Ready, Set, Go!: Leveraging EHRs for Innovation

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The Office of the National Coordinator for Health Information Technology

Agenda

I. Introduction

II. Interoperability: Current Topics in ONC Technical Policy and Coordination

III. Innovation: Advancing Progress in Health IT

Office of the National Coordinator for Health IT

- Founded in 2004 by executive order, established in statute in 2009
- ONC is charged with formulating the federal government's health IT strategy to advance national goals for better and safer health care through an interoperable nationwide health IT infrastructure

Laying the foundation of EHRs across the industry

- $40B CMS investment to subsidize EHRs for hospitals and ambulatory providers
- ONC "certification" for health IT systems

Leveraging EHRs to drive value

- Defines "information blocking" (practices that prevent, discourage, or interfere with access, exchange, or use of electronic health information)
- Requires access to information through APIs "without special effort"
- Requires nationwide governance for health information exchange networks – Trusted Exchange Framework and Common Agreement

EHR Certification And Adoption

Voluntary conformity assessment program for health IT

- Established by HITECH
- Based on principles within the International Organization for Standardization (ISO) and International Electrotechnical Commission (IEC) framework

Modular approach covering variety of areas such as documentation, interoperability, security, auditing

900+ active certified EHR products, 500+ with certified API functionality

EHR adoption (2019):

- **Hospitals: 96%; Ambulatory physicians: 90%**

Programs leveraging ONC EHR Certification

CMS

- Acute Myocardial Infarction (AMI)
- Bundled Payments for Care Improvement (BPCI)
- Chronic Care Management (CCM)
- Comprehensive ESRD
- Comprehensive Care for Joint Replacement (CJR)
- Comprehensive Primary Care Plus (CPC+)
- Coronary Artery Bypass Graft (CABG)
- Promoting Interoperability
- Inpatient Quality Reporting (IQR)
- Medicare Shared Savings Program (MSSP)
- Merit-based Incentive Payment System (MIPS)
- Million Hearts®: Cardiovascular Disease Risk Reduction Model
- Next Generation ACO
- Oncology Care Model (OCM)
- Outpatient Prospective Payment System
- Physician Self-Referral Law exception and Anti-kickback Statute safe harbor for certain EHR donations
- Qualified Health Plan (QHP), Affordable Care Act (ACA)

Other Federal

- Department of Defense Healthcare Management System Modernization Program
- The Joint Commission for Performance Measurement Initiative (“ORYX vendor” – eCQMs for hospitals)
- Substance Abuse and Mental Health Services Administration (SAMHSA) Section 223 Demonstration Program for Certified Community Behavioral Health Clinics (CCBHCs)
- Health Resources & Services Administration (HRSA) Health Center Controlled Networks
- CDC public health reporting requirements

ONC Activities & Objectives

ONC Activities

- Standards
- Certification
- Exchange

Coordination

- Federal
- State & Public

ONC Objectives

- Advance the development and use of health IT capabilities
- Establish expectations for data sharing

Interoperability Areas of Focus

“the data”

