



Office of the National Coordinator  
for Health Information Technology

# ONC Update

Thomas Mason, M.D., Chief Medical Officer

AMDIS Annual Physician-Computer  
Connection Symposium 2024

June 20, 2024



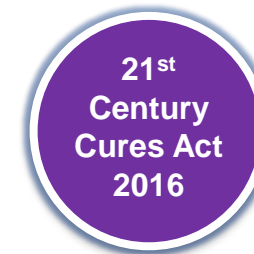
[AL]



# Office of the National Coordinator for Health IT



- Founded in 2004 by executive order, established in statute in 2009
- ONC is 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 EHRs for hospitals and ambulatory providers
- ONC certification of EHR systems to support CMS and CDC programs
- ONC certification now covers EHRs used by 97% of hospitals and 86% of ambulatory providers

## Leveraging EHRs to drive value

- Information blocking: Prohibits providers, technology developers, and health information networks from interfering with access, exchange, and use of electronic health information
- Standards: Requires access to information through APIs “without special effort”
- TEFCA: Requires nationwide governance for health information exchange networks – Trusted Exchange Framework and Common Agreement

# About ONC



## Our Vision

Better health enabled by data.



## Our Mission

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

## PRIORITIES

---



### Build the digital foundation

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



### Make interoperability easy

- TEFCA
- APIs
- Expand education and outreach



### Promote information sharing

- Information blocking rules
- HHS Health IT Alignment Policy



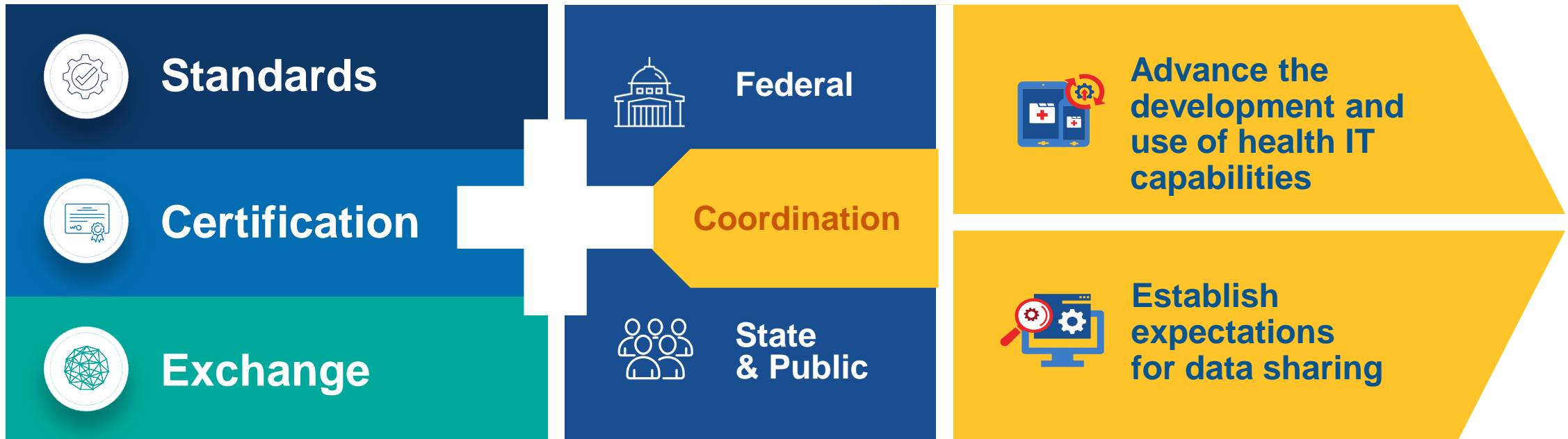
### Ensure proper use of digital information and tools

