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

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

April 5, 2019
Agenda

• Call to Order/Roll Call
• Opening Remarks and Workgroup Schedule
• Review HITAC Recommendations and Slide Presentation
• Public Comment
• Next Steps and Adjourn
Agenda [April 10 HITAC meeting]

- USCDI Task Force Members
- USCDI Task Force Phase 1 Charge
- Phase 1 Draft Recommendations
- Phase 1 Work Plan
- Questions
## Task Force Members

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

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.

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.

- 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

- Problems

- Procedures

- Smoking Status

- 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

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

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

USCDI v1
General Principles

• Be parsimonious with recommendations for new elements
• Divide recommendation into two groups:
  • Those that can be implemented using current CEHRT functionality
  • Those that will require new functionality or programming
• Each section is organized as follows:
  • Slide 1: Displays ONC recommendations with TF response
  • Slide 2: Additional TF recommendations
  • Slide 3: Justification and discussion of proposed recommendations
  • Slide 4: Questions for the HITAC
## Patient Demographics: Data Element Recommendations

<table>
<thead>
<tr>
<th>ONC Proposed Data Element</th>
<th>USCDI Task Force Recommendations</th>
</tr>
</thead>
</table>
| Address                  | • Use standardized format and content for Address  
  - See AHIMA, USPS, Association for Healthcare Documentation Integrity, and current requirements for CEHRTs for applicable standards |
| Phone Number             | • Use mobile phone number as primary  
  • Landline as secondary |
## Patient Demographics: Additional Recommendations

<table>
<thead>
<tr>
<th>ONC Proposed Data Element</th>
<th>USCDI Task Force Recommendations</th>
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</thead>
</table>
| Address                   | • Add a designation for individuals experiencing homelessness including displaced persons and refugees. Bring to USCDI once standards exist  
• Add preferred e-mail address |
| Other                     | • Add a section for “Pediatric Demographics”:  
  - Contact information for individual(s) with consent authority  
  - Multiple addresses for parents, school, guardian  
  - Contact information for Children’s Services Case Manager  
• Consider adding optional identifiers such as:  
  - Last four digits of SSN  
  - Vetted IDs such as: State driver’s license, State issued ID, Passport number, Military ID  
  - Direct address |
Patient Demographics: Discussion of Recommendations

• Two principal use cases: Patient Matching and Clinical Care.

• Standard address including past addresses is a reasonable addition.

• Mobile phone number is one of the most stable patient identifier.

• 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.
Patient Demographics: Questions for the HITAC

- Are there other priority use cases that should be addressed in addition to Patient Matching and Clinical Care?
- How should we assess benefit and burden of proposed changes?
- Is it reasonable to require currently available CEHRT to be “turned on” if it can accommodate a recommendation?
## Provenance: Data Element Recommendations

<table>
<thead>
<tr>
<th>ONC Proposed Data Element</th>
<th>USCDI Task Force Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author</td>
<td>• Use “Source” in place of “Author”</td>
</tr>
<tr>
<td>Author’s Time Stamp</td>
<td>• Use “Source” Time Stamp</td>
</tr>
<tr>
<td>Author’s Organization</td>
<td>• Use “Source” Organization to include name and location</td>
</tr>
</tbody>
</table>
### Provenance: Additional Recommendations

<table>
<thead>
<tr>
<th>ONC Proposed Data Element</th>
<th>USCDI Taskforce Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author</td>
<td>• Specify a permitted “Source Type” for each data type. (e.g., For lab data: site and entity. For a Procedure Note: the performing clinician)</td>
</tr>
<tr>
<td></td>
<td>• Consider more granular descriptions in later iterations to include role of the data source within the organization and setting (e.g., Vital signs collected at home vs pharmacy vs clinic vs hospital by MD vs RN vs Aide)</td>
</tr>
<tr>
<td>Author Organization</td>
<td></td>
</tr>
</tbody>
</table>
| Other                     | • Implement a standardized metadata template for data element identification to include:  
  - Data type using standardized nomenclature  
  - Source ID  
  - Source Time Stamp  
• Require the Source to indicate whether the data and its provenance tag are rendered in a standardized code or in a local code set to indicate whether it is computable |
Provenance: Discussion of Recommendations

• We chose “Source” instead of “Author” because it is more general.
  • All authors are sources, but not all sources are authors
  • Sources can include machines, data aggregators
  • A specific author may be difficult to identify and be less informative than the identification of the source site.

• We propose to use Provenance to create a unique and persistent identification for each data element

• This will require standardized taxonomies for data types and source types which are of sufficient granularity to create a unique identifier.

