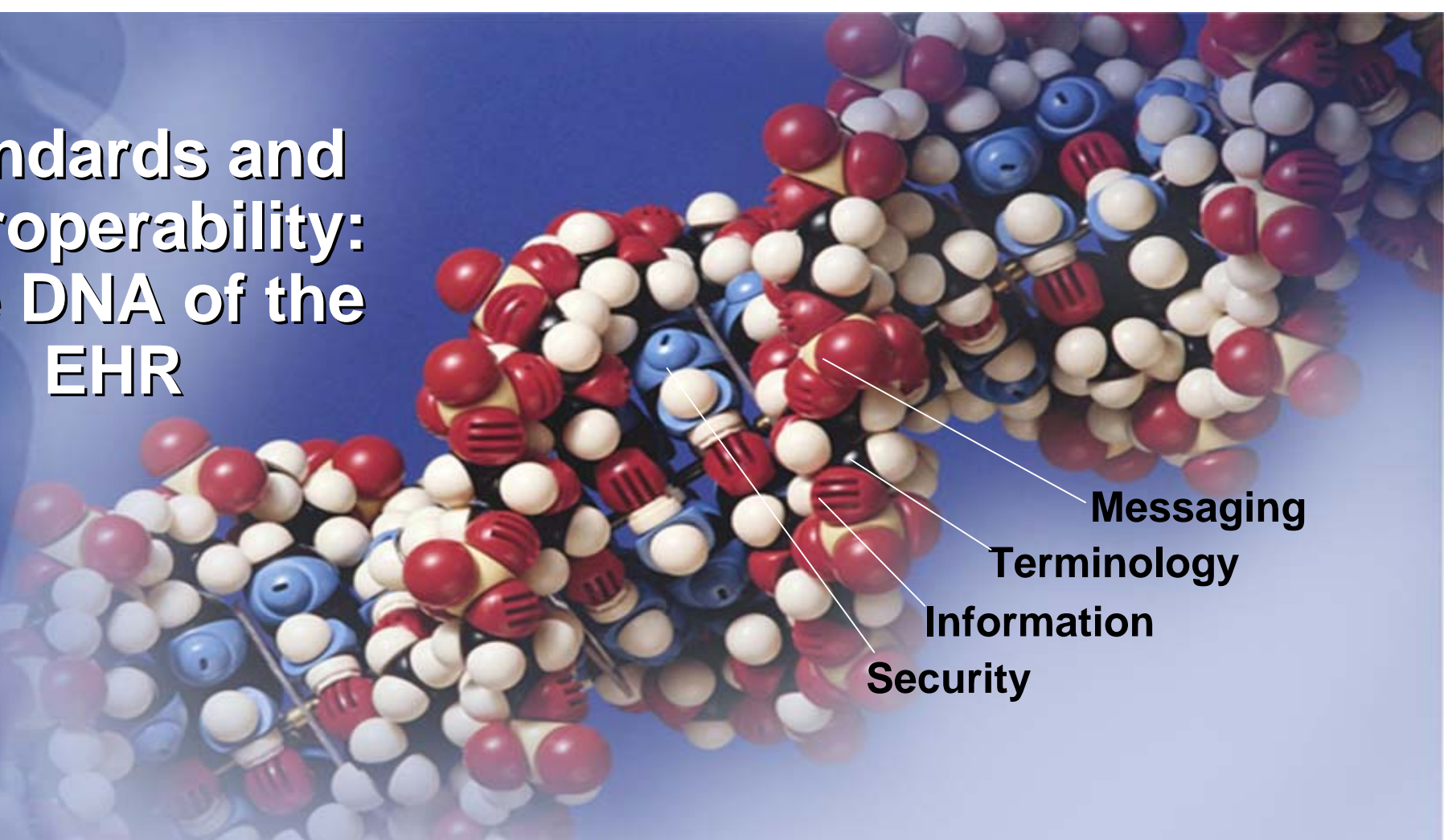


# Standards and Interoperability: The DNA of the EHR



Messaging  
Terminology  
Information  
Security

**Electronic Health Record Task Force**  
**Monday, March 6, 2006**

Joyce Sensmeier MS, RN, BC, CPHIMS, FHIMSS  
- Vice President, Informatics, HIMSS

HIMSS

# Electronic Health Record

- Electronic Health Records (EHRs) are needed that maximize the amount of information available to healthcare providers
  - While not creating new work flow or cost issues

President's Information Technology Advisory  
Committee Draft Report, April 13, 2004