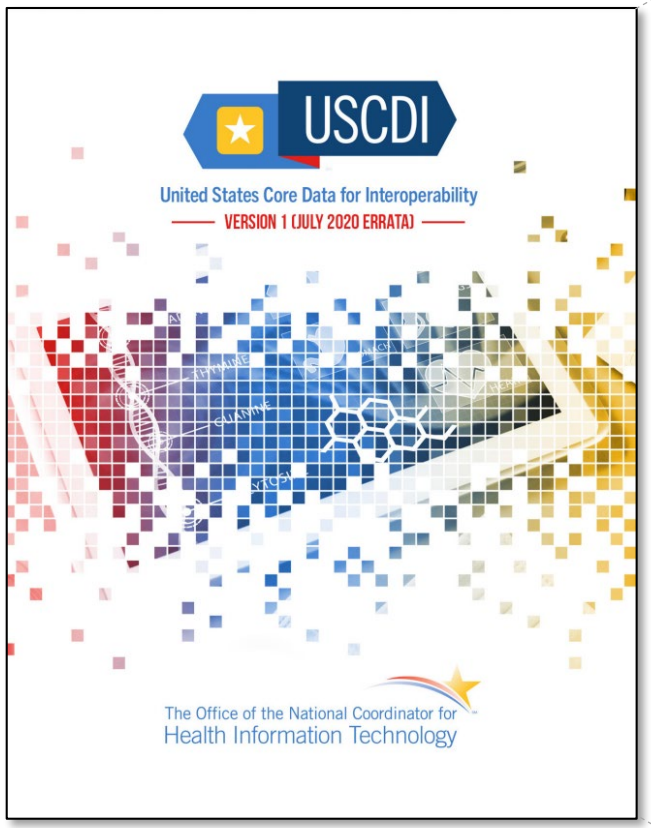
USCDI: Core Principles

The United States Core Data for Interoperability (USCDI) is a standardized set of health data classes and constituent data elements for nationwide, interoperable health information exchange.

USCDI

- Comprises a core set of data needed to support patient care and facilitate patient access using health IT
- Establishes a consistent baseline of data for other use cases
- Expands over time via a predictable, transparent, and collaborative **public** process

USCDI – the "minimum dataset" of the health care delivery system



USCDI v1 Summary of Data Classes and Data Elements

Allergies and Intolerances
- Substance (Medication)
- Substance (Drug Class)
- Reaction

Assessment and Plan of Treatment
- Assessment and Plan of Treatment

Care Team Members
- Care Team Members

Clinical Notes
- Consultation Note
- Discharge Summary Note
- History & Physical
- Imaging Narrative
- Laboratory Report Narrative
- Pathology Report Narrative
- Procedure Note
- Progress Note

Goals
- Patient Goals

Health Concerns
- Health Concerns

Immunizations
- Immunizations

Laboratory
- Tests
- Values/Results

Medications
- Medications

Patient Demographics
- First Name
- Last Name
- Previous Name
- Middle Name (incl Middle Initial)
- Suffix
- Birth Sex
- Date of Birth
- Race
- Ethnicity
- Preferred Language
- Current Address
- Previous Address
- Phone Number
- Phone Number Type
- Email Address

Problems
- Problems

Procedures
- Procedures

Provenance
- Author Time Stamp
- Author Organization

Smoking Status
- Smoking Status

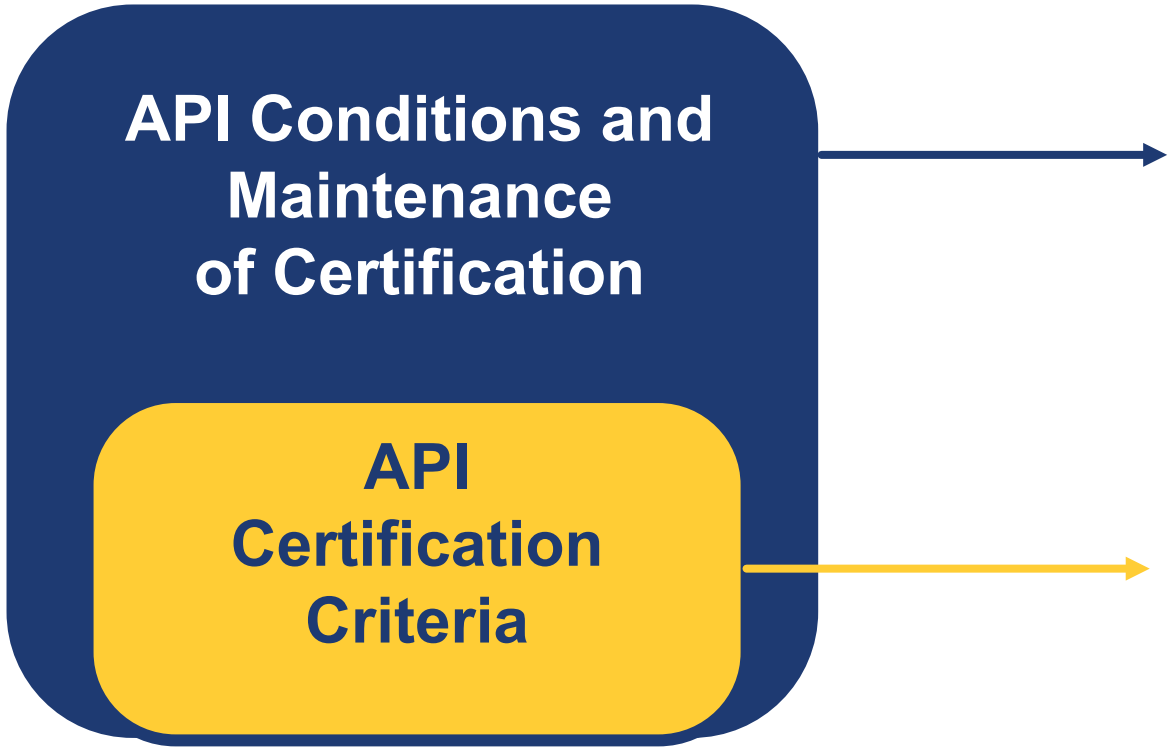
Unique Device Identifier(s) for a Patient's Implantable Device(s)
- Unique Device Identifier(s) for a Patient's Implantable Device(s)

