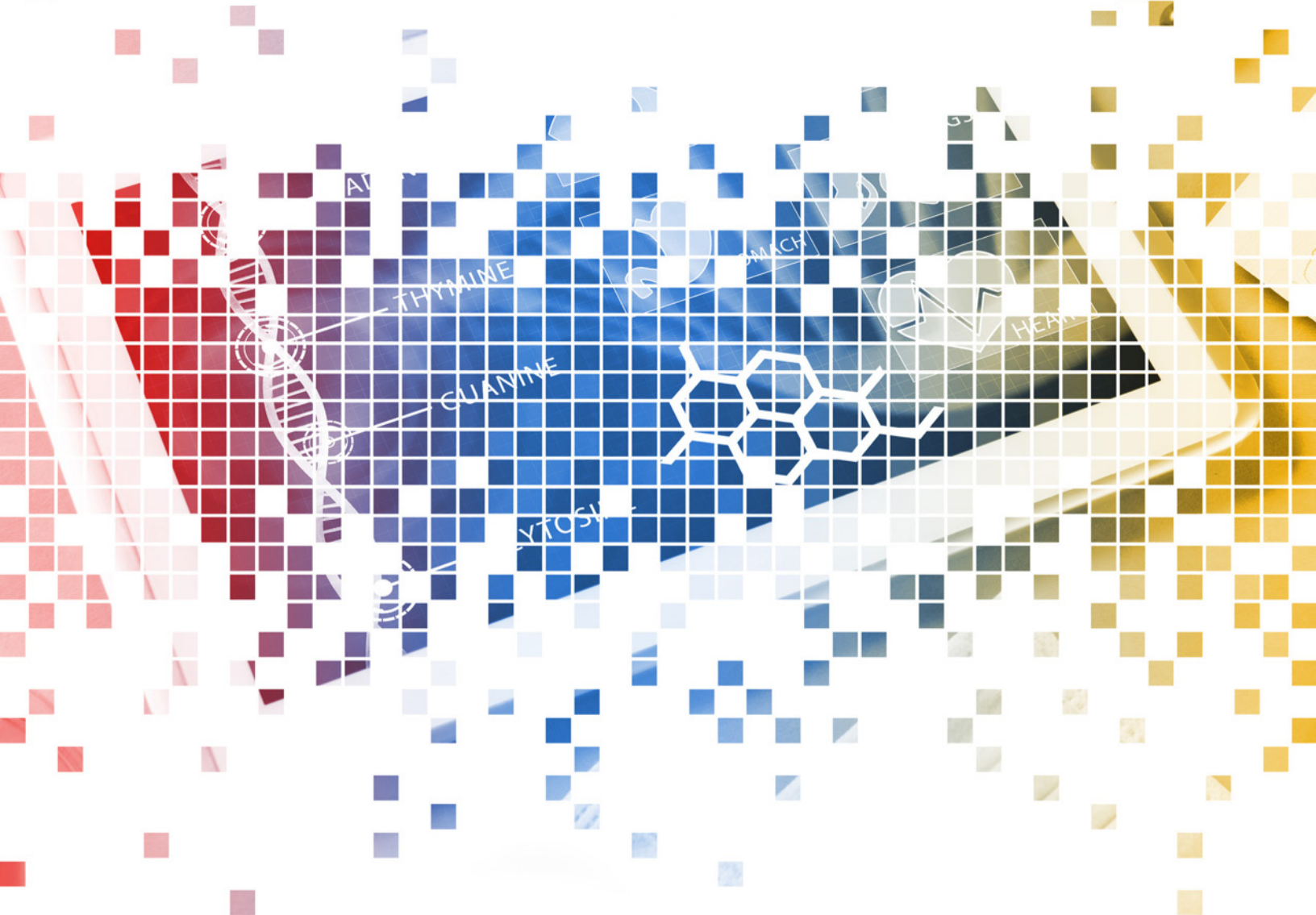





United States Core Data for Interoperability

— VERSION 3 (JULY 2022) —



Office of the National Coordinator
for Health Information Technology



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 the most granular level at which a piece of data is represented in USCDI for exchange.

