

# Member Keynote

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**General Assembly Representative, USA**

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GENERAL ASSEMBLY





National Library  
of Medicine

***SNOMED 2023***  
**Open General Assembly**  
**October 24, 2023**

**Dianne Babski**

Associate Director, Library Operations  
US GA Representative



National Library of Medicine

# What is the National Library of Medicine?



National Library  
of Medicine

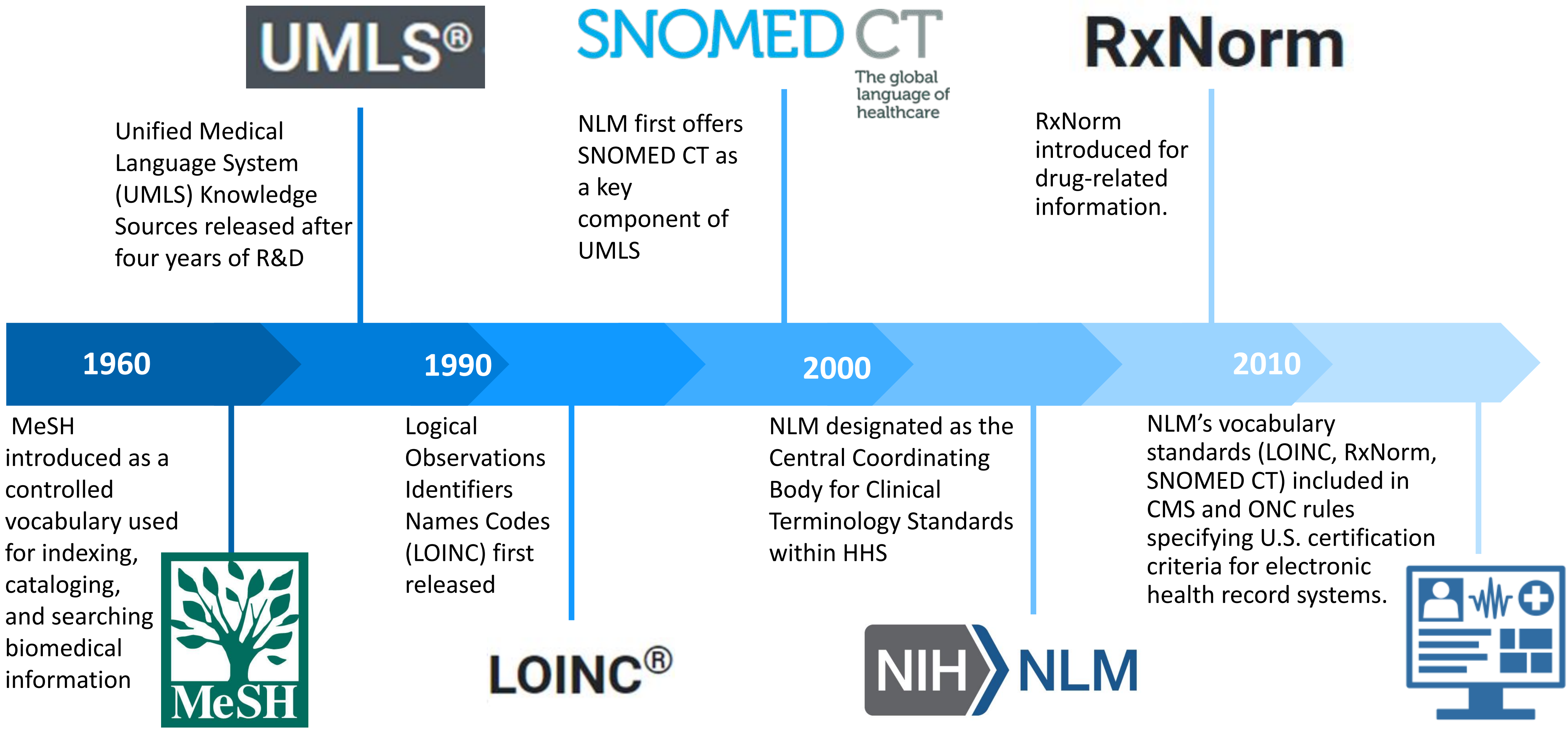
# The National Library of Medicine

The World's Largest Biomedical Library AND Research Enterprise for Biomedical Informatics





