



Integrating the Healthcare Enterprise

Cross-Enterprise Document Sharing (XDS)

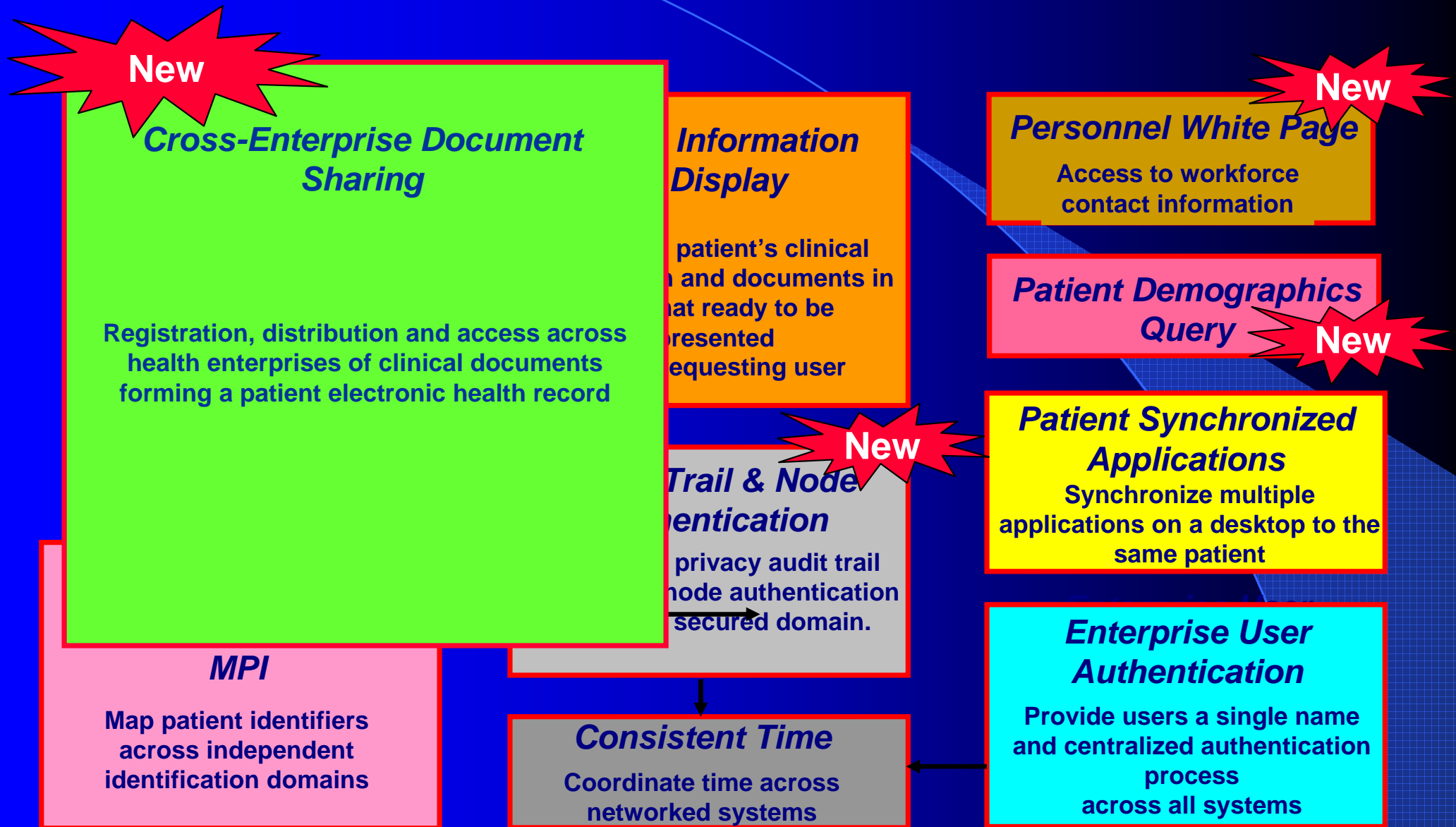
Dr. Thomas Kauer

Lehrstuhl für Medizinische Informatik, Universität Erlangen-Nürnberg

IHE-Deutschland, Caretaker IT Infrastructure



Auf einen Blick...