USCDI v3 Summary of Data Classes and Data Elements

Allergies and Intolerances <ul style="list-style-type: none"> Substance (Medication) Substance (Drug Class) Reaction 	Health Status/Assessments <ul style="list-style-type: none"> Health Concerns Functional Status Disability Status Mental/Cognitive Status Pregnancy Status Smoking Status 	Problems <ul style="list-style-type: none"> Problems SDOH Problems/Health Concerns Date of Diagnosis Date of Resolution
Assessment and Plan of Treatment <ul style="list-style-type: none"> Assessment and Plan of Treatment SDOH Assessment 	Immunizations <ul style="list-style-type: none"> Immunizations 	Procedures <ul style="list-style-type: none"> Procedures SDOH Interventions Reason for Referral
Care Team Member(s) <ul style="list-style-type: none"> Care Team Member Name Care Team Member Identifier Care Team Member Role Care Team Member Location Care Team Member Telecom 	Laboratory <ul style="list-style-type: none"> Tests Values/Results Specimen Type Result Status 	Provenance <ul style="list-style-type: none"> Author Organization Author Time Stamp
Clinical Notes <ul style="list-style-type: none"> Consultation Note Discharge Summary Note History & Physical Procedure Note Progress Note 	Medications <ul style="list-style-type: none"> Medications Dose Dose Unit of Measure Indication Fill Status 	Unique Device Identifier(s) for a Patient's Implantable Device(s) <ul style="list-style-type: none"> Unique Device Identifier(s) for a patient's implantable device(s)
Clinical Tests <ul style="list-style-type: none"> Clinical Test Clinical Test Result/Report 	Patient Demographics/ Information <ul style="list-style-type: none"> First Name Last Name Middle Name (Including middle initial) Name Suffix Previous Name Date of Birth Date of Death Race Ethnicity Tribal Affiliation Sex Sexual Orientation Gender Identity Preferred Language Current Address Previous Address Phone Number Phone Number Type Email Address Related Person's Name Related Person's Relationship Occupation Occupation Industry 	Vital Signs <ul style="list-style-type: none"> Systolic Blood Pressure Diastolic 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)
Diagnostic Imaging <ul style="list-style-type: none"> Diagnostic Imaging Test Diagnostic Imaging Report 		
Encounter Information <ul style="list-style-type: none"> Encounter Type Encounter Diagnosis Encounter Time Encounter Location Encounter Disposition 		
Goals <ul style="list-style-type: none"> Patient Goals SDOH Goals 		
Health Insurance Information <ul style="list-style-type: none"> Coverage Status Coverage Type Relationship to Subscriber Member Identifier Subscriber Identifier Group Number Payer Identifier 		

Applicable vocabulary standards identified in the tables below are required. If more than one is listed, at least one is required unless otherwise noted.

DATA CLASS

Allergies and Intolerances

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

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
<p>Substance (Medication)</p> <p><i>Pharmacologic agent believed to cause a harmful or undesired physiologic response following exposure.</i></p>	<ul style="list-style-type: none"> RxNorm Full Monthly Release, July 5, 2022
<p>Substance (Drug Class)</p> <p><i>Pharmacologic category for an agent believed to cause a harmful or undesired physiologic response following exposure.</i></p>	<ul style="list-style-type: none"> SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, March 2022 Release
<p>Reaction</p> <p><i>Harmful or undesired physiologic response following exposure to a pharmacologic agent or class of agents.</i></p>	<ul style="list-style-type: none"> SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, March 2022 Release

DATA CLASS

Assessment and Plan of Treatment

Health professional's conclusions and working assumptions that will guide treatment of the patient.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
<p>Assessment and Plan of Treatment</p> <p><i>Health professional's conclusions and working assumptions that will guide treatment of the patient.</i></p>	
<p>SDOH Assessment</p> <p><i>Screening questionnaire-based, structured evaluation (e.g., PRAPARE, Hunger Vital Sign, AHC-HRSN screening tool) for a Social Determinants of Health-related risk. (e.g., food insecurity, housing instability, or transportation insecurity)</i></p>	<ul style="list-style-type: none"> Logical Observation Identifiers Names and Codes (LOINC®) version 2.72 <p>Optional:</p> <ul style="list-style-type: none"> SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, March 2022 Release

DATA CLASS

Care Team Member(s)

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

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
<p>Care Team Member Name</p>	
<p>Care Team Member Identifier</p> <p><i>Sequence of characters used to uniquely refer to a member of the care team. (e.g., National Provider Identifier (NPI), National Council of State Boards of Nursing Identifier (NCSBN ID))</i></p>	
<p>Care Team Member Role</p> <p><i>Responsibility of an individual within the care team. (e.g., primary care physician, caregiver)</i></p>	
<p>Care Team Member Location</p> <p><i>Place where care is delivered by a care team member. (e.g., clinic address, location description)</i></p>	
<p>Care Team Member Telecom</p> <p><i>Phone or email contact information for a care team member.</i></p>	<p>Both standards are required.</p> <ul style="list-style-type: none"> • 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

