USCDI
United States Core Data
for Interoperability

United States Core Data for Interoperability

Draft Version 5 | January 2024

v5

The USCDI is a standardized set of health data classes and constituent data elements for nationwide, interoperable health information exchange.

A USCDI **Data Class** is an aggregation of Data Elements by a common theme or use case.

A USCDI **Data Element** is a piece of data defined in USCDI for access, exchange, or use of electronic health information.

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Version History

Version #	Description of change	Version Date
Draft Version 5	Publication	January 2024

USCDI Background

The United States Core Data for Interoperability (USCDI) is a standardized set of data elements for nationwide, interoperable health information exchange. USCDI establishes a baseline set of data that can be commonly exchanged across care settings for a wide range of uses. USCDI version 1 (USCDI v1) was adopted as a standard (at 45 CFR 170.213) in the 21st Century Cures Act: Interoperability, Information Blocking, and the ONC Health IT Certification Program (Cures Act Final Rule). Since then, ONC has released three more versions of USCDI for which two have been approved under the ONC Standards Version Advancement Process (SVAP). The SVAP permits health IT developers with health IT products certified under the ONC Health IT Certification Program (Certification Program) to voluntarily update their conformance to newer versions of adopted standards as part of the "Real World Testing" Condition and Maintenance of Certification requirement (§ 170.405). To further advance interoperability, ONC raised the baseline for the Certification Program by including USCDI v3 in the recently finalized Health Data, Technology, and Interoperability: Certification Program Updates, Algorithm Transparency, and Information Sharing (HTI-1) Final Rule. The HTI-1 Final Rule established that as of January 1, 2026, the USCDI v3 will be the only USCDI version required within the Certification Program.

USCDI v1 and v3 are included in the Certification Program as a requirement in multiple certification criteria. USCDI defines data elements and associated terminology standards, where applicable, for use in document-based exchange and application programming interfaces (APIs). Some HHS programs[1] and exchange networks, such as the Trusted Exchange Framework and Common Agreement (TEFCA)[2] also require the capture or exchange of USCDI data elements.

USCDI is organized by data class and data elements. USCDI data classes group data elements by a common theme. Data elements can be used not only to represent concepts common to their data class, but to describe other data elements in other data classes. For example, Care Team Member Role (Provider) can be used to describe the performer of a procedure or the ordering provider for a medication. Similarly, First Name and Last Name in the Patient Demographics/Information data class may be exchanged to identify a patient in a document, a laboratory result, or a diagnostic imaging report.

Health IT Certified to USCDI-referenced certification criteria must enable the exchange of all data elements included in USCDI data elements for all patients regardless of care setting (e.g., inpatient, outpatient, or post-acute care)[3]. ONC strives to define applicable vocabulary standards for data elements expected to be exchanged with standard code set concepts. ONC encourages health IT developers to take advantage of code sets such as SNOMED CT® U.S. Edition, LOINC®, and RxNorm where possible.

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[1] https://www.cms.gov/about-cms/obrhi/interoperability/implementation-guides-and-standards/application-programming-interfaces-apis-and-relevant-standards-and-implementation-guides-igs

[2] https://rce.sequoiaproject.org/

[3] USCDI.pdf (healthit.gov)

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USCDI Expansion

USCDI expands annually to keep pace with clinical, technology, and policy changes. To support this expansion, ONC hosts the ONC New Data Element and Class (ONDEC) submission system which collects public submission proposals for new data classes and data elements. In addition to the ONDEC system, ONC invites feedback on previously submitted data elements and whether they should be considered for future versions.

As part of the annual update process, ONC identifies key policy priorities that include:

- Health data needs for providing equitable care to underserved communities, public health reporting, and behavioral health integration with primary care.
- Important additions over previous USCDI versions that will broadly benefit health IT users.
- Implementation burden for: standards development organizations; developers of certified health IT products; and health care entities who will integrate these changes into clinical and other workflows.
- Outside factors such as new regulatory requirements (e.g., those included in the recently published HTI-1 final rule) are also considered.