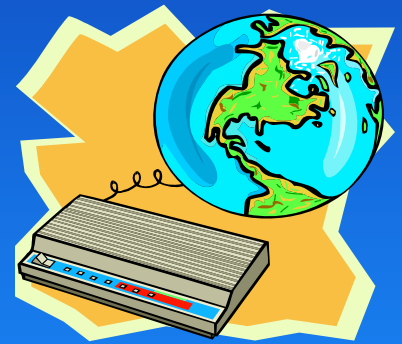


# And the beat goes on.....

“ .... most Americans will have electronic health records within the next 10 years”

- President George W. Bush April 26, 2004

In a public address to the American Association of Community Colleges, the President outlined a plan whose goal is to assure better delivery of healthcare in the United States.



# The EHR ... defined

- Is a secure, real-time, point-of-care, patient-centric information resource for clinicians
- Aids clinicians' decision making by
  - Providing access & decision support
- Automates and streamlines the clinician's workflow
  - Closes the loop in communication
- Supports the collection of data for uses other than direct clinical care
  - Billing, quality management, public health surveillance and reporting



# A Framework for Interoperability



- Integrating the Healthcare Enterprise:
  - Improves patient care by harmonizing healthcare information exchange.
  - Provides a common standards-based framework for seamlessly passing health information among care providers, enabling local, regional and national health information networks.
  - Promotes the coordinated use of established standards—HL7, ASTM, DICOM, W3C, IEEE, etc.—to address specific clinical needs
  - Sponsored by Professional Societies – HIMSS, RSNA, ACC, ACCE, Canada Health Infoway and others world wide

# Standards are critical but alone are not enough

- Standards offer generality, ambiguity and alternatives
- Standard Implementation Guides are focused on a single standard
- Increasing complexity
- IHE Technical Framework is in the public domain

