



Advancing Interoperability: Public Health and Quality Data Modernization through Partnerships

June 14, 2023

Ryan Argentieri, MA, MBA, Deputy Director, Office of Technology, ONC
Alexandra Mugge, MPH, Director & Chief Informatics Officer, CMS

The Office of the National Coordinator for
Health Information Technology



Connecting Health Care



Advancing Interoperability and Improving Prior Authorization Processes Overview



On December 6, 2022, CMS posted the Advancing Interoperability and Improving Prior Authorization Processes proposed rule. The proposed implementation date for the provisions in this rule is January 1, 2026.

This rule signals CMS' continued commitment to increasing efficiency by ensuring that health information is readily available at the point of care by leveraging FHIR standards.

CMS also includes several proposals intended to reduce payer, provider, and patient burden by streamlining prior authorization processes to move the industry toward electronic prior authorization, creating a more efficient and timely process.

Ultimately, reduced provider burden means more time with patients.



Provisions

- Patient Access Application Programming Interface (API)
- Provider Access API
- Payer-to-Payer Data Exchange API
- Prior Authorization Requirements, Documentation & Decision API
- Improving Prior Authorization Processes
- New measures for Electronic Prior Authorization for the Merit-based Incentive Payment System (MIPS) Promoting Interoperability Performance Category and the Medicare Promoting Interoperability Program



Impacted Payers

- Medicare Advantage
- State Medicaid and CHIP agencies
- Medicaid and CHIP Managed Care Plans
- Qualified Health Plans (QHPs) on the Federally-facilitated Exchanges (FFEs)



Impacted Providers

- Eligible hospitals and critical access hospitals (CAHs) under the Medicare Promoting Interoperability Program
- Eligible clinicians under the Promoting Interoperability performance category of Merit-based Incentive Payment System (MIPS)³

CMS's Commitment to Interoperability



DEVELOPING
REGULATION



EXPANDING
PUBLIC HEALTH
INFRASTRUCTURE



SUPPORTING
INNOVATION



REFINING
IMPLEMENTATION
GUIDES



LEADING BY
EXAMPLE

USCDI Structure and Versions

- Adopted by ONC in the 2020 21st Century Cures Act Final Rule
- Minimum dataset required for interoperability
 - Defines required data elements and vocabulary standards
 - Agnostic to format
 - Focuses on patient access/care coordination use cases
- Updated annually with federal agency & industry input
 - USCDI v2 and v3 added data classes and data elements including supports for advancing health equity
 - USCDI v4 currently in draft



USCDI v1 Summary of Data Classes and Data Elements			
Allergies and Intolerances <ul style="list-style-type: none"> Substance (Medication) Substance (Drug Class) Reaction 			
Assessment and Plan of Treatment <ul style="list-style-type: none"> Assessment and Plan of Treatment 			
Care Team Members <ul style="list-style-type: none"> Care Team Members 			
Clinical Notes <ul style="list-style-type: none"> Consultation Note Discharge Summary Note History & Physical Imaging Narrative Laboratory Report Narrative Pathology Report Narrative Procedure Note Progress Note 			
Goals <ul style="list-style-type: none"> Patient Goals 			
Health Concerns <ul style="list-style-type: none"> Health Concerns 			
Immunizations <ul style="list-style-type: none"> Immunizations 			

USCDI v2 Summary of Data Classes and Data Elements			
Allergies and Intolerances <ul style="list-style-type: none"> Substance (Medication) Substance (Drug Class) Reaction 	Goals <ul style="list-style-type: none"> Patient Goals SDOH Goals 	Procedures <ul style="list-style-type: none"> Procedures SDOH Interventions 	
Assessment and Plan of Treatment <ul style="list-style-type: none"> Assessment and Plan of Treatment SDOH Assessment 			
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 			
Clinical Notes <ul style="list-style-type: none"> Consultation Note Discharge Summary History & Physical Procedure Note Progress Note 			
Clinical Tests <ul style="list-style-type: none"> Clinical Test Clinical Test Result 			
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 			