# History of Supporting Health Data Standards



# Supporting NLM's Strategic Plan

## NLM Strategic Plan



**Accelerate discovery  
and advance health  
through data-driven  
research**



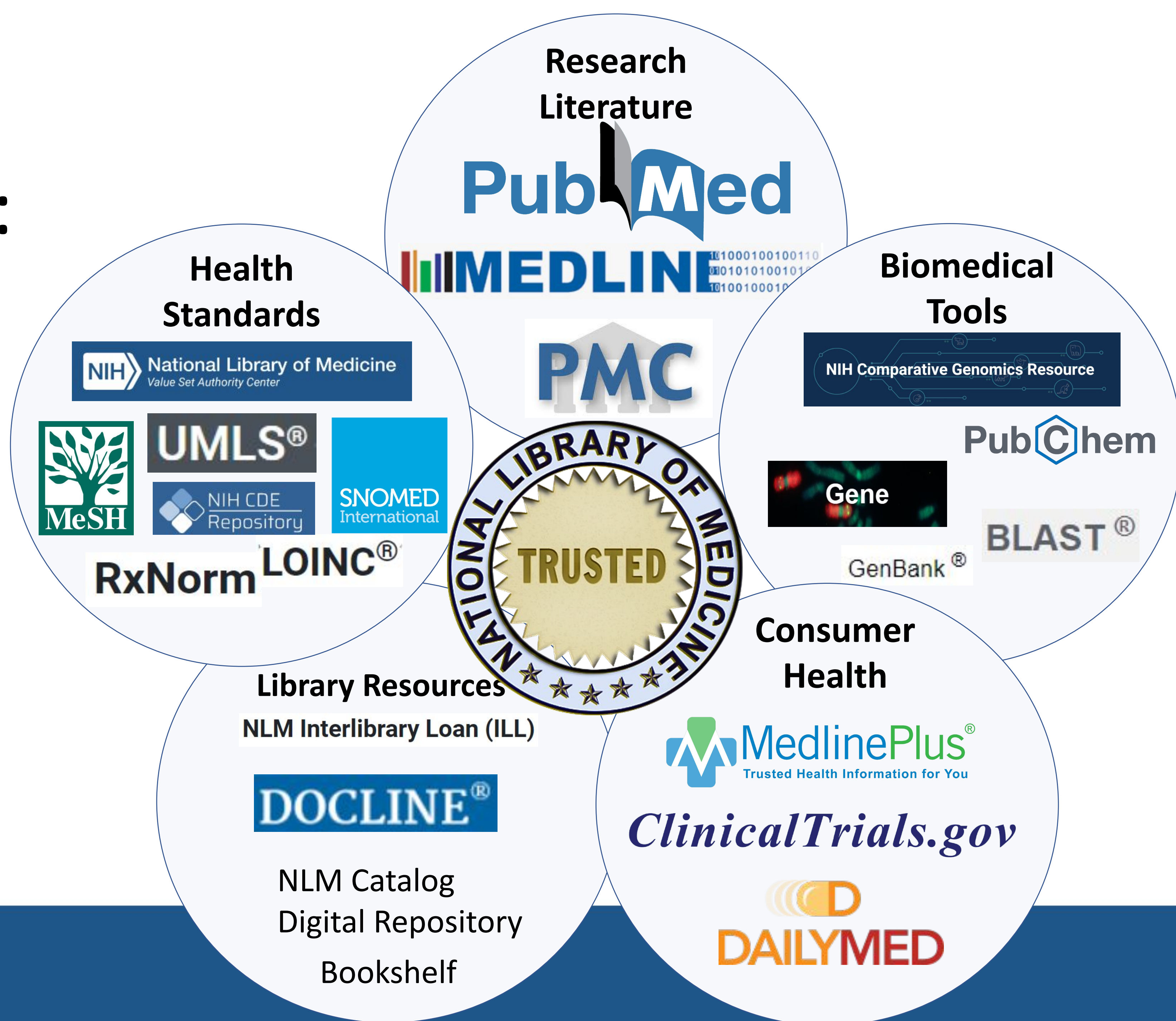
**Reach more people in  
more ways through  
enhanced  
dissemination and  
engagement**



**Build a workforce for  
data-driven research  
and health**



# Long-term Vision: Knowledge Hub that Connects Everyone with Customized Health Information





# NLM as the U.S. National Release Center

- Charter Member on behalf of US/HHS
- U.S. National Release Center (NRC)
  - US licensor of SNOMED CT Affiliates via the UMLS license
  - US distributor of SNOMED CT products
  - Create and maintain the US Edition of SNOMED CT
  - Create and maintain the SNOMED CT to ICD-10-CM Map

SNOMED  
International

MEMBER



[snomed.org/us](https://snomed.org/us)