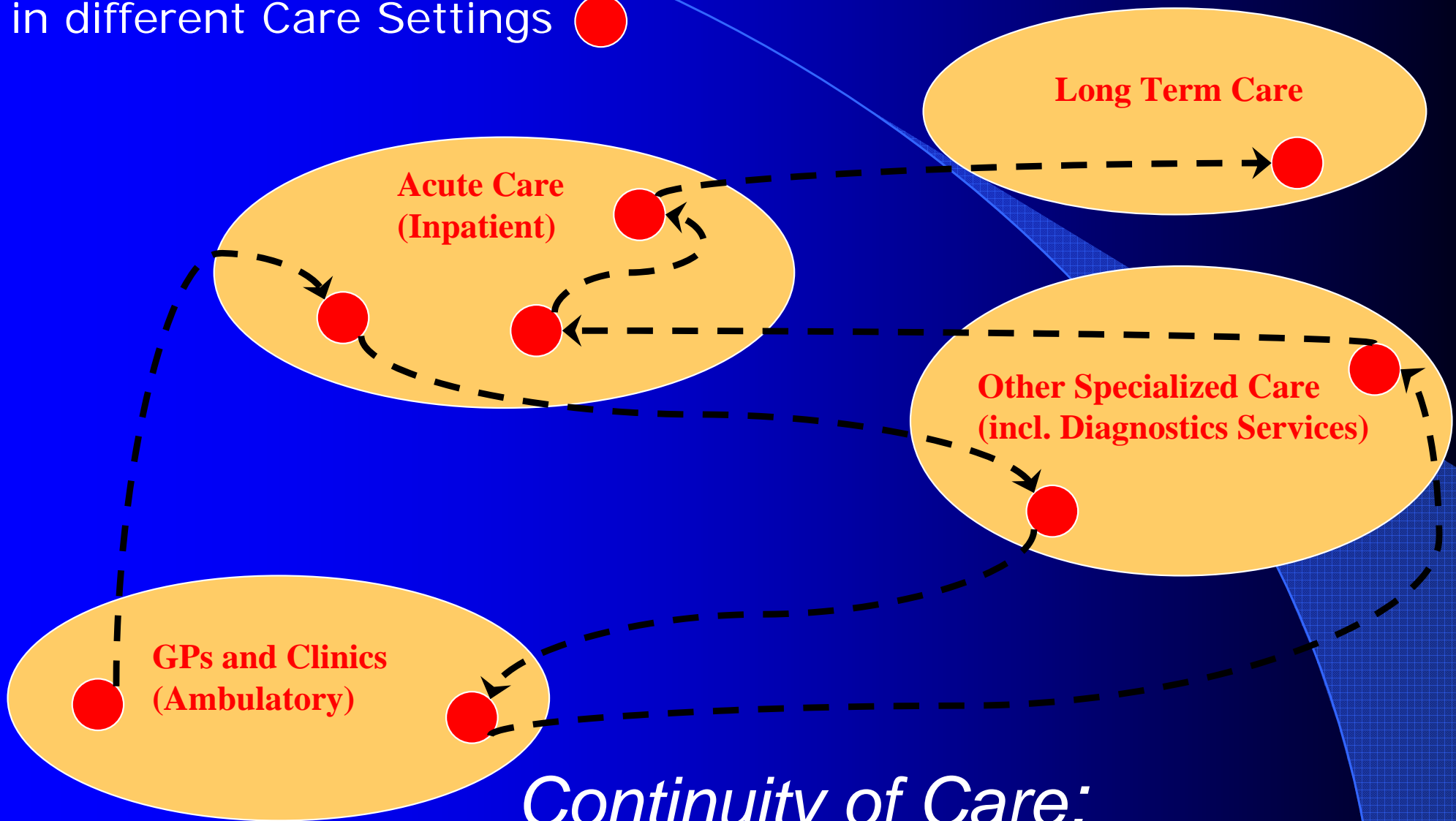
Introduction:

EHR Cross-Enterprise Document Sharing

First step towards the
longitudinal dimension of the EHR

Focus: Support document sharing between
EHRs in different care settings and
organizations

