

# Future of Health IT in US

## Global Benefits and Lessons

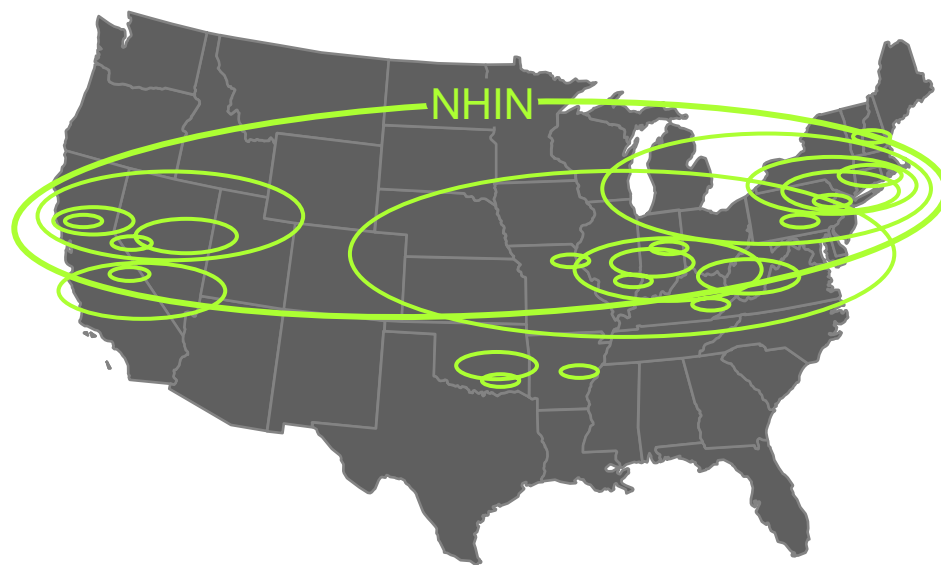


**Robert Wah, MD**

**Chief Medical Officer and VP Healthcare  
CSC Public Sector**

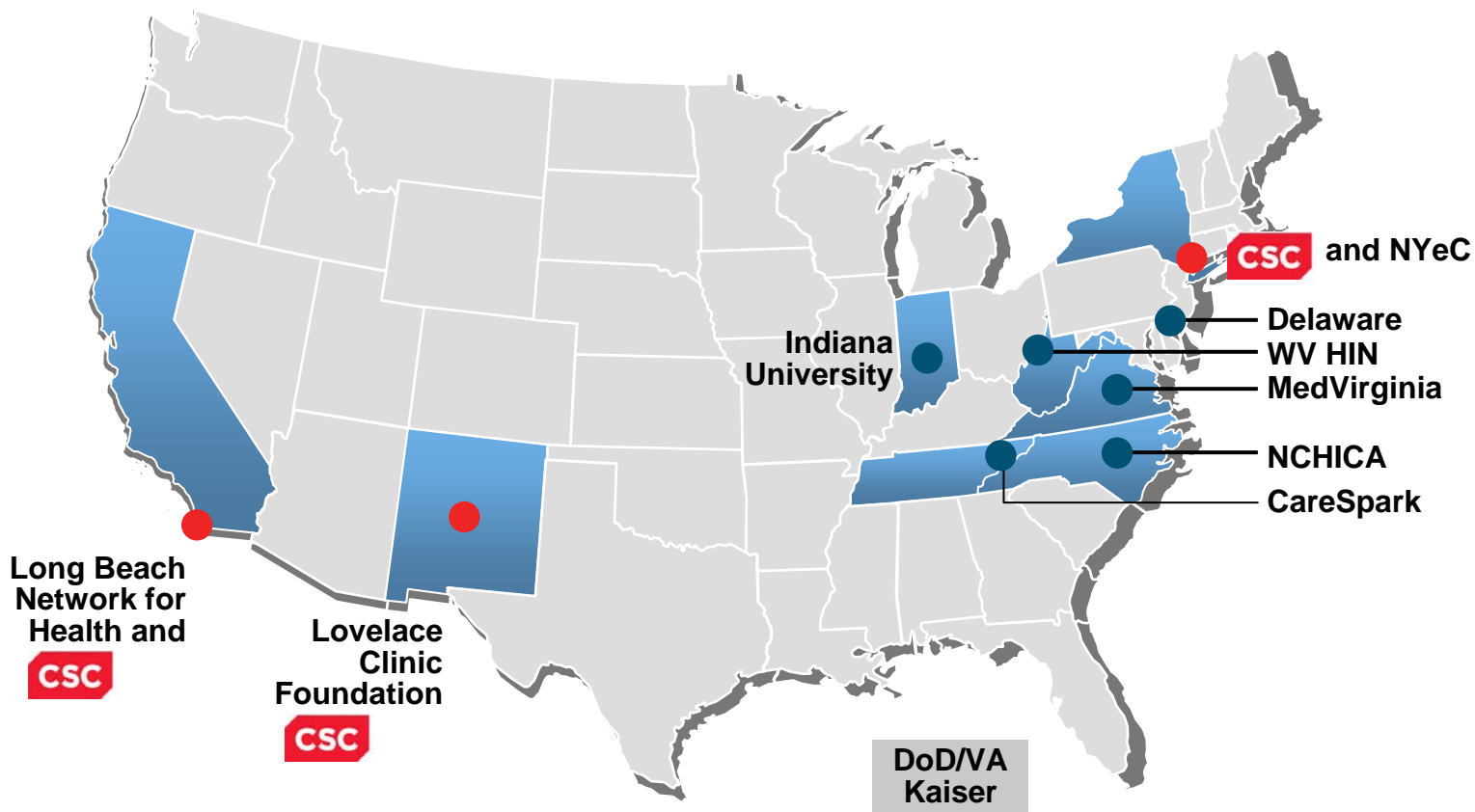
## United States — NHIN Prototype Architecture Project