DATA CLASS

Clinical Notes

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

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
<p>Consultation Note</p> <p><i>Response to request from a clinician for an opinion, advice, or service from another clinician.</i></p>	<ul style="list-style-type: none"> Logical Observation Identifiers Names and Codes (LOINC®) version 2.72 <ul style="list-style-type: none"> At minimum: Consult Note (LOINC® code 11488-4)
<p>Discharge Summary Note</p> <p><i>Synopsis of a patient's admission and course in a hospital or post-acute care setting. Must contain admission and discharge dates and locations, discharge instructions, and reason(s) for hospitalization.</i></p>	<ul style="list-style-type: none"> Logical Observation Identifiers Names and Codes (LOINC®) version 2.72 <ul style="list-style-type: none"> At minimum: Discharge Summary (LOINC® code 18842-5)
<p>History & Physical</p> <p><i>Summary of current and past conditions and observations used to inform an episode of care. (e.g., admission, surgery, or other procedure)</i></p>	<ul style="list-style-type: none"> Logical Observation Identifiers Names and Codes (LOINC®) version 2.72 <ul style="list-style-type: none"> At minimum: History and Physical Note (LOINC® code 34117-2)
<p>Procedure Note</p> <p><i>Synopsis of non-operative procedures. (e.g., interventional cardiology, gastrointestinal endoscopy, osteopathic manipulation)</i></p>	<ul style="list-style-type: none"> Logical Observation Identifiers Names and Codes (LOINC®) version 2.72 <ul style="list-style-type: none"> At minimum: Procedure Note (LOINC® code 28570-0)
<p>Progress Note</p> <p><i>Summary of a patient's interval status during an encounter. (e.g., hospitalization, outpatient visit, treatment with a post-acute care provider, or other healthcare encounter)</i></p>	<ul style="list-style-type: none"> Logical Observation Identifiers Names and Codes (LOINC®) version 2.72 <ul style="list-style-type: none"> At minimum: Progress Note (LOINC® code 11506-3)

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. (e.g., electrocardiogram (ECG), visual acuity exam, macular exam, or graded exercise testing (GXT))

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
Clinical Test <i>Non-imaging or non-laboratory test.</i>	<ul style="list-style-type: none">Logical Observation Identifiers Names and Codes (LOINC®) version 2.72
Clinical Test Result/Report <i>Findings of clinical tests.</i>	

DATA CLASS

Diagnostic Imaging

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

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
Diagnostic Imaging Test <i>Tests that generate visual images (e.g., radiographic, photographic, video) and require interpretation by qualified professionals.</i>	<ul style="list-style-type: none">Logical Observation Identifiers Names and Codes (LOINC®) version 2.72
Diagnostic Imaging Report <i>Interpreted results of imaging tests. Includes structured and unstructured components.</i>	

DATA CLASS

Encounter Information

Information related to interactions between healthcare providers and a patient.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
Encounter Type <i>Category of health care service. (e.g., office visit, telephone assessment, home visit)</i>	
Encounter Diagnosis <i>Coded diagnoses associated with an episode of care.</i>	<ul style="list-style-type: none">• SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, March 2022 Release• International Classification of Diseases ICD-10-CM 2022
Encounter Time <i>Date/times related to an encounter. (e.g., scheduled appointment time, check in time, start and stop times)</i>	
Encounter Location <i>Place where a patient's care is delivered.</i>	
Encounter Disposition <i>Place or setting to which the patient left a hospital or encounter.</i>	

DATA CLASS

Goals

Desired state to be achieved by a patient.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
Patient Goals <i>Desired outcomes of patient's care.</i>	
SDOH Goals <i>Desired future states (e.g., food security) for an identified Social Determinants of Health-related health concern, condition, or diagnosis. (e.g., food insecurity)</i>	<ul style="list-style-type: none">• SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, March 2022 Release• Logical Observation Identifiers Names and Codes (LOINC®) version 2.72

DATA CLASS

Health Insurance Information

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

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
Coverage Status <i>Presence or absence of health care insurance.</i>	
Coverage Type <i>Category of health care payer. (e.g., Medicare, TRICARE, Commercial Managed Care - PPO)</i>	
Relationship to Subscriber <i>Relationship of a patient to the primary insured person.</i>	
Member Identifier <i>Sequence of characters used to uniquely refer to an individual with respect to their insurance.</i>	
Subscriber Identifier <i>Sequence of characters used to uniquely refer to the individual that selects insurance benefits.</i>	
Group Identifier <i>Sequence of characters used to uniquely refer to a specific health insurance plan.</i>	
Payer Identifier <i>Sequence of characters used to uniquely refer to an insurance payer.</i>	