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

# “What we do”

## ONC Activities

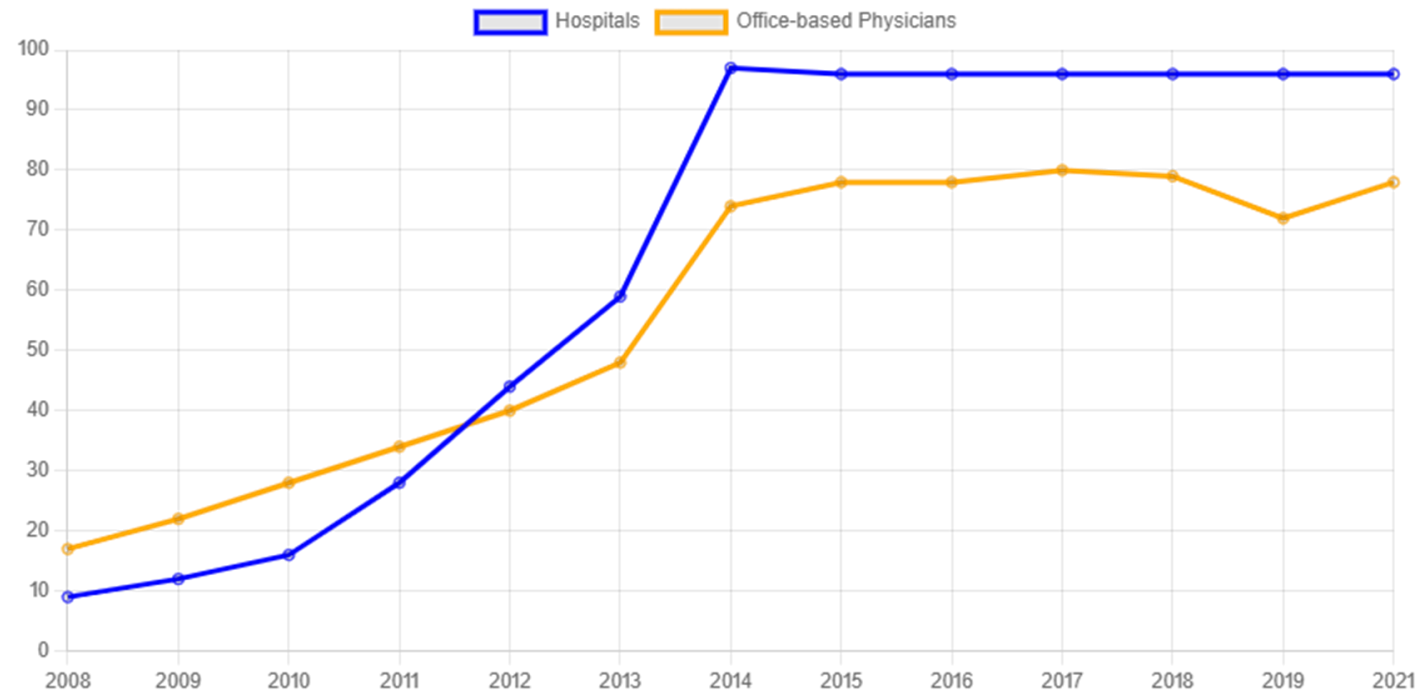
## ONC Objectives



# ONC's Health IT Certification Program

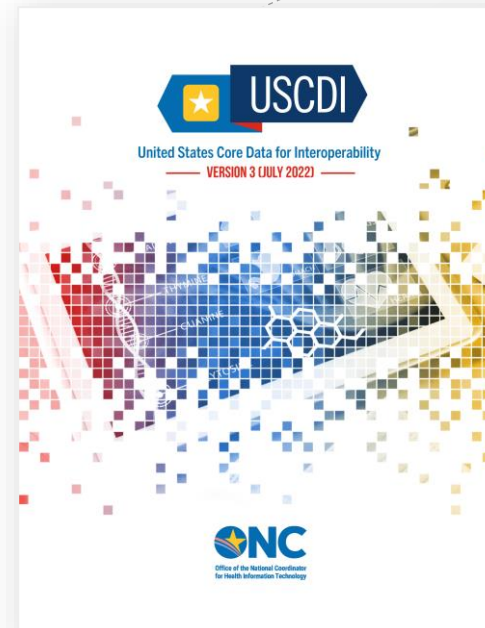
- ONC-certified Health IT is the foundation of the US' digital health infrastructure.
  - 400+ health IT products
  - Used by >96% of hospitals and ~80% of clinical offices.