## United States NRC SNOMED CT Team

John Snyder - SNOMED CT Author, EAG

Dr. Kin-Wah Fung - SNOMED CT Mapping Lead, MAG

Dianne Babski –U.S. General Assembly Representative

Dr. Olivier Bodenreider - CMAG

Nick McGraw - SNOMED CT Coordinator, Member Forum, MSUG

Patrick McLaughlin – Member Forum, TRAG





# NLM Works to Promote Better Public Health

**NIH** **NLM** *(Sampling)*

**NIH CDE**  
Repository

**NIH** National Library of Medicine  
Value Set Authority Center

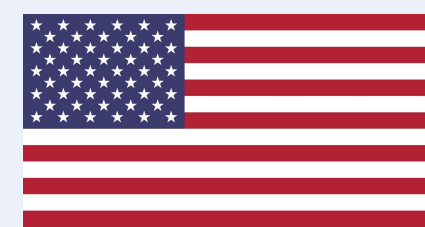
**UMLS**<sup>®</sup>

**LOINC**<sup>®</sup>

**RxNorm**

**SNOMED CT**

The global language of healthcare



Central coordinating body, developing, promoting, and/or disseminating the standards



**Electronic Health Records**  
**Public Health Reporting**  
**Insurance Claims**  
**Laboratories**  
**Drug Formularies**  
**Research**



**Thank you!**

**Visit the NLM/FDA,  
CDC and ONC  
booths during the  
EXPO!**

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Office of the National Coordinator  
for Health Information Technology

# ONC Standards Update

October 24, 2023





# Agenda

- ONC Overview
- United States Core Data for Interoperability (USCDI)
- ONC Regulations





# ONC Overview



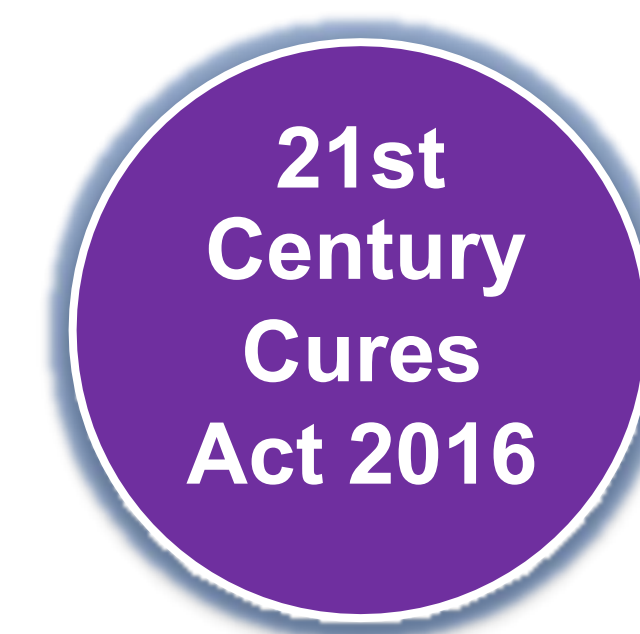
# Office of the National Coordinator for Health IT

- Founded in 2004 by executive order, established in statute in 2009
- Located within the Office of the Secretary for the U.S. Department of Health and Human Services (HHS)
- Charged with formulating the federal government's health IT strategy to advance national goals for better and safer health care through an interoperable nationwide health IT infrastructure



## Laying the foundation of EHRs across the industry

- \$40B CMS\* investment to subsidize electronic health records (EHRs) for hospitals and ambulatory providers
- ONC "certification" for health IT systems



## Leveraging EHRs to drive value

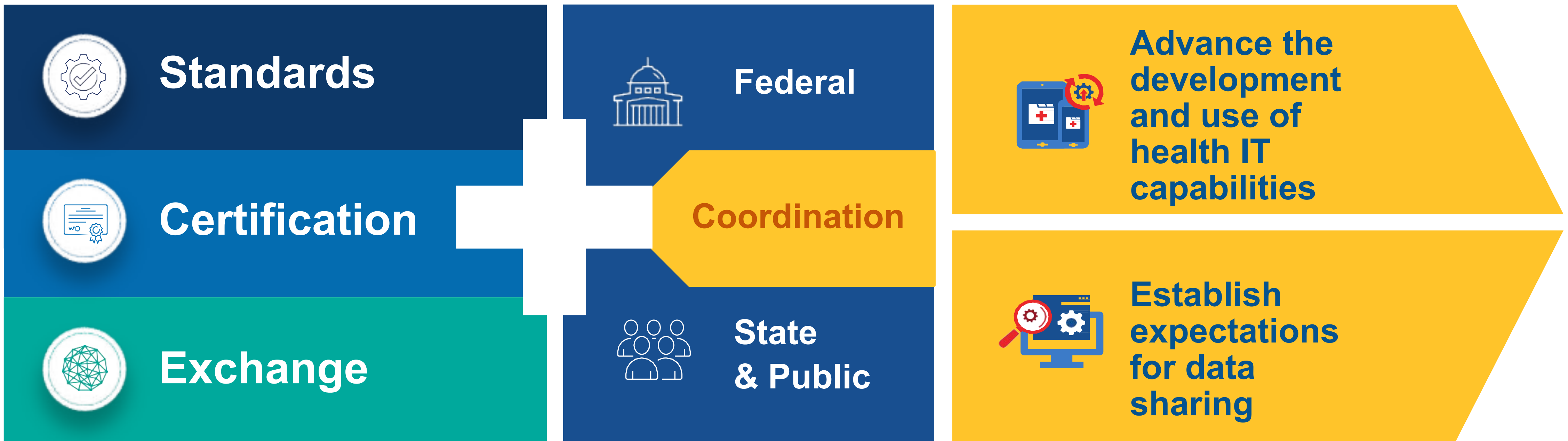
- Defines "information blocking" (practices that prevent, discourage, or interfere with access, exchange, or use of electronic health information)
- Requires access to information through APIs "without special effort"
- Requires nationwide governance for health information exchange networks
  - Trusted Exchange Framework and Common Agreement

