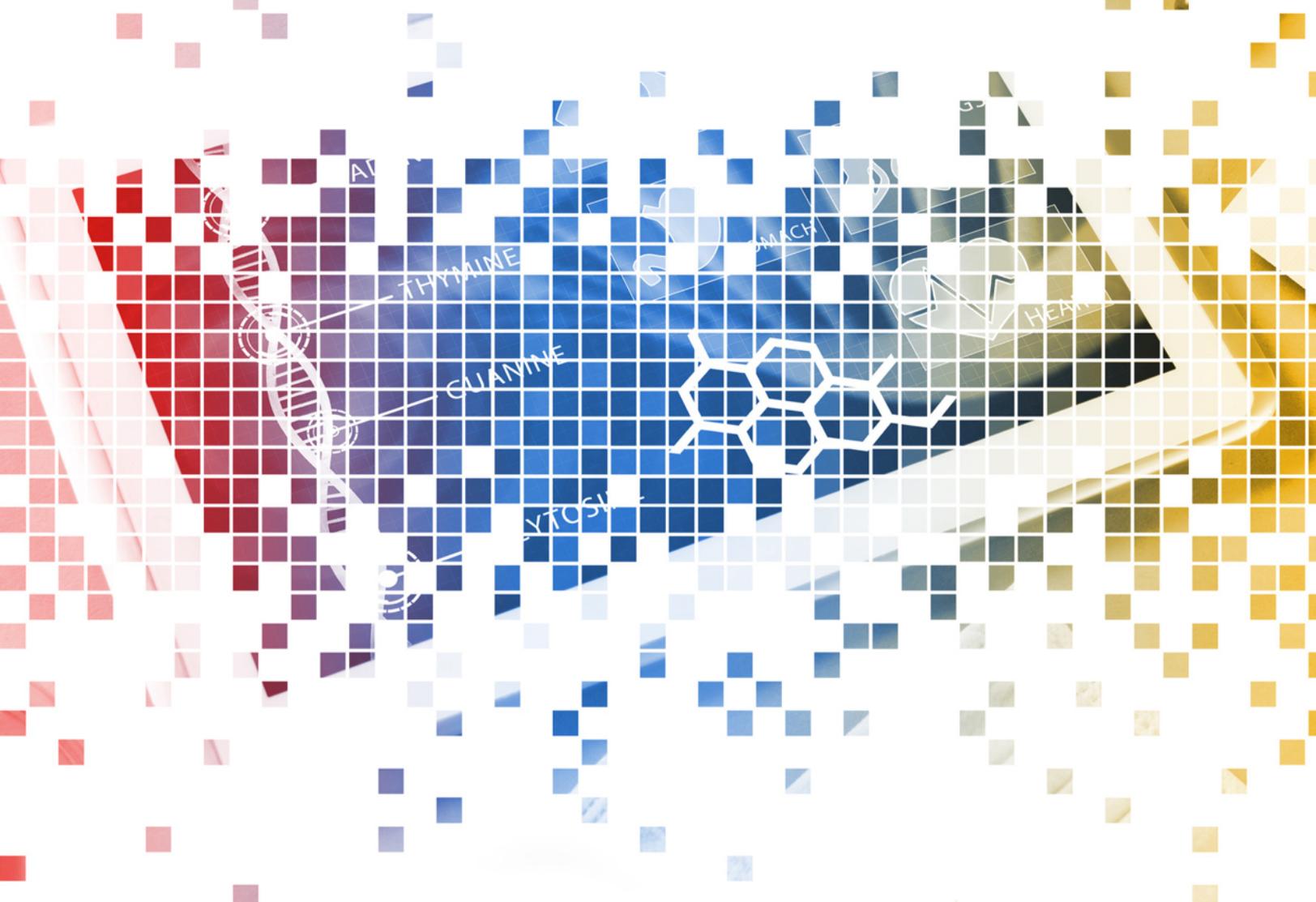




United States Core Data for Interoperability

— DRAFT VERSION 2 (JANUARY 2021) —



The Office of the National Coordinator for
Health Information Technology

USCDI Background

The United States Core Data for Interoperability ([USCDI](#)) is a standardized set of health data classes and constituent data elements for nationwide, interoperable health information exchange. The USCDI establishes a baseline set of data that can be commonly exchanged across care settings for a wide range of uses. The USCDI version 1 (USCDI v1) was adopted as a standard in the [ONC Cures Act Final Rule](#) published May 1, 2020. The standard was included as a required part of certain certification criteria in the [2015 Edition Cures Update](#) and is also referenced in the context of [information blocking](#).

