



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

## U.S. Core Data for Interoperability Task Force

---

Christina Caraballo, Co-Chair  
Terry O'Malley, Co-Chair

May 3, 2019



# Agenda

- Call to Order/Roll Call
- Opening Remarks and Workgroup Schedule
- Discuss Draft HITAC Recommendations
- Public Comment
- Next Steps and Adjourn

# 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

First Name	Last Name	Organization	Organization Type
<b>CO-CHAIRS</b>			
Christina	Caraballo	Audacious Inquiry	Consultant/Patient Advocacy
Terrence	O'Malley	Massachusetts General Hospital	Health & Hospital Organization
<b>MEMBERS</b>			
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
Mark	Roche	CMS	Federal
<b>ONC STAFF</b>			
Stacy	Perchem	ONC	Federal
Adam	Wong	ONC	Federal
Johnny	Bender	ONC	Federal

# USCDI Task Force Guiding Principles and Scope

- The primary focus of the TF in Phase 1 is to provide recommendations regarding proposed or missing Data Elements in USCDI v1.
- The TF did not consider how the proposed Data Elements could be incorporated into current or future record systems or provide recommendations regarding how that might occur.
- Unless otherwise indicated, each of the TF recommendations apply to USCDI v1.
- The TF cites different transport standards as examples; however, the recommendations are agnostic regarding transport.
- The TF assumes that all USCDI data elements will be tightly specified and semantically interoperable.

# Patient Demographics: Use Cases

Patient demographics supports:

- Patient matching
- Identity verification
- Clinical care

# Demographics: Recommendations 1-2

ONC Recommendations	USCDI Task Force Recommendation Number	Recommendation Detail
<b>Address</b>	Recommendation 1:	Accept Address as a proposed data element
		Additional considerations
		a.) Include current and previous addresses
		b.) Adopt a standardized format and content* for addresses
		c.) Include a designation for individuals experiencing homelessness, including displaced persons and refugees
		d.) Explore the feasibility of using and/or supporting an international address standard
<b>Phone number</b>	Recommendation 2:	Accept Phone Number as a proposed data element
		Additional considerations
		a.) Include designations for both mobile phone and landline
		b.) Include a designation indicating whether the number is that of the patient or of another party

# Demographics: Recommendations 3-8

ONC Recommendations	USCDI Task Force Recommendation Number	Recommendation Detail
		<b>The TF proposes the following additional data elements for consideration:</b>
	Recommendation 3	Destination(s) for electronic communications
	Recommendation 4	Designations for preferred method(s) and destination(s) of communication
	Recommendation 5	Designation the individual(s) with authority to consent to treatment and data use
	Recommendation 6	A designation for the last four digits of the Social Security Number
	Recommendation 7	Designations for inclusion of optional identifiers including IDs issued by State or Federal governments
	Recommendation 8	A designation for self-reported gender identity



# Provenance: Use Cases

Data Provenance supports:

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

# Provenance: Recommendations 9 -10

ONC Recommendations	USCDI Task Force Recommendation Number	Recommendation Detail
<b>Author's Organization</b>	Recommendation 9	Accept Author's Organization as a proposed data element
<b>Author</b>	Recommendation 10	Accept Author as a proposed data element with additional considerations:
		a.) Use Author only when the identity of the Author is unambiguous
		b.) Use Author's Organization when the identity of the Author is ambiguous

# Provenance: Recommendations 11-13

ONC Recommendations	USCDI Task Force Recommendation Number	Recommendation Detail
Author's Time Stamp	Recommendation 11	Accept Author's Time Stamp as a proposed data element with additional considerations:
		a.) Use Author's Time Stamp when the identity of the Author is unambiguous
		b.) Use Author's Organization's Time Stamp when the identity of the Author is ambiguous
		c.) Establish a consistent definition for "Time Stamp"
		<b>The TF proposes the following additional data elements for consideration:</b>
	Recommendation 12	A unique Organization identity
	Recommendation 13	A unique Patient identity when the Organization is an individual providing patient generated data

# Clinical Notes: Use Cases

Clinical Notes supports:

- Improving accessibility to information through more granular sorting of incoming notes
- Improving communication across the care continuum

# Clinical Notes: Recommendation 14

ONC Recommendations	USCDI Task Force Recommendation Number	Recommendation Detail
<b>Clinical Notes</b>		
Consultation Note	Recommendation 14	Accept all proposed Clinical Notes data elements
Discharge Summary Note		
History and Physical		
Imaging Narrative		
Pathology Report Narrative		
Procedure Note		
Progress Note		

# Clinical Notes: Recommendation 15

ONC Recommendations	USCDI Task Force Recommendation Number	Recommendation Detail
<b>Laboratory Report Narrative</b>	Recommendation 15	Accept Laboratory Narrative as a proposed data element with additional considerations:
		Restrict the use of this note to special reports and narrative for specific laboratory results. The purpose of this restriction is to discourage sending results data in text fields that might otherwise be sent using discrete result component fields. For example, the results of a complete blood count should be stored and exchanged as discrete components (e.g., WBC, Hgb, Hct) as opposed to a free text “blob” within a Laboratory Report Narrative note.