*IHE provides a standard process for implementing multiple standards!*

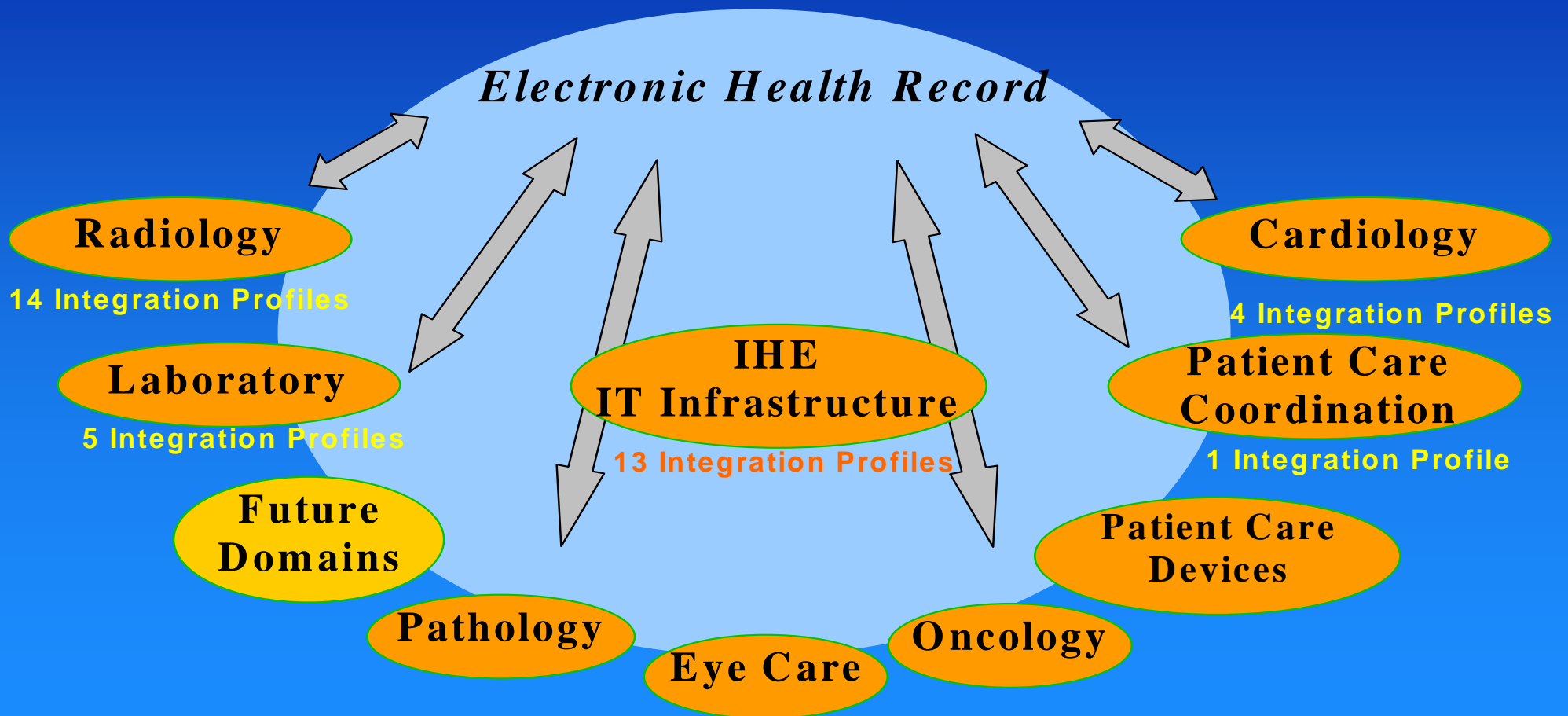
## Connecting standards to care

- Care providers work with vendors to coordinate the implementation of standards to meet their needs
  - Care providers identify the key interoperability problems they face
  - Drive industry to develop and make available standards-based solutions
  - Implementers follow common guidelines in purchasing and integrating systems that deliver the solutions

*What is the effective way to establish those “standards” for how to implement standards ?*

# ***IHE 2006 – Nine Active Domains***

Over 100 vendors involved world-wide, 5 Technical Frameworks  
37 Integration Profiles, Testing at Connectathons  
Demonstrations at major conferences world-wide





# What IHE is NOT?

- Not a standard, *although it leverages them*
- A vendor initiative, *although they participate*
- Not a certifying authority, *although IHE provides testing that should be leveraged by certification*
- Not simply a demonstration project
  - Demos are only one means to the end: *Adoption*
  - Backed up by documentation, tools, testing, and publication of Technical Frameworks and Product Integration Statements.

# Four Steps of the IHE Process

- *Identify Interoperability Problems*
  - Clinicians and IT experts work to identify common interoperability problems.
- *Specify Integration Profiles*
  - Healthcare IT professionals identify relevant standards and define how to apply them to address the problems,
- *Test Systems at the Connectathon*
  - Vendors implement IHE integration profiles in their products and test their systems for interoperability at the annual IHE Connectathon
- *Publish Integration Statements for use in RFPs.*
  - Vendors publish IHE integration statements to document the IHE integration profiles their products support.

# IHE Strategy for RHIO Infrastructure

- Leverages existing standards to allow deployment in 2006 but plan for future

*Pragmatic for 2006 & Ease of Evolution*

- Enables architectural freedom (centralized vs. decentralized, patient vs. provider centric)

*Flexibility of RHIO configuration*

- Supports breakthrough use cases: variety of care settings, care coordination, public health, PHR, EHR

*Interoperability for broad constituencies*

***Offers consistent, standards-based and functional record sharing for EHRs & other ancillary systems***

# Sharing and Accessing Electronic Health Records

- IHE offers interoperability for local, regional, specific, or national health information exchange
- Goal is to enable exchange between provider's EHR systems and ancillary IT systems (Lab, Pharmacy, Payers) and personal health record systems
- Objective is to empower the consumer in having “shared EHR information” between all of its potential healthcare providers (if authorized) and self
- IHE goal is not:
  - To create a “consolidated health record”, the truth about a patient health
  - To create an other health record, next to the one(s) managed by the provider and the consumer

# IHE Connectathon, January 2006



**300+ participants, 120+ systems**  
**60+ vendors**  
**Four Domains:**  
**Cardiology, Radiology, IT Infrastructure,**  
**Patient Care Coordination**

## INTEROPERABILITY SHOWCASE AT HIMSS06

**IHE** Changing the Way Healthcare **CONNECTS**



- **Visit the Interoperability Showcase to:**
  - Experience an environment where health information is seamlessly passed among care providers – enabling enterprise, community, regional and national health information exchange.
  - View a Regional Health Information Infrastructure Organization (RHIO) in operation.
  - Simulate the power of connectivity by creating and accessing your own personal health record across multiple healthcare settings within a RHIO structure.
  - Meet over 45 providers of healthcare IT products who will show you how their technology incorporates the latest interoperability standards for optimal information flow across the patient care continuum.
  - Witness clinical scenarios that demonstrate how these technologies collectively implement a standards-based Integrating the Healthcare Enterprise (IHE) interoperability framework.