During the USCDI v5 submission cycle, which ended September 20, 2023, ONC received more than 60 submissions recommending new data elements and over 330 comments on previously submitted data elements. Draft USCDI v5 includes data elements that focus on improving patient care and facilitating patient access, while promoting equity, reducing disparities, supporting underserved communities, and enabling public health data exchange. ONC's evaluation resulted in the following proposed two data classes and 13 data elements.

Based on the assessment of Level 2 data elements, ONC identified the following new data classes and elements for Draft USCDI v5, which is set forth on the following pages and discussed in greater detail in the ONC Standards Bulletin 2024-1.

New Data Classes and Data Elements Added to Draft USCDI v5

Clinical Notes
- Emergency Department Note
- Operative Note

Immunizations
- Lot Number

Laboratory
- Test Kit Unique Device Identifier

Medications
- Route

New Data Class

Observations
- Advance Directive Observation
- Sex Parameter for Clinical Use

New Data Class

Orders
- Orders

Patient Demographics/Information
- Interpreter Needed
- Pronoun
- Name to Use

Provenance
- Author
- Author Role

Draft USCDI Public Feedback

With its publication, Draft USCDI v5 is now available for public feedback until **April 15, 2024, at 11:59 pm ET**. You must be registered and logged in to the website to submit feedback. Anyone may submit feedback on any aspect of Draft USCDI v5. In addition to such general feedback and the specific feedback requested above, ONC is seeking feedback on the following areas:

1. Suggestions for improvement in the data classes or elements in Draft USCDI v5, including:
    a. Data class and element definitions, usage notes, and examples; and
    b. Examples of code sets used by health IT developers and implementers to communicate data element scope.
2. Should other data elements, already classified as Level 2 on the USCDI web pages, be added to USCDI v5 instead of, or in addition to, those in Draft USCDI v5? If so, why?
3. Are there significant barriers to development, implementation, or use of any of these data elements that warrant a change in definition or removal from Draft USCDI v5?

ONC will also work with the Health Information Technology Advisory Committee (HITAC) to receive recommendations on Draft USCDI v5.

ONC continues to work with the public and federal agencies to identify areas where more work is needed to inform future versions of USCDI. ONC recognizes there are specific but important use cases that require consistency and alignment on datasets that go beyond USCDI. ONC is working with governmental and industry partners through the USCDI+ initiative to support the identification and establishment of domain or program-specific datasets that can be extensions to USCDI. Please see ONC's USCDI+ overview for additional information.

ONC is targeting release of the final USCDI v5 in July 2024.

USCDI Draft v5 Summary of Data Classes and Data Elements

Allergies and Intolerances
- Substance (Medication)
- Substance (Drug Class)
- Substance (Non-Medication)
- Reaction

Care Team Members
- Care Team Member Name
- Care Team Member Identifier
- Care Team Member Role
- Care Team Member Location
- Care Team Member Telecom

Clinical Notes
- Consultation Note
- Discharge Summary Note
- Emergency Department Note
- History & Physical
- Operative Note
- Procedure Note
- Progress Note

Clinical Tests
- Clinical Test
- Clinical Test Result/Report

Diagnostic Imaging
- Diagnostic Imaging Test
- Diagnostic Imaging Report

Encounter Information
- Encounter Type
- Encounter Identifier
- Encounter Diagnosis
- Encounter Time
- Encounter Location
- Encounter Disposition

Facility Information
- Facility Identifier
- Facility Type
- Facility Name

Goals and Preferences
- Patient Goals
- SDOH Goals
- Treatment Intervention Preference
- Care Experience Preference

Health Insurance Information
- Coverage Status
- Coverage Type
- Relationship to Subscriber
- Member Identifier
- Subscriber Identifier
- Group Identifier
- Payer Identifier

Health Status Assessments
- Health Concerns
- Functional Status
- Disability Status
- Mental/Cognitive Status
- Pregnancy Status
- Alcohol Use
- Substance Use
- Physical Activity
- SDOH Assessment
- Smoking Status

Immunizations
- Immunizations
- Lot Number

Laboratory
- Tests
- Values/Results
- Specimen Type
- Result Status
- Result Unit of Measure
- Result Reference Range
- Test Kit Unique Device Identifier
- Result Interpretation
- Specimen Source Site
- Specimen Identifier
- Specimen Condition Acceptability

