

CONNECTING FOR HEALTH COMMON FRAMEWORK

Resources for Implementing Private and
Secure Health Information Exchange

Technical Overview of the Common Framework

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Closely Related Regenstrief Projects

1. Shared Pathology Information Network (SPIN) NIH-funded project aimed at querying pathology reports and related information across multiple care delivery organizations across the nation

<http://www.cancerdiagnosis.nci.nih.gov/spin/>

2. Indiana Network for Patient Care (INPC) - making clinical data available across multiple care delivery organizations within Indiana. Funded partly by National Library of Medicine (NLM)

<http://www.inpc.org/>

Connecting for Health's Guiding Technical Principles

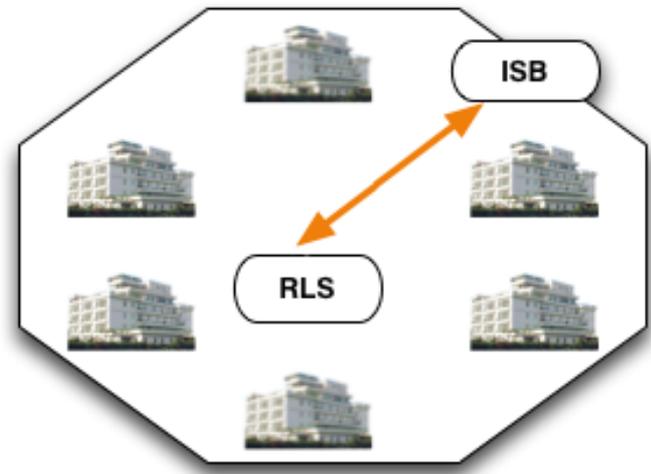
1. Make it “Thin”
2. Avoid “Rip and Replace”
3. Separate Applications from the Network
4. Local Control of Protected Health Information
5. Federation
6. Flexibility
7. Privacy and Security
8. Accuracy

The Connecting for Health Model for Health Information Sharing

- Sharing occurs via a network of networks—not a completely new architecture
- The nationwide “network” is made up of smaller communities or SNOs (Sub Network Organizations)
- The model works best with an RLS (Record Locator Service) to locate patient records within each SNO

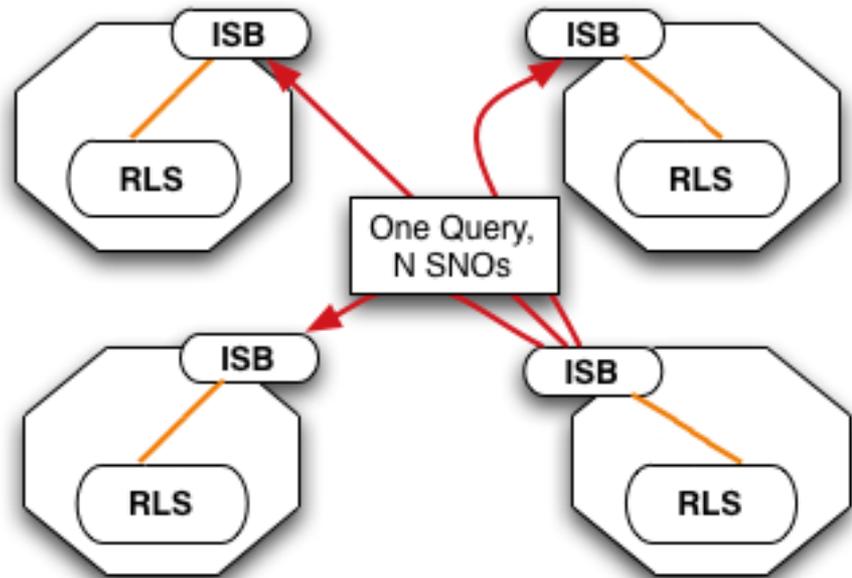
What is a SNO?

- A group of entities (regional or non-regional) that agree to share information with each other
- Implements the Common Framework
- Provides an Inter-SNO Bridge for all external traffic
- Usually has an RLS



How Multiple SNOs Connect

- A SNO queries other SNOs when it knows:
 - An institution where the patient received care
 - A region where the patient received care
- A message to a pre-determined list of SNOs
- Only need location of ISBs



What is a Record Locator Service (RLS)?

- The only new piece of hardware associated with the Connecting for Health model
- Like a phone book listing locations of information
- Contains no clinical information
- Only authorized participants can access it
- Obtaining the actual clinical record is a separate transaction not involving RLS

From Theory to Prototype

- We built a prototype to test the model and develop the Common Framework
- Three geographic regions: IN; MA; Mendocino County, CA
 - Different technology, systems
 - Different organizational histories and structures

Questions for the Technical Prototype to Answer

“Where are records for Patient X,
and how can I get them?”