# Clinical Notes: Recommendations 16-21

ONC Recommendations	USCDI Task Force Recommendation Number	Recommendation Detail
Clinical Notes		<b>Consider adding the following note types to USCDI v1 Clinical Notes Data Elements:</b>
	Recommendation 16	<b>Continuity of Care Document.</b> Commonly used and widely supported
	Recommendation 17	<b>Operative Note.</b> Commonly used and widely supported
	Recommendation 18	<b>Transfer Summary Note.</b> Neither commonly used nor widely supported, This note type is better configured for transfers of care than the more widely used Discharge Summary. The Transfer Summary provides specific information needed for the continued safe and effective immediate treatment of the patient. In contrast, the Discharge Summary memorializes the hospitalization.
	Recommendation 19	<b>Care Plan Note.</b> Neither commonly used nor widely supported however it is increasing sought as a more effective means to coordinate care of clinically complex individuals.
	Recommendation 20	<b>Advance Care Planning Note.</b> Has significant clinical importance especially in settings that perform emergent interventions.
	Recommendation 21	<b>Miscellaneous Note.</b> This note is a placeholder for new, yet unspecified, document types (e.g. sharing pricing data with patients and providers). This note should only be used for content that is not adequately transmitted in other note types.

# Clinical Notes: Recommendations 22-23

ONC Recommendations	USCDI Task Force Recommendation Number	Recommendation Detail
<b>Clinical Notes</b>		Consider adding the following note types to USCDI v1 Clinical Notes Data Elements in a later USCDI version:
	Recommendation 22	Referral Note
	Recommendation 23	Long Term Services and Support Care Plan Note



# Pediatric Vital Signs: Use Cases

Pediatric Vital Signs supports:

- Exchange of vital sign measurements
- Exchange of calculated values derived from vital sign measurements

# Pediatric Vital Signs: Recommendations 24-26

ONC Recommendations	USCDI Task Force Recommendation Number	Recommendation Detail
<b>BMI percentile per age and sex for youth 2-20</b>	Recommendation 24	Accept BMI percentile as a proposed data element with additional considerations:
		a.) Due to the significant programming burden for systems that do not already calculate and store these value, consider requiring this data element only if the IT system already stores it
		b.) Consider requiring the storage of this data element whenever the system provides it to the patient/guardian
		c.) Consider requiring any system that stores this information to provide it as part of vital signs
<b>Weight for age per length and sex</b>	Recommendation 25	Accept Weight for age percentiles as a proposed data element with additional considerations:
		a., b., c.) Addition considerations: same as Recommendation 24
		d.) Rename data element as “weight for length percentile by age and sex for youth 2-20”
<b>Occipitofrontal circumference under 3 years old</b>	Recommendation 26	Accept Occipitofrontal circumference under 3 years old as a proposed data element

# New Data Elements: Recommendations 27-28

USCDI v1 Data Class	USCDI Task Force Recommendation Number	Recommendation Detail
<b>Care Team Members</b>	Recommendation 27	Consider adding Provider Demographics
		a.) Name
		b.) Contact Information
		c.) Unique Identity (e.g. NPI, certification, state license)
<b>Medications</b>	Recommendation 28	Consider adding the following data elements
		a.) Date/time the list of current medications was reconciled
		b.) The identity of who reconciled the list
		c.) Indication or associated diagnosis for each medication

# New Data Class: Recommendations 29

Proposed Data Class	USCDI Task Force Recommendation Number	Recommendation Detail
Quality Measures	Recommendation 29	Consider adding a Quality Measures Data Class
		a.) Identify data elements in USCDI v1 routinely used for tracking and measuring quality
		b.) Organize these data elements into a new “Quality Measurement” data class
		c.) Establish semantic interoperability across quality measures