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 			

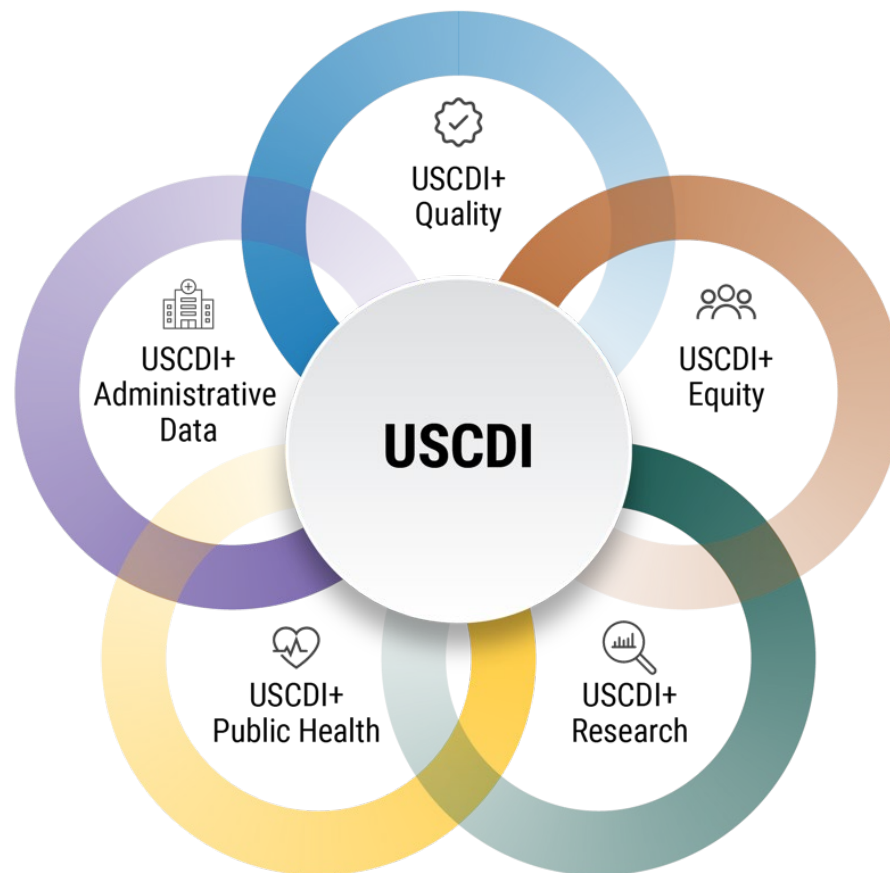
Why USCDI matters...

- Application programming interface (API) criterion using FHIR® US Core
- Other ONC Certification Criteria:
 - Transitions of Care documents (create, send, and receive)
 - Clinical Information reconciliation and incorporation
 - Patient View, Download, and Transmit their health data to a 3rd party
 - Electronic case reporting to public health agencies
 - Create C-CDA document
- TEFCA data exchange
- CMS requirements for certain payers APIs
- HHS funded programs under HHS Health IT Alignment Policy (HITECH Act Sec. 13111 and 13112)



