



The Office of the National Coordinator for
Health Information Technology
Health IT Advisory Committee

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

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Agenda

- USCDI Task Force Members
- USCDI Task Force Phase 1 Charge
- Phase 1 Draft Recommendations and Committee Vote
- Phase 1 Work Plan
- Questions for HITAC

Task Force Members

First Name	Last Name	Organization	Organization Type
CO-CHAIRS			
Christina	Caraballo	Audacious Inquiry	Consultant/Patient Advocacy
Terrence	O'Malley	Massachusetts General Hospital	Health & Hospital Organization
MEMBERS			
Tina	Esposito	Advocate Healthcare	Health & Hospital Organization
Valerie	Grey	New York eHealth Collaborative	Health IT Organization
Ken	Kawamoto	University of Utah Health	Health & Hospital Organization
Steven	Lane	Sutter Health	Health & Hospital Organization
Leslie	Lenert	Medical University of South Carolina	Health & Hospital Organization
Clem	McDonald	National Library of Medicine	Federal
Brett	Oliver	Baptist Health	Health & Hospital Organization
Steve	Ready	Norton Healthcare	Health & Hospital Organization
Sheryl	Turney	Anthem Blue Cross Blue Shield	Health IT Technology
ONC STAFF			
Stacy	Perchem	ONC	Federal
Adam	Wong	ONC	Federal
Johnny	Bender	ONC	Federal

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

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 	Laboratory  <ul style="list-style-type: none"> • Tests • Values/Results 	Provenance *NEW  <ul style="list-style-type: none"> • Author • Author Time Stamp • Author Organization
Care Team Members 	Medications  <ul style="list-style-type: none"> • Medications • Medication Allergies 	Smoking Status 
Clinical Notes *NEW  <ul style="list-style-type: none"> • Consultation Note • Discharge Summary Note • History & Physical • Imaging Narrative • Laboratory Report Narrative • Pathology Report Narrative • Procedure Note • Progress Note 	Patient Demographics  <ul style="list-style-type: none"> • First Name • Last Name • Previous Name • Middle Name (including middle initial) • Suffix • Birth Sex • Date of Birth • Race • Ethnicity • Preferred Language 	Unique Device Identifier(s) for a Patient's Implantable Device(s) 
Goals  <ul style="list-style-type: none"> • Patient Goals 	<ul style="list-style-type: none"> • Address *NEW • Phone Number *NEW 	Vital Signs  <ul style="list-style-type: none"> • Diastolic Blood Pressure • Systolic Blood Pressure • Body Height • Body Weight • Heart Rate • Respiratory rate • Body Temperature • Pulse oximetry • Inhaled oxygen concentration
Health Concerns 	Problems 	<ul style="list-style-type: none"> • Pediatric Vital Signs *NEW <ul style="list-style-type: none"> - 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
Immunizations 	Procedures 	

General Principles

- Be parsimonious with recommendations for new elements
- Divide recommendation into two groups:
 - » Those that can be implemented now using current CEHRT functionality
 - » Those that will require new functionality or programming
- Each section is organized as follows:
 - » Slide 1: Displays ONC recommendations with Task Force response
 - » Slide 2: Additional Task Force recommendations
 - » Slide 3: Justification and discussion of proposed recommendations

Patient Demographics: Data Element Recommendations

ONC Proposed Data Element	USCDI Task Force Recommendations
Address	<ul style="list-style-type: none">• Use standardized format and content for current Address and prior addresses<ul style="list-style-type: none">- See AHIMA (including use of USPS) and current requirements for CEHRTs for applicable standards (AHIMA: http://perspectives.ahima.org/wp-content/uploads/2014/12/PatientMatchingAppendixA.pdf)- Consider an international standard
Phone Number	<ul style="list-style-type: none">• Use mobile phone number as primary; include “if child, indicate phone number as parent/guardian”• Landline as secondary

Patient Demographics: Additional Recommendations

ONC Proposed Data Element	USCDI Task Force Recommendations
Address	<ul style="list-style-type: none">• Add preferred e-mail address
Other	<ul style="list-style-type: none">• Add a section for “Pediatric Demographics”:<ul style="list-style-type: none">- Contact information for individual(s) with consent authority- Multiple addresses for parents, school, guardian• Consider adding optional identifiers such as:<ul style="list-style-type: none">- Last four digits of SSN- Vetted IDs such as: State driver’s license, State issued ID, Passport number, Military ID- Direct address• Add a designation for individuals experiencing homelessness including displaced persons and refugees. Bring to USCDI once standards exist• Add self-reported gender identity

Patient Demographics: Discussion of Recommendations

- Three principal use cases: Patient Matching, Clinical Care, and Identity Verification.
- Standard address including past addresses is a reasonable addition.
- Mobile phone number is one of the most stable patient identifiers.
- Future iterations of USCDI should consider biometrics, but they cannot be supported at this time.
- A Pediatric demographic set recognizes an immediate need of service providers to provide clinical care.
- Secondary attributes as complements to matching logic in USCDI are valuable and will facilitate downstream matching and linking.
- It is the opinion of the Task Force that the benefits of the proposed changes outweigh the burdens of implementation.