- CSC was one of four U.S. NHIN prototype architecture awardees
- Our approach
  - Standards based, supporting the “network of networks” concept with flexibility to accommodate federated, hybrid, and centralized data constructs
  - Few technical service requirements
    - Record locator service
    - Inter-HIE connectivity services (IHCS)
    - NHIN interface (NI)
    - Avoid replacing existing “edge” systems
    - Format data into standard HL7 messages
    - Transmit data securely



## United States — NHIN Trial Implementations Project

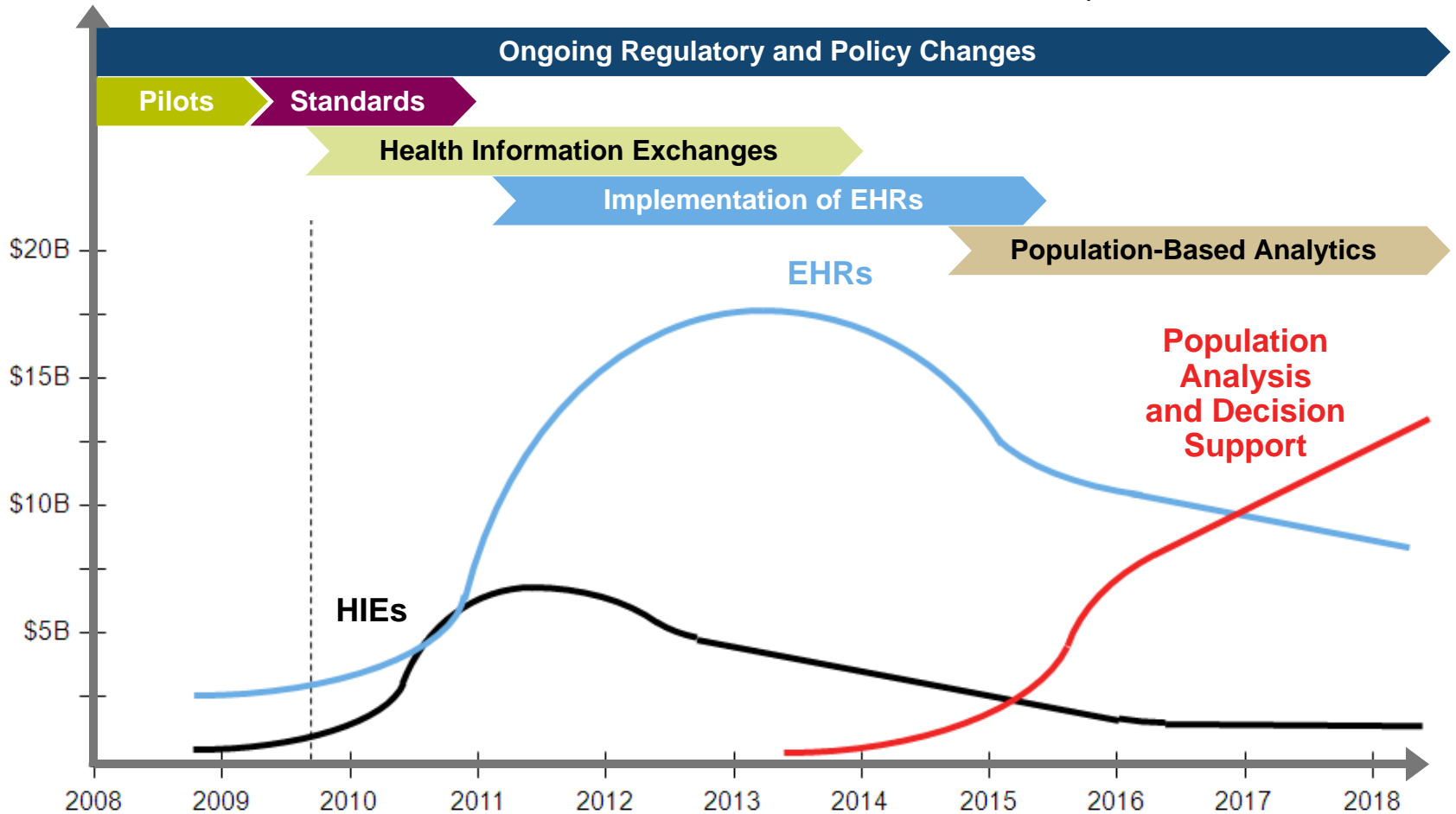
- CSC is working on three of the nine U.S. NHIN Trial Implementation Projects