Vital Signs
- Diastolic Blood Pressure
- Systolic Blood Pressure
- Body Height
- Body Weight
- Heart Rate
- Respiratory Rate
- Body Temperature
- Pulse Oximetry
- Inhaled Oxygen Concentration
- BMI Percentile (2 - 20 Years)
- Weight-for-length Percentile (Birth - 36 Months)
- Head Occipital-frontal Circumference Percentile (Birth - 36 Months)

- **ONC standard for minimum dataset required for interoperability**
  - Defines required data elements and vocabulary standards
  - Agnostic to format
- **Updated on annual cycle with federal agency and industry input**
  - Updates based on multiple criteria including standards maturity and public/industry priority

“the standards”

Application Programming Interface (API) Standard and Policy in ONC Regulations



Health IT developers must make this technology available to customers by Dec 31, 2022.

Promoting Interoperability participants must use the API to provide patients access to their health information to report in 2023.

API Conditions and Maintenance of Certification

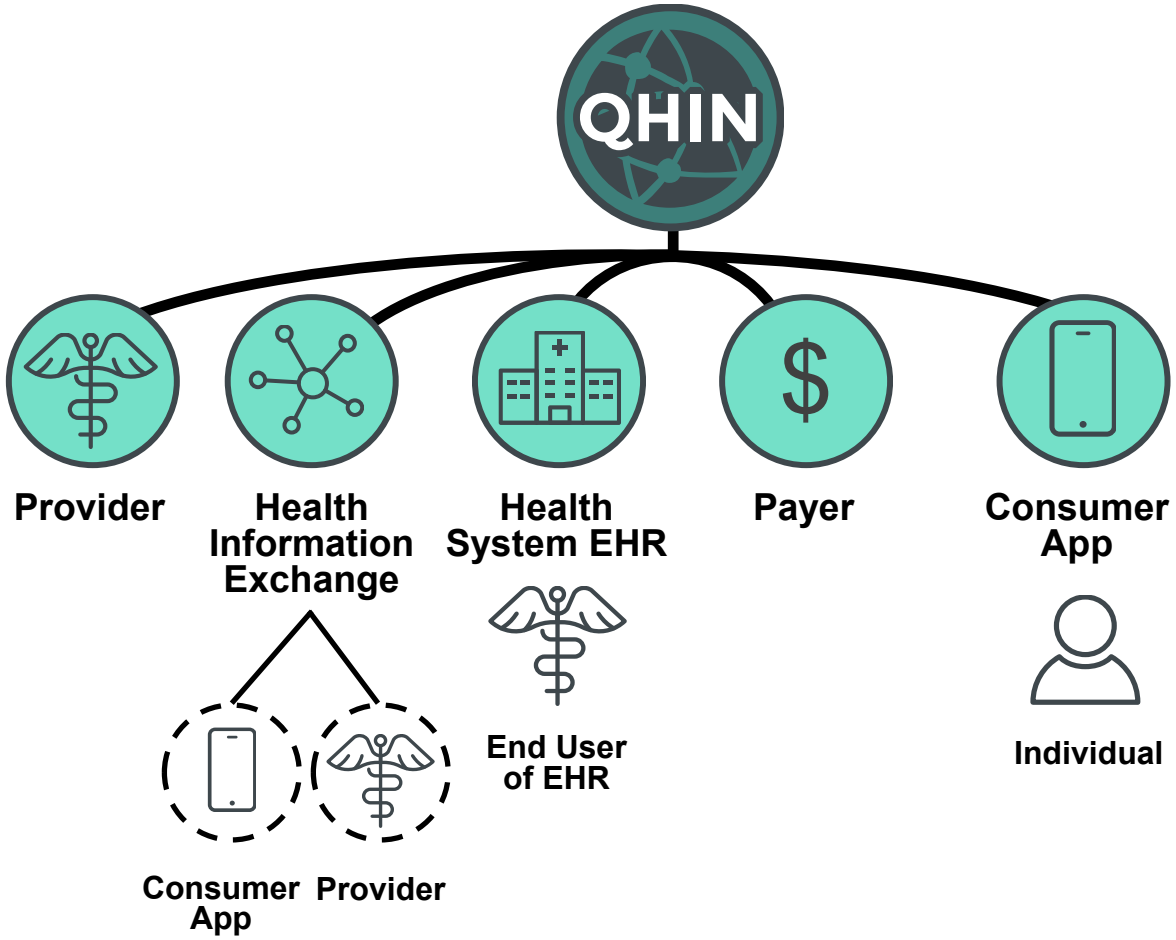
Applies to actions and behaviors of certified health IT developers related to the use of their Certified API Technology

