U.S. Core Data for Interoperability Task Force Recommendations to the HITAC

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Task Force Phase 1 Charge

- **Principal Charge for Phase 1:** Review the newly specified Data Elements proposed in the USCDI v1

- **Specific Charge:** Provide recommendations on the following:

  » Inclusion of New Patient Demographics Data Elements

  » Inclusion of Provenance Data Elements

  » Inclusion of Clinical Notes Data Elements

  » Inclusion of Pediatric Vital Signs Data Elements

  » Missing Data Elements within Proposed Data Classes

Task Force Members

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CO-CHAIRS			
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Recommendations: Introduction

- Recommendations focus on including, revising, omitting and/or adding data elements to USCDI v1

- Guiding principles

  » Identify data elements from which to build the foundation for interoperability

  » Avoid data elements that seemed too granular for v1 and, therefore, best left for subsequent revisions

  » Balance the burden to developers with each additional data element with the benefit to interoperability

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Patient Demographics: Use Cases

Patient demographics supports:

- Patient matching

- Identity verification

- Clinical care

Patient Demographics: ONC Proposed Data Elements

- **ONC proposed the following new Patient Demographic data elements to include in USCDI v1**:
  - » Address
  - » Phone number

- **Recommendation 1. The TF recommends including Address in USCDI v1 with the following additional sub-recommendations:**

  - » Use both current and previous addresses

  - » Require addresses to be entered using standardized format and content*

  - » Include a designation for individuals experiencing homelessness, including displaced persons and refugees

  - » Explore the feasibility of using and/or supporting an international address standard given the increasing international exchange of health data

*https://academic.oup.com/jamia/article-abstract/26/5/447/5372371?redirectedFrom=fulltext
*http://perspectives.ahima.org/wp-content/uploads/2014/12/PatientMatchingAppendixA.pdf

Patient Demographics: ONC Proposed Data Elements

- **Recommendation 2**. **The TF recommends including Phone Number in USCDI v1 with the following additional sub-recommendations:**

  » Use mobile phone number as the primary phone number and landline as the secondary phone number

  » When entering a phone number in a child's record, make a clear distinction between whether the number is that of the parent/guardian or whether it belongs exclusively to the child

Patient Demographics: Additional Data Elements

- **Recommendation 3. The TF recommends that the following additional Patient Demographics Data Elements also be included in USCDI v1**:

  » Destination(s) for electronic communications

  » Preferred method(s) and destination(s) of communication

  » The individual with authority to consent to treatment and data use

  » Last four digits of the Social Security Number

  » Optional identifiers including IDs issued by State or Federal governments

  » Self-reported gender identity

Provenance: Use Cases

Data Provenance supports:

- Establishing trust in data source
- Deduplication of data elements
- Data element versioning

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Provenance: ONC Proposed Data Elements

- **ONC proposed the following new data elements to include in USCDI v1**:
  - » Author Organization
  - » Author
  - » Author's Time Stamp

- **Recommendation 4. The TF recommends the use of Author's Organization for USCDI v1 as the appropriate first level to establish provenance, with the following additional sub-recommendation:**
  - » Use Author's Organization in place of Author
  - » Employ a standard nomenclature to uniquely identify each Organization
  - » Consider NPI as an appropriate identifier for an organization
  - » Unique Patient Identifier needed for patient generated data

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Provenance: ONC Proposed Data Elements (continued)

- **Recommendation 5. The TF recommends limiting the use of Author for USCDI v1, with the following additional sub-recommendations:**

  » Use Author only when the Author is easily and unambiguously established

  » Use Author's Organization as the primary level of identity

  » Propose more granular definitions of Author in later versions of USCDI

- **Recommendation 6. The TF recommends replacing Author's Time Stamp with Author's Organization's Time Stamp for USCDI v1.**

Provenance: Additional Recommendations

- **Recommendation 7. The TF recommends creating a unique and persistent identity for each data element in USCDI v1, with the following additional sub-recommendation:**

  » Use four components (Uniquely identified Source Organization, Author's Organization's Time Stamp, Unique Local Identification Code, Data Type)

  » Maintain the unique identify when the data element is changed

  » Establish a governance structure for data labelling

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Clinical Notes: Use Cases

Clinical Notes supports:

- Improving sorting of incoming notes
- Improved communication across the care continuum

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Clinical Notes: ONC Proposed Data Elements

- **ONC proposed the following new eight data elements to include in USCDI v1**:
  - » Consultation Note
  - » Discharge Summary Note
  - » History and Physical
  - » Imaging Narrative
  - » Laboratory Report Narrative
  - » Pathology Report Narrative
  - » Procedure Note
  - » Progress Note

- **Recommendation 8. The TF recommends including the eight ONC proposed clinical notes in USCDI v1.**
- **Recommendation 9. The TF recommends that Laboratory Report Narrative be adopted in USCDI v1 with use restricted to special reports and narrative for specific laboratory results**.