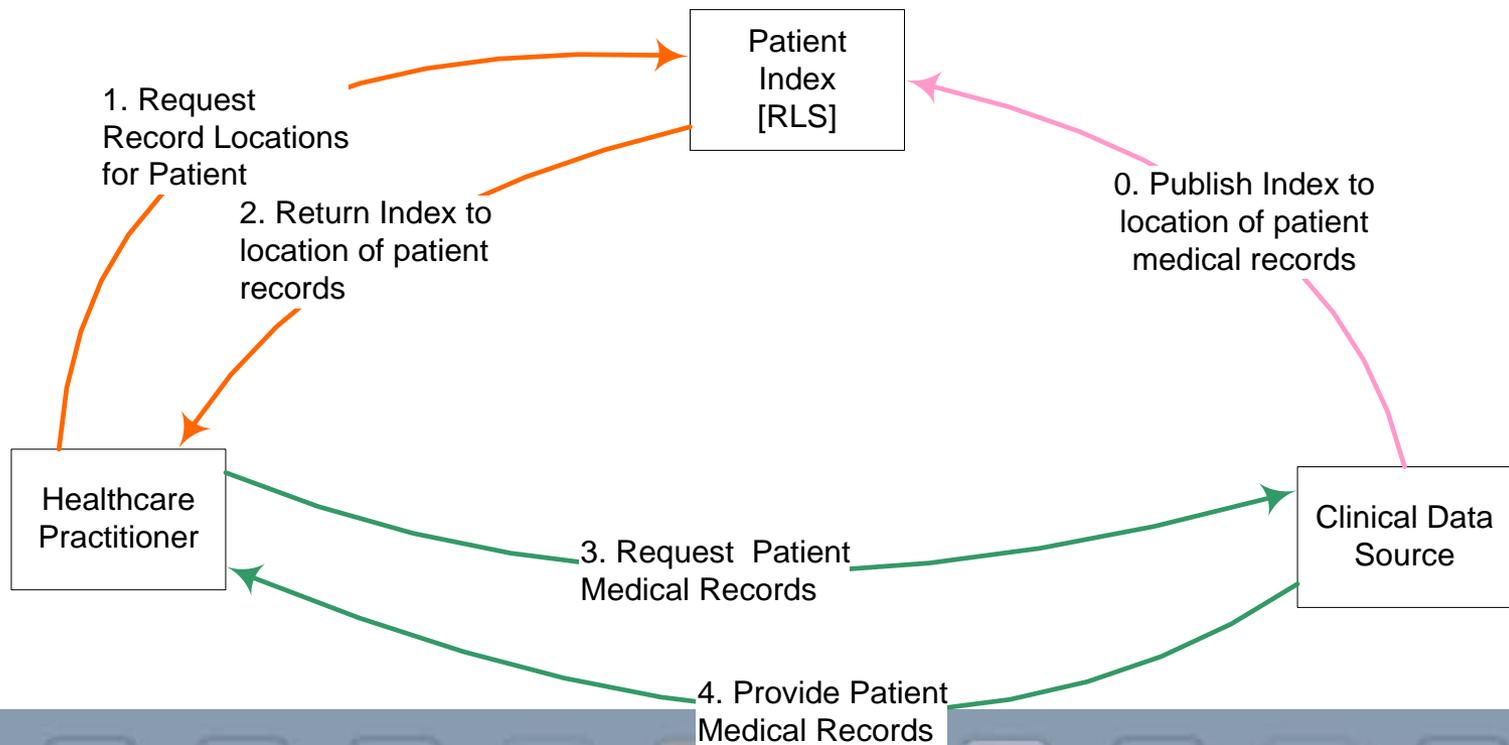
How can we standardize among different
participants, so queries will be
interoperable?

Breaking the Problem Down

1. Location of Patient Data within the SNO
2. Disambiguation of Patient Identity
3. Transport of Patient Data
4. Aggregation of Patient Data

Standard Interfaces Required

- Publish local record locations to RLS (Pink)
- Query the RLS to find one person's identity (Orange)
- Retrieve clinical data directly from sources (Green)
- Working Test Among Three Networks (MA, IN, CA)



The Prototype Embodies the Principles

1. Make it “Thin”
2. Avoid “Rip and Replace”
3. Separate Applications from the Network
4. Decentralization
5. Federation
6. Flexibility
7. Privacy and Security
8. Accuracy

From Prototype to Common Framework Resources

- Based on the experience of building the prototype in three sites, we were able to flesh out the details of the model
- Teams of experts in all three regions and a Connecting for Health Technical Subcommittee worked to translate the prototype lessons learned into resources others could use

What Common Framework technical resources are available?