# ONC Focus Areas



## ONC Activities

## ONC Objectives





# ONC Mission & Vision and 2024 Priorities:

## Set the Course for the 21<sup>st</sup> Century Digital Healthcare System

### MISSION and VISION

ONC is at the forefront of the Administration's health IT efforts and is a resource to the entire health system to support the adoption of health information technology and the promotion of nationwide, standards-based health information exchange to improve health care.

**MISSION:** To create systemic improvements in health and care through the access, exchange, and use of data.

**VISION:** Better health enabled by data.

### PRIORITIES



#### Build the digital foundation

- Data standards
- Health IT gaps
- HHS Health IT Alignment Policy



#### Make interoperability easy

- Trusted Exchange Framework and Common Agreement (TEFCA)\*
- Application Programming Interfaces (APIs)
- Expand education and outreach
- Enforce information blocking rules



#### Ensure proper use of digital information and tools

- Health equity by design principles for data capture and use
- Transparency in areas such as algorithm use and safety

\* <https://www.healthit.gov/topic/interoperability/policy/trusted-exchange-framework-and-common-agreement-tefca>



# **United States Core Data for Interoperability (USCDI)**



# USCDI Core Principles



Comprises a core set of data needed to support patient care and facilitate patient access using health IT

Establishes a consistent baseline of data for other use cases

Expands over time via a predictable, transparent, and collaborative **public** process

# Why USCDI Matters



- Established in the ONC Cures Act Final Rule in 2020
- Required for application programming interface (API) Certification Criterion to access patient data, using FHIR® US Core
- USCDI v1 referenced in Certification Criteria, using HL7® C-CDA or FHIR® US Core:
  - Transitions of Care documents (create, send, and receive)
  - Clinical Information reconciliation and incorporation
  - Patient View, Download, and Transmit their health data to a 3<sup>rd</sup> party
  - Electronic case reporting to public health agencies
  - Create C-CDA document
  - Access to data via APIs
- Defines required data for other uses, such as CMS\* Patient Access and Payer-to-Payer API
- USCDI v3 proposed to be required in Health Data Technology Interoperability (HTI-1 Proposed Rule)

\*Centers for Medicare and Medicaid Services



# USCDI: Transparent, Predictable, Collaborative



- USCDI v1 is required by Cures Act Final Rule and added data classes clinical notes and provenance, and data elements pediatric vital signs and address
- USCDI v2 added three data classes and 22 data elements in support of advancing health equity (SOGI and SDOH)
- USCDI v3 added 24 data elements focused on factors promoting equity, reducing disparities and supporting public health data interoperability.
  - Proposed as new required version in Health Data, Technology, and Interoperability 1, with an effective date of December 31, 2024
- USCDI v4 added *20 data elements* including Alcohol, Substance Use and Physical Activity assessments, Treatment Intervention and Care Experience Preferences, and Medication Adherence

