



Interoperability Standards Advisory: A Historical and Structural Overview

Prepared for the HITAC Interoperability Standards Workgroup

May 17, 2022

Andrew C. Hayden
Standards Advisory Lead
ONC Office of Technology, Standards Division

The Office of the National Coordinator for
Health Information Technology



Agenda

1. ISA Overview
2. Historical Background/Evolution
3. Structure
 - A. Sections
 - B. Sample Interoperability Need
 - C. Specialty Care and Settings Tags
 - D. ISA Publications: 2015-2022
 - E. Recent ISA Updates
 - F. How to Submit Comments

What is the ISA?

- The Interoperability Standards Advisory (ISA) process represents the model by which the Office of the National Coordinator for Health Information Technology (ONC) will coordinate the identification, assessment, and public awareness of interoperability standards and implementation specifications that can be used by the healthcare industry to address specific interoperability needs including, but not limited to, interoperability for clinical, public health, research and administrative purposes.

-About the ISA, *available at* <https://www.healthit.gov/isa/about-isa>

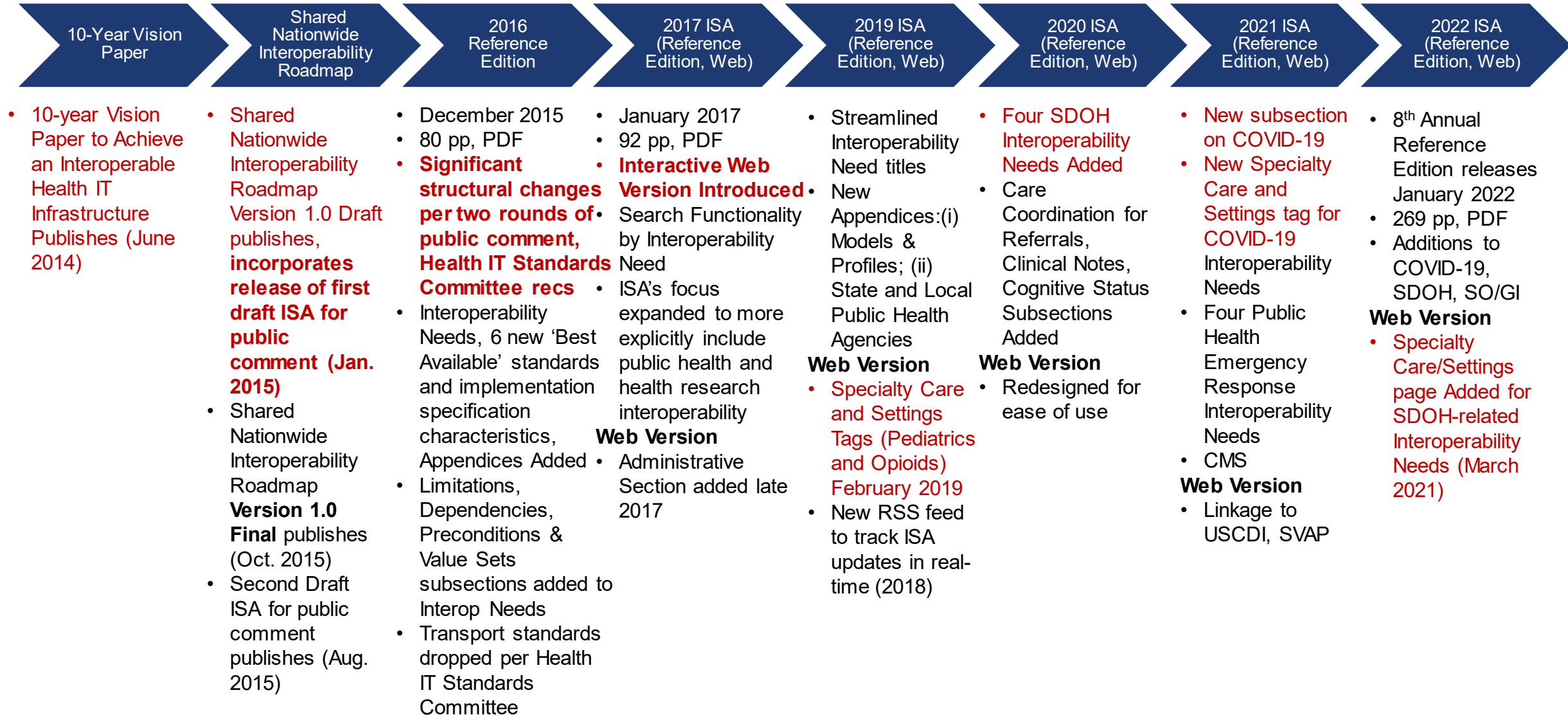
How is the ISA used and By Whom?