Types of Technical Resources

Background Information

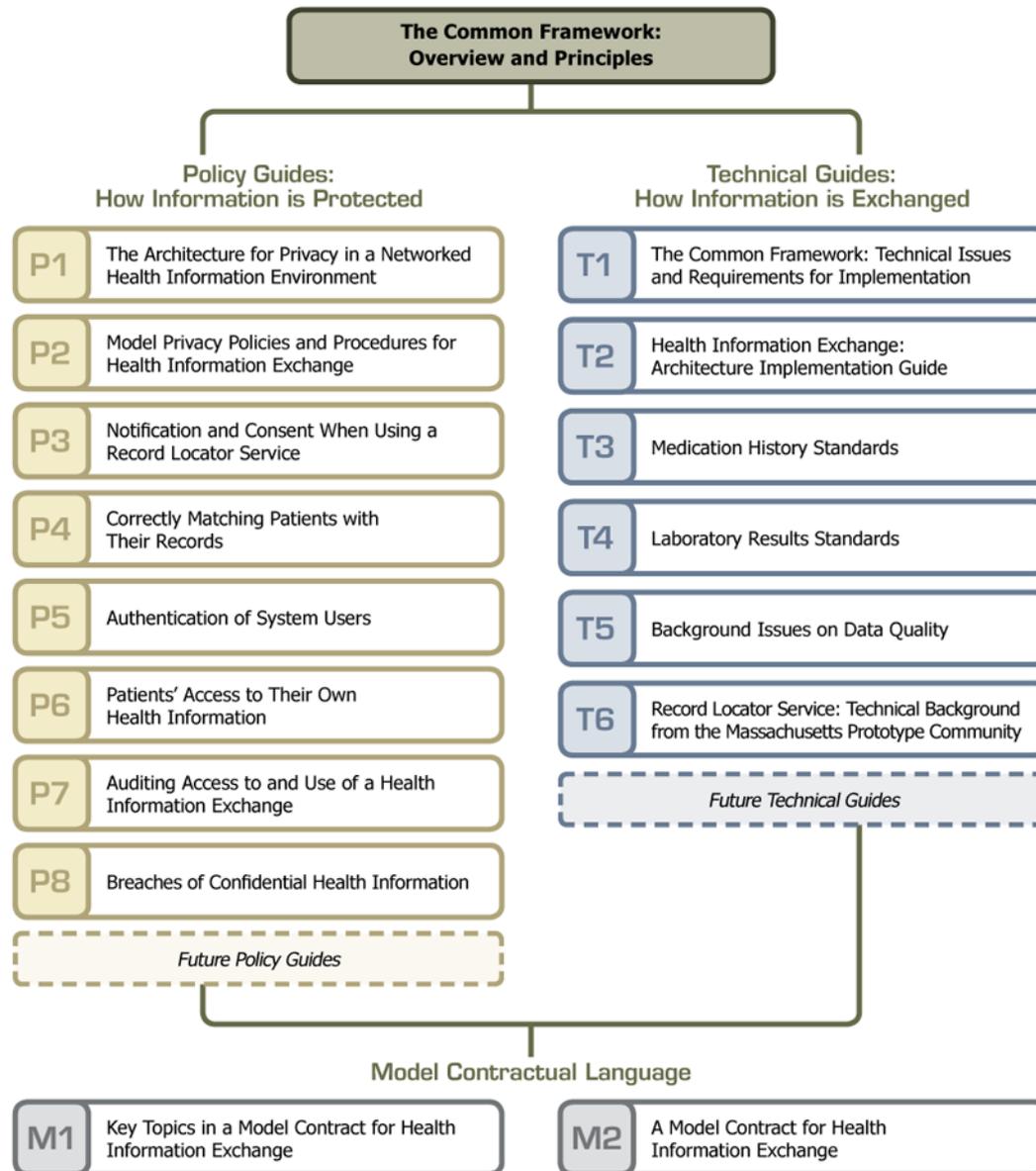
- On the Technical Architecture and Design Overall (T1)
- On Data Quality (T5)
- On the RLS (from the MA prototype site) (T6)

Implementation Guides

- NHIN Message Implementation Guide including Record Locator Service/Inter-SNO Bridge (T2)
- Standards Guides
 - Medication History: Adapted NCPDP SCRIPT (T3)
 - Laboratory Results: ELINCS 2.0, with modifications (T4)

Example Code/Interfaces

- Test Interfaces: CA, IN, MA www.connectingforhealth.org (under T2)
- Code base: CA, IN, MA
www.connectingforhealth.org (under T2)



Where to Find More

- All materials available without charge at www.connectingforhealth.org, including:
- Policy and technical guides, model contractual language
- Registration for AHRQ/NORC Common Framework discussion forum
- Software code from regional prototype sites: Regenstrief, MAShare, OpenHRE
- Email to info@markle.org