The USCDI's impact is not limited to just health IT products certified under the ONC Health IT Certification Program. The USCDI is also used to align interoperability requirements and national priorities for health IT and health care broadly across industry initiatives. In fact, CMS and other federal, state, local, and tribal partners reference the USCDI for a range of health information exchange purposes.

USCDI Expansion

In 2018, ONC put forward an initial draft USCDI in conjunction with the release of the draft Trusted Exchange Framework and Common Agreement (TEFCA). As part of that publication, we laid out general transparency principles and a potential process for the USCDI's expansion. Subsequently, we charged the Health IT Advisory Committee (HITAC) to make specific recommendations on the USCDI expansion process. The HITAC established the USCDI Task Force and ultimately issued [recommendations](#) on goals for USCDI data element promotion and key components of the promotion model and its processes.

In consideration of the HITAC's recommendations and public feedback, ONC developed a revised USCDI expansion process, which superseded all prior draft expansion approaches. Central to the new process was the establishment of the ONC New Data Element and Class ([ONDEC](#)) submission system, which has been used by stakeholders to submit data elements and classes to be considered for future versions of USCDI. On the basis of the HITAC's recommendations, ONC also developed evaluation criteria to classify each submitted data element into one of three levels (comment, level 1, or level 2) based on the overall value, maturity, and any known challenges to implementation.

In the event that too many level 2 data elements were eligible for promotion into the USCDI's next version, the HITAC recommended that ONC consider establishing a prioritization process in order to reduce the risk of overwhelming providers and health IT developers with new requirements. The HITAC noted that a prioritization process should consider data classes/elements' relevance to high priority goals, applicability to broad stakeholder groups, clearly defined use cases and workflows, and clear value propositions for adoption.

Consistent with these recommendations and the fact that more than 100 submitted data elements were classified at level 2, ONC further prioritized the level 2 data elements for consideration as part of what would be put forward for public comment in Draft USCDI version 2 (USCDI v2). A key factor as part of our prioritization this year recognized that the ongoing COVID-19 pandemic has placed a strain on the resources of health IT developers and the health care community.

For the Draft USCDI v2, we determined that proposed data elements for inclusion would need to meet two general priorities: 1) impose minimal new development burden, and 2) complement existing data elements in USCDI in order to support the broadest possibilities of use. To prioritize data elements for

Draft USCDI v2, we assessed whether a level 2 data element could fill a significant gap within USCDI v1 and was already supported by current versions of the [C-CDA](#) and [FHIR US Core implementation guide](#). We recognize that these criteria may change each year based on trends within the submissions received, high priority target areas, and other factors. We aim to provide relevant details on a given year's priorities in order to provide greater transparency into the process and ensure continued alignment of USCDI submissions to high priority target areas for health IT and health care.

As a result, we identified a set of data classes and elements for the Draft USCDI v2, which is set forth on the following pages. Level 2 data elements that were not included in the Draft USCDI v2 can be reviewed on the [USCDI Level 2 webpage](#).

New Data Classes and Elements in Draft USCDI v2

Care Team Members <ul style="list-style-type: none">• Provider Name ★• Provider Identifier ★	Encounter Information ★ <ul style="list-style-type: none">• Encounter Type ★• Encounter Diagnosis ★• Encounter Time ★	Problems <ul style="list-style-type: none">• Date of Diagnosis ★• Date of Resolution ★	Diagnostic Imaging ★ <ul style="list-style-type: none">• Diagnostic Imaging Order ★• Diagnostic Imaging Report ★
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Key: ★ New Data Class or Element

Public Comment Process

Over the next 3 months, we encourage the public to evaluate the [Draft USCDI v2](#) and submit comments to ONC on the data classes and elements that should be included in the final USCDI v2. Specifically, we encourage the community to take the following steps:

1. Review the current USCDI v1 and comment on whether any applicable standards should be updated in final USCDI v2.
2. Review and comment on the ONC proposed Draft USCDI v2 data elements and any applicable standards.
3. Review the Level 2 data elements that were not included in the Draft USCDI v2 and comment on their potential inclusion in the final USCDI v2 with any applicable standards.