• Subsequent template versions can be expanded as needed to include other data attributes
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?
- Does the proposed standardized metadata template adequately address provenance?
Clinical Notes: Data Element Recommendations

<table>
<thead>
<tr>
<th>ONC Proposed Data Element</th>
<th>USCDI Task Force Recommendations</th>
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</thead>
<tbody>
<tr>
<td>Consultation Note</td>
<td>• Adopt</td>
</tr>
<tr>
<td>Discharge Summary Note</td>
<td>• Adopt</td>
</tr>
<tr>
<td>History &amp; Physical</td>
<td>• Adopt</td>
</tr>
<tr>
<td>Imaging Narrative</td>
<td>• Adopt</td>
</tr>
<tr>
<td>Laboratory Report Narrative</td>
<td>• Adopt</td>
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<td>Pathology Report Narrative</td>
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<td>Procedure Note</td>
<td>• Adopt</td>
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<td>Progress Note</td>
<td>• Adopt</td>
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## Clinical Notes: Additional Recommendations

<table>
<thead>
<tr>
<th>ONC Proposed Data Element</th>
<th>USCDI Task Force Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>• Amend “Data Element” to “Note” or “Document”</td>
</tr>
</tbody>
</table>

- Continuity of Care Document
- Operative Note
- Referral Note
- Transfer Summary Note
- Care Plan Note
- Reconciled Medication List
- Advance Care Planning Note
- Long Term Services and Supports Care Plan Note
Clinical Notes: Discussion of Recommendations

- Standardized HL7 Note and Document types omitted from original list.
- 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 well 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.
  - The Transfer Summary Note is a better structure for assuring continuity of care than the Discharge Summary which a regulatory requirement.
Clinical Notes: Questions for the HITAC

- Does the addition of standardized HL7 notes add undue burden?
## Pediatric Vital Signs: Data Element Recommendations

<table>
<thead>
<tr>
<th>ONC Proposed Data Element</th>
<th>USCDI Taskforce Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMI percentile per age and sex for youth 2-20</td>
<td>• Omit.</td>
</tr>
<tr>
<td></td>
<td>• Do not require sharing of values that are calculated from core data. Provide the core data instead.</td>
</tr>
<tr>
<td>Weight for age per length and sex</td>
<td>• Omit.</td>
</tr>
<tr>
<td></td>
<td>• Amend data element to read “Weight for length percentile by age and sex for youth 2-20”</td>
</tr>
<tr>
<td></td>
<td>• Do not require sharing of values that are calculated from core data. Provide the core data instead.</td>
</tr>
<tr>
<td>Occipital-frontal circumference &lt; 3 years old</td>
<td>• Adopt</td>
</tr>
</tbody>
</table>
## Pediatric Vital Signs: Additional Recommendations

<table>
<thead>
<tr>
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<th>USCDI Taskforce Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other</td>
<td>• Add “length” to the pediatric vital signs as a complement to “height”</td>
</tr>
<tr>
<td></td>
<td>• Explicitly declare that the current USCDI Vital Signs apply to all age groups</td>
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</tbody>
</table>
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.
- 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.
Pediatric Vital Signs: Questions 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 Data Element Recommendations

#### USDCI Taskforce Recommendations

<table>
<thead>
<tr>
<th>Recommendations</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider Demographics</td>
<td>Name, Role in the care of the patient, Specialty/Training, Contact Information, Identifier - NPI, Expand in future to include active areas of responsibility</td>
</tr>
<tr>
<td>Medicaid mandated pediatric measurements</td>
<td>Hearing screen by 3 months, Developmental assessments at 9, 18 and 36 months, Vision screening by 3-4 years</td>
</tr>
<tr>
<td>Consideration given to creating a standard quality query/response template for eCQMs</td>
<td>Query contains metric specifications (numerator, denominator, exclusions, data elements), Response via a structured template, Goal is to measure quality metrics in the background</td>
</tr>
</tbody>
</table>
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.
Additional Recommendations: Questions for the HITAC

Are there additional comments on:

• Provider demographics
• Required pediatric assessments
• Quality reporting standard

Thank you.
## Work Plan – Phase 1

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

To make a comment please call:

Dial: 1-877-407-7192

(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.

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.
Meeting Adjourned
Appendix

- USCDI Fact Sheet
The United States Core Data for Interoperability Standard

We propose to replace the “Common Clinical Data Set” (CCDS) definition with the “United States Core Data for Interoperability” (USCDI) standard beginning with USCDI Version 1 (v1) in § 170.213. This will increase the minimum baseline of data classes that must be commonly available for interoperable exchange.

USCDI reflects the same data classes referenced by the CCDS definition and includes new required data classes and data elements:

- Provenance
- Clinical Notes
- Pediatric Vital Signs
- Address & Phone Number

If adopted in a final rule, health IT developers would be required to update their certified health IT to support the USCDI v1 for all certification criteria affected by this proposed change.

USCDI Standard Annual Update Schedule
ONC intends to establish and follow a predictable, transparent, and collaborative process to expand the USCDI, including providing stakeholders with the opportunity to comment on the USCDI’s expansion.

PRE-DECISIONAL DO NOT DISCLOSE