USCDI v1 Summary of Data Classes and Data Elements	
Allergies	Substance (Medication) Substance (Drug Class) Substance (Non-Medication) Reaction
Assessments	Assessment and Plan of Treatment SDOH Assessment
Care Team	Care Team Member(s) Care Team Member Name Care Team Member Identifier Care Team Member Role Care Team Member Location Care Team Member Telecom
Clinical Notes	Clinical Notes Consultation Note Discharge Summary Note History & Physical Procedure Note Progress Note
Clinical Tests	Clinical Tests Clinical Test Clinical Test Result/Report
Diagnostic Imaging	Diagnostic Imaging Diagnostic Imaging Test Diagnostic Imaging Report
Encounter Information	Encounter Information Encounter Type Encounter Identifier Encounter Diagnosis Encounter Time Encounter Location Encounter Disposition
Facility Information	Facility Information Facility Identifier Facility Type Facility Name
Goals and Preferences	Goals and Preferences Patient Goals SDOH Goals Treatment Intervention Preference Care Experience Preference
Health Insurance Information	Health Insurance Information Coverage Status Coverage Type Relationship to Subscriber Member Identifier Subscriber Identifier Group Identifier Payer Identifier
Health Status Assessment	Health Status Assessment Health Concerns Functional Status Disability Status Mental/Cognitive Status Pregnancy Status Alcohol Use Substance Use Physical Activity SDOH Assessment Smoking Status
Immunizations	Immunizations
Laboratory	Laboratory Tests Values/Results Specimen Type Result Status Result Unit of Measure Result Reference Range Result Interpretation Specimen Source Site Specimen Identifier Specimen Condition Acceptability
Medical Devices	Medical Devices Unique Device Identifier - Implantable
Medications	Medications Dose Dose Unit of Measure Indication Fill Status Medication Instructions Medication Adherence
Patient Demographics/Information	Patient Demographics/Information First Name Last Name Middle Name (Including middle initial) Name Suffix Previous Name Date of Birth Date of Death Race Ethnicity Tribal Affiliation
Patient Demographics/Information (cont.)	Patient Demographics/Information (cont.) Sex Sexual Orientation Gender Identity Preferred Language Current Address Previous Address Phone Number Phone Number Type Email Address Related Person's Name Relationship Type Occupation Occupation Industry
Patient Summary and Plan	Patient Summary and Plan Assessment and Plan of Treatment
Problems	Problems SDOH Problems/Health Concerns Date of Diagnosis Date of Resolution
Procedures	Procedures Procedures Performance Time SDOH Interventions Reason for Referral
Provenance	Provenance Author Time Stamp Author Organization
Vital Signs	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)



# USCDI Version 4 – SNOMED CT

## Allergies and Intolerances

- Substance (Medication)
- **Substance (Drug Class)**
- **Substance (Non-Medication)**
- **Reaction**

## Care Team Member(s)

- 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
- History & Physical
- 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 Assessment

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

## Immunizations

- Immunizations

## Laboratory

- Tests
- **Values/Results**
- **Specimen Type**
- Result Status
- Result Unit of Measure
- Result Reference Range
- **Result Interpretation**
- **Specimen Source Site**
- Specimen Identifier
- **Specimen Condition Acceptability**

## Medical Devices

- Unique Device Identifier - Implantable

## Medications

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

## Patient Demographics/ Information

- 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
- 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 Time Stamp
- Author Organization

## Vital Signs

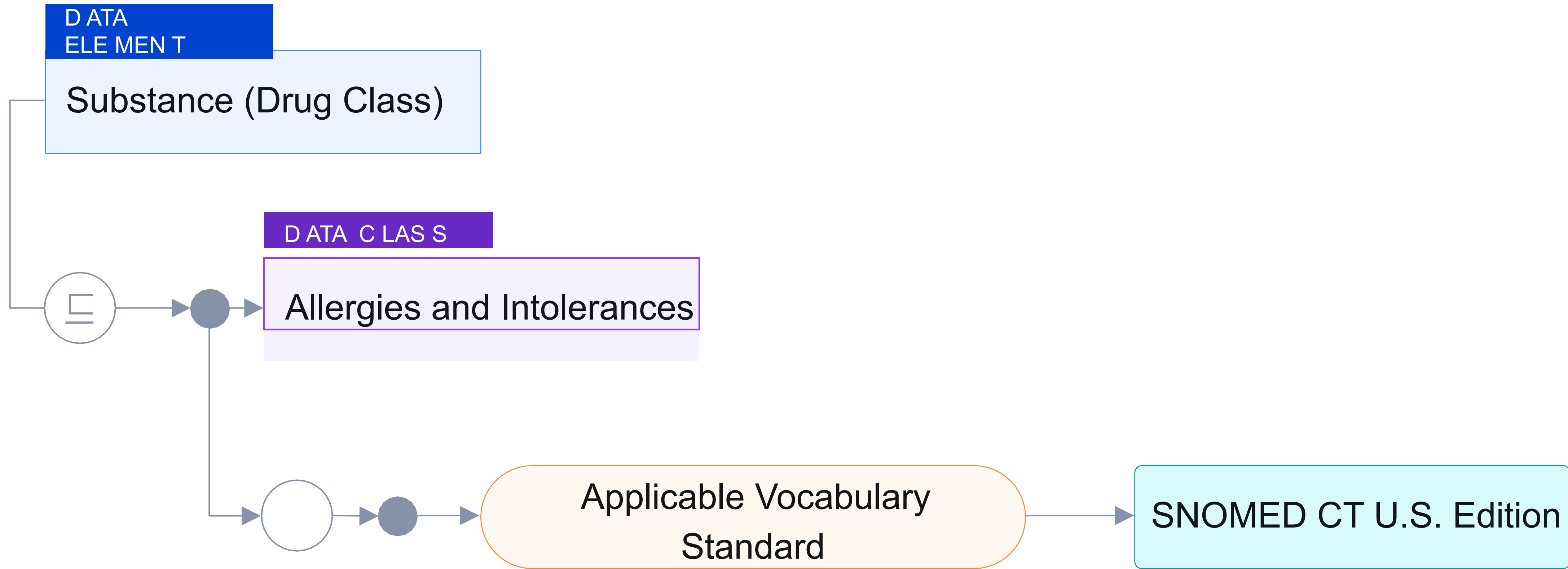
- Systolic Blood Pressure
- Diastolic Blood Pressure
- Average Blood Pressure
- Heart Rate
- Respiratory Rate
- Body Temperature
- Body Height
- Body Weight
- Pulse Oximetry
- Inhaled Oxygen Concentration
- BMI Percentile (2 - 20 years)
- Weight-for-length Percentile (Birth - 24 Months)
- Head Occipital-frontal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