FHIR-based API certification criterion

- Data focused on USCDI
- “read-only” focus
- HL7® FHIR® Release 4.0.1 as base standard
- Support for single patient data uses
- Support for population(s) of patients (Bulk FHIR)

“the networks”

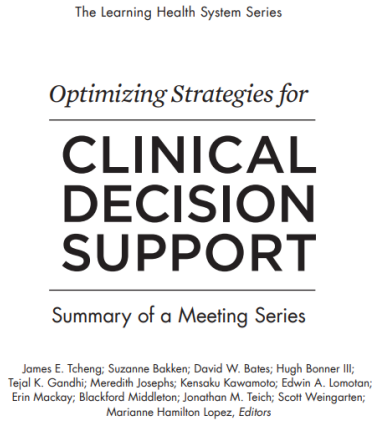
Trusted Exchange Framework, Common Agreement



- The data and data formats required to be shared in TEFCA align with standards required in ONC certification, including USCDI and the C-CDA.
- While FHIR is initially optional, ONC has released a TEFCA FHIR Roadmap that outlines how TEFCA will accelerate the adoption of FHIR-based exchange across the industry.
- Initial technical and functional requirements enable various information exchange modalities, including querying and message delivery across participating entities.

Innovation in Health IT

Clinical Decision Support (CDS) Standards



- Collaborated with the National Academy of Medicine (NAM) to engage key experts and develop a series of strategies and recommendations to optimize CDS in support of improved care

- Working with CDC since 2016 to develop standards that can support shareable electronic Clinical Decision Support technology integrated with EHRs
  - CDS implementing the CDC Guideline for Prescribing Opioids for Chronic Pain

Goal 4: Create Health Information Technology that Promotes Appropriate Cancer Risk Assessment and Screening

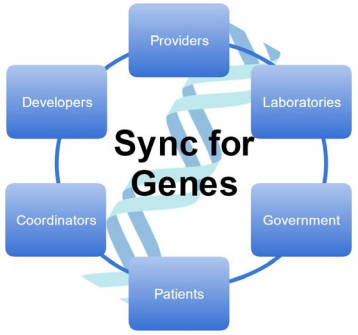
To Recap

- ONC “certified” EHRs provide a stable basis for the health care enterprise to leverage and realize value
- ONC interoperability focus spans across layers
  - Data
  - Standards
  - Networks
- ONC works across agencies and nationally to support innovative use of health IT