# Three Waves of Health IT Investment

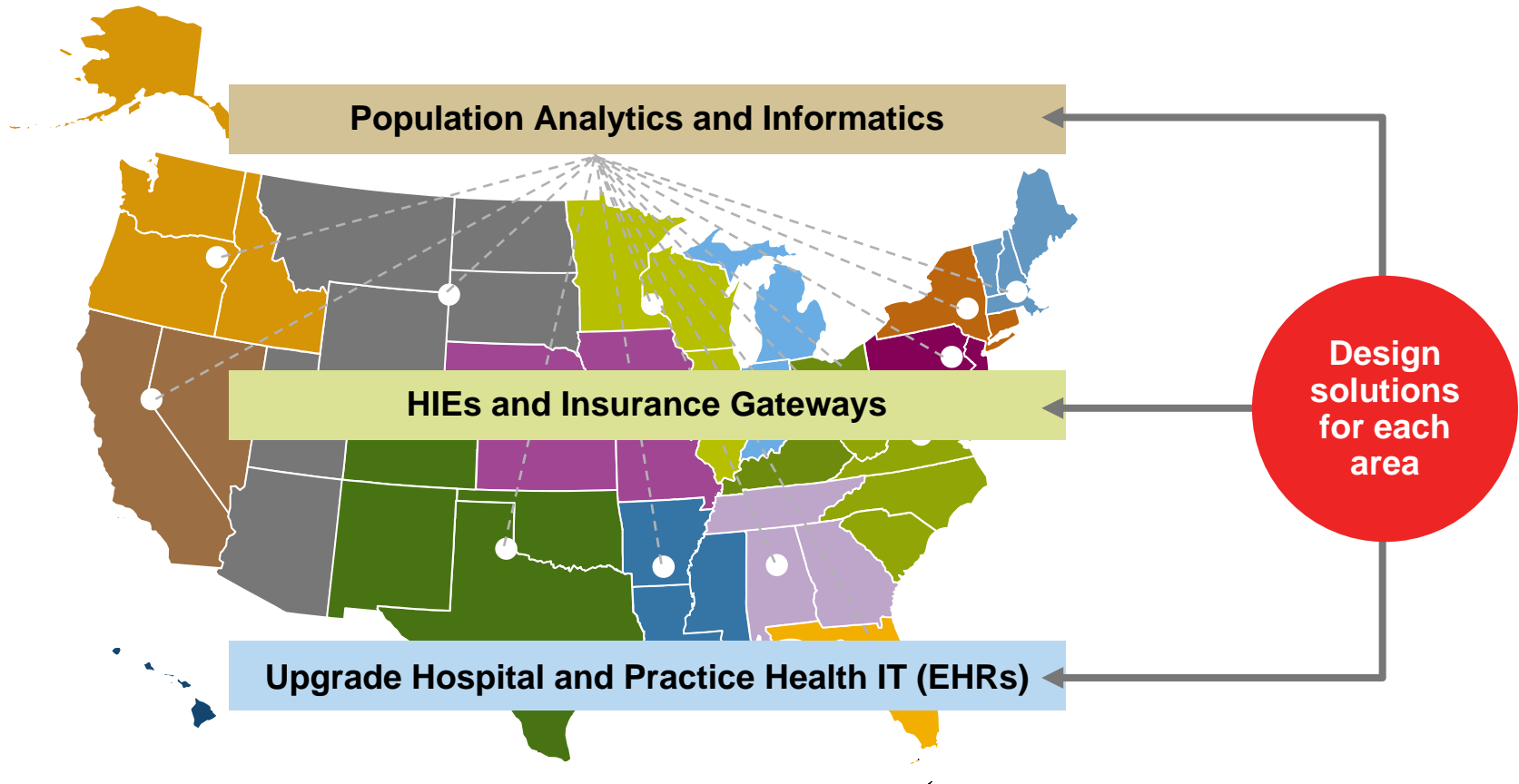
Health Information Exchanges (HIEs), Electronic Health Records (EHRs), and Tools for Health Analytics