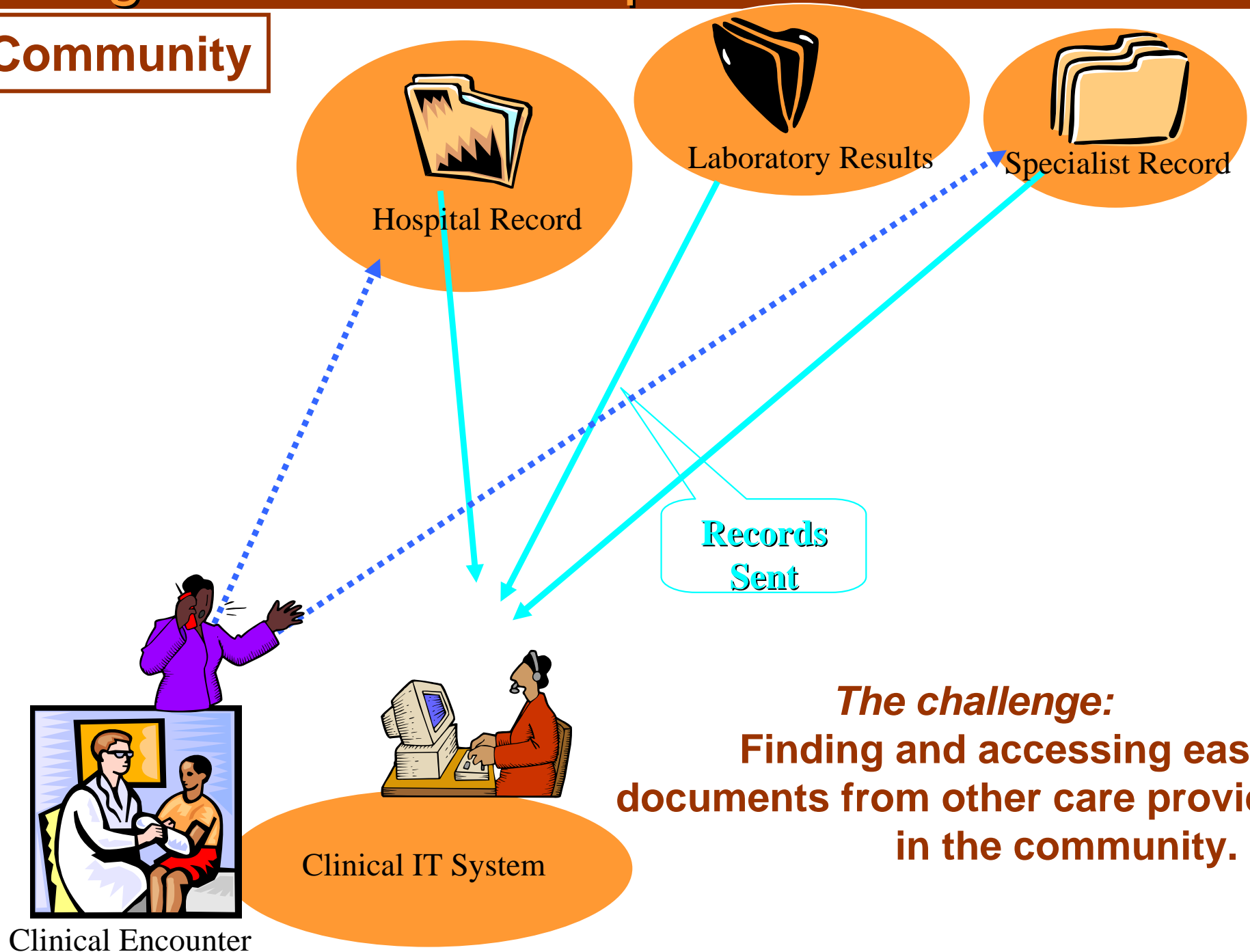
Typically, a patient goes through
a sequence of encounters
in different Care Settings ●