# Unique Data Element Identity: Recommendations 30-31

USCDI v1 Data Class	USCDI Task Force Recommendation Number	Recommendation Detail
<b>Partially derived from Provenance</b>	Recommendation 30	Consider creating a unique and persistent identity for each data element to support data element deduplication and versioning
		One possible approach is to use the following:
		<ul style="list-style-type: none"> <li>• The uniquely identified source organization that generated the Data Element</li> <li>• The Author's Organization's Time Stamp indicating when that element was ready for sharing with users other than the author</li> <li>• The unique local identification code given to that Data Element by the source system/organization HIT system</li> <li>• The data type</li> </ul>
	Recommendation 31	Consider developing a governance structure to support data identity
		<ul style="list-style-type: none"> <li>• Agree to use a standardized process to give a unique identity to each data element</li> <li>• Agree to maintain the unique identity assigned by the source</li> <li>• Agree to add a new identity and retain the original identity when the site changes the data element</li> </ul>

To make a comment please call:

**Dial: 1-877-858-7671**

*(once connected, press “\*1” to speak)*

**All public comments will be limited to three minutes.**

You may enter a comment in the  
**“Public Comment”** field below this presentation.

Or, email your public comment to [onc-hitac@accelsolutionsllc.com](mailto:onc-hitac@accelsolutionsllc.com).

*Written comments will not be read at this time, but they will be delivered to members of the Workgroup and made part of the Public Record.*



The Office of the National Coordinator for  
Health Information Technology

Health IT Advisory Committee

## Meeting Adjourned

---



@ONC\_HealthIT



@HHSOnc



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**

<b>Assessment and Plan of Treatment</b> 	<b>Laboratory</b>  <ul style="list-style-type: none"> <li>• Tests</li> <li>• Values/Results</li> </ul>	<b>Provenance *NEW</b>  <ul style="list-style-type: none"> <li>• Author</li> <li>• Author Time Stamp</li> <li>• Author Organization</li> </ul>
<b>Care Team Members</b> 	<b>Medications</b>  <ul style="list-style-type: none"> <li>• Medications</li> <li>• Medication Allergies</li> </ul>	<b>Smoking Status</b> 
<b>Clinical Notes *NEW</b>  <ul style="list-style-type: none"> <li>• Consultation Note</li> <li>• Discharge Summary Note</li> <li>• History &amp; Physical</li> <li>• Imaging Narrative</li> <li>• Laboratory Report Narrative</li> <li>• Pathology Report Narrative</li> <li>• Procedure Note</li> <li>• Progress Note</li> </ul>	<b>Patient Demographics</b>  <ul style="list-style-type: none"> <li>• First Name</li> <li>• Last Name</li> <li>• Previous Name</li> <li>• Middle Name (including middle initial)</li> <li>• Suffix</li> <li>• Birth Sex</li> <li>• Date of Birth</li> <li>• Race</li> <li>• Ethnicity</li> <li>• Preferred Language</li> </ul>	<b>Unique Device Identifier(s) for a Patient's Implantable Device(s)</b> 
<b>Goals</b>  <ul style="list-style-type: none"> <li>• Patient Goals</li> </ul>	<ul style="list-style-type: none"> <li>• Address *NEW</li> <li>• Phone Number *NEW</li> </ul>	<b>Vital Signs</b>  <ul style="list-style-type: none"> <li>• Diastolic Blood Pressure</li> <li>• Systolic Blood Pressure</li> <li>• Body Height</li> <li>• Body Weight</li> <li>• Heart Rate</li> <li>• Respiratory rate</li> <li>• Body Temperature</li> <li>• Pulse oximetry</li> <li>• Inhaled oxygen concentration</li> </ul>
<b>Health Concerns</b> 	<b>Problems</b> 	<ul style="list-style-type: none"> <li>• Pediatric Vital Signs *NEW                             <ul style="list-style-type: none"> <li>- BMI percentile per age and sex for youth 2-20</li> <li>- Weight for age per length and sex</li> <li>- Occipital-frontal circumference for children &lt; 3 years old</li> </ul> </li> </ul>
<b>Immunizations</b> 	<b>Procedures</b> 	



# 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:**
  - » Include current and previous addresses
  - » Include a designation for individuals experiencing homelessness, including displaced persons and refugees
  - » Adopt a standardized format and content\* for addresses
  - » Explore the feasibility of using and/or supporting an international address standard

\*<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: ONC Proposed Data Elements

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

# 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

# Clinical Notes: Use Cases

Clinical Notes supports:

- Improving accessibility to information through more granular sorting of incoming notes
- Improving communication across the care continuum

# 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.**



# 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