Health Status/Assessments

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

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
<p>Health Concerns <i>Health-related issue or worry. (e.g., weight gain, cancer risk)</i></p>	
<p>Functional Status <i>Assessment of a patient’s capabilities, or their risks of development or worsening of a condition or problem. (e.g., fall risk, pressure ulcer risk, alcohol use)</i></p>	<ul style="list-style-type: none"> Logical Observation Identifiers Names and Codes (LOINC®) version 2.72
<p>Disability Status <i>Assessments of a patient’s physical, cognitive, intellectual, or psychiatric disabilities. (e.g., vision, hearing, memory, activities of daily living)</i></p>	<ul style="list-style-type: none"> Logical Observation Identifiers Names and Codes (LOINC®) version 2.72
<p>Mental/Cognitive Status <i>Assessment of a patient’s level of cognitive functioning. (e.g., alertness, orientation, comprehension, concentration, and immediate memory for simple commands)</i></p>	<ul style="list-style-type: none"> Logical Observation Identifiers Names and Codes (LOINC®) version 2.72
<p>Pregnancy Status <i>State or condition of being pregnant or intent to become pregnant. (e.g., pregnant, not pregnant, intent to become pregnant, unknown)</i></p>	
<p>Smoking Status <i>Assessment of a patient’s smoking behaviors.</i></p>	<ul style="list-style-type: none"> SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, March 2022 Release

DATA CLASS

Immunizations

Record of vaccine administration.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
<p>Immunizations <i>Vaccine product administered, planned, or reported.</i></p>	<p>Both standards are required.</p> <ul style="list-style-type: none"> IIS: Current HL7 Standard Code Set, CVX – Vaccines Administered, updates through June 15, 2022 Vaccine National Drug Code (NDC) Directory – Vaccine NDC Linker Table, updates through June 16, 2022

DATA CLASS

Laboratory

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

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
<p>Tests <i>Analysis of specimens derived from humans which provide information for the diagnosis, prevention, treatment of disease, or assessment of health.</i></p>	<ul style="list-style-type: none"> Logical Observation Identifiers Names and Codes (LOINC®) version 2.72
<p>Values/Results <i>Documented findings of a tested specimen including structured and unstructured components.</i></p>	<p>Both standards are required.</p> <ul style="list-style-type: none"> SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, March 2022 Release The Unified Code of Units for Measure, Revision 2.1
<p>Specimen Type <i>Substance being sampled or tested. (e.g., nasopharyngeal swab, whole blood, serum, urine, wound swab)</i></p>	<ul style="list-style-type: none"> SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, March 2022 Release
<p>Result Status <i>State or condition of a laboratory test.</i></p>	

DATA CLASS

Medications

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

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
Medications <i>Pharmacologic agent used in the diagnosis, cure, mitigation, treatment, or prevention of disease.</i>	<ul style="list-style-type: none">RxNorm Full Monthly Release, July 5, 2022 Optional: <ul style="list-style-type: none">National Drug Code (NDC) Directory, July 19, 2022
Dose <i>Amount of a medication for each administration.</i>	
Dose Units of Measure <i>Units of measure of a medication. (e.g., milligrams, milliliters)</i>	<ul style="list-style-type: none">The Unified Code for Units of Measure, Revision 2.1
Indication <i>Sign, symptom, or medical condition that leads to the recommendation of a treatment, test, or procedure.</i>	
Fill Status <i>State of a medication with regards to dispensing or other activity. (e.g., dispensed, partially dispensed, not dispensed)</i>	

DATA CLASS

Patient Demographics/Information

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

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
First Name	
Last Name	
Middle Name (Including middle initial)	

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
Name Suffix <i>Name component following family name that may be used to describe a person's position in a family.</i>	
Previous Name	
Date of Birth <i>Known or estimated year, month, and day of the patient's birth.</i>	
Date of Death <i>Known or estimated year, month, and day of the patient's death.</i>	
Race	Both standards are required. <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 CDC Race and Ethnicity Code Set Version 1.2 (July 2021)
Ethnicity	Both standards are required. <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 CDC Race and Ethnicity Code Set Version 1.2 (July 2021)
Tribal Affiliation <i>Tribe or band with which an individual associates.</i>	
Sex <i>Documentation of a specific instance of sex and/or gender information.</i>	<ul style="list-style-type: none"> SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, March 2022 Release
Sexual Orientation <i>A person's identification of their emotional, romantic, sexual, or affectional attraction to another person.</i>	<ul style="list-style-type: none"> SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, March 2022 Release
Gender Identity <i>A person's sense of being a man, woman, boy, girl or something else.</i>	<ul style="list-style-type: none"> SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, March 2022 Release