- Sets industry-baseline for data, standards, and interoperability
- Certified capabilities are “baked-in” to the technology that providers use daily
- Also applies to health IT developers' business practices
- Referenced by more than 20 federal programs, including Medicare and Medicaid programs



# US Core Data for Interoperability (USCDI) Background

- Standard established by ONC in the 2020 21<sup>st</sup> Century Cures Act Final Rule
- Minimum dataset required for interoperability
  - Defines required data elements and vocabulary standards
  - Focuses on patient access/care coordination use cases
- Updated on an annual cycle with federal agency and industry input
  - Updates based on multiple criteria including standards maturity and public/industry priority



USCDI v3 Summary of Data Classes and Data Elements

<b>Allergies and Intolerances</b> <ul style="list-style-type: none"> <li>Substance (Medication)</li> <li>Substance (Drug Class)</li> <li>Reaction</li> </ul>	<b>Health Status/Assessments</b> <ul style="list-style-type: none"> <li>Health Concerns</li> <li>Functional Status</li> <li>Disability Status</li> <li>Mental/Cognitive Status</li> <li>Pregnancy Status</li> <li>Smoking Status</li> </ul>	<b>Problems</b> <ul style="list-style-type: none"> <li>Problems</li> <li>SDOH Problems/Health Concerns</li> <li>Date of Diagnosis</li> <li>Date of Resolution</li> </ul>
<b>Assessment and Plan of Treatment</b> <ul style="list-style-type: none"> <li>Assessment and Plan of Treatment</li> <li>SDOH Assessment</li> </ul>	<b>Immunizations</b> <ul style="list-style-type: none"> <li>Immunizations</li> </ul>	<b>Procedures</b> <ul style="list-style-type: none"> <li>Procedures</li> <li>SDOH Interventions</li> <li>Reason for Referral</li> </ul>
<b>Care Team Member(s)</b> <ul style="list-style-type: none"> <li>Care Team Member Name</li> <li>Care Team Member Identifier</li> <li>Care Team Member Role</li> <li>Care Team Member Location</li> <li>Care Team Member Telecom</li> </ul>	<b>Laboratory</b> <ul style="list-style-type: none"> <li>Tests</li> <li>Values/Results</li> <li>Specimen Type</li> <li>Result Status</li> </ul>	<b>Provenance</b> <ul style="list-style-type: none"> <li>Author Organization</li> <li>Author Time Stamp</li> </ul>
<b>Clinical Notes</b> <ul style="list-style-type: none"> <li>Consultation Note</li> <li>Discharge Summary Note</li> <li>History &amp; Physical</li> <li>Procedure Note</li> <li>Progress Note</li> </ul>	<b>Medications</b> <ul style="list-style-type: none"> <li>Medications</li> <li>Dose</li> <li>Dose Unit of Measure</li> <li>Indication</li> <li>Fill Status</li> </ul>	<b>Unique Device Identifier(s) for a Patient's Implantable Device(s)</b> <ul style="list-style-type: none"> <li>Unique Device Identifier(s) for a patient's implantable device(s)</li> </ul>
<b>Clinical Tests</b> <ul style="list-style-type: none"> <li>Clinical Test</li> <li>Clinical Test Result/Report</li> </ul>	<b>Patient Demographics/Information</b> <ul style="list-style-type: none"> <li>First Name</li> <li>Last Name</li> <li>Middle Name (Including middle initial)</li> <li>Name Suffix</li> <li>Previous Name</li> <li>Date of Birth</li> <li>Date of Death</li> <li>Race</li> <li>Ethnicity</li> <li>Tribal Affiliation</li> <li>Sex</li> <li>Sexual Orientation</li> <li>Gender Identity</li> <li>Preferred Language</li> <li>Current Address</li> <li>Previous Address</li> <li>Phone Number</li> <li>Phone Number Type</li> <li>Email Address</li> <li>Related Person's Name</li> <li>Related Person's Relationship</li> <li>Occupation</li> <li>Occupation Industry</li> </ul>	<b>Vital Signs</b> <ul style="list-style-type: none"> <li>Systolic Blood Pressure</li> <li>Diastolic Blood Pressure</li> <li>Heart Rate</li> <li>Respiratory Rate</li> <li>Body Temperature</li> <li>Body Height</li> <li>Body Weight</li> <li>Pulse Oximetry</li> <li>Inhaled Oxygen Concentration</li> <li>BMI Percentile (2 - 20 years)</li> <li>Weight-for-length Percentile (Birth - 24 Months)</li> <li>Head Occipital-frontal Circumference Percentile (Birth- 36 Months)</li> </ul>
<b>Diagnostic Imaging</b> <ul style="list-style-type: none"> <li>Diagnostic Imaging Test</li> <li>Diagnostic Imaging Report</li> </ul>		
<b>Encounter Information</b> <ul style="list-style-type: none"> <li>Encounter Type</li> <li>Encounter Diagnosis</li> <li>Encounter Time</li> <li>Encounter Location</li> <li>Encounter Disposition</li> </ul>		
<b>Goals</b> <ul style="list-style-type: none"> <li>Patient Goals</li> <li>SDOH Goals</li> </ul>		
<b>Health Insurance Information</b> <ul style="list-style-type: none"> <li>Coverage Status</li> <li>Coverage Type</li> <li>Relationship to Subscriber</li> <li>Member Identifier</li> <li>Subscriber Identifier</li> <li>Group Number</li> <li>Payer Identifier</li> </ul>		