Comments will be accepted until April 15, 2021, on the main [Draft USCDI v2 page](#) or on individual data class or data element pages. ONC will consider these comments and recommendations and begin preparing the final USCDI v2 for publication in July 2021.

After USCDI v2 is published, ONC will consider its inclusion in a future cycle of the [Standards Version Advancement Process](#) (SVAP), which permits health IT developers to voluntarily update their certified health IT with these new USCDI data elements and provide those updates to their customers.

We encourage review of the [ONC Standards Bulletin 2021-1](#), for further discussion of the USCDI expansion process, SVAP updates, and related information.

Draft USCDI v2 Summary of Data Classes and Data Elements

<p>Allergies and Intolerances</p> <ul style="list-style-type: none"> • Substance (Medication) • Substance (Drug Class) • Reaction 	<p>Immunizations</p> <ul style="list-style-type: none"> • Immunizations 	<p>Problems</p> <ul style="list-style-type: none"> • Problems • Date of Diagnosis ★ • Date of Resolution ★
<p>Assessment and Plan of Treatment</p> <ul style="list-style-type: none"> • Assessment and Plan of Treatment 	<p>Laboratory</p> <ul style="list-style-type: none"> • Tests • Values/Results • Laboratory Report Narrative ➡ • Pathology Report Narrative ➡ 	<p>Provenance</p> <ul style="list-style-type: none"> • Author Time Stamp • Author Organization
<p>Care Team Members</p> <ul style="list-style-type: none"> • Care Team Members • Provider Name ★ • Provider Identifier ★ 	<p>Medications</p> <ul style="list-style-type: none"> • Medications 	<p>Smoking Status</p> <ul style="list-style-type: none"> • Smoking Status
<p>Clinical Notes</p> <ul style="list-style-type: none"> • Consultation Note • Discharge Summary Note • History & Physical • Procedure Note • Progress Note 	<p>Patient Demographics</p> <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 • Current Address • Previous Address • Phone Number • Phone Number Type • Email Address 	<p>Unique Device Identifier(s) for a Patient's Implantable Device(s)</p> <ul style="list-style-type: none"> • Unique Device Identifier(s) for a Patient's Implantable Device(s)
<p>Diagnostic Imaging ★</p> <ul style="list-style-type: none"> • Diagnostic Imaging Order ★ • Diagnostic Imaging Report ★ • Diagnostic Imaging Narrative ➡ 	<p>Vital Signs</p> <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 • BMI Percentile (2 - 20 Years) • Weight-for-length Percentile (Birth - 36 Months) • Head Occipital-frontal Circumference Percentile (Birth - 36 Months) 	
<p>Encounter Information ★</p> <ul style="list-style-type: none"> • Encounter Type ★ • Encounter Diagnosis ★ • Encounter Time ★ 	<p>Procedures</p> <ul style="list-style-type: none"> • Procedures 	
<p>Health Concerns</p> <ul style="list-style-type: none"> • Health Concerns 		

Key: ★ New Data Classes and Elements | ➡ Data Element reclassified into this Data Class

DATA CLASS

Allergies and Intolerances

Represents harmful or undesirable physiological responses associated with exposure to a substance.

DATA ELEMENT	APPLICABLE STANDARD(S)
Substance (Medication)	<ul style="list-style-type: none">RxNorm, January 4, 2021 Full Release Update
Substance (Drug Class)	<ul style="list-style-type: none">SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, September 2020 Release
Reaction	<ul style="list-style-type: none">SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, September 2020 Release

DATA CLASS

Assessment and Plan of Treatment

Represents a health professional's conclusions and working assumptions that will guide treatment of the patient.

DATA ELEMENT	APPLICABLE STANDARD(S)
Assessment and Plan of Treatment	

Key:  DRAFT v2 New Data Classes and Elements |  DRAFT v2 Data Element reclassified into this Data Class

DATA CLASS

Care Team Member(s)

The specific person(s) who participate or are expected to participate in the care team.

DATA ELEMENT	APPLICABLE STANDARD(S)
Care Team Member(s)	
Provider Name 	
Provider Identifier 	

DATA CLASS

Clinical Notes

Represents narrative patient data relevant to the respective note types.