Provenance: Data Element Recommendations

ONC Proposed Data Element	USCDI Task Force Recommendations
Author	<ul style="list-style-type: none">• Use “Agent/Entity” in place of “Author”
Author’s Time Stamp	<ul style="list-style-type: none">• Use “Agent/Entity” Time Stamp
Author’s Organization	<ul style="list-style-type: none">• Use “Agent/Entity” Organization to include name and location

Provenance: Additional Recommendations

ONC Proposed Data Element	USCDI Taskforce Recommendations
Author Author Organization	<ul style="list-style-type: none">• Consider more granular descriptions in later iterations for role of agent, agent type, agent identifier (NPI), reason, and signature (e.g., Vital signs collected at home vs pharmacy vs clinic vs hospital by MD vs RN vs Aide)
Other	<ul style="list-style-type: none">• Create a unique and persistent identifier for each “instance” or “observation” to include:<ul style="list-style-type: none">-The observation or instance type (e.g. lab, prescription, clinical note)-The “Agent/Entity” that generates the observation-The Time-stamp indicating when it was created-The local identification code assigned by the “Agent/Entity”• This will require the creation of a new metadata field

Provenance: Discussion of Recommendations

- The Task Force recommends that the initial requirements for Provenance start with who (“Agent/Entity” which subsumes “Author /Author Organization) is responsible for its accuracy and when (time stamp: date/time) the instance or observation was created.
- The third component, the what (similar to what is found in the “observation” field), is a new addition to the ONC proposal. It applies to the type of data involved.
- The data element type should already be included by the observation category although the choices may need to be expanded
- Subsequent versions can be expanded as needed to include other observation attributes.
- We propose to use Provenance to create a unique and persistent identifier for each instance and observation, essential for the “Deduplication” use case
- This unique identifier may require a new metadata field
- We chose “Agent/Entity” instead of “Author” because it is more general
 - » All authors are “Agents/Entities” , but not all “Agents/Entities” are authors
 - » “Agents/Entities” can include machines, data aggregators

Clinical Notes: Data Element Recommendations

ONC Proposed Data Element	USCDI Task Force Recommendations
Consultation Note	<ul style="list-style-type: none">• Adopt
Discharge Summary Note	<ul style="list-style-type: none">• Adopt
History & Physical	<ul style="list-style-type: none">• Adopt
Imaging Narrative	<ul style="list-style-type: none">• Adopt
Laboratory Report Narrative	<ul style="list-style-type: none">• Adopt (clarify use restricted to special reports and narrative)
Pathology Report Narrative	<ul style="list-style-type: none">• Adopt
Procedure Note	<ul style="list-style-type: none">• Adopt (clarify whether this includes the “Operative Note”)
Progress Note	<ul style="list-style-type: none">• Adopt

Clinical Notes: Additional Recommendations

ONC Proposed Data Element	USCDI Task Force Recommendations
Other	<ul style="list-style-type: none"><li data-bbox="838 304 1619 396">• Amend “Data Element” to “Note” or “Document”

Clinical Notes: Discussion of Recommendations

- Some standardized C-CDA Note and Document types were omitted from original list.
 - » Among those, the Transfer Summary Note is a better structure for assuring continuity of care than the Discharge Summary which is a regulatory requirement.
- New note types which reflect the clinical and communication needs of clinicians and service providers who are not hospital based or in ambulatory care practices. Their needs are not adequately represented by the original list.
 - » Advance Care Planning and Reconciled Medication List are valuable as separate notes even though they might be included in other HL7 documents.
 - » The Long Term Services and Supports Care Plan is currently in ballot at HL7. It will provide the communication bridge between medical and supportive services.