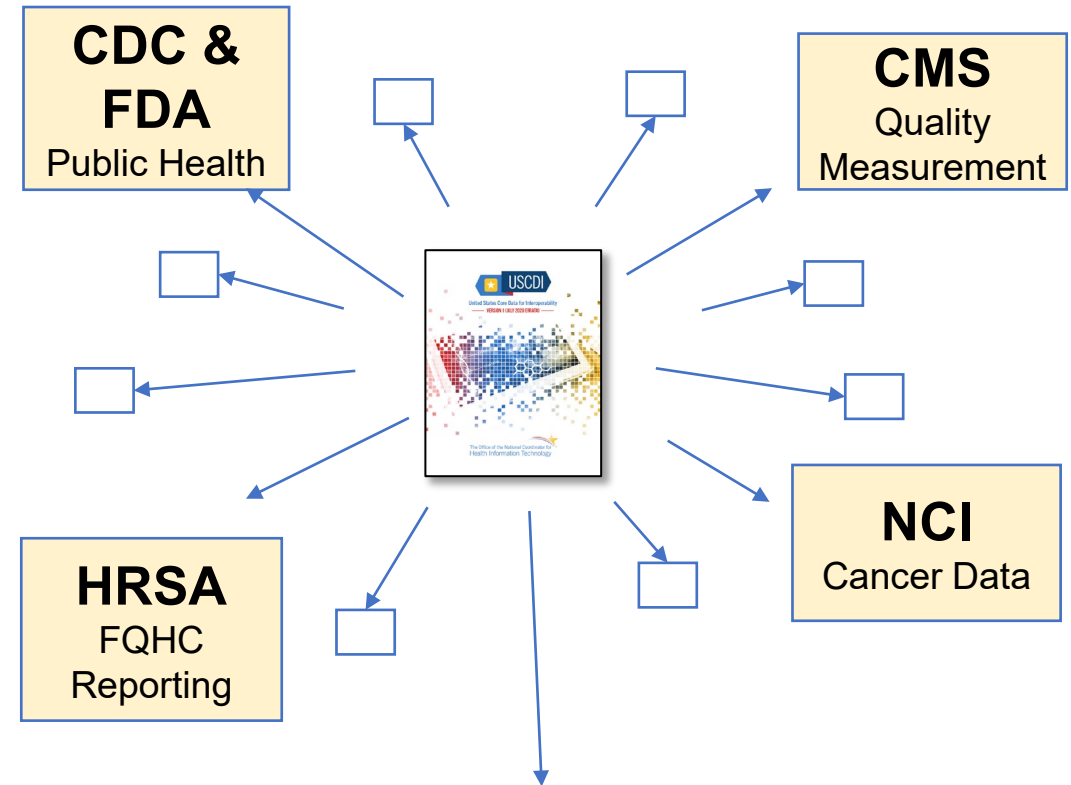
USCDI+: Extending Beyond the USCDI

- Unique program and use case-specific data needs are sometimes not fully met by USCDI.
- ONC's USCDI+ initiative helps government and industry partners build on USCDI to support specific program needs.
- Applies USCDI processes for submission and harmonization while focusing on programmatic priorities.
- Seeks to leverage programs and authorities across HHS to drive adoption.
- USCDI+ for Quality Measurement and Public Health kicked off with CDC, CMS & HRSA.