Medical Devices
- Unique Device Identifier - Implantable

Medications
- Medications
- Dose
- Dose Unit of Measure
- Route
- Indication
- Fill Status
- Medication Instructions
- Medication Adherence

Observations
- Advance Directive Observation
- Sex Parameter for Clinical Use

Orders
- Orders

Patient Demographics/ Information
- First Name
- Last Name
- Middle Name (Including middle initial)
- Name Suffix
- Previous Name
- Name to Use
- Pronoun
- Date of Birth
- Date of Death

Patient Demographics /Information (cont)
- Race
- Ethnicity
- Tribal Affiliation
- Sex
- Sexual Orientation
- Gender Identity
- Preferred Language
- Interpreter Needed
- Current Address
- Previous Address
- Phone Number
- Phone Number Type
- Email Address
- Related Person's Name
- Relationship Type
- Occupation
- Occupation Industry

Patient Summary and Plan
- Assessment and Plan of Treatment

Problems
- Problems
- SDOH Problems/Health Concerns
- Date of Diagnosis
- Date of Resolution

Procedures
- Procedures
- Performance Time
- SDOH Interventions
- Reason for Referral

Provenance
- Author
- Author Role
- Author Time Stamp
- Author Organization

Vital Signs
- Systolic Blood Pressure
- Diastolic Blood Pressure
- Average Blood Pressure
- Heart Rate
- Respiratory Rate
- Body Temperature
- Body Height
- Body Weight
- Pulse Oximetry
- Inhaled Oxygen Concentration
- BMI Percentile (2 - 20 years)
- Weight-for-length Percentile (Birth - 24 Months)
- Head Occipital-frontal Circumference Percentile (Birth- 36 Months)

ALLERGIES AND INTOLERANCES

Harmful or undesired physiological responses associated with exposure to a substance.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Substance (Medication) Pharmacologic agent believed to cause a harmful or undesired physiologic response following exposure.	• RxNorm Full Monthly Release, January 2, 2024
Substance (Drug Class) Pharmacologic category for an agent believed to cause a harmful or undesired physiologic response following exposure.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, September 2023 Release
Substance (Non-Medication) Non-pharmacologic agent believed to cause a harmful or undesired physiologic response following exposure. Examples include but are not limited to latex, eggs, pollen, and peanuts.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release
Reaction Harmful or undesired physiologic response following exposure to a pharmacologic agent or class of agents.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release

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DATA CLASS

CARE TEAM MEMBERS

Information about a person who participates or is expected to participate in the care of a patient.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S) Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Care Team Member Name	
Care Team Member Identifier Sequence of characters used to uniquely refer to a member of the care team. Examples include but are not limited to National Provider Identifier (NPI) and National Council of State Boards of Nursing Identifier (NCSBN ID).	
Care Team Member Role Responsibility of an individual within the care team. Examples include but are not limited to primary care physician and caregiver.	
Care Team Member Location Place where care is delivered by a care team member. Examples include but are not limited to clinic address and location description.	

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DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Care Team Member Telecom Phone or email contact information for a care team member.	• ITU-T E.123, Series E: Overall Network Operation, Telephone Service, Service Operation and Human Factors, International operation - General provisions concerning users: Notation for national and international telephone numbers, email addresses and web addresses (incorporated by reference in § 170.299); and • ITU-T E.164, Series E: Overall Network Operation, Telephone Service, Service Operation and Human Factors, International operation - Numbering plan of the international telephone service: The international public telecommunication numbering plan