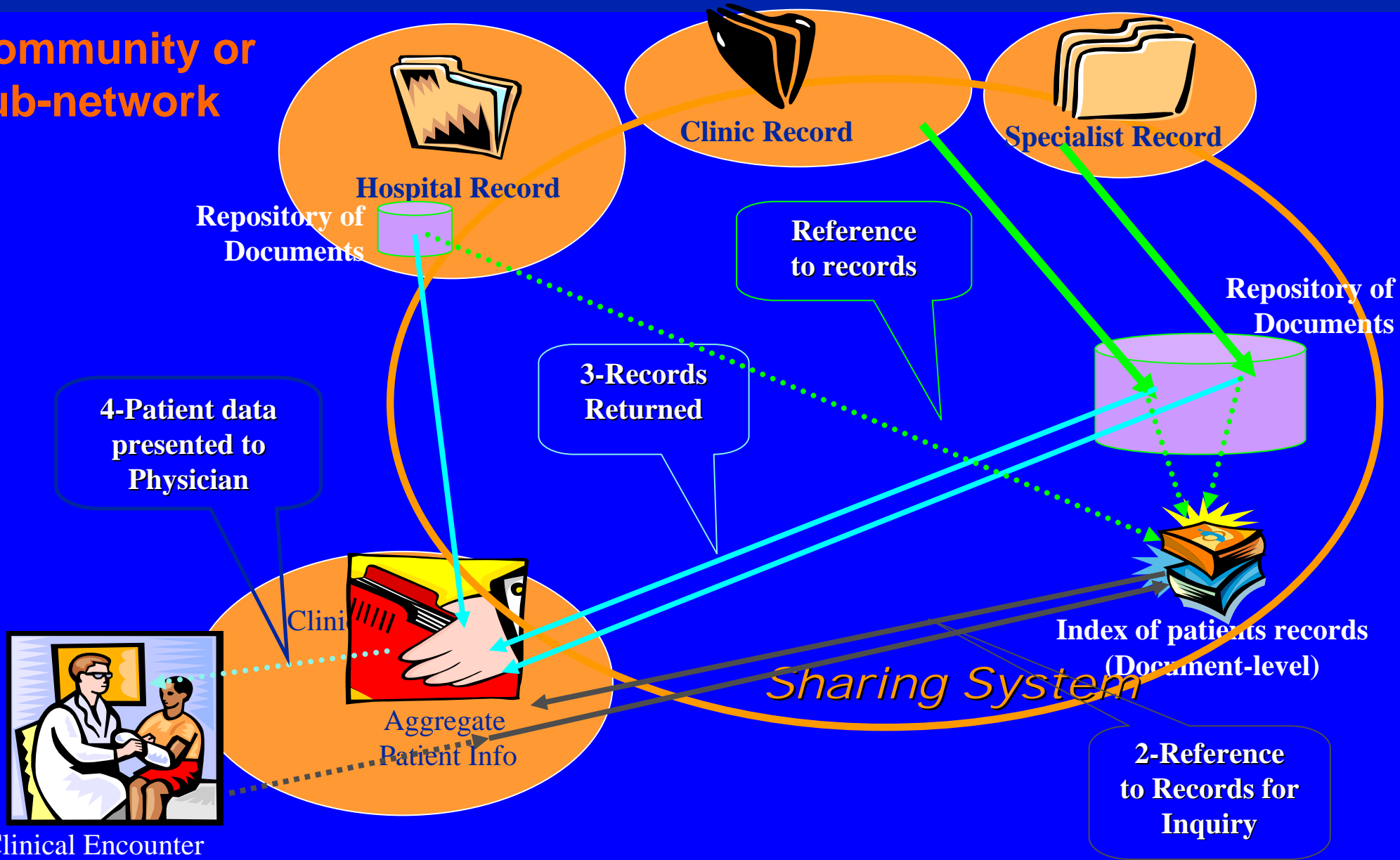
Booth #7319 at the Sails Pavilion

## ■ Results

- Over 3000 attendees visited the HIMSS RHIO Showcase
- 37 vendors demonstrated 48 systems
- 700 attendees created and tracked their own health record
- 63 educational sessions were presented
- 5 International delegations
- 3 VIP tours
- 16 clinical scenarios were demonstrated

# Introduced at HIMSS in 2005 : IHE-XDS

Community or sub-network





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# Discussion

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