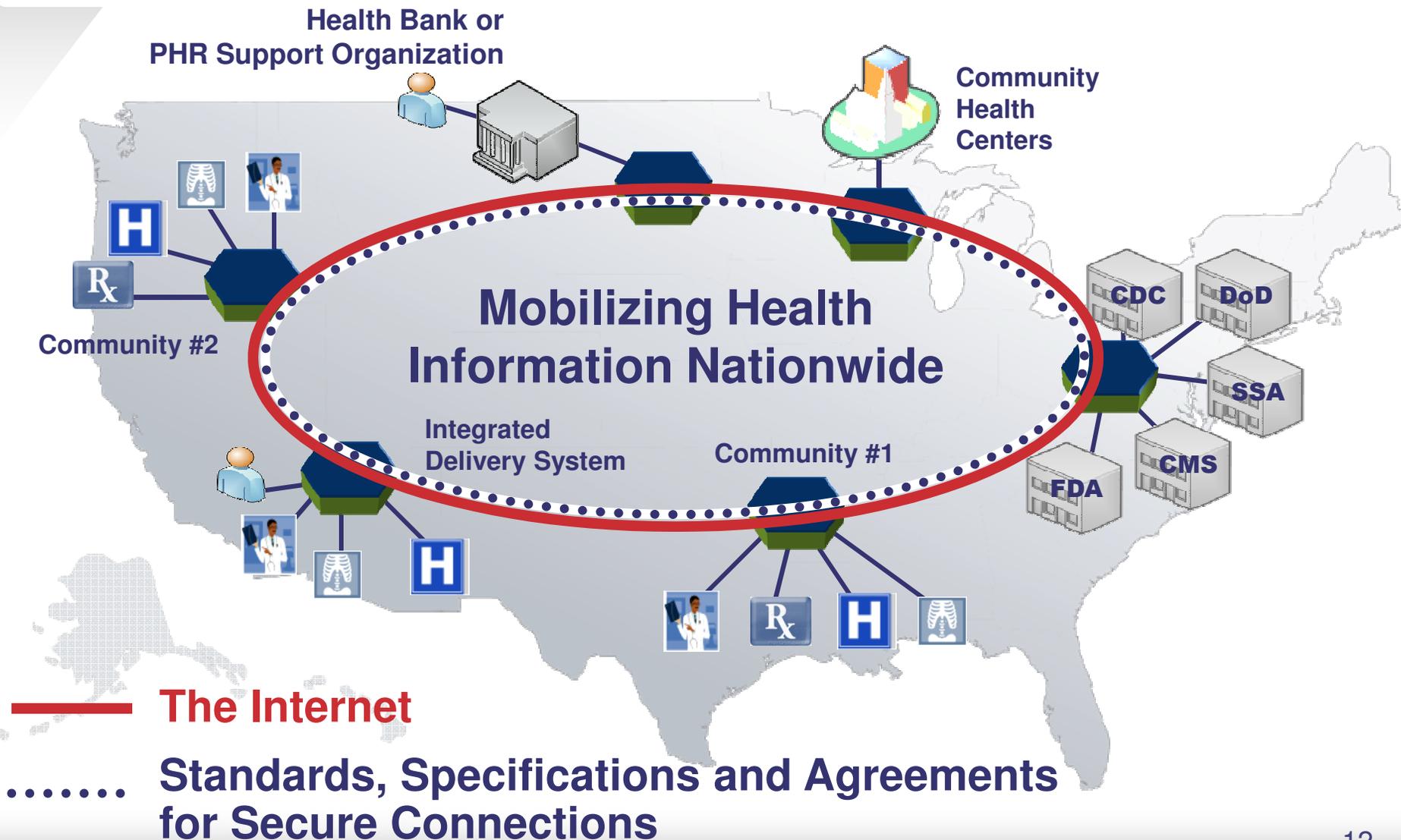
# Federal Health Architecture Initiatives

FHA initiatives have produced tools and services that provide guidance/support in any phase of operations.