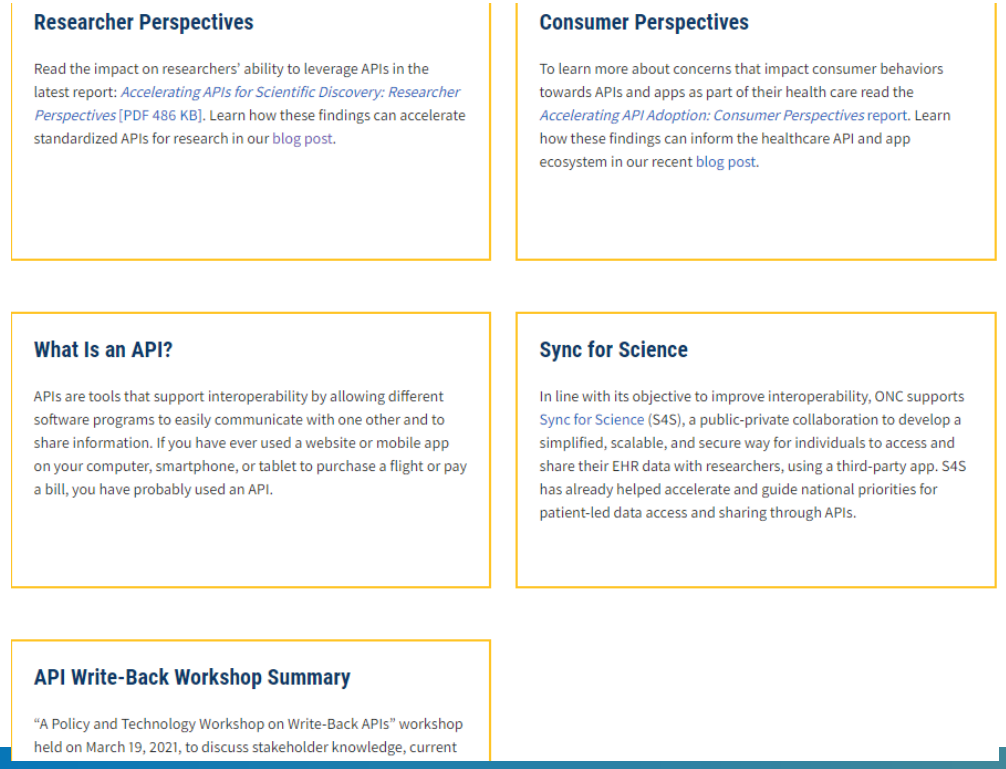
Links

- Health IT Certification Program: https://www.healthit.gov/topic/certification-ehrs/certification-health-it
- Interoperability Standards Advisory: https://www.healthit.gov/isa/
- United States Core Data for Interoperability: https://www.healthit.gov/isa/united-states-core-data-interoperability-uscdi
- Trusted Exchange Framework, Common Agreement: https://rce.sequoiaproject.org/

Health IT Innovation



- Launched “Sync for Genes” program in 2017 to standardize the sharing of genomic information between laboratories, providers, patients, and researchers Clinical Decision Support standards



Researcher Perspectives

Read the impact on researchers' ability to leverage APIs in the latest report: *Accelerating APIs for Scientific Discovery: Researcher Perspectives* [PDF 486 KB]. Learn how these findings can accelerate standardized APIs for research in our blog post.

Consumer Perspectives

To learn more about concerns that impact consumer behaviors towards APIs and apps as part of their health care read the *Accelerating API Adoption: Consumer Perspectives* report. Learn how these findings can inform the healthcare API and app ecosystem in our recent blog post.

What Is an API?

APIs are tools that support interoperability by allowing different software programs to easily communicate with one other and to share information. If you have ever used a website or mobile app on your computer, smartphone, or tablet to purchase a flight or pay a bill, you have probably used an API.

Sync for Science

In line with its objective to improve interoperability, ONC supports Sync for Science (S4S), a public-private collaboration to develop a simplified, scalable, and secure way for individuals to access and share their EHR data with researchers, using a third-party app. S4S has already helped accelerate and guide national priorities for patient-led data access and sharing through APIs.

API Write-Back Workshop Summary

“A Policy and Technology Workshop on Write-Back APIs” workshop held on March 19, 2021, to discuss stakeholder knowledge, current

- Initiated “Accelerating APIs for Scientific Discovery” Project in 2020 to help accelerate the understanding and use of APIs and healthcare apps connected to EHRs

The Office of the National Coordinator for Health Information Technology

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