DATA CLASS

CLINICAL NOTES

Narrative patient data relevant to the context identified by note types.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S) Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Consultation Note Response to request from a clinician for an opinion, advice, or service from another clinician. Examples include but are not limited to dermatology, dentistry, and acupuncture.	• Logical Observation Identifiers Names and Codes (LOINC®) version 2.76 • At minimum: Consult Note (LOINC code 11488-4)
Discharge Summary Note Summary of a patient's admission and course in a hospital or post-acute care setting. Usage note: Must contain admission and discharge dates and locations, discharge instructions, and reason(s) for hospitalization. Examples include but are not limited to dermatology discharge summary, hematology discharge summary, and neurology discharge summary.	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • At minimum: Discharge Summary (LOINC code 18842-5)
Emergency Department Note Summary of care delivered in an emergency department.	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • At minimum: Emergency Department Note (LOINC code 34111-5)
History & Physical Summary of current and past conditions and observations used to inform an episode of care. Examples include but are not limited to admission, surgery, and other procedure.	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • At minimum: History and Physical Note (LOINC code 34117-2)

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Operative Note Summary of a surgical procedure. Usage note: May include procedures performed, operative and anesthesia times, findings observed, fluids administered, specimens obtained, and complications identified.	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • At minimum: Surgical operation note (LOINC code 11504-8)
Procedure Note Summary of non-operative procedure. Examples include but are not limited to interventional cardiology, gastrointestinal endoscopy, and osteopathic manipulation.	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • At minimum: Procedure Note (LOINC code 28570-0)
Progress Note Summary of a patient's interval status during an encounter. Examples include but are not limited to hospitalization, outpatient visit, and treatment with a post-acute care provider, or other healthcare encounter.	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • At minimum: Progress Note (LOINC code 11506-3)

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DATA CLASS

CLINICAL TESTS

Non-imaging and non-laboratory tests performed that result in structured or unstructured findings specific to the patient to facilitate the diagnosis and management of conditions.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S) Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Clinical Test Non-imaging or non-laboratory test. Examples include but are not limited to electrocardiogram (ECG), visual acuity exam, macular exam, and graded exercise testing (GXT).	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76
Clinical Test Result/Report Findings of clinical tests.	

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DATA CLASS

DIAGNOSTIC IMAGING

Tests that result in visual images requiring interpretation by a credentialed professional.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Diagnostic Imaging Test Tests that generate visual images and require interpretation by qualified professionals. Examples include but are not limited to computed tomography-head, radiograph-chest, and ultrasound-pelvis.	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76
Diagnostic Imaging Report Interpreted results of imaging tests. Usage Note: Includes structured and unstructured (narrative) components.	

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DATA CLASS

ENCOUNTER INFORMATION

Information related to interactions between healthcare providers and patient.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Encounter Type Category of health care service. Examples include but are not limited to office visit, telephone assessment, and home visit.	
Encounter Identifier Sequence of characters by which an encounter is known.	
Encounter Diagnosis Coded diagnoses associated with an episode of care.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release • International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) 2023
Encounter Time Date/times related to an encounter. Examples include but are not limited to scheduled appointment time, check in time, and start and stop times.	
Encounter Location Place where a patient's care is delivered.	• National Healthcare Safety Network (NHSN) Healthcare Facility Patient Care Location (HSLOC)
Encounter Disposition Place or setting where the patient went after a hospital stay or encounter.	

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DATA CLASS

FACILITY INFORMATION

Physical place of available services or resources.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Facility Identifier Sequence of characters representing a physical place of available services or resources.	
Facility Type Category of service or resource available in a location. Examples include but are not limited to hospital, laboratory, pharmacy, ambulatory clinic, long-term and post-acute care facility, and food pantry.	
Facility Name Word or words by which a facility is known.	

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DATA CLASS

GOALS AND PREFERENCES

Desired state to be achieved by a person or a person's elections to guide care.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S) Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Patient Goals Desired outcomes of patient's care.	
SDOH Goals Desired future states for an identified Social Determinants of Health-related health concern, condition, or diagnosis. Examples include but are not limited to food security, transportation security, and ability to access health care.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release • Logical Observation Identifiers Names and Codes (LOINC) version 2.76
Treatment Intervention Preference Person's goals, preferences, and priorities for care and treatment in case that person is unable to make medical decisions because of a serious illness or injury. Examples include but are not limited to thoughts on cardiopulmonary resuscitation, mental health treatment preferences, and thoughts on pain management.	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76
Care Experience Preference Person's goals, preferences, and priorities for overall experiences during their care and treatment. Examples include but are not limited to religious beliefs, dislikes and fears, and thoughts and feelings to be shared.	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76