# The Nationwide Health Information Network

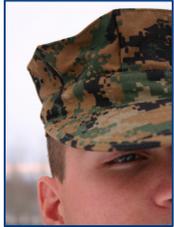




## NHIN Architectural Principles

- **Highly distributed:** Patient health information is retained at the local health information exchange level
- **Local autonomy:** Each HIE must make their own determinations with respect to the release of patient information
- **Focus on inter-organizational health exchange:** The NHIN does not attempt to standardize implementations within an HIE, only the communications between HIEs
- **Use public internet:** The NHIN is not a separate physical network, but a set of protocols and standards that run on the existing internet infrastructure
- **Platform neutral:** The NHIN has adopted a stack (web services) that can be implemented using many operating systems and programming languages

# Why health information exchange?



**Continuity of Care:  
Wounded Warrior Scenario**





# CONNECT: Tools for Information Exchange

FHA's CONNECT Initiative provides three related tools to enable organizations to connect to the NHIN:



**The Gateway**, which implements the core services defined by the NHIN



**Enterprise Service Components**, which provide robust tools for indexing patient identities, maintaining patient health documents, implementing business rules for authorizing the release of medical information and more



**Universal Client**, a client framework for developers to implement enterprise service components



# Federal agency needs for health information exchange

FHA brought Federal agencies together to identify business needs that could be supported by a common solution that could be re-used across federal government to support the secure exchange of health information .

Agency	Needs	
Department of Defense	Wounded Warrior Continuity of Care	
Department of Veterans Affairs	Wounded Warrior Continuity of Care/ Medication Management/ Consumer Access to Clinical information	
Social Security Administration	Disability Benefits Determination	
Indian Health Service	Tribal Population Continuity of Care/ Wounded Warrior Continuity of Care	
Centers for Disease Control	Population Health Monitoring – Biosurveillance	
National Cancer Institute	Childhood Cancer Trials – Linking Research and Care	
National Disaster Medical System	Emergency Care	

\* Via demonstration and/or production activities.



## What business problem does CONNECT solve?

- **A platform for innovation, collaboration and participation**
- **A consistent process to securely exchange interoperable electronic health information**
- **Reduces time and cost to build a gateway solution for HIE**
- **Decreases time to enter and participate in the market**
- **Agencies want a common solution for health information exchange that can support their mission priorities instead of building expensive, redundant, point-to-point solutions**
- **State and Private sector health organizations are seeking consolidation and standardized interfaces for sharing Health Information with Federal agencies**



## An American First – Live patient transfer across the Nationwide Health Information Network



**Patient  
Information**

NHIN



This one-way electronic transfer of patient data between MedVirginia, a regional health group, and the Social Security Administration will enable SSA, with the patient's authorization, to obtain medical records for the disability review process in minutes instead of the current weeks and months.



# Federal, State, and Private Sector Partners Using NHIN in 2009\*

## Agency (7)

Department of Defense\*\*

Department of Veterans Affairs\*\*

Social Security Administration\*\*

Indian Health Service\*\*

Centers for Disease Control\*\*

National Cancer Institute\*\*

National Disaster Medical System\*\*



## Private Sector (15)

- CareSpark
- Cleveland Clinic Foundation
- Community Health Information Collaborative
- Delaware Health Information Network
- Healthbridge
- Healthlinc (Bloomington Hospital)
- MedVirginia
- INHS
- Kaiser Permanente
- Long Beach Network For Health
- Lovelace Clinic Foundation
- Minnesota Community Health Information Collaborative (CHIC)
- New York eHealth Collaborative
- NCHICA
- NMHIC
- Regenstrief Institute
- West Virginia Health Information Network
- Wright State University

## State Level (3)

- New York State Department of Health (NYSDOH)\*\*
- Department of Health (NYSDOH)\*\*
- Indiana State Department of Health (ISDH)

\*Via demonstration and/or production activities.

