



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

U.S. Core Data for Interoperability Task Force: Final Recommendations to the HITAC (Draft) April 18, 2018

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Task Force Draft Presentation: Outline

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USCDI Task Force Members

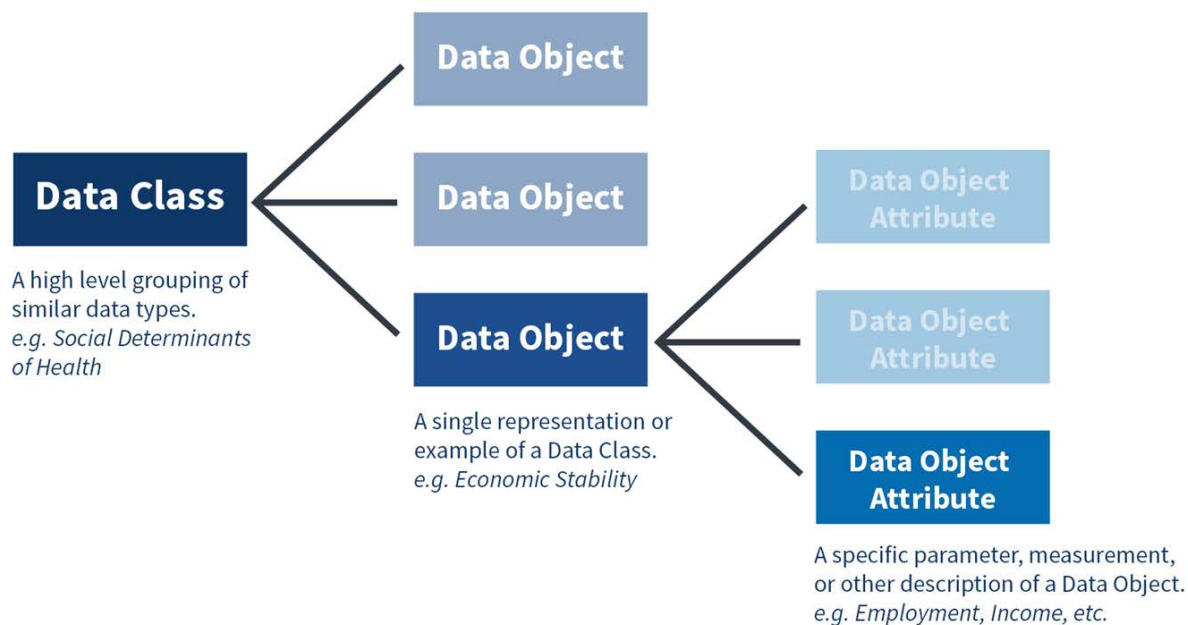
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U.S. Core Data for Interoperability (USCDI) Charge

- **Overarching Charge:** Review and provide feedback on the U.S. Core Data for Interoperability (USCDI) structure and process.
- **Specific Charge:** Provide recommendations on the following:
 - » Mechanisms/approaches to receive stakeholder feedback regarding data class priorities;
 - » The proposed categories to which data classes would be promoted and objective characteristics for promotion;
 - » How the USCDI would be expanded and by how much; and
 - » Any factors associated with the frequency with which it would be published.

Definition of Terms

- **Data Class:** A high level grouping of similar data types. For example “Demographics”. A Data Class is made up of Data Objects
- **Data Object:** A single representation or example of a data class. For example “Address” is a Data Object within “Demographics”. Data Objects have Attributes.
- **Data Object Attribute:** A specific parameter, measurement or other description of a data object. For example: “Street name, Street Number, Zip Code” are attributes within “Address”.



Definition of Terms

- **Stakeholder:** An individual or entity with an interest in advancing data classes through the USCDI process.
- **Data Class Work Group (DCWG):** A formal group of stakeholders with the responsibility to define the data class, apply applicable semantic standards, harmonize data elements and produce a data class sufficiently specified to be tested. The DCWG is the steward of the data class through cycles of testing and revision.
- **Data Class Biography:** The provenance of each data object and class as it moves through the USCDI process resulting from testing.
- **Net Value:** Total attributed stakeholder value minus stakeholder cost where the scale can be any type of cost or value (time, money, safety, quality, burden, etc.).
- **USCDI Process:** A data class maturation process with the goal to identify data classes with broad applicability to advance interoperability.

Introduction to Recommendations

- The Task Force recommendations seek to leverage the USCDI process to address the common causes that prevent data from being shared.
 - 1) Data doesn't exist
 - 2) Data exists but is not collected at all or in part
 - 3) Data is collected but there are no semantic standards for normalizing it
 - 4) Data is collected and there are appropriate semantic standards, but they are not being broadly applied
 - 5) Data is collected and semantic standards are applied; however, inconsistent application of semantic and other standards (eg., use of local or custom codes) by organizations inhibits interoperability.
 - 6) Detailed and reliable workflows to share the data outside of the originating organization have not been established.