Pediatric Vital Signs: Data Element Recommendations

ONC Proposed Data Element	USCDI Taskforce Recommendations
BMI percentile per age and sex for youth 2-20	<ul style="list-style-type: none">• Omit.• Do not require sharing of values that are calculated from core data. Provide the core data instead.
Weight for age per length and sex	<ul style="list-style-type: none">• Omit.• Amend data element to read “Weight for length percentile by age and sex for youth 2-20”.• Do not require sharing of values that are calculated from core data. Provide the core data instead.
Occipital-frontal circumference < 3 years old	<ul style="list-style-type: none">• Adopt

Pediatric Vital Signs: Additional Recommendations

ONC Proposed Data Element	USCDI Taskforce Recommendations
Other	<ul style="list-style-type: none">• Add “length” to the pediatric vital signs as a complement to “height”
	<ul style="list-style-type: none">• Explicitly declare that the current USCDI Vital Signs apply to all age groups• Calculated values such as percentiles for age, gender are important, and when/if they’re required, they should apply to all Vital Signs

Pediatric Vital Signs: Discussion of Recommendations

- There was a divergence of opinion regarding the requirement to calculate and then share important pediatric measures such as percentiles, BMI.
- One group held that by providing the raw data (height, weight, length, etc.) the receiving system could calculate these values in a way that is consistent with their usual practice thereby avoiding the exchange of data that might be calculated using different nomograms and data sets. As an example please see <https://apps.smarthealthit.org/app/growth-chart>
- The other group felt that there would be value especially for patients and parents to have this information because they are unlikely to have the functionality to calculate and trend these data.
- The compromise was to encourage sites that already calculate and store this information to share it with the other vital signs.
- There are SMART on FHIR apps to do these calculations.

Additional Data Element Recommendations

USDCI Taskforce Recommendations

- | | |
|---|---|
| <ul style="list-style-type: none">• Provider Demographics (under Care Team in current draft) | <ul style="list-style-type: none">• Name• Role in the care of the patient• Specialty/Training• Contact Information• Identifier - NPI• Expand in future to include active areas of responsibility |
| <ul style="list-style-type: none">• Consideration given to creating a standard quality query/response template for eQMs | <ul style="list-style-type: none">• Query contains metric specifications (numerator, denominator, exclusions, data elements)• Response via a structured template• Goal is to measure quality metrics in the background |
| <ul style="list-style-type: none">• Medicaid mandated pediatric measurements | <ul style="list-style-type: none">• Hearing screen• Developmental assessments• Vision screening |

Discussion of Additional Recommendations

- Provider demographics are an important component of the Care Plan and enable the assignment of specific care plan responsibilities to a specific provider.
- Additional Pediatric measures which are part of Medicaid required reporting. Creates the platform for automated reporting and supports good clinical care.
- Quality measurement is its own category. Given its importance as a lever to improve clinical care, USCDI could help create a platform for quality measurement by implementing standardized query/response documents.

Patient Demographics: Questions for the HITAC

- Are there other priority use cases that should be addressed in addition to Patient Matching, Clinical Care, and Identity Verification?
- How should we assess benefit and burden of proposed changes?

Provenance: Questions for the HITAC

- Is a unique identifier necessary for each data element?
- Should provenance be used to track a data element across multiple sites or is it sufficient to establish provenance between the current sender and receiver?
- If using a persistent identifier for each data element, do we need to know the entire history beginning with generation of the data element and each time it was exchanged, or just that it came from a trusted source in the last transmission?
- Does the proposed standardized metadata template adequately address provenance?

Clinical Notes: Question for the HITAC

- Does the addition of all standardized C-CDA notes add undue burden?

Pediatric Vital Signs: Question for the HITAC

- On the question of whether to provide raw data and expect the receiver to perform a calculation, or to have the sender perform the calculation and send the result, what does the HITAC prefer?

Additional Recommendations: Questions for the HITAC

- **Are there additional comments on:**
 - » Provider demographics
 - » Required pediatric assessments
 - » Quality reporting standard
- **Committee Vote on Draft Recommendations**

Work Plan – Phase 1

Meeting Date	Potential Discussion Items
February 20, 2019	• HITAC – Announce USCDI Task Force charge
March 5, 2019	• Kickoff Meeting for Phase 1 • Discuss Patient Demographics Data Elements
March 11, 2019	• Discuss Provenance Data Elements
March 19, 2019	• HITAC – Present progress on draft recommendations
March 25, 2019	• Discuss Clinical Notes
April 1, 2019	• Discuss Pediatric Vital Signs Data Elements • Draft recommendations
April 5, 2019	• Update and refine recommendations
April 10, 2019	• HITAC – Present draft recommendations
April 15, 2019	• Finalize recommendations
April 25, 2019	• HITAC – Present final recommendations



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Thank you



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