Continuity of Care:
Patient Longitudinal Record

Finding the records of a patient-manual & tedious

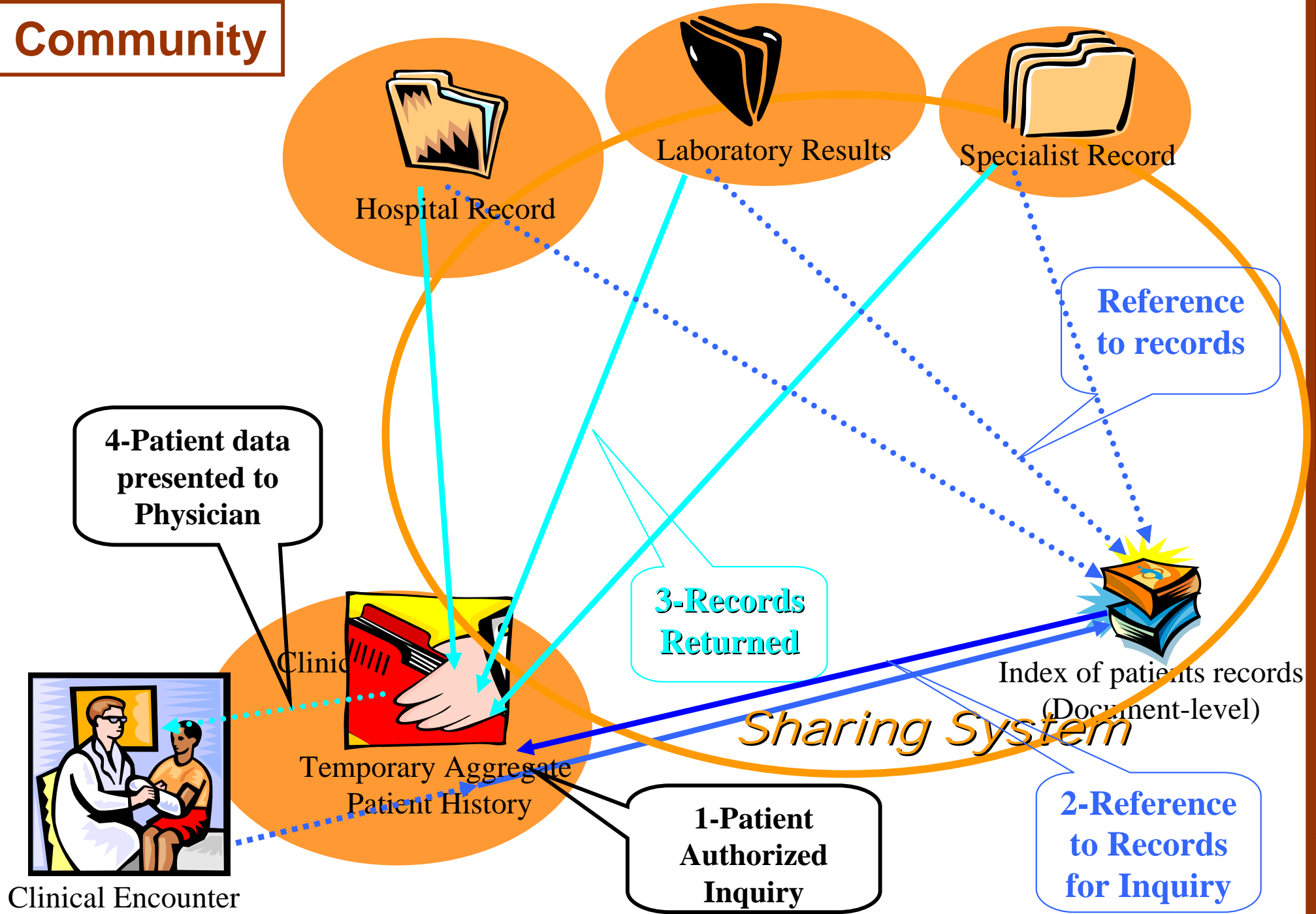
Community



The challenge:
Finding and accessing easily
documents from other care providers
in the community.

Sharing records that have been published

Community



Building and accessing Documents

EHR-LR:
Longitudinal Record
as used
across-encounters

Document
Repository

PCPs and Clinics
(Ambulatory)

Acute Care
(Inpatient)

Long Term Care

Other Specialized Care
or Diagnostics Services

Documents Registry

EHR-CR: Care Record systems
supporting **care delivery**

Submission of Document References

Retrieve of selected Documents

Healthcare Content Standards

- HL7 Version 2.3.1
 - Messages for Patient Identity Management
- HL7 Version 2.5
 - Datatypes for XDS Registry Attribute values
- HL7 CDA Release 1
 - XDS Document concept definition
 - XDS Document Content
 - Source of XDS Document Entry Attributes
- DICOM, ASTM CCR, HL7 CDA Release 2, CEN EHRcom
 - XDS Document Content
 - Sources of XDS Document Entry Attributes

Internet Standards

● HTTP

- Protocol for Retrieve Document
- Online SOAP bindings

● SMTP

- Offline ebMS bindings

● IETF

- Language Identifiers

● MIME

- Document Type codes

● PDF, JPEG, HTML

- XDS Document Content

● UTF-8

- Encoding of Registry Attributes

Electronic Business Standards

● OASIS/ebXML

- Registry Information Model v2.0
 - Basis of XDS Registry Information Model
- Registry Services Specifications v2.0
 - Registry Services
- Messaging Services Specifications v2.0
 - Offline protocols

● ISO/IEC 9075 Database Language SQL

- Registry Query Language

● SOAP with Attachments

- Protocol for communication with XDS Registries and Repositories

● SHA-1 [FIPS 180-1]

- Document Hashes

Cross-Enterprise Document Sharing (IHE-XDS)

Vielen Dank für Ihre
Aufmerksamkeit!