TEXAS
Health and Human Services

Texas Department of State Health Services

The United States Core Data for Interoperability (USDCI) and Public Health

Steve Eichner
Health IT Lead
Texas Department of State Health Services
August 27, 2021

What is the USCDI?

- Office of the National Coordinator (ONC)-defined set of health data that must be included in Certified Health IT and made available for exchange using exchange standard protocols and messages such as FHIR or C-CDA
- Focuses on c**ore data requirements** for patient data and patient care-related exchanges.
- Included data elements represent individual concepts such as medication, allergy, procedure, or health concern.
- Included data elements may be expressed using specific health IT vocabulary standards, such as SNOMED CT or RxNorm.
- USCDI doesn't specify how and to what extent included elements are exchanged.

Credit: ONC: https://ncvhs.hhs.gov/wp-content/uploads/2021/08/Presentation-Panel-3-ONC-Mattew-Rahn.pptx

Core Principles

The 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 compendium of harmonized data elements that can be broadly reused across use cases, including those outside of patient care and patient access, and
- Will expand over time via a predictable, transparent, and collaborative process that weighs both anticipated benefits and industry-wide impacts.

USCDI Version 1

Allergies and Intolerances

- Substance (Medication)
- Substance (Drug Class)
- Reaction

Assessment and Plan of Treatment

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

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)

Credit: ONC: https://ncvhs.hhs.gov/wp-content/uploads/2021/08/Presentation-Panel-3-ONC-Mattew-Rahn.pptx

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

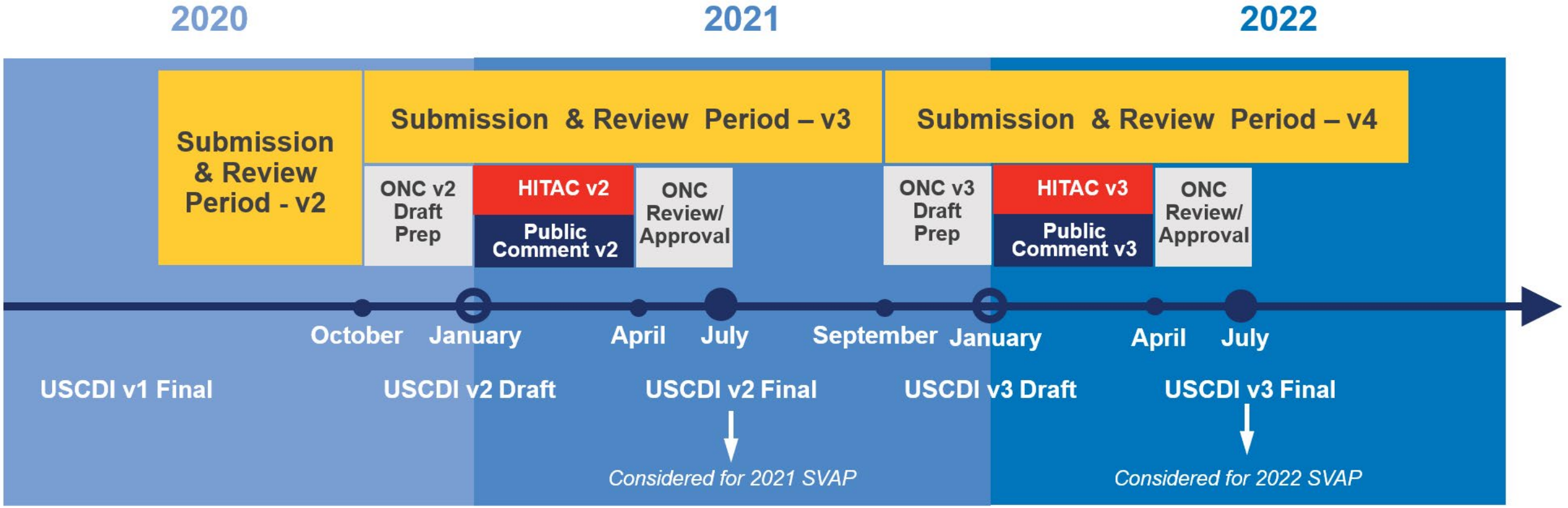
Unique Device Identifier(s) for a Patient's Implantable Device(s)
- Unique Device Identifier(s) for a Patient's Implantable Device(s)

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

Credit: ONC: https://ncvhs.hhs.gov/wp-content/uploads/2021/08/Presentation-Panel-3-ONC-Mattew-Rahn.pptx

USCDI Update Process



Credit: ONC: https://ncvhs.hhs.gov/wp-content/uploads/2021/08/Presentation-Panel-3-ONC-Mattew-Rahn.pptx

Useful Links

- ONC:
  - http://wwwHealthit.gov
- HL7 US Realm Contract and Cooperative Agreements: https://confluence.hl7.org/display/PMO/ONC+Grant+Project+Page
- USCDI: www.healthit.gov/uscdi
- Interoperability Standards Advisory: www.healthit.gov/isa
- C-CDA Scorecard
  - https://ccda.healthit.gov/scorecard/
  - One-Click Scorecard: https://oncprojectracking.healthit.gov/wiki/display/TechLabTU/ONC+One+Click+Scorecard
- SVAP
  - Standards Version Advancement Process | Interoperability Standards Advisory (ISA) (healthit.gov)

Credit: ONC: https://ncvhs.hhs.gov/wp-content/uploads/2021/08/Presentation-Panel-3-ONC-Mattew-Rahn.pptx

How Standardized Data Exchange and the USCDI Impacts Public Health

- Reduces costs for providers and public health by reducing the need for customization
- Reduces administrative time to complete reporting
- Supports data element reuse
- Supports increased frequency of data collection without significantly increasing costs
- Facilitate data aggregation and comparison across jurisdictions

Sample Public Health Use Cases That Can Leverage the USCDI

- Immunization Registries
- Maternal Mortality
- Birth Defects Registries and Care
- Cancer Registries
- Syndromic Surveillance (ADT)
- Electronic Case Reporting
- Electronic Laboratory Reporting
- Tuberculosis Treatment- Coordination of care
- Vital Events- Birth and Death Reporting
- Trauma and Injury Reporting
- Laboratory Services
- HIV Services

How to Improve the USCDI to Better Benefit Public Health

- Clarify that data classes and elements included in the USCDI and exchange guides are required to be implemented, populated if data are available and clinically relevant, and ensure all classes and elements are available for exchange.
- Support review by state and local public health experts in addition to Centers for Disease Control and Prevention staff of data elements and classes submitted for consideration for inclusion in the USCDI.
- Prioritize elements and classes recommended by public health-related organizations.

How to Improve the USCDI and to Beter Benefit Public Health

- Review implementation timelines to reflect what can be achieved within resource constraints and urgency.
- Provide additional guidance on maturity for considered, but not included, standards.
- Clarify that API retrieval of classes and elements must be supported.

Questions/Discussions/Contact

Steve Eichner
HIT Lead
Texas Department of State Health Services
Steve.Eichner@dshs.texas.gov
Ph: 512.221.5632