- Stakeholders
- Developers of health IT
- Implementers and users of health IT products
- The ISA and its associated informative characteristics are available to help more fully inform policy and implementation efforts, including limitations, dependencies or preconditions for use.

Ongoing Process

- The web-based version of the ISA is updated frequently throughout the year, as new comments from stakeholders come in or as changes occur, with a call for review and comments in late Summer timeframe.
- ONC publishes a static “Reference Edition” of the ISA (PDF) each December or January that can be referenced in contracts, agreements, or as otherwise needed with certainty that the information will not change.

Interoperability Standards Advisory (ISA) Structural Evolution: Key Milestones 2015-2022



High Level ISA Structure

- Section I: Vocabulary/Code Set/Terminology
- Section II: Content/Structure
- Section III: Services/Exchange
- Section IV: Administrative
- Informational Appendices (4)
- Specialty Care and Settings Tags (4)

Sample ISA Interoperability Need

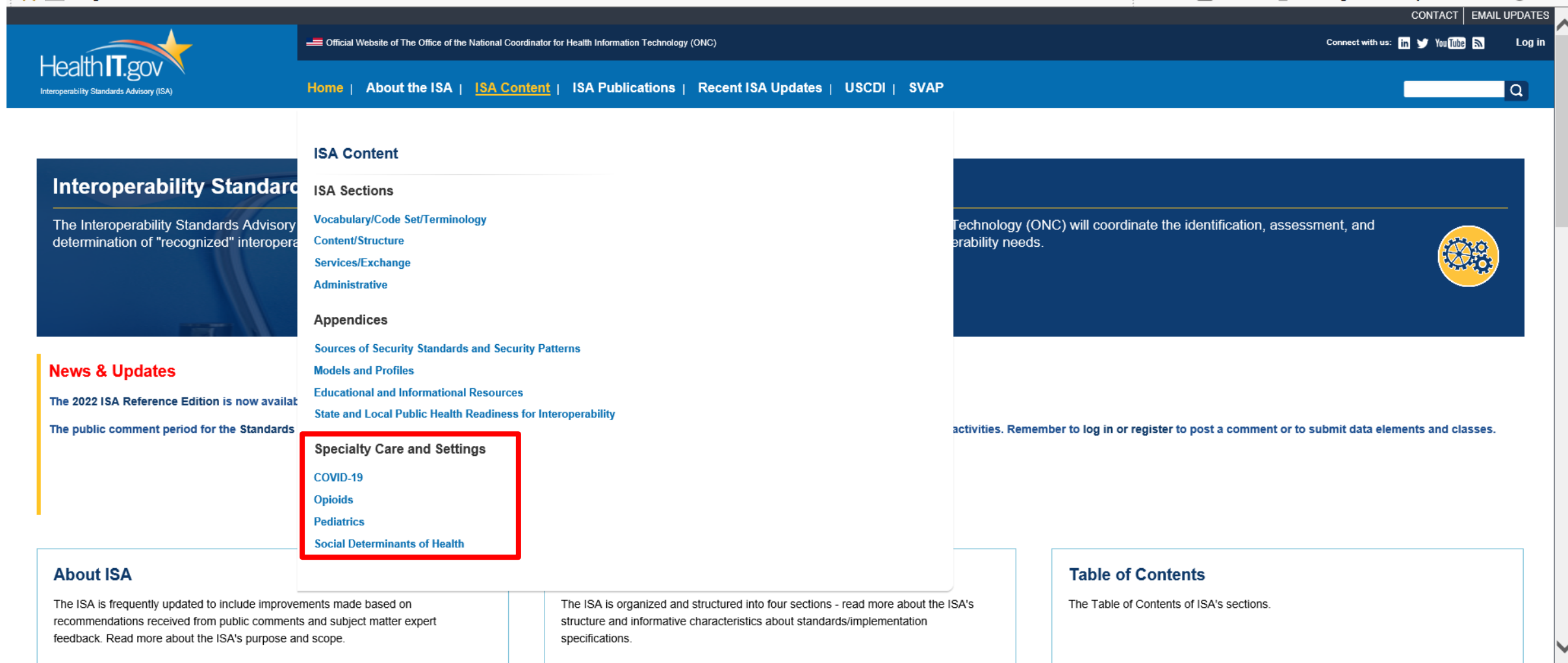
Allows a Prescriber to Send a New Prescription to a Pharmacy