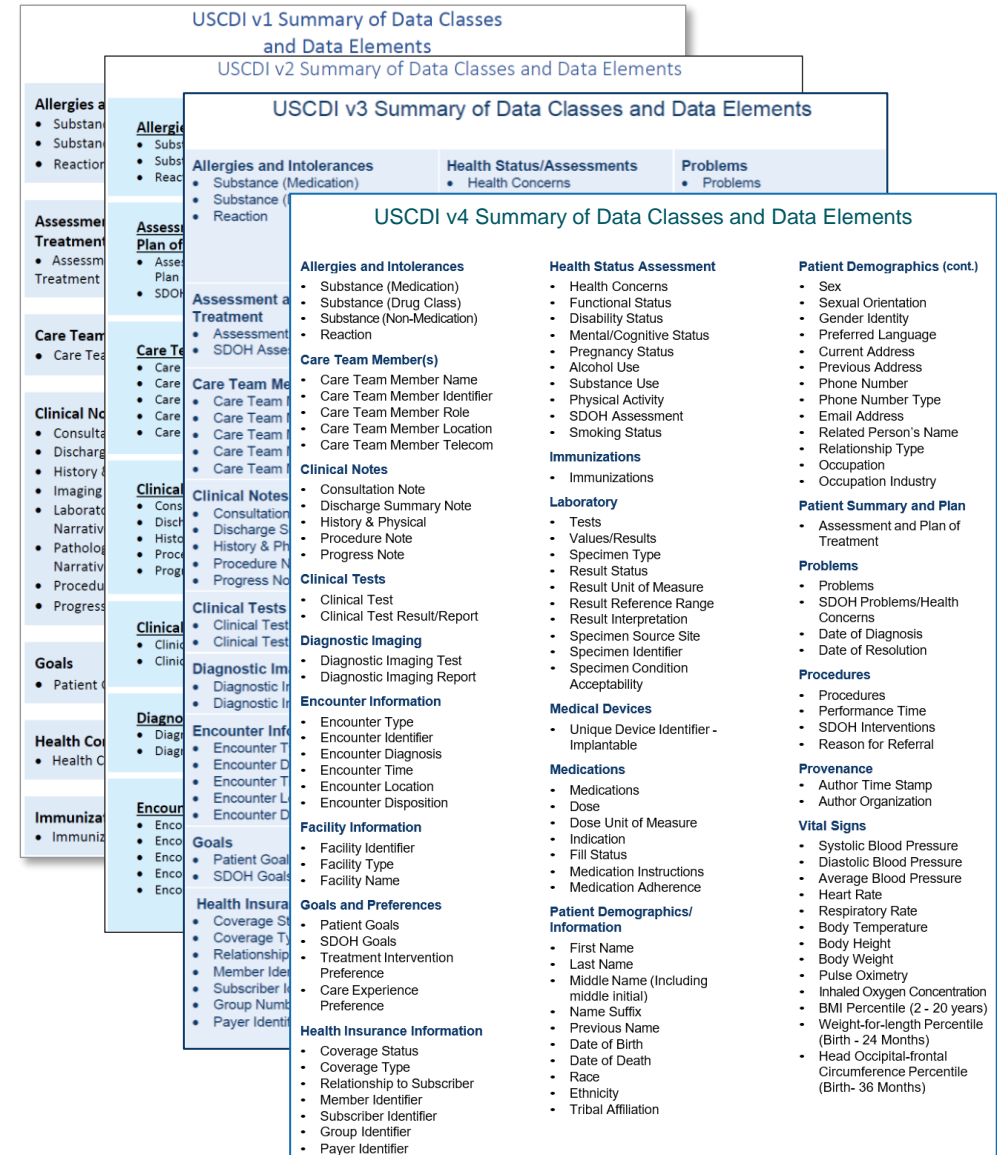
3

USCDI United States Core Data for Interoperability Version 3 (July 2022)