Summary of Recommendations

- **Recommendation 1:** Establish a six stage maturation process through which data classes would be promoted, each with objective characteristics for promotion
- **Recommendation 2:** Expand the USCDI as each data class completes Stages 1-4 without a predetermined timeline
- **Recommendation 3:** Establish an annual publishing cycle for the USCDI with periodic bulletins as data items/data classes progress from one stage to the next
- **Recommendation 4:** Incorporate public feedback in each stage

Recommendation 1: Stages for the USCDI Process

- Stage 1: Proposed (new)
- Stage 2: In Preparation (new)
- Stage 3: Emerging
- Stage 4: Candidate
- Stage 5: USCDI
- Stage 6: Widespread Deployment (new)

Stage 1: Proposed

- **Purpose of Stage 1:**
Identify data classes and objects of value to any stakeholder
- **How to get in:**
Stakeholder proposes data objects and use cases in shared public resource
- **What happens in Stage 1:**
 - » Stakeholder submissions are sorted
 - » Data objects are aggregated by use and value to many stakeholders to begin the process of creating a data class
 - » Estimate net value and priority level to stakeholders, especially government and patients
- **How to get out:**
 - » Demonstrate high net value to multiple stakeholders
 - » Receive “high” priority rating

Stage 1: Proposed

- **Issues to clarify by testing**
 - » Does this process work?
 - Does it encourage submission by non-traditional stakeholders
 - Does it help identify communities of interest
 - » The cost and resources required to stand-up a public resource
 - » The ease with which stakeholder communities can be identified
 - » A process to identify and specify “value”

Stage 2: In Preparation

- **Purpose of Stage 2:**
Develop tightly defined data class supported by value to multiple stakeholders
- **How to get in:**
 - » Demonstrate high net value to multiple stakeholders
 - » Receive “high” priority rating
- **What happens in Stage 2:**
 - » Develop the Data Class:
 - Identify the data objects that make up the data class
 - Identity and reuse when possible previously specified data objects
 - Harmonization of similar data objects
 - Define the scope of the data class
 - Identify Applicable Standards
 - Identify relevant use cases

Stage 2: In Preparation

- **How to get out:**
 - » Data Class and Use Cases sufficiently specified for pilot testing
 - » Two versions of the Data Class are possible
 - One specified to be computable
 - One specified to be sent as minimally structured data sufficient to identify content, patient and receiver
- **Issues to clarify by testing:**
 - » The time and resources required to stand-up a DCWG
 - » Whether this is a process that can work at scale
 - » The degree to which stakeholder communities volunteer to participate
 - » Whether a volunteer DCWG can perform the work assigned to it
 - » Should Stage 3 be where standards are identified and applied
 - » Whether the criteria for moving to Stage 3 are reasonable or whether they create too great a barrier to advancement

Stage 3: Emerging

- **Purpose of stage:**
Test the Data Class in pilot settings, revise and retest
- **How to get in:**
Clearly defined Data Class and Use Cases with applicable standards
- **What happens in Stage 3:**
 - » Testing in Dev Days or Connectathon-type events
 - » Further refinement and specification of data class based on testing in pilot sites
 - » Resolve gaps in applicable standards and identify barriers to data collection
- **How to get out:**
 - » Achieve sufficient technical specificity for testing in production settings

Stage 3: Emerging

- **Issues to clarify by testing:**
 - » The cost and resources required for pilot testing
 - » Whether a DCWG can perform the work assigned to it in this stage
 - » Is the level of testing too little or too much
 - » Whether the criteria for moving to Stage 4 are reasonable or whether they create too great a barrier to advancement.

Stage 4: Candidate

- **Purpose of stage:**
Test data class in production and prepare for deployment at scale
- **How to get in:**
Achieve sufficient technical specificity for testing in production settings
- **What happens in Stage 4:**
 - » Testing and modification to resolve barriers to nationwide implementation
 - » In use in at least one commercial system
- **How to get out:**
 - » Demonstrate that data class is ready to be deployed at scale

Stage 4: Candidate

- Issues to clarify by testing
 - » The cost and resources required for pilot testing
 - » Whether a DCWG can perform the work assigned to it in this stage
 - » Is the level of testing too little or too much
 - » Whether the criteria for moving to Stage 4 are reasonable or whether they create too great a barrier to advancement.

Stage 5: USCDI

- **Purpose of stage:**
Flag the data class as a priority for nationwide deployment and use available resources to drive adoption
- **How to get in:**
Demonstrate that data class is ready to be deployed at scale
- **What happens in Stage 5:**
 - » Policy levers used to promote widespread adoption
 - » QHINs and their participants required to update their technology to support new USCDI data class
- **Widespread adoption = “Stage 6”**

Recommendation 2: USCDI Expansion

Specific Charge: How the USCDI would be expanded and by how much.