DATA ELEMENT	APPLICABLE STANDARD(S)
	Logical Observation Identifiers Names and Codes (LOINC®) v2.69
Consultation Note <i>Contains the response to request from a clinician for an opinion or advice from another clinician.</i>	<ul style="list-style-type: none"> Consult Note (LOINC® code 11488-4)
Discharge Summary Note <i>A synopsis of a patient's admission and course in a hospital or post-acute care setting.</i>	<ul style="list-style-type: none"> Discharge Summary (LOINC® code 18842-5)
History & Physical <i>Documents the current and past conditions and observations of the patient.</i>	<ul style="list-style-type: none"> History and Physical Note (LOINC® code 34117-2)
Procedure Note <i>Encompasses non-operative procedures including interventional cardiology, gastrointestinal endoscopy, osteopathic manipulation, and other specialty's procedures.</i>	<ul style="list-style-type: none"> Procedure Note (LOINC® code 28570-0)
Progress Note <i>Represents a patient's interval status during a hospitalization, outpatient visit, treatment with a post-acute care provider, or other healthcare encounter.</i>	<ul style="list-style-type: none"> Progress Note (LOINC® code 11506-3)

DATA CLASS

Diagnostic Imaging

DATA ELEMENT	APPLICABLE STANDARD(S)
Diagnostic Imaging Order 	<ul style="list-style-type: none"> Logical Observation Identifiers Names and Codes (LOINC®) version 2.69
Diagnostic Imaging Report 	<ul style="list-style-type: none"> Logical Observation Identifiers Names and Codes (LOINC®) version 2.69
Diagnostic Imaging Narrative  <i>Contains a consulting specialist's interpretation of diagnostic imaging data.</i>	<ul style="list-style-type: none"> LOINC® code 18748-4

DATA CLASS

Encounter Information

An episode defined by an interaction between a healthcare provider and the subject of care in which healthcare-related activities take place.

DATA ELEMENT	APPLICABLE STANDARD(S)
Encounter Type 	
Encounter Diagnosis 	<ul style="list-style-type: none"> SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, September 2020 Release International Classification of Diseases ICD-10-CM 2021
Encounter Time 	

DATA CLASS

Goals

An expressed desired health state to be achieved by a subject of care (or family/group) over a period of time or at a specific point of time.

DATA ELEMENT	APPLICABLE STANDARD(S)
Patient's Goals	

DATA CLASS

Health Concerns

Health-related matter that is of interest, importance, or worry to someone who may be the patient, patient's family or patient's health care provider.

DATA ELEMENT	APPLICABLE STANDARD(S)
Health Concerns	

DATA CLASS

Immunizations

Record of an administration of a vaccination or a record of a vaccination as reported by a patient, a clinician, or another party.

DATA ELEMENT	APPLICABLE STANDARD(S)
Immunizations	<ul style="list-style-type: none">• CDC IIS: Current HL7 Standard Code Set, CVX – Vaccines Administered, updates through November 16, 2020• CDC National Drug Code (NDC) Directory – Vaccine NDC Linker Table, updates through November 13, 2020

DATA CLASS

Laboratory

DATA ELEMENT	APPLICABLE STANDARD(S)
<p>Tests</p> <p><i>Examinations of specimens derived from humans to provide information for the diagnosis, prevention, treatment of disease, or impairment of, or assessment of health.</i></p>	<ul style="list-style-type: none"> Logical Observation Identifiers Names and Codes (LOINC®) version 2.69
<p>Values/Results</p> <p><i>Outcome of the examination of a tested specimen.</i></p>	
<p>Laboratory Report Narrative → DRAFT v2</p> <p><i>Contains a consulting specialist's interpretation of the laboratory report.</i></p>	
<p>Pathology Report Narrative → DRAFT v2</p> <p><i>Contains a consulting specialist's interpretation of the pathology report.</i></p>	

DATA CLASS

Medications

DATA ELEMENT	APPLICABLE STANDARD(S)
<p>Medications</p>	<ul style="list-style-type: none"> RxNorm, January 4, 2021 Full Release Update