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DATA CLASS

HEALTH INSURANCE INFORMATION

Data related to an individual's insurance coverage for health care.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Coverage Status Presence or absence of health care insurance.	
Coverage Type Category of health care payers, insurance products, or benefits. Examples include but are not limited to Medicaid, commercial, HMO, Medicare Part D, and dental.	
Relationship to Subscriber Relationship of a patient to the primary insured person.	
Member Identifier Sequence of characters used to uniquely refer to an individual with respect to their insurance.	
Subscriber Identifier Sequence of characters used to uniquely refer to the individual that selects insurance benefits.	
Group Identifier Sequence of characters used to uniquely refer to a specific health insurance plan.	
Payer Identifier Sequence of characters used to uniquely refer to an insurance payer.	

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DATA CLASS

HEALTH STATUS ASSESSMENTS

Assessments of a health-related matter of interest, importance, or worry to a patient, patient's authorized representative, or patient's healthcare provider that could identify a need, problem, or condition.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Health Concerns Health-related issue or worry. Examples include but are not limited to weight gain and cancer risk.	
Functional Status Assessment of a person's ability to perform activities of daily living and activities across other situations and settings. Examples include but are not limited to Functional Assessment Standardized Items (FASI) and Timed Up and Go (TUG).	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76
Disability Status Assessment of a patient's physical, cognitive, or psychiatric disabilities. Examples include but are not limited to American Community Survey, Veterans RAND Health Survey, and Patient-Reported Outcomes Measurement Information System (PROMIS).	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76
Mental/Cognitive Status Assessment or screening for the presence of a mental or behavioral problem. Examples include but are not limited to Confusion Assessment Method (CAM) and Patient Health Questionnaire (PHQ).	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76

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DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Pregnancy Status State or condition of being pregnant or intent to become pregnant. Examples include but are not limited to pregnant, not pregnant, and unknown.	
Alcohol Use Evaluation of a patient's consumption of alcohol. Examples include but are not limited to history of alcohol use, alcohol use disorder identification test, and alcohol intake assessment.	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76
Substance Use Evaluation of a patient's reported use of drugs or other substances for non-medical purposes or in excess of a valid prescription. Examples include but are not limited to substance use disorder score, and substance use knowledge assessment.	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76
Physical Activity Evaluation of a patient's current or usual exercise. Examples include but are not limited to frequency of muscle-strengthening physical activity, days per week with moderate to strenuous physical activity, and minutes per day of moderate to strenuous physical activity.	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76

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	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
SDOH Assessment Screening questionnaire-based, structured evaluation for a Social Determinants of Health-related risk. Examples include but are not limited to food, housing, and transportation security.	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release
Smoking Status Assessment of a patient's smoking behaviors. Examples include but are not limited to pack-years and current use.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release

DATA CLASS

IMMUNIZATIONS

Record of vaccine administration.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S) Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Immunizations Vaccine product administered, planned, or reported.	Both standards are required: • CVX – Vaccines Administered, updates through December 14, 2023 • National Drug Code (NDC), updates through January 16, 2024
Lot Number Sequence of characters representing a specific quantity of manufactured material within a batch.	

DATA CLASS

LABORATORY

Analysis of clinical specimens to obtain information about the health of a patient.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S) Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Tests Analysis of specimens derived from humans which provide information for the diagnosis, prevention, treatment of disease, or assessment of health.	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76

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DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Values/Results Documented findings of a tested specimen including structured and unstructured components.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release
Specimen Type Substance being sampled or tested. Examples include but are not limited to nasopharyngeal swab, whole blood, serum, urine, and wound swab.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release
Result Status State or condition of a laboratory test.	
Result Unit of Measure Unit of measurement to report quantitative values.	• The Unified Code of Units for Measure, Revision 2.1
Result Reference Range Upper and lower limit of quantitative test values expected for a designated population of individuals. Usage note: Reference range values may differ by patient characteristics, laboratory test manufacturer, and laboratory test performer.	• The Unified Code of Units for Measure, Revision 2.1
Test Kit Unique Device Identifier Numeric or alphanumeric code representing a collection of materials necessary to perform diagnostic tests.	• FDA Unique Device Identification System (UDI System)