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Clinical Notes: Additional Data Elements

- **Recommendation 10. The TF recommends that the following note types also be included in USCDI v1:**

    » Continuity of Care Document

    » Operative Note

    » Transfer Summary Note

    » Care Plan Note

    » Advance Care Planning Note

    » Miscellaneous Note

- **Recommendation 11. The TF recommends that the following note types be considered for future versions of the USCDI:**

    » Referral Note

    » Long Term Services and Supports Care Plan Note

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Pediatric Vital Signs: Use Cases

- Pediatric Vital Signs support:

  » Exchange of vital sign measurements

  » Exchange of calculated values derived from vital sign measurements

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Pediatric Vital Signs: ONC Proposed Data Elements

- **ONC proposed the following new three data elements to include in USCDI v1**:

  » BMI percentile per age and sex for youth 2-20,

  » Weight for length percentile for age and sex for youth 2-20

  » Occipitofrontal circumference under 3 years old

- **Recommendation 12. The TF recommends that BMI percentile per age and sex for youth 2-20 not be included as part of USCDI v1.**

- **Recommendation 13. The TF recommends that Weight for age per length and sex not be included as part of USCDI v1.**

- **Recommendation 14. The TF recommends that Occipitofrontal circumference for children under 3 years old be adopted as proposed by ONC in USCDI v1.**

- **Recommendation 15. The TF recommends the following two additional modifications:**

  » Re-label "Height" to "Height/Length"

  » Explicitly state that the other vital signs in USCDI v1 apply to all age groups

Proposed Data Classes: Additional Data Elements

- **Recommendation 16. The TF recommends adding the following provider demographics to the Care Team Members Data Class in USCDI v1**

    » Name

    » Contact information

    » Identifier (e.g., NPI, certification, state license)

- **Recommendation 17. The TF recommends adding the following additional Data Elements to the Medications Data Class:**

    » Date/time the list of current medications was reconciled

    » The identity of who reconciled the list

    » Indication or associated diagnosis for each medication

Additional Data Class: Quality Measures Data Class

- **Recommendation 18. The TF recommends adding a Quality Measures Data Class in USCDI v1 by first identifying and cross-listing current USCDI v1 Data Elements used for tracking and measuring quality.**

  - » Support the CMC Task Force Recommendation to use QRDA

  - » Identify data elements in USCDI v1 routinely used for tracking and measuring quality

  - » Group data elements into a new "Quality Measurement" data class

Appendix

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USCDI v1

Data Elements in blue are already included in the 2015 Common Clinical Data Set (CCDS).

Data Elements in pink are those for which ONC seeks recommendations in the Phase 1 charge.

A SET OF DATA CLASSES TO SUPPORT NATIONWIDE INTEROPERABILITY

The USCDI Version 1 (USCDI v1) is proposed as a standard (§ 170.213). It reflects the same data classes referenced by the CCDS definition and includes new required data classes and data elements, noted below.

If adopted, health IT developers will need to update their certified health IT to support the USCDI for all certification criteria affected by this change.

USCDI v1

Assessment and Plan of Treatment

Care Team Members

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

Goals
- Patient Goals

Health Concerns

Immunizations

Laboratory
- Tests
- Values/Results

Medications
- Medications
- Medication Allergies

Patient Demographics
- First Name
- Last Name
- Previous Name
- Middle Name (including middle initial)
- Suffix
- Birth Sex
- Date of Birth
- Race
- Ethnicity
- Preferred Language
- Address *NEW
- Phone Number *NEW

Problems

Procedures

Provenance *NEW
- Author
- Author Organization
- Author Time Stamp

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
- Pediatric Vital Signs *NEW
  - BMI percentile per age and sex for youth 2-20
  - Weight for age per length and sex
  - Occipital-frontal circumference for children < 3 years old