Patient Demographics

DATA ELEMENT	APPLICABLE STANDARD(S)
First Name	
Last Name	
Previous Name	
Middle Name (including middle initial)	
Suffix	
Birth Sex	<ul style="list-style-type: none"> Birth sex must be coded in accordance with HL7 Version 3 (V3) Standard, Value Sets for AdministrativeGender and NullFlavor (https://www.healthit.gov/sites/default/files/170299_f_29_hl7_v3_agender_and_nullflavor.pdf) attributed as follows: <ol style="list-style-type: none"> Male. M Female. F Unknown. nullFlavor UNK
Date of Birth	
Race	<ul style="list-style-type: none"> The Office of Management and Budget Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity, Statistical Policy Directive No. 15, as revised, October 30, 1997 (https://obamawhitehouse.archives.gov/omb/fedreg_1997_standards) CDC Race and Ethnicity Code Set Version 1.0 (March 2000) (https://www.cdc.gov/phn/resources/vocabulary/index.html)
Ethnicity	<ul style="list-style-type: none"> The Office of Management and Budget Standards for Maintaining, Collecting, and Presenting Federal Data on Race and Ethnicity, Statistical Policy Directive No. 15, as

DATA ELEMENT	APPLICABLE STANDARD(S)
	<p>revised, October 30, 1997 (https://obamawhitehouse.archives.gov/omb/fedreg_1997_standards)</p> <ul style="list-style-type: none"> • CDC Race and Ethnicity Code Set Version 1.0 (March 2000) (https://www.cdc.gov/phin/resources/vocabulary/index.html)
Preferred Language	<ul style="list-style-type: none"> • Request for Comment (RFC) 5646, “Tags for Identifying Languages”, September 2009 (http://www.rfc-editor.org/info/rfc5646) See https://tools.ietf.org/html/bcp47
Current Address	
Previous Address	
Phone Number	<ul style="list-style-type: none"> • ITU–T E.123 (02/2001) International Telecommunication Union E.123: Notation for national and international telephone numbers, e-mail addresses and web addresses • ITU–T E.164 International Telecommunication Union E.164: The international public telecommunication numbering plan
Phone Number Type	
Email Address	

DATA CLASS

Problems

Information about a condition, diagnosis, or other event, situation, issue, or clinical concept that is documented.

DATA ELEMENT	APPLICABLE STANDARD(S)
Problems	<ul style="list-style-type: none">• SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, September 2020 Release
Date of Diagnosis 	
Date of Resolution 	

DATA CLASS

Procedures

An activity performed for or on a patient as part of the provision of care.

DATA ELEMENT	APPLICABLE STANDARD(S)
Procedures	<ul style="list-style-type: none">• Health Care Financing Administration Common Procedure Coding System (HCPCS), as maintained and distributed by HHS.• Current Procedural Terminology (CPT®) 2021, as maintained and distributed by the American Medical Association, for physician services and other health care services.• SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, September 2020 Release Optional: <ul style="list-style-type: none">• International Classification of Diseases ICD-10-PCS 2021• Optional for technology which records dental procedures: Code on Dental Procedures and Nomenclature (CDT), maintained and distributed by the American Dental Association, for dental services.

DATA CLASS

Provenance

The metadata, or extra information about data, regarding who created the data and when it was created.

DATA ELEMENT	APPLICABLE STANDARD(S)
Author Time Stamp	
Author Organization	

DATA CLASS

Smoking Status

Representing a patient's smoking behavior.

DATA ELEMENT	APPLICABLE STANDARD(S)
Smoking Status	<ul style="list-style-type: none">SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, September 2020 Release

DATA CLASS

Unique Device Identifier(s) for a Patient's Implantable Device(s)

A unique numeric or alphanumeric code that consists of a device identifier and a production identifier.

DATA ELEMENT	APPLICABLE STANDARD(S)
Unique Device Identifier(s) for a patient's implantable device(s)	<ul style="list-style-type: none">UDI identifier as described by applicable FDA regulation. (found at https://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/UniqueDeviceIdentification/)

DATA CLASS

Vital Signs

Physiologic measurements of a patient that indicate the status of the body's life sustaining functions.

DATA ELEMENT	APPLICABLE STANDARD(S)
Diastolic Blood Pressure	<ul style="list-style-type: none">• Logical Observation Identifiers Names and Codes (LOINC®) version 2.69• The Unified Code of Units for Measure, Revision 2.1
Systolic Blood Pressure	
Body Height	
Body Weight	
Heart Rate	
Respiratory Rate	
Body Temperature	
Pulse Oximetry	
Inhaled Oxygen Concentration	
BMI Percentile (2 - 20 years)	
Weight-for-length Percentile (Birth - 36 Months)	
Head Occipital-frontal Circumference Percentile (Birth - 36 Months)	