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DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Result Interpretation Categorical assessment of a laboratory value, often in relation to a test's reference range. Examples include but are not limited to high, low, critical high, and normal.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release • HL7 Code System ObservationInterpretation
Specimen Source Site Body location from where a specimen was obtained. Examples include but are not limited to right internal jugular, left arm, and right eye.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release
Specimen Identifier Sequence of characters assigned by a laboratory for an individual specimen. Example includes but is not limited to accession number.	
Specimen Condition Acceptability Information regarding a specimen, including the container, that does not meet a laboratory's criteria for acceptability. Usage note: This may include information about the contents of the container, the container, and the label. Examples include but are not limited to hemolyzed, clotted, container leaking, and missing patient name.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release • Health Level 7® (HL7) Code System SpecimenCondition

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DATA CLASS

MEDICAL DEVICES

An instrument, machine, appliance, implant, software, or other article intended to be used for a medical purpose.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Unique Device Identifier - Implantable Numeric or alphanumeric code that uniquely identifies an implantable device. Usage note: Contains a device identifier (DI) and one or more production identifiers (PI).	• FDA Unique Device Identification (UDI) System

DATA CLASS

MEDICATIONS

Pharmacologic agents used in the diagnosis, cure, mitigation, treatment, or prevention of disease.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Medications Pharmacologic agent used in the diagnosis, cure, mitigation, treatment, or prevention of disease.	• RxNorm Full Monthly Release, January 2, 2024 Optional: • National Drug Code (NDC), January 16, 2024
Dose Amount of a medication for each administration.	

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DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Dose Unit of Measure Units of measure of a medication. Examples include but are not limited to milligram (mg) and milliliter (mL).	• The Unified Code for Units of Measure, Revision 2.1
Route Physiological administration path of a therapeutic agent into or onto a patient. Examples include but are not limited to oral, topical, and intravenous.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release
Indication Sign, symptom, or medical condition that is the reason for giving or taking a medication.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release • International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM)
Fill Status State of a medication with regards to dispensing or other activity. Examples include but are not limited to dispensed, partially dispensed, and not dispensed.	

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	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Medication Instructions Directions for administering or taking a medication. Usage note: May include route, quantity, timing/frequency, and special instructions (PRN, sliding scale, taper). Examples include but are not limited to prescription directions for taking a medication, and package instructions for over-the-counter medications.	
Medication Adherence Statement of whether a medication has been consumed according to instructions. Examples include but are not limited to taking as directed, taking less than directed, and not taking.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release

DATA CLASS

OBSERVATIONS

Findings or other clinical data collected about a patient during care.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Advance Directive Observation Statement of presence and properties of patient or provider authored documents that record a patient's goals, preferences and priorities should a patient be unable to communicate them to a provider. Usage note: May include whether a person has one or more advance directives, the type of advance directive, the location of the current source document, and whether it has been verified. Examples include but are not limited to indication that a living will is on file, reference to or location of durable medical power of attorney, and validating provider.	
Sex Parameter for Clinical Use Category based upon clinical observations typically associated with the designation of male and female.	

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DATA CLASS

ORDERS

Provider-authored directive for the delivery of patient care services.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Orders Provider-authored directive for the delivery of patient care services. Examples include but are not limited to diagnostic imaging, laboratory tests, interventions, referrals and consultations, and do-not-resuscitate.	

DATA CLASS

PATIENT DEMOGRAPHICS/INFORMATION

Data used to categorize individuals for identification, records matching, and other purposes.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
First Name	
Last Name	
Middle Name **(Including middle initial)**	

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DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S) Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Name Suffix Name component following family name that may be used to describe a person's position in a family.	
Previous Name	
Name to Use Name that should be used when addressing or referencing the patient. Usage note: This information should be provided by the patient. Example includes but is not limited to nickname.	
Pronoun Word or words that can replace a person's name when addressing or referring to a person. Usage note: This information should be provided by the patient. Examples include but are not limited to she, her, they, them, he, his.	
Date of Birth Known or estimated year, month, and day of the patient's birth.	
Date of Death Known or estimated year, month, and day of the patient's death.	