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
<p>Preferred Language</p>	<ul style="list-style-type: none"> IETF (Internet Engineering Task Force) Request for Comment (RFC) 5646, "Tags for Identifying Languages", September 2009 <p>Adopted at 45 CFR 170.207(g)(2)</p>
<p>Current Address</p> <p><i>Place where a person is located or may be contacted.</i></p>	<ul style="list-style-type: none"> Project US@ Technical Specification for Patient Addresses, Final Version 1.0
<p>Previous Address</p> <p><i>Prior place where a person may have been located or could have been contacted.</i></p>	<ul style="list-style-type: none"> Project US@ Technical Specification for Patient Addresses, Final Version 1.0
<p>Phone Number</p> <p><i>Numbers and symbols to contact an individual when using a phone.</i></p>	<p>Both standards are required.</p> <ul style="list-style-type: none"> 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 <p>Adopted at 45 CFR 170.207(q)(1)</p>
<p>Phone Number Type</p> <p><i>Contact point when using a phone. (e.g., home, work, mobile)</i></p>	
<p>Email Address</p> <p><i>Unique identifier of an individual's email account that is used to send and receive email messages.</i></p>	
<p>Related Person's Name</p> <p><i>Name of a person with a legal or familial relationship to a patient.</i></p>	

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
Related Person's Relationship <i>Relationship of a person to a patient. (e.g., parent, next-of-kin, guardian, custodian)</i>	
Occupation <i>Type of work of a person. (e.g., infantry, business analyst, social worker)</i>	<ul style="list-style-type: none"> Occupational Data for Health, version 20201030
Occupation Industry <i>Type of business that compensates for work or assigns work to an unpaid worker or volunteer. (e.g., U.S. Army, cement manufacturing, children and youth services)</i>	<ul style="list-style-type: none"> Occupational Data for Health, version 20201030

DATA CLASS

Problems

Condition, diagnosis, or reason for seeking medical attention.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
Problems <i>Condition, diagnosis, or reason for seeking medical attention.</i>	<ul style="list-style-type: none"> SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, March 2022 Release International Classification of Diseases ICD-10-CM 2022
SDOH Problems/Health Concerns <i>Social Determinants of Health-related health concerns, conditions, or diagnoses. (e.g., homelessness, food insecurity)</i>	<ul style="list-style-type: none"> SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, March 2022 Release International Classification of Diseases ICD-10-CM 2022
Date of Diagnosis <i>Date of first determination by a qualified professional of the presence of a problem or condition affecting a patient.</i>	
Date of Resolution <i>Date of subsiding or termination of a problem or condition.</i>	

Procedures

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

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
<p>Procedures</p>	<ul style="list-style-type: none"> • SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, March 2022 Release • Current Procedural Terminology (CPT®) 2022, as maintained and distributed by the American Medical Association, for physician services and other health care services, and Healthcare Common Procedure Coding System (HCPCS) July 2022, as maintained and distributed by HHS. • For technology developed to record dental procedures: Code on Dental Procedures and Nomenclature (CDT) 2022, maintained and distributed by the American Dental Association, for dental services. <p>Optional:</p> <ul style="list-style-type: none"> • 2022 International Classification of Diseases ICD-10-PCS
<p>SDOH Interventions</p> <p><i>Actions or services to address an identified Social Determinants of Health-related health concern, condition, or diagnosis. (e.g., education about food pantry program, referral to non-emergency medical transportation program)</i></p>	<ul style="list-style-type: none"> • SNOMED International, Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT®) U.S. Edition, March 2022 Release • Current Procedural Terminology (CPT®) 2022, 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 July 2022, as maintained and distributed by HHS.
<p>Reason for Referral</p> <p><i>Explanation or justification for a referral or consultation.</i></p>	

DATA CLASS

Provenance

Metadata, or data that describes other data.

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
Author Time Stamp <i>Date and time of author action.</i>	
Author Organization <i>Organization associated with author.</i>	

DATA CLASS

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

Unique identifier(s) for a patient's implantable device(s).

DATA ELEMENT	APPLICABLE VOCABULARY STANDARD(S)
Unique Device Identifier(s) for a Patient's Implantable Device(s) <i>Unique numeric or alphanumeric codes that consists of a device identifier and a production identifier.</i>	<ul style="list-style-type: none">FDA Unique Device Identification System (UDI System)

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)
Systolic Blood Pressure	<p>Both standards are required.</p> <ul style="list-style-type: none">Logical Observation Identifiers Names and Codes (LOINC®) version 2.72The Unified Code of Units for Measure, Revision 2.1
Diastolic 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)	