



The Office of the National Coordinator for
Health Information Technology



Connecting Health and Care for the Nation: A Shared Nationwide Interoperability Roadmap and What It Means for IIS

American Immunization Registry Association (AIRA)

2015 National Meeting

New Orleans, LA

April 22, 2015



The ability of a system to **exchange** electronic health information with and **use** electronic health information from other systems without special effort on the part of the user

Why does interoperability matter?



- Individuals and providers need access to the right information at the right time in a manner they can use to make decisions that impact their health regardless of geographic or organizational boundaries
- Typical Medicare beneficiary receives care from 2 primary care providers and 5 specialists each year
- Only 10-20% of health outcomes are attributable to health care
- Information needs to flow inside and outside the care delivery system to support health

DRAFT Shared Nationwide Interoperability Roadmap

The Vision



2015 - 2017

Nationwide ability to send, receive, find, use a common clinical data set

2018 - 2020

Expand interoperable data, users, sophistication, scale

2021 - 2024

Broad-scale learning health system

Core technical standards and functions

Certification to support adoption and optimization of health IT products & services

Privacy and security protections for health information

Supportive business, clinical, cultural, and regulatory environments

Rules of engagement and governance

Principle-based Interoperability



BUILD UPON EXISTING
HEALTH IT INFRASTRUCTURE



MAINTAIN
MODULARITY



ONE SIZE DOES
NOT FIT ALL



CONSIDER THE CURRENT
ENVIRONMENT AND SUPPORT
MULTIPLE LEVELS OF ADVANCEMENT



EMPOWER
INDIVIDUALS



SIMPLIFY



PROTECT PRIVACY AND SECURITY IN
ALL ASPECTS OF INTEROPERABILITY



LEVERAGE
THE MARKET



FOCUS
ON VALUE



SCALABILITY AND
UNIVERSAL ACCESS

Critical Near Term Actions by Building Block



Core technical standards and functions

- Direct the field on best available standards and implementation guidance
- Refine standards for common clinical data set, implementation of CCDAs, data provenance, APIs

Certification to support adoption and optimization of health IT products and services

- Improve rigor of ONC's certification program
- Work with industry on suite of ongoing testing tools

Privacy and security protections for health information

- Educate stakeholders on current federal laws
- Work with states and organizations to align laws that provide additional protections, without undermining privacy

Supportive business, clinical, cultural, and regulatory environments

- Evolve and align policy and funding levers to focus on outcomes and incentivize adoption of certified health IT and electronic information sharing according to national standards

Rules of engagement and governance

- Establish governance framework with principles, rules of the roadmap, and process for recognizing orgs that align
- Call to action for industry to create single coordinated process

Learning Health System Requirements



- A. Shared governance of policy and standards that enable interoperability
- B. A supportive business and regulatory environment that encourages interoperability
- C. Individuals are empowered to be active managers of their health
- D. Care providers partner with individuals to deliver high value care
- E. Ubiquitous, secure network infrastructure
- F. Verifiable identity and authentication of all participants
- G. Consistent representation of permission to collect, share and use identifiable health information
- H. Consistent representation of authorization to access health information
- I. Stakeholder assurance that health IT is interoperable
- J. Consistent Data Formats and Semantics
- K. Standard, secure services
- L. Consistent, secure transport technique(s)
- M. Accurate identity matching
- N. Reliable resource location

- First step towards specific “best available” standards based on
 - Timeliness & Availability
 - Stability & Adoptability
- Meant to promote dialogue → annual update
- Standards need to be supplemented by implementation specifications
- Four areas:
 - Vocabulary/Code Set/Terminology
 - Content/Structure
 - Transport
 - Services
- Security standards explicitly excluded

- Vocabulary:
 - Ethnicity & Race (OMB), sex (HL7 v3), historical immunizations (CVX), administered immunizations (NDC)
- Content:
 - CDS (HL7 v3 DSS), data element query (FHIR), IIS reporting (HL7 v2.5.1)
- Transport:
 - Push (SMTP, S/MIME), SOA (HTTP/REST, SOAP)
- Services:
 - Push (Direct, IHE-XDR), Data element query (FHIR)

- **Governance:** Appreciation of intent to minimize disruption of current interoperability activity
- **Business Environment:** Recognition that AIRA is attempting to coordinate IIS community's approach to interoperability
- **Individual Empowerment:** Need to ensure standards develop for authentication, authorization, and protection of data integrity as patients suggest corrections (which should be made as close to their source as possible).
- **Basic/Granular Choice:** Need to weigh capabilities against potential cost; Need to consider State laws as Federal direction is plotted.
- **Certification and Testing:** Recognition of AIRA's ongoing work in this area, and the need for insights from testing to impact operations.
- **Semantics:** AIRA's continuing support for CVX codes; appreciation for acknowledging success/usefulness of HL7 v2 messaging.
- **Transport:** Preference for SOAP over REST, and for *one* standard
- **Patient Matching:** Point out past IIS work and desire to collaborate on algorithm testing as well as vaccine de-duplication (as an example of information deduplication); need to consider more than just EHRs in data element discussion
- **Resource location:** Potential role for IIS as a "consolidator"
- **Measurement:** IIS ongoing interest in data quality and measurement.

- Highest Priority Use Cases:
 - 2) Clinical settings and public health are connected through bi-directional interfaces
 - 27) Data for disease surveillance, immunization tracking and other PH reporting are exchanged automatically
 - 29) Query-based exchange should support impromptu patient visits in all settings
- Priority Use Cases:
 - 1) Public health agencies routinely use data derived from standards - based connections with HIEs & EHRs
 - 35) Individuals have electronic access to an aggregated view of their health information
- Interest in ONC gather input on...
 - 8) CEHRT should be required to provide standardized data export and import capabilities to enable providers to change software vendors

What does this mean for IIS?



- IIS should continue to take interest in Roadmap and monitor its progress.
- IIS should consider aligning itself with Roadmap when revision is published.
- IIS should be prepared for some potential misalignment (transport, data formats) but won't be on its own.
- Status/role of HIEs not clear
- IIS needs to join collective public health “voice” in any new governance strategies through CDC, AIRA, JPHIT, PHDSC

- Draft Interoperability Roadmap:

<http://www.healthit.gov/policy-researchers-implementers/interoperability>

- AIRA Comments:

http://www.immregistries.org/resources/other-aira-resources/AIRA_-_Letter_on_ONC_Interoperability_Roadmap_v3.pdf

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