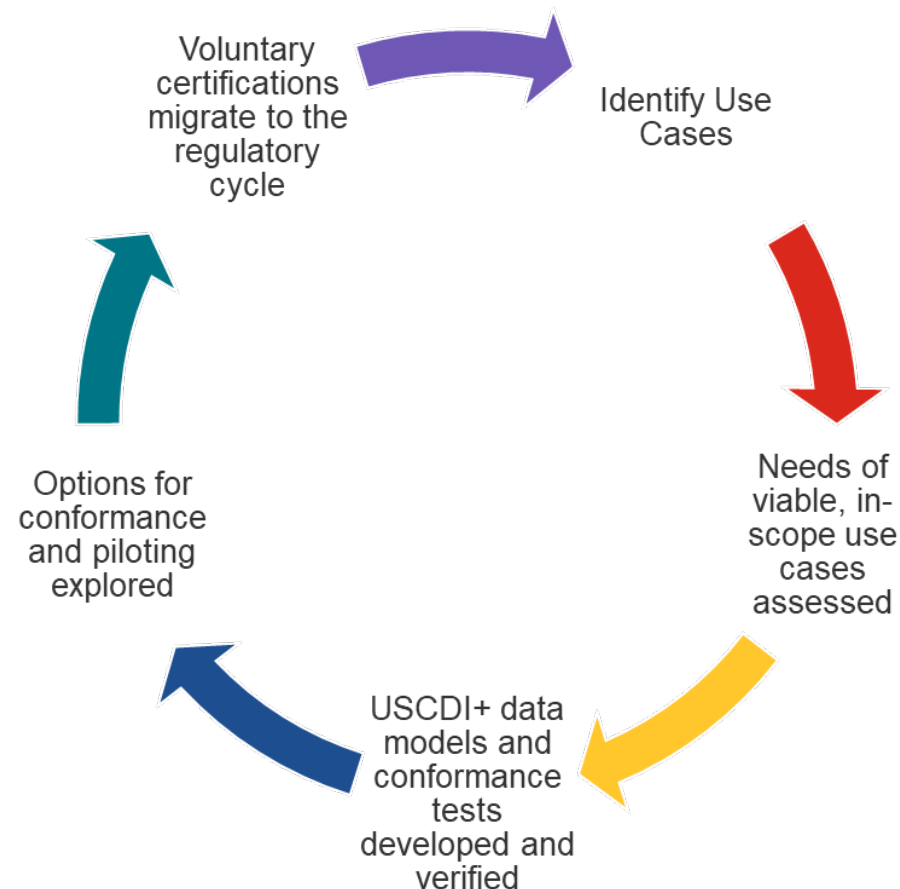
USCDI+: Extending Beyond the USCDI

- Unique agency or program-specific data systems and requirements sometimes not fully met by USCDI
- ONC USCDI+ initiative helps federal partners build on USCDI to support specific program needs
- Allows ONC to better serve federal partners, assures that extensions build from the same foundation, and creates the opportunity for aligning similar data needs across agency programs



USCDI+: Iterative, Rolling Process

- New use cases build on existing work, but focuses on meeting a need in real-time; coordinated with ONC requirements
- At regular intervals:
 - USCDI+ can be updated with findings shared on public facing platform
 - Pilots help inform both bright spots and barriers to success
 - Data requirements are paired with test kits for conformance (tied to certification)
- Partners across the ecosystem adopt consistent models for data capture and exchange → ensures better treatment, prevention and research for all patients



Why data standardization?

- **CMS is contributing to the establishment of a functional learning health system, with standardized data as the foundation**
 - Learning health systems generate knowledge from data captured during routine care
- **Data standardization efforts, including USCDI and USCDI+ Quality**
 - Transforms data into a common format
 - Supports ensuring data quality
 - Allows for data flow
 - Supports program alignment
- **Standardized data can be used for multiple use cases, such as:**
 - Patient health data access
 - Quality measurement
 - Big data analytics
 - Research

Structured, standardized data can lead to reduced collection and reporting burden

CURRENT STATE



FUTURE STATE

Providers' struggle to implement current eCQMs

- Limitations and slow adoption of current standards
- Lack of provider data mapping and quality assurance (QA) of required data
- Required changes to clinical workflows

dQM implementation is seamless and at the push of a button

- Focus on **standardized data** – Fast Healthcare Interoperability Resources (FHIR®), USCDI, and supplemental standards (i.e., USCDI+) that enable automated extraction
- Standardized and automated data collection facilitates **valid and reliable data mapping** and streamlined auditing processes
- Eliminate workflow changes required only for measurement and focus on measures that also **align with quality improvement priorities**

