Semantic Harmonization of Standards Panel

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The Office of the National Coordinator for
Health Information Technology

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Health Information Technology

Office of the National Coordinator for Health IT (ONC) Overview

Vision
High-quality care, lower costs, healthy population, and engaged people

Mission
Improve the health and well-being of individuals and communities through the use of technology and health information that is accessible when and where it matters most

Strategic Goals
- Advance Person-Centered and Self-Managed Health
- Transform Health Care Delivery and Community Health
- Foster Research, Scientific Knowledge, and Innovation
- Enhance Nation's Health IT Infrastructure

United States Core Data for Interoperability (USCDI)

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What is the United States Core Data for Interoperability (USCDI)?

- ONC-defined set of health data that must be expressed in Certified Health IT modules and made available for exchange using certain exchange standards, such as FHIR or C-CDA.

- USCDI focuses on *core* data requirements for patient data access and patient care related exchanges.

- USCDI data elements represent individual concepts: medication, allergy, procedure, or health concern.

- Some USCDI data elements must be expressed using specific health IT vocabulary standards, such as SNOMED CT or RxNorm.

- USCDI is "content exchange standard agnostic" USCDI doesn't specify how and to what extent its elements are included in FHIR or C-CDA

USCDI Core Principles

USCDI:

- Comprises a core set of structured and unstructured data needed to support patient care and facilitate patient access using health IT

- Establishes a consistent baseline of harmonized data elements that can be broadly reused across use cases, including those outside of patient care and patient access

- Will expand over time via predictable, transparent, and collaborative process, weighing both anticipated benefits and industry-wide impacts

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US Core Data For Interoperability (USCDI) v1

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

Assessment and Plan of Treatment

Care Team Members

For more info:
HealthIT.gov/USCDI

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

Goals

Health Concerns

Immunizations

Laboratory
- Tests
- Values/Results

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

Procedures

Provenance
- Author Time Stamp
- Author Organization

Smoking Status

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 old)
- Weight for length Percentile (Birth 36 months)
- Occipital frontal Head Circumference Percentile (Birth 36 months)

USCDI Version 2

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

Assessment and Plan of Treatment
- Assessment and Plan of Treatment
- SDOH Assessment ⭐

Care Team Member(s)
- Care Team Member Name ⭐
- Care Team Members Identifier ⭐
- Care Team Members Role ⭐
- Care Team Members Location ⭐
- Care Team Members Telecom ⭐

Clinical Notes
- Consultation Note
- Discharge Summary Note
- History & Physical
- Procedure Note
- Progress Note

Clinical Tests ⭐
- Clinical Test ⭐
- Clinical Test Result/Report ⭐

Diagnostic Imaging ⭐
- Diagnostic Imaging Test ⭐
- Diagnostic Imaging Report ⭐

Encounter Information ⭐
- Encounter Type ⭐
- Encounter Diagnosis ⭐
- Encounter Time ⭐
- Encounter Location ⭐
- Encounter Disposition ⭐

Goals
- Patient Goals
- SDOH 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
- Sex (Assigned at Birth)
- Sexual Orientation ⭐
- Gender Identity ⭐
- Date of Birth
- Race
- Ethnicity
- Preferred Language
- Current Address
- Previous Address
- Phone Number
- Phone Number Type
- Email Address

Problems
- Problems
- SDOH Problems/Health ⭐ Concerns
- Date of Diagnosis ⭐
- Date of Resolution ⭐

Procedures
- Procedures
- SDOH Interventions ⭐

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)
- Occipital-frontal Head Circumference Percentile (Birth-36 Months)

⭐ **New USCDI v2 Data Elements and Classes**

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USCDI Version Update Process

Coordination with Industry to Drive Interoperability

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Coordination with Industry to Drive Interoperability

- Health Level 7 (HL7) Contract and Cooperative Agreements
  - FHIR US Core and C-CDA Update Cycle
  - FHIR Connectathons
  - C-CDA Implementation-a-thons
    - C-CDA Rubric
    - C-CDA Scorecard
  - Terminology Support

- Regenstrief Cooperative Agreement – LOINC

- Integrating the Healthcare Enterprise (IHE) Cooperative Agreement

Key Links

- HL7 US Realm Contract and Cooperative Agreements: https://confluence.hl7.org/display/PMO/ONC+Grant+Project+Page

- USCDI: www.healthit.gov/uscdi

- ISA: www.healthit.gov/isa

- Standards Bulletins: https://www.healthit.gov/topic/standards-technology/onc-standards-bulletin

- C-CDA Scorecard
  - https://ccda.healthit.gov/scorecard/
  - One-Click Scorecard: https://oncprojectracking.healthit.gov/wiki/display/TechLabTU/ONC+One+Click+Scorecard

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Thank you!

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