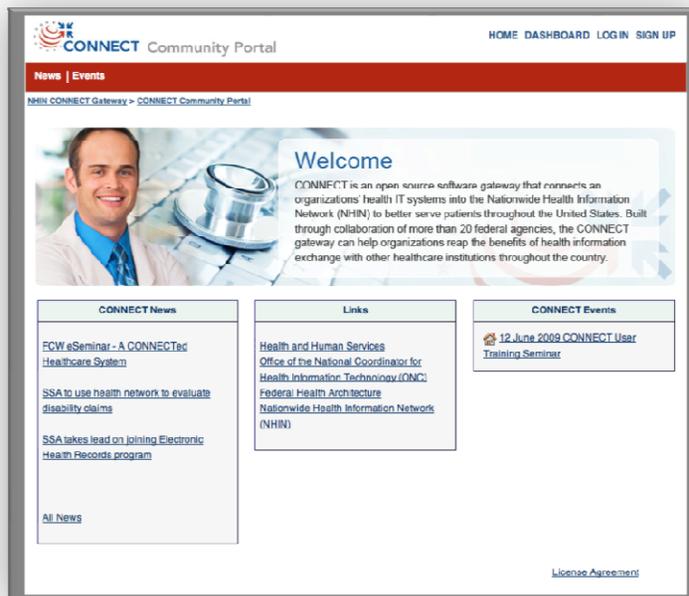
\*\* Using the **CONNECT Solution**



## Public availability of CONNECT solution



Released under a “**non-viral**” **license** that makes it easy to develop solutions using the CONNECT software code base



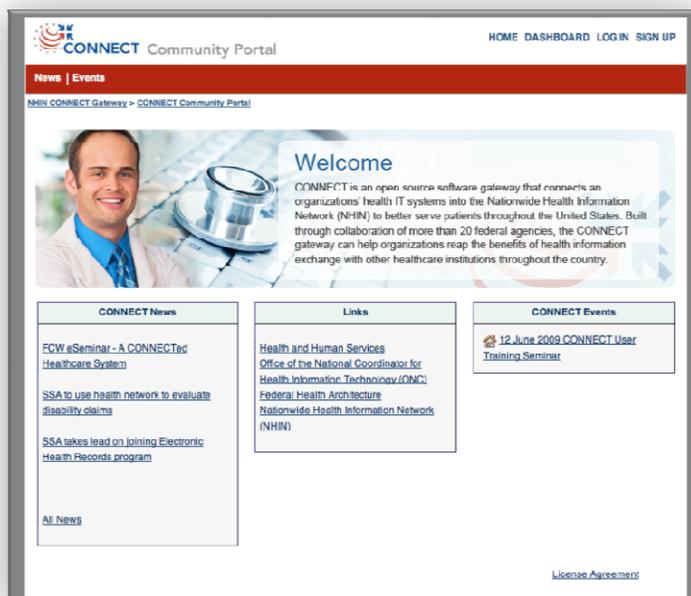
A website where interested parties can **download** the CONNECT solution at:  
**[www.connectopensource.org](http://www.connectopensource.org)**



# CONNECT Training Seminar



**June 29-30, 2009**  
Washington, DC  
JW Marriott



Free Registration at  
**[www.connectopensource.org](http://www.connectopensource.org)**



## Private sector and Government Must Care

Data flow in our health care systems is a must for the coming years

- **Government** – Ensure interoperability is in agency business and strategic plans.
- **Systems integrators:** Support the federal, state, private providers and public health agencies transformation towards interoperability. Leverage the CONNECT tools as a means to integrate existing health information systems.
- **Product vendors:** Create unique HIE solutions for the health marketplace by adding value on the CONNECT solution, or create your own products that provide HIE services.

For this transformation to succeed, all of us must participate



# “Electronic Health Records for All Americans”



***Patient is Waiting***

**Federal Health Architecture**

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