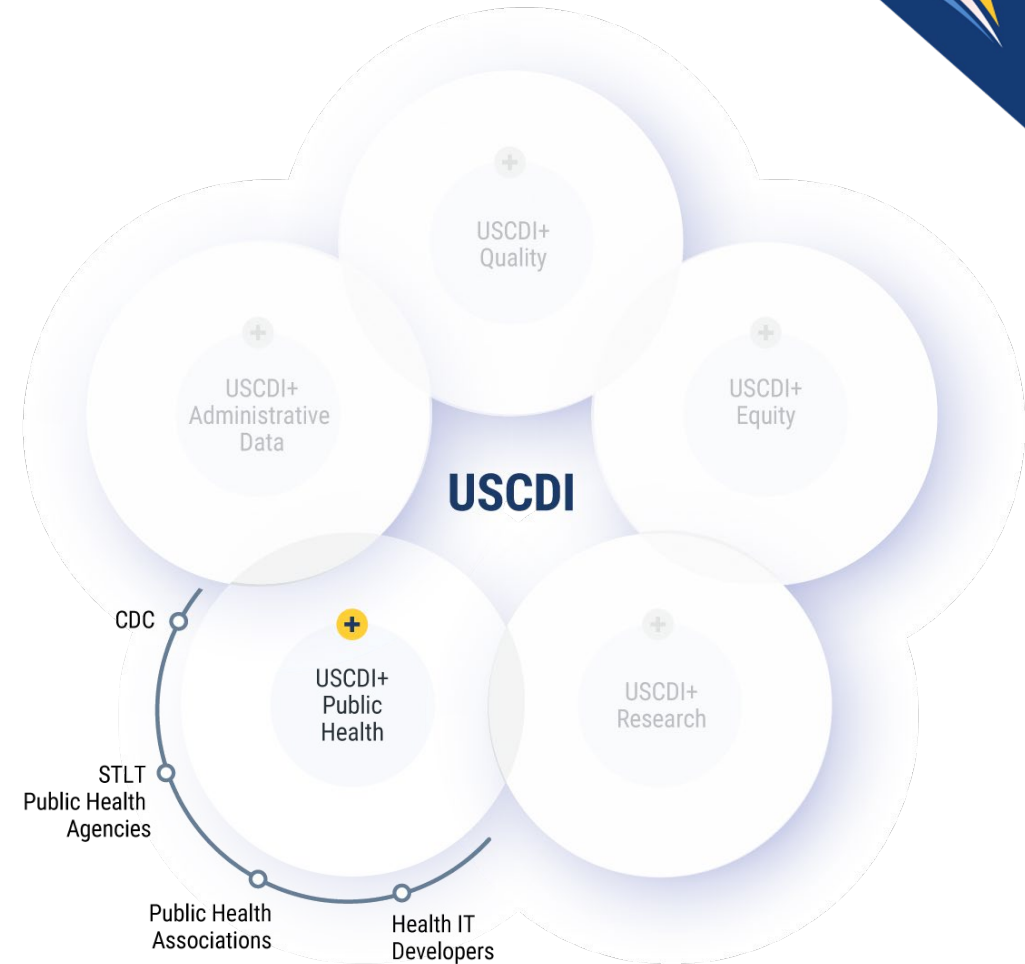
CMS actively engages on data standardization

- Contributes to the annual USCDI process to advocate for priority data elements for quality measurement and to support advancement of interoperability for patient care
- Contributes to the development of ONC's USCDI+ Quality domain
- Collaborates with CDC to ensure CMS data element needs and standards for quality measurement align with other use cases
- Intends to incorporate data types beyond eCQMs such as data standards from post-acute care (PAC) measures, registries, and the National Healthcare Safety Network

USCDI: <https://www.healthit.gov/isa/united-states-core-data-interoperability-uscdi>

USCDI+ for Public Health: Overview

- Capture the data needs of public health that fall outside the scope of USCDI; improve data quality and availability
- Current priority areas:
 - Case-based Surveillance
 - Lab Data Exchange
 - Bi-Directional Exchange (Healthcare and STLT partners)
 - Maternal and Child Health
 - Resource Reporting and Situational Awareness
 - Risk Behaviors & Health Equity
- Datasets will provide implementation guidance analogous to US Core for USCDI+ for PH as well as to align with new CDC-led reporting initiatives under the new Office of Public Health Data, Surveillance and Technology (OPHDST)



Questions?

You may submit questions to

USCDIPlus@hhs.gov

CMSHealthInformaticsandInteroperabilityGroup@cms.hhs.gov