Type	Standard / Implementation Specification	Standards Process Maturity	Implementation Maturity	Adoption Level	Federally required	Cost	Test Tool Availability
Standard	NCPDP SCRIPT Standard, Implementation Guide, Version 2017071 ↗	Final	Pilot	● ○ ○ ○ ○	No	\$	Yes
Standard	NCPDP SCRIPT Standard, Implementation Guide, Version 10.6 ↗	Final	Production	● ● ● ● ●	Yes ↗	\$	Yes ↗
<i>Emerging Standard</i>	<i>HL7 FHIR Medication Request</i> ↗	<i>In Development</i>	<i>Pilot</i>	<i>Feedback Requested</i>	<i>No</i>	<i>Free</i>	<i>No</i>

Limitations, Dependencies, and Preconditions for Consideration	Applicable Security Patterns for Consideration
<ul style="list-style-type: none"> ▪ The following transactions need to be implemented for interoperability purposes: <ul style="list-style-type: none"> ▪ SCRIPT 10.6 & SCRIPT 2017071 - <ul style="list-style-type: none"> ▪ NewRx: This transaction is a new prescription sent from the prescriber to the pharmacy electronically so that it can be dispensed to a patient ▪ SCRIPT 2017071 - <ul style="list-style-type: none"> ▪ NewRxRequest: This transaction is a request from a pharmacy to a prescriber for a new prescription for a patient <ul style="list-style-type: none"> ▪ NewRxResponseDenied: This transaction is a denied response to a previously sent NewRxRequest (If approved, a NewRx would be sent) <ul style="list-style-type: none"> ▪ A NewRxResponseDenied response may occur when the NewRxRequest cannot be processed or if information is unavailable ▪ Both the prescriber and the pharmacy must have their systems configured for the transaction in order to facilitate successful exchange, including the ability to 	<ul style="list-style-type: none"> ▪ Secure Message Router – securely route and enforce policy on inbound and outbound messages without interruption of delivery. ▪ Authentication Enforcer – centralized authentication processes. ▪ Authorization Enforcer – specifies access control policies. ▪ Credential Tokenizer – encapsulate credentials as a security token for reuse (e.g., – SAML, Kerberos). ▪ Assertion Builder – define processing logic for identity, authorization and attribute statements. ▪ User Role – identifies the role asserted by the individual initiating the transaction. ▪ Purpose of Use - Identifies the purpose for the transaction.

ISA Content – Specialty Care and Settings Tags



The screenshot shows the HealthIT.gov website. The top navigation bar includes links for Home, About the ISA, ISA Content, ISA Publications, Recent ISA Updates, USCDI, and SVAP. The 'ISA Content' section is expanded, showing a list of sections: Vocabulary/Code Set/Terminology, Content/Structure, Services/Exchange, Administrative, Appendices, Sources of Security Standards and Security Patterns, Models and Profiles, Educational and Informational Resources, and State and Local Public Health Readiness for Interoperability. The 'Specialty Care and Settings' section is highlighted with a red border and contains links for COVID-19, Opioids, Pediatrics, and Social Determinants of Health. Other visible elements include a search bar, social media icons, and a 'Table of Contents' section.

Specialty Care and Settings Tag: Social Determinants of Health

Home > ISA Content > Specialty Care and Settings > Social Determinants of Health

Vocabulary/Code Set/Terminology +

Content/Structure +

Services/Exchange +

Administrative +

Appendices +

Specialty Care and Settings -

COVID-19

Opioids

Pediatrics

Social Determinants of Health

Social Determinants of Health



This page identifies interoperability needs, associated technical standards, and implementation specifications across the ISA that support certain priority functions in health IT, including EHRs, for the Social Determinants of Health (SDOH). It is not exhaustive and focuses on specific SDOH domains (example: food, housing) and on referrals/coordination; many other standards may be relevant but are not tagged specifically under SDOH at this time. ONC welcomes feedback to add to this list, and improve these standards and specifications.