\* Data elements with SNOMED CT U.S. Edition as an applicable vocabulary standard (21)





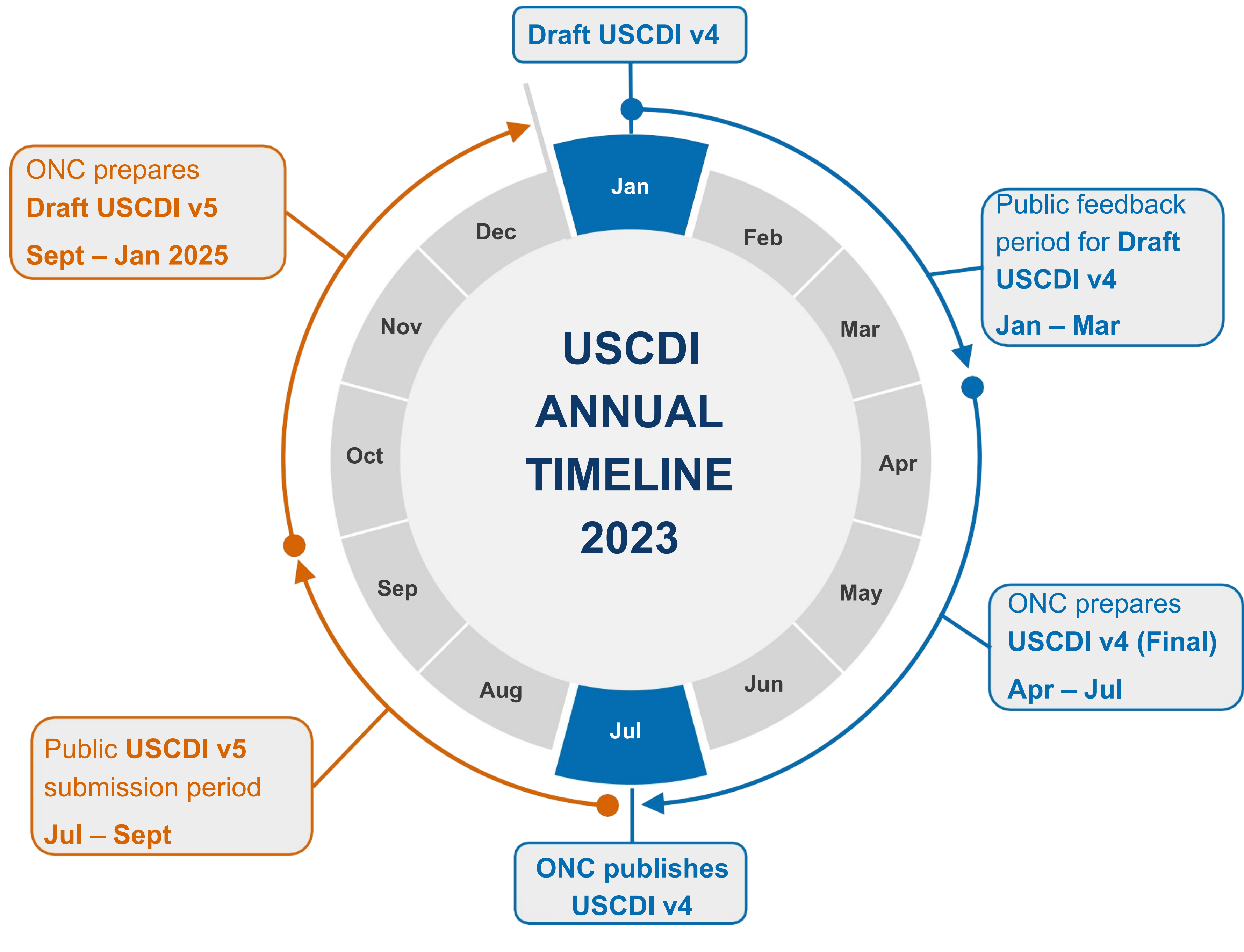
# USCDI Data Element – SNOMED CT Model





# USCDI Timeline





**USCDI v4**

**USCDI v5**

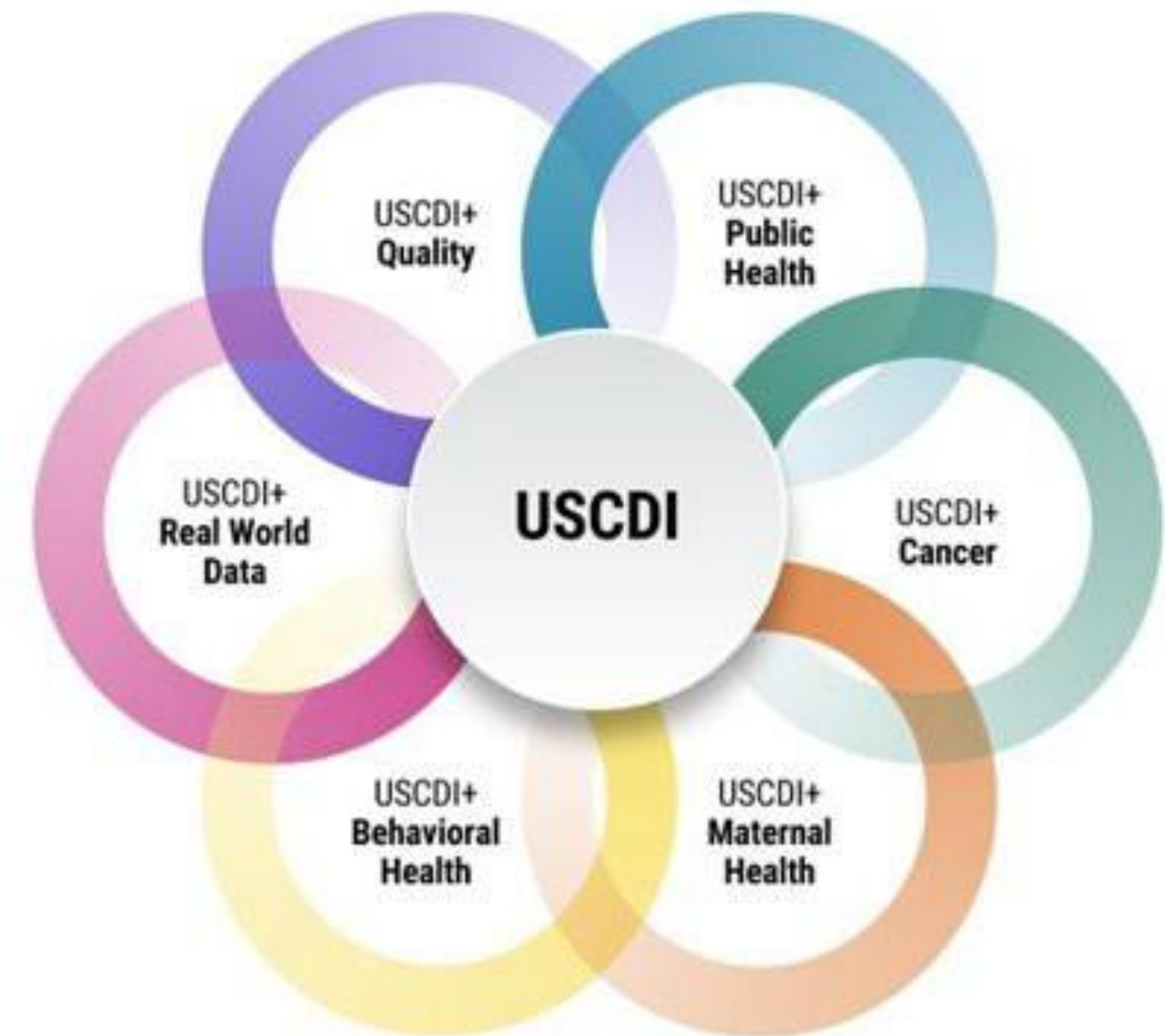


# USCDI+



# USCDI+: Extending Beyond the USCDI

- Meets unique program and use case-specific data needs not fully met by USCDI.
- 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 Centers for Disease Control and Prevention (CDC), Centers for Medicare & Medicaid Services (CMS) & Health Resources and Services Administration (HRSA).