Health IT Investment Over 10 Years: \$150B



# Evolution of Major Health IT-Based Initiatives

## Key Health IT Areas



HIE = Health Information Exchange  
EHR = Electronic Health Record

# Nationwide HIE Programs

## Technical Implications of Policy Decisions



National Programme for IT  
(NPfIT)



  
VELFÆRDSMINISTERIET



 Scandihealth



Ministerie van Volksgezondheid, Welzijn en Sport



## Netherlands - National Patient Records System... Landelijk SchakelPunt (National Switch Point)



Ministerie van Volksgezondheid, Welzijn en Sport



- SOA based
- Federated model, no long-term persistence at point of use
- Opt out system
- Authentication via Java card
- Authorization based on provider specialization and patient consent
- LSP maintains
  - RLS
  - Access log for auditing
- System maintenance challenge due to difficulty monitoring entire chain
- Pilot with early adopters in 2006, System operational in 2007
- System expansion in 2008, Facilitating legislation passed 2009

## Denmark - The Danish EHR Project

- Long history of national databases for Medications and Patient Summary
- Opt-in system, High level of trust of health providers and the government
- Role-based access using treatment relationships
- National care pathways-best practices
- Homecare Network
- CSC Scandihealth has had great success in Denmark with respect to market penetration with their existing suite of offerings:
  - PAS 70%
  - Opus Medication 15%
  - Clinical Suite 42%
  - Labka II 65%
  - VITAE 40%

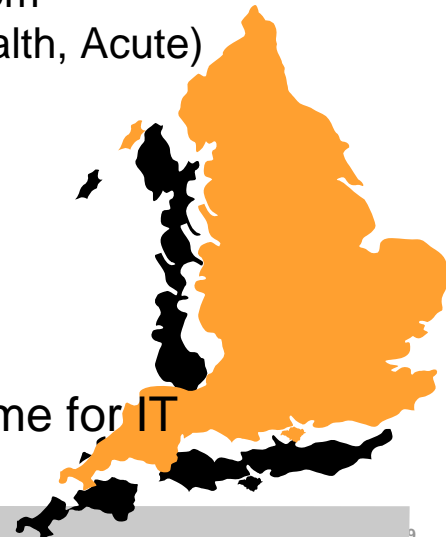


# United Kingdom - National Health Services NPfIT

- A set of National Services
- Spine: Messaging (TMS), Authentication, Demographics (PDS), Summary Care Record (PSIS), Secondary Uses Service (SUS)
  - Choose and Book (CAB)
  - New NHS Network (N3)
  - NHS wide email service - NHSmail (e.g. @nhs.net)
  - Healthspace Patient Portal
- Opt-out system
- A set of Local Services
  - Delivered by Local Service Providers (LSPs) CSC and British Telcom
  - Integrated Care Records Service (Primary, Community, Mental Health, Acute)
  - Picture Archive and Communications Service (PACS)
- Critical to success to involve all stakeholders
- Keep focus on improving care; not an IT project



National Programme for IT  
(NPfIT)



# More than 100,000 NHS Professionals Now Use the Over 1830 Systems Provided by CSC covering over 60% of UK

## Improving the quality of healthcare delivery in the UK

- Electronic patient records for joined up healthcare
- Coordinated, efficient scheduling of patient services
- Filmless, online diagnostic scans, images, and studies
- Emergency access to critical patient medical data
- Supporting government health objectives of patient choice, patient-centric care, safety and clinical efficiency

## NHS Trusts



- First 3 Lorenzo sites live, positive early feedback
- 45 Patient Administration Systems (PAS) serving Acute Trusts
- 32 theatre systems
- 6 maternity systems

## PACS/RIS



- 40 Picture Archiving and Communications (PACS) systems deployed
- 38 Radiology Information Systems (RIS) deployed
- Storing over 310 million images and nearly 6 million studies