Vocabulary/Code Set/Terminology

Allergies and Intolerances

Representing Patient Allergies and Intolerances; Environmental Substances

Functional Status/Disability

Representing Patient Functional Status and/or Disability

Preferred Language

Representing Patient Preferred Language (Presently)

Race and Ethnicity

Representing Patient Race and Ethnicity

Sex at Birth, Sexual Orientation and Gender Identity

Representing Patient Gender Identity

Representing Patient Sex (At Birth)

Representing Patient-Identified Sexual Orientation

Social, Psychological, and Behavioral Data

Representing Alcohol Use

Representing Depression

Representing Drug Use

Representing Exposure to Violence (Intimate Partner Violence)

Representing Financial Resource Strain

Representing Food Insecurity

Representing Housing Insecurity

Representing Level of Education

Representing Physical Activity

Representing Social Connection and Isolation



Official Website of The Office of the National Coordinator for Health Information Technology (ONC)

CONTACT | EMAIL UPDATES

Connect with us: [in](#) [t](#) [You Tube](#) [RSS](#) [Log in](#)

[Home](#) | [About the ISA](#) | [ISA Content](#) | [ISA Publications](#) | [Recent ISA Updates](#) | [USCDI](#) | [SVAP](#)

[Home](#) > [ISA Publications](#)

ISA Publications

[Web Version as Single Page](#)

[2022 ISA Reference Edition](#)

ISA Publications



Current and Historical ISA Publications include:

- 2022 ISA - Reference Edition (published January 2022)
- 2021 ISA - Reference Edition (published January 2021)
- 2020 ISA - Reference Edition (published December 2019)
- 2019 ISA - Reference Edition (published January 2019)
- 2018 ISA - Reference Edition (published December 2017)
- 2017 ISA - Reference Edition (published December 2016)
- 2016 ISA - Final Version (published December 2015)
 - 2016 ISA Public Comments
- 2016 ISA - Draft (published August 2015)
 - 2016 Draft ISA Public Comments
- 2015 ISA (published January 2015)
 - 2015 ISA Public Comments



Official Website of The Office of the National Coordinator for Health Information Technology (ONC)

Connect with us: [in](#) [Twitter](#) [YouTube](#) [RSS](#) [Log in](#)

[Home](#) | [About the ISA](#) | [ISA Content](#) | [ISA Publications](#) | [Recent ISA Updates](#) | [USCDI](#) | [SVAP](#)



[Home](#) > [Recent ISA Updates](#)

[Recent ISA Updates](#)

[RSS Feed for All Changes](#)

Recent ISA Updates

Check here regularly for the latest updates to the ISA. Please note, that revisions to individual interoperability needs (such as adding/removing of standards or changes to their informative characteristics) are not included here. Revision history is available on each ISA page. In addition, registered users may subscribe to change notifications to be alerted by e-mail of all revisions to individual interoperability needs or for ISA-wide changes. Once logged in, look for the blue "change notification" button at the bottom of the interoperability need page, or at the bottom of this page to be notified of any changes across the ISA.

An [RSS Feed](#) that captures all changes made to the ISA is also available for visibility into more granular ISA updates.

- March 29, 2022 -- Added [Representing Patient Address](#) and [Representing Patient Names](#) Interoperability Needs within Section I: Demographics.
- March 18, 2022 -- Added [Section I: Biologics](#) and [Representing Biological Products](#) Interoperability Need.
- March 15, 2022 - Added [Adverse Event Reporting](#) Interoperability Need within Section II: Public Health Reporting.
- Fall 2021 - Numerous changes made to address public comments received and prepare the 2022 Reference Edition, including but not limited to:
 - Changed Vocabulary/Code Set/Terminology: Laboratory, adding two Interoperability Needs and removing one:
 - Added [Representing Laboratory Test Ordered](#)
 - Added [Representing Laboratory Test Performed](#)
 - Removed [Representing Laboratory Tests](#)
 - Changed Vocabulary/Code Set/Terminology: Tobacco Use Interoperability Need from:

Timeline & Comment Submission

- 2022 Reference Edition published in early January
- Comments now open (ISA web-based version)
 - Annual Review and Comment period opens summer 2022 (2023 ISA Reference Edition)
- To comment, create an account at www.healthit.gov/ISA
 - Click “log in” at top right of screen.
 - Click top-center tab to “create new account,” fill in account details, and complete captcha to submit request.
 - ISA team will approve your user account and you’ll get an email confirming your account.
 - Navigate to comment on individual ISA pages or submit consolidated comments at the ISA introduction page.
- Can be added to an RSS feed for real-time updates



Questions?

Andrew.Hayden@hhs.gov

Find the ISA at:

<https://www.healthit.gov/isa/>

The Office of the National Coordinator for
Health Information Technology