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DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Race	Both standards are required: • 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 • CDC Race and Ethnicity Code Set Version 1.2 (July 2021)
Ethnicity	Both standards are required: • 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 • CDC Race and Ethnicity Code Set Version 1.2 (July 2021)
Tribal Affiliation Tribe or band with which an individual associates.	
Sex Documentation of a specific instance of sex and/or gender information.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release
Sexual Orientation A person's emotional, romantic, sexual, or affectional attraction to another person.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release

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DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Gender Identity A person's internal sense of being a man, woman, both, or neither.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release
Preferred Language	• IETF (Internet Engineering Task Force) Request for Comment (RFC) 5646, "Tags for Identifying Languages", September 2009 • Adopted at 45 CFR 170.207(g)(2)
Interpreter Needed Indication of whether a person needs language interpretation services.	• Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release
Current Address Place where a person is located or may be contacted. Usage note: If the address pattern is not supported in the standard, implementations should align as closely as possible and avoid truncating any values.	• Project US@ Technical Specification for Patient Addresses, Final Version 1.0
Previous Address Prior place where a person may have been located or could have been contacted. Usage note: If the address pattern is not supported in the standard, implementations should align as closely as possible and avoid truncating any values.	• Project US@ Technical Specification for Patient Addresses, Final Version 1.0

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	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Phone Number Numbers and symbols to contact an individual when using a phone.	Both standards are required: • ITU-T E.123, Series E: Overall Network Operation, Telephone Service, Service Operation and Human Factors, International operation - General provisions concerning users: Notation for national and international telephone numbers, email addresses and web addresses, February 2001 • ITU-T E.164, Series E: Overall Network Operation, Telephone Service, Service Operation and Human Factors, International operation - Numbering plan of the international telephone service, The international public telecommunication numbering plan, November 2010 • Adopted at 45 CFR 170.207(q)(1)
Phone Number Type Contact point when using a phone. Examples include but are not limited to home, work, and mobile.	
Email Address Unique identifier of an individual's email account that is used to send and receive email messages.	
Related Person's Name Name of a person with a legal or familial relationship to a patient.	
Relationship Type Relationship of a person to a patient. Examples include but are not limited to parent, next-of-kin, guardian, and custodian.	

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DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
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Occupation Type of work of a person. Examples include but are not limited to infantry, business analyst, and social worker.	• Occupational Data for Health, version 20201030
Occupation Industry Type of business that compensates for work or assigns work to an unpaid worker or volunteer. Examples include but are not limited to U.S. Army, cement manufacturing, and children and youth services.	• Occupational Data for Health, version 20201030

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DATA CLASS

PATIENT SUMMARY AND PLAN

Conclusions and working assumptions that will guide treatment of the patient, and recommendations for future treatment.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S) Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Assessment and Plan of Treatment Health professional's conclusions and working assumptions that will guide treatment of the patient.	

DATA CLASS

PROBLEMS

Condition, diagnosis, or reason for seeking medical attention.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S) Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Problems Condition, diagnosis, or reason for seeking medical attention.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release • International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) 2023

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DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
SDOH Problems/Health Concerns Social Determinants of Health-related health concerns, conditions, or diagnoses. Examples include but are not limited to homelessness and food insecurity.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release • International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) 2023
Date of Diagnosis Date of first determination by a qualified professional of the presence of a problem or condition affecting a patient.	
Date of Resolution Date of subsiding or termination of a symptom, problem, or condition.	

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DATA CLASS

PROCEDURES

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

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Procedures Activity performed for or on a patient as part of the provision of care.	- Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release - Current Procedural Terminology (CPT®) 2023, as maintained and distributed by the American Medical Association, for physician services and other health care services, and Healthcare Common Procedure Coding System (HCPCS), as maintained and distributed by HHS - Code on Dental Procedures and Nomenclature (CDT), maintained and distributed by the American Dental Association Optional: - International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) 2023
Performance Time Time and/or date a procedure is performed. Examples include but are not limited to vaccine or medication administration times, surgery start time, and time ultrasound performed.	