ONC Office of the National Coordinator for Health Information Technology

# 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.
  - Finalized as new required version in Health Data, Technology, and Interoperability 1, with a compliance date of January 1, 2026
- USCDI v4 added Alcohol and Substance Use Assessments, Physical Activity, Treatment Intervention and Care Experience Preferences, and Medication Adherence data elements







# USCDI

# USCDI Version 1

## Allergies and Intolerances **\*NEW**



- Substance (Medication)
- Substance (Drug Class) **\*NEW**
- Reaction **\*NEW**

## Assessment and Plan of Treatment



## Care Team Members



## Clinical Notes **\*NEW**

- Consultation Note
- Discharge Summary Note
- History & Physical
- Imaging Narrative
- Laboratory Report Narrative
- Pathology Report Narrative
- Procedure Note
- Progress Note



## Goals



## Health Concerns



## Immunizations



## Laboratory

- Tests
- Values/Results



## Medications



## Patient Demographics

- First Name
- Last Name
- Previous Name
- Middle Name (incl. middle initial)
- Suffix
- Birth Sex
- Date of Birth
- Race
- Ethnicity
- Preferred Language
- Current Address **\*NEW**
- Previous Address **\*NEW**
- Phone Number **\*NEW**
- Phone Number Type **\*NEW**
- Email Address **\*NEW**



## Problems



## Procedures



## Provenance **\*NEW**

- Author Time Stamp
- Author Organization



## Smoking Status



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



## Vital Signs

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



For more info:

[HealthIT.gov/USCDI](http://HealthIT.gov/USCDI)