## General Practitioner Surgery



- 894 general practitioner (GP) system deployments covering more than 11 million patient records

## Children's Services



- 106 child health system deployments

## Ambulance Services



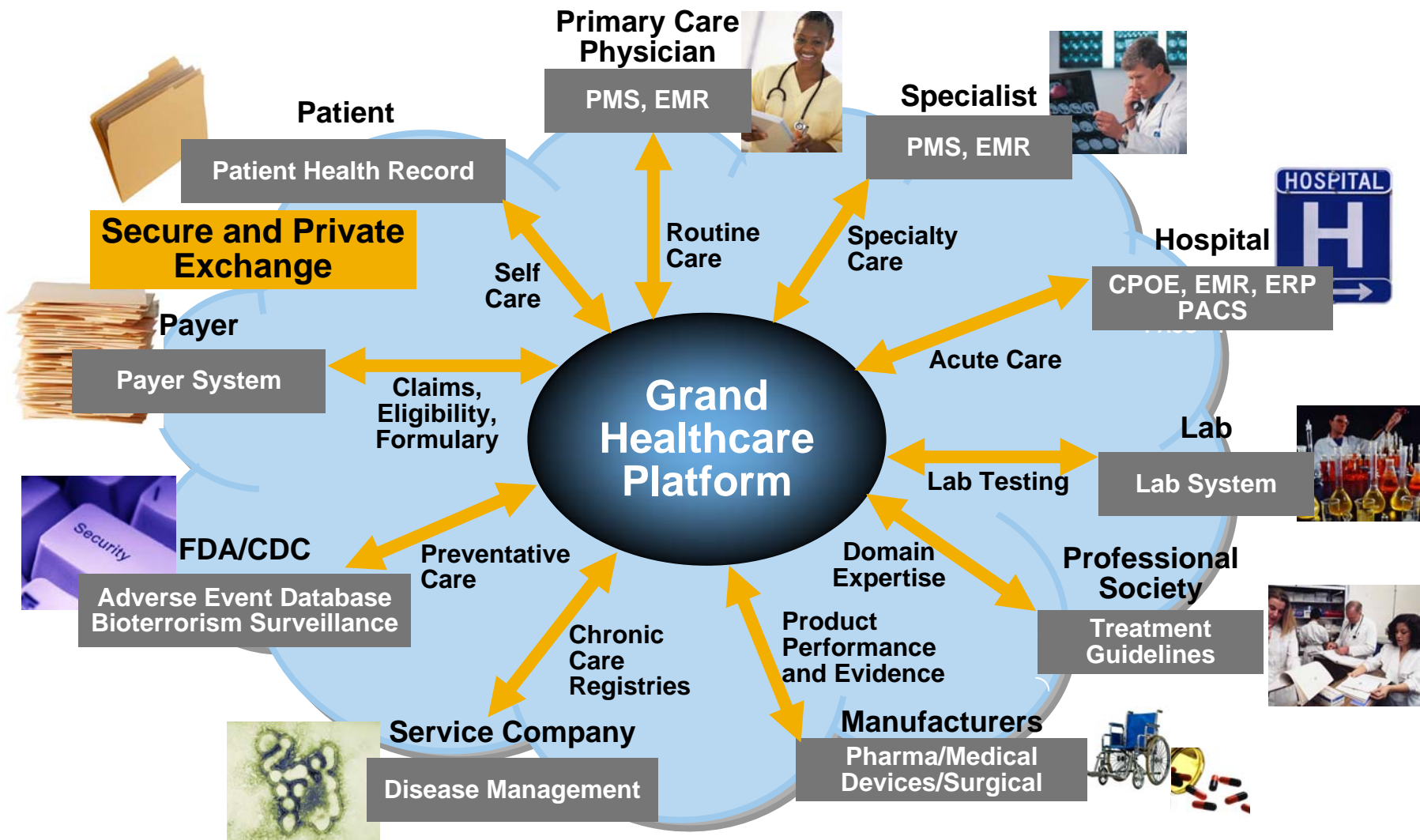
- 4 ambulance emergency care system deployments
- In more than 250 ambulances
- An award-winning solution

## Community, Prisons, and Mental Health Facilities



- 180 community systems
- 50 prison systems
- 12 mental health systems

# Future: An Interconnected, Private, Secure Health Information Exchange



CSC

# CSC-Transforming Healthcare with Better Information for Better Decisions



[http://www.youtube.com/watch?v=ndZod\\_yIOYc](http://www.youtube.com/watch?v=ndZod_yIOYc)  
Or CSC Healthcare IT on YouTube.com