# ONC Regulations



# United States Core Data for Interoperability (USCDI)

- SNOMED CT is required for *certified health IT modules\** when exchanging

Substance drug class

Smoking Status

Problems

Laboratory Results/Values

Procedures

- Additional SNOMED CT requirements in USCDI v3, *proposed to be required* in HTI-1 Proposed Rule

Reaction

Gender Identity

Encounter Diagnosis

SDOH Intervention

SDOH Problems/Health Concerns

Sexual Orientation

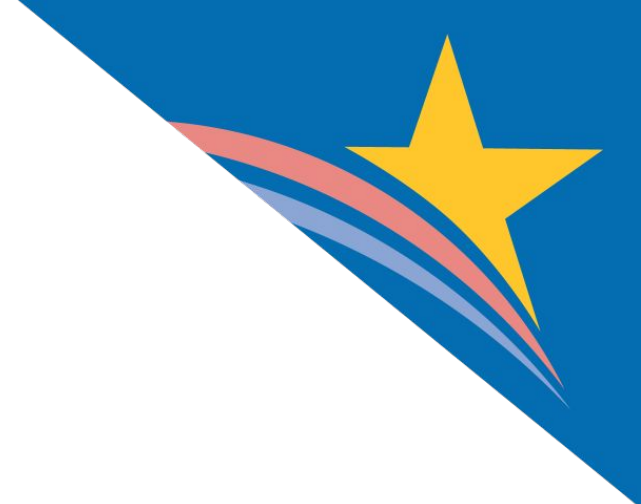
Specimen Type

SDOH Assessment

SDOH Goal

\*voluntary Electronic Health Record certification program

# Health Data Technology Interoperability (HTI-1 Proposed Rule): What's the Why?



## Implementing the 21<sup>st</sup> Century Cures Act

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- EHR Reporting Program
- APIs that allow electronic health information to be accessed, exchanged, and used without special effort
- Reasonable and necessary activities that do not constitute information blocking



## Achieving the goals of the Biden-Harris Administration Executive Orders

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- E.O. 13994 “Ensuring a Data-Driven Response to COVID-19 and Future High-Consequence Public Health Threats”
- E.O. 13985 “Advancing Racial Equity and Support for Underserved Communities Through the Federal Government” and E.O 14091 “Further Advancing Racial Equity and Support for Underserved Communities Through the Federal Government”



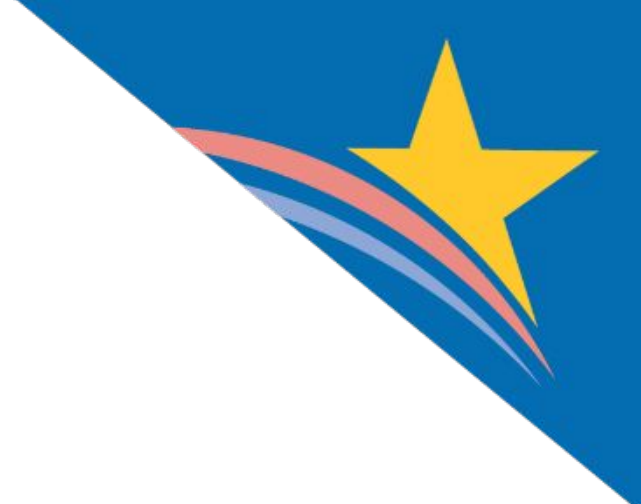
## Leveraging Health IT and Advancing Interoperability

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- HITECH\* Act
- Interoperability Advancement
- ONC Health IT Certification Program

\*Health Information Technology for Economic and Clinical Health (HITECH)





# Resources



# Resources Available on HealthIT.gov!

## About ONC

[ONC United States Core Data for Interoperability \(USCDI\)](#)

[ONC United States Core Data for Interoperability Plus \(USCDI+\)](#)

[ONC Health Technology and Interoperability \(HTI-1\) Rule](#)





Office of the National Coordinator  
for Health Information Technology

# Contact ONC

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Phone: 202-691-2062



Health IT Feedback Form:

<https://www.healthit.gov/form/healthit-feedback-form>



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# Thank You

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