Task Force Recommendations:

- Establish process for any stakeholder to propose data items or data classes without restrictions
- Add data classes to the USCDI after successful progression through Stages 1-4
 - » Regardless of timeline with no limit on number of data classes added
- Establish process to review progress of data classes through Stage 5, including a timeline for advancement
 - » Progress through Stage 5 may be impacted by vendor and stakeholder capacity and business cases
- Data class advances to Stage 6 when RCE determines adoption is widespread (exceeds 50%)

Recommendation 3: USCDI Frequency of Publication

Specific Charge: Any factors associated with the frequency with which it would be published.

Task Force Recommendations:

- Publish USCDI annually: “Reference Edition”
 - » At end of the calendar year
 - » Reference changes made over the year
 - » Summary statistics for the USCDI
- Ideally, USCDI is a sortable, interactive tool with relevant resource links (eg. standards bodies, ISA, etc.)
- Minimally available as downloadable version
- Quarterly bulletins to highlight important new information and share changes made to the USCDI

Recommendation 3: USCDI Frequency of Publication

- Publications should include the following:
 - » Stage 2: DCWGs currently active
 - » Stage 3: Data classes in pilot with summary of technical issues resolved and outstanding
 - » Stage 4: Data classes in production testing with technical issues resolved/outstanding, scope and requirements for beta implementation (or reference to where to find implementation materials)
 - » Stage 5: USCDI: Scope and requirements for production implementation (or reference to where to find implementation materials)
 - » Stage 6: Measurements on adoption levels and usage

Recommendation 4: Process for Stakeholder Feedback

Specific Charge: Mechanisms/approaches to receive stakeholder feedback regarding data class priorities

Task Force Recommendations:

- Two-month public comment period following publication of USCDI Reference Edition
- Provide an open, public platform to promote collaboration & information sharing in Stage 1
- Report Stage 2 progress in the public resource under each data class and solicit public comment
- Report progress in Stages 3 and 4 under each data class in the public resource and solicit public comment.

Additional Recommendations

- **Recommendation 5:** Test USCDI Process by Addressing Critical TEFCA Requirements
- **Recommendation 6:** Ensure that the Voice of the Patient is Represented and Heard
- **Recommendation 7:** Support the Process of Data Item Harmonization as a Condition for Data Class Advancement
- **Recommendation 8:** Data Class Management
- **Recommendation 9:** Governance Structure for USCDI

Recommendation 5: USCDI & TEFCA

Test USCDI Process by Addressing Critical TEFCA Requirements

- Create and advance two data classes for the TEFCA:
 - » Items to improve data matching/unique patient identifier
 - » Patient authorizations for permitted uses
- Develop use cases for the 6 permitted uses in TEFCA for testing.
- Measure the effectiveness of the RCE in promoting the voice of the individual
- Review current data classes in the Draft USCDI against the criteria proposed in the TF recommendations

**There was consensus on the need for testing the USCDI process. While alignment with TEFCA was discussed, this specific example was not discussed.*

Recommendation 6: Voice of the Patient

Ensure the Voice of the Patient is Heard

- Establish a process that engages patient representatives in data class creation
- Ensure the patient voice is adequately represented in each stage of the process
 - » RCE will assume some of this responsibility by adding patient representatives to their governance structure
 - » Specifically designated representatives may be required for the DCWGs
- This is no longer a “nice to have” but rather a “must have” as we shift into patient-centric, value-based healthcare delivery

Recommendation 7: Data Class Harmonization

Support the Process of Data Item Harmonization as a Condition for Data Class Advancement

- Support data item harmonization with sufficient resources to enable harmonization to occur at each stage.
- ONC oversight and support for harmonization of each data class is essential
- Examples:
 - » If NQF has interest in a quality measure that from inception to mandate takes 3 years, and in that effort e-measures and corresponding data needs are identified, those identified should enter the USCDI process at that time and not at the end of the process. In this way e-measures will be more achievable and less burdensome.
 - » CMS and the Data Element Library (DEL).

Recommendation 8: Data Class Management

Data Class Management

- The Task Force identified, but did not make specific recommendations for the following areas:
 - » A process to modify established USCDI data classes
 - » A process to remove or retire data classes
 - » A process to create and rapidly advance data classes in response to a public emergency

Recommendation 9: Governance

Governance Structure for USCDI

- ONC acts as the steward for the USCDI
 - » Progress data classes in a timely manner through the USCDI process
 - » Facilitate and oversee DCWGs and additional work groups when appropriate
 - » Identify stakeholders and educate them on effectively engaging in the USCDI process
 - » Collaborate with RCE to measure data classes:
 - Potential net value
 - Technical readiness
 - Adoption level