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DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
SDOH Interventions Actions or services to address an identified Social Determinants of Health-related health concern, condition, or diagnosis. Examples include but are not limited to education about food pantry program and referral to non- emergency medical transportation program.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release • Current Procedural Terminology (CPT) 2023, as maintained and distributed by the American Medical Association, for physician services and other health care services. • Healthcare Common Procedure Coding System (HCPCS) Level II, as maintained and distributed by HHS.
Reason for Referral Explanation or justification for a referral or consultation.	• Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) U.S. Edition, September 2023 Release • International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) 2023

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DATA CLASS

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

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Author Actor that participated in the creation or revision of data.	
Author Role Category of actor that participated in the creation or revision of data. Examples include but are not limited to provider, patient, family member, and device.	
Author Time Stamp Date and time of author action.	
Author Organization Organization associated with author.	

DATA CLASS

VITAL SIGNS

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

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
	Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. Where an applicable vocabulary standard has not been identified, this field will remain empty.
Systolic Blood Pressure	Both standards are required. • Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • The Unified Code of Units for Measure, Revision 2.1
Diastolic Blood Pressure	Both standards are required. • Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • The Unified Code of Units for Measure, Revision 2.1
Average Blood Pressure Arithmetic average of systolic and diastolic components of two of more blood pressure readings in a specified time period or according to a specified algorithm or protocol. Examples include but are not limited to 3-day morning and evening home monitoring, clinical encounter repeat average, and 24-hour ambulatory measurement.	Both standards are required. • Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • The Unified Code of Units for Measure, Revision 2.1
Heart Rate	Both standards are required. • Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • The Unified Code of Units for Measure, Revision 2.1

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DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
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Respiratory Rate	Both standards are required. • Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • The Unified Code of Units for Measure, Revision 2.1
Body Temperature	Both standards are required. • Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • The Unified Code of Units for Measure, Revision 2.1
Body Height	Both standards are required. • Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • The Unified Code of Units for Measure, Revision 2.1
Body Weight	Both standards are required. • Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • The Unified Code of Units for Measure, Revision 2.1
Pulse Oximetry	Both standards are required. • Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • The Unified Code of Units for Measure, Revision 2.1

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Inhaled Oxygen Concentration	Both standards are required. • Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • The Unified Code of Units for Measure, Revision 2.1
BMI Percentile (2 - 20 years)	Both standards are required. • Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • The Unified Code of Units for Measure, Revision 2.1
Weight-for-length Percentile (Birth - 24 Months)	Both standards are required. • Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • The Unified Code of Units for Measure, Revision 2.1
Head Occipital-frontal Circumference Percentile (Birth - 36 Months)	Both standards are required. • Logical Observation Identifiers Names and Codes (LOINC) version 2.76 • The Unified Code of Units for Measure, Revision 2.1

Changes between USCDI v4 and Draft v5

Change Type	Description of change
Added Data Element	- Clinical Notes - Emergency Department Note - Operative Note - Immunizations - Lot Number - Laboratory - Test Kit Unique Device Identifier - Medications - Route - Observations - Advance Directive Observation - Sex Parameter for Clinical Use - Orders - Orders - Patient Demographics/Information - Interpreter Needed - Pronoun - Name to Use - Provenance - Author - Author Role
Added Data Class	- Observations - Orders
Added Applicable Standards	- Encounter Location - Add National Healthcare Safety Network (NHSN) Healthcare Facility Patient Care Location (HSLOC)

Change Type	Description of change

Corrected Applicable Standard Reference	• Immunizations
	   • CVX, NDC
	• Procedures
	   • CDT

Changed Data Element Definition	• Current Address • Diagnostic Imaging Test • Disability Status • Discharge Summary Note • Encounter Disposition • Functional Status • Mental/Cognitive Status • Previous Address • Procedure Note • Result Unit of Measure
Changed Data Class Name	• Care Team Members • Removed parenthesis from Care Team Member(s)
Changed Applicable Vocabulary Binding Text	• Standards listed are required. If more than one is listed, at least one is required unless otherwise noted. <u>Where an applicable vocabulary standard has not been identified, this field will remain empty.</u>

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