# USCDI Version 3



<b>Allergies and Intolerances</b> <ul style="list-style-type: none"> <li>Substance (Medication)</li> <li>Substance (Drug Class)</li> <li>Reaction</li> </ul>	<b>Clinical Tests</b> <ul style="list-style-type: none"> <li>Clinical Test</li> <li>Clinical Test Result/Report</li> </ul>	<b>Health Status/ Assessments</b> ★★ <ul style="list-style-type: none"> <li>Health Concerns →</li> <li>Functional Status ★</li> <li>Disability Status ★</li> <li>Mental Function ★</li> <li>Pregnancy Status ★</li> <li>Smoking Status →</li> </ul>	<b>Patient Demographics/ Information</b> ★★ <ul style="list-style-type: none"> <li>First Name</li> <li>Last Name</li> <li>Middle Name (Including middle initial)</li> <li>Name Suffix ★★</li> <li>Previous Name</li> <li>Date of Birth</li> <li>Date of Death ★</li> <li>Race</li> <li>Ethnicity</li> <li>Tribal Affiliation ★</li> <li>Sex ★★</li> <li>Sexual Orientation</li> <li>Gender Identity</li> <li>Preferred Language</li> <li>Current Address</li> <li>Previous Address</li> <li>Phone Number</li> <li>Phone Number Type</li> <li>Email Address</li> <li>Related Person's Name ★</li> <li>Related Person's Relationship ★</li> <li>Occupation ★</li> <li>Occupation Industry ★</li> </ul>	<b>Procedures</b> <ul style="list-style-type: none"> <li>Procedures</li> <li>SDOH Interventions</li> <li>Reason for Referral ★</li> </ul>
<b>Assessment and Plan of Treatment</b> <ul style="list-style-type: none"> <li>Assessment and Plan of Treatment</li> <li>SDOH Assessment</li> </ul>	<b>Diagnostic Imaging</b> <ul style="list-style-type: none"> <li>Diagnostic Imaging Test</li> <li>Diagnostic Imaging Report</li> </ul>	<b>Immunizations</b> <ul style="list-style-type: none"> <li>Immunizations</li> </ul>	<b>Problems</b> <ul style="list-style-type: none"> <li>Problems</li> <li>SDOH Problems/Health Concerns</li> <li>Date of Diagnosis</li> <li>Date of Resolution</li> </ul>	<b>Provenance</b> <ul style="list-style-type: none"> <li>Author Organization</li> <li>Author Time Stamp</li> </ul>
<b>Care Team Member(s)</b> <ul style="list-style-type: none"> <li>Care Team Member Name</li> <li>Care Team Member Identifier</li> <li>Care Team Member Role</li> <li>Care Team Member Location</li> <li>Care Team Member Telecom</li> </ul>	<b>Encounter Information</b> <ul style="list-style-type: none"> <li>Encounter Type</li> <li>Encounter Diagnosis</li> <li>Encounter Time</li> <li>Encounter Location</li> <li>Encounter Disposition</li> </ul>	<b>Laboratory</b> <ul style="list-style-type: none"> <li>Test</li> <li>Values/Results</li> <li>Specimen Type ★</li> <li>Result Status ★</li> </ul>	<b>Unique Device Identifier(s) for a Patient's Implantable Device(s)</b> <ul style="list-style-type: none"> <li>Unique Device Identifier(s) for a patient's implantable device(s)</li> </ul>	<b>Vital Signs</b> <ul style="list-style-type: none"> <li>Systolic blood pressure</li> <li>Diastolic blood pressure</li> <li>Heart Rate</li> <li>Respiratory rate</li> <li>Body temperature</li> <li>Body height</li> <li>Body weight</li> <li>Pulse oximetry</li> <li>Inhaled oxygen concentration</li> <li>BMI Percentile (2 - 20 years)</li> <li>Weight-for-length Percentile (Birth - 24 Months) ★★</li> <li>Head Occipital-frontal Circumference Percentile (Birth - 36 Months)</li> </ul>
<b>Clinical Notes</b> <ul style="list-style-type: none"> <li>Consultation Note</li> <li>Discharge Summary Note</li> <li>History &amp; Physical</li> <li>Procedure Note</li> <li>Progress Note</li> </ul>	<b>Goals</b> <ul style="list-style-type: none"> <li>Patient Goals</li> <li>SDOH Goals</li> </ul>	<b>Medications</b> <ul style="list-style-type: none"> <li>Medications</li> <li>Dose ★</li> <li>Dose Units of Measure ★</li> <li>Indication ★</li> <li>Fill Status ★</li> </ul>		
	<b>Health Insurance Information</b> ★ <ul style="list-style-type: none"> <li>Coverage Status ★</li> <li>Coverage Type ★</li> <li>Relationship to Subscriber ★</li> <li>Member Identifier ★</li> <li>Subscriber Identifier ★</li> <li>Group Number ★</li> <li>Payer Identifier ★</li> </ul>			

### 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 Number
- 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

### 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 Organization
- Author Time Stamp

### 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)

# Draft USCDI Version 5



## 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 Assessment

- 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 Kite 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
- 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)



# Health IT and the 21<sup>st</sup> Century Cures Act

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





# Trusted Exchange Framework & Common Agreement (TEFCA)




## 21<sup>st</sup> Century Cures Act - Section 4003(b)


*“[T]he National Coordinator shall convene appropriate public and private stakeholders to **develop or support a trusted exchange framework** for trust policies and practices and for a **common agreement** for exchange between health information networks.”*

*[emphasis added]*

# TEFCA Goals

**GOAL 1**  Establish a universal policy and technical floor for nationwide interoperability

**GOAL 2**  Simplify connectivity for organizations to securely exchange information to improve patient care, enhance the welfare of populations, and generate health care value

**GOAL 3**  Enable individuals to gather their health care information



# Benefits of TEFCA

## Relevant, trusted information from nationwide sources for:



### Individuals

Use an app to access their own records from TEFCA-connected sources located across the nation.



### Providers and Health Systems

Improve care, coordination and population health by obtaining a more informed picture of care across settings through fewer connection points.



### Public Health

Improve quality, reduce costs, and expand public health interoperability.



### Payers

Get and share data needed for care management, value-based care, payer-to-payer exchange, etc.



### Health Information Networks

Enhance the value of network participation and lower the cost of connecting with other networks.



### Technology Developers

Provide a scalable policy and technical ecosystem for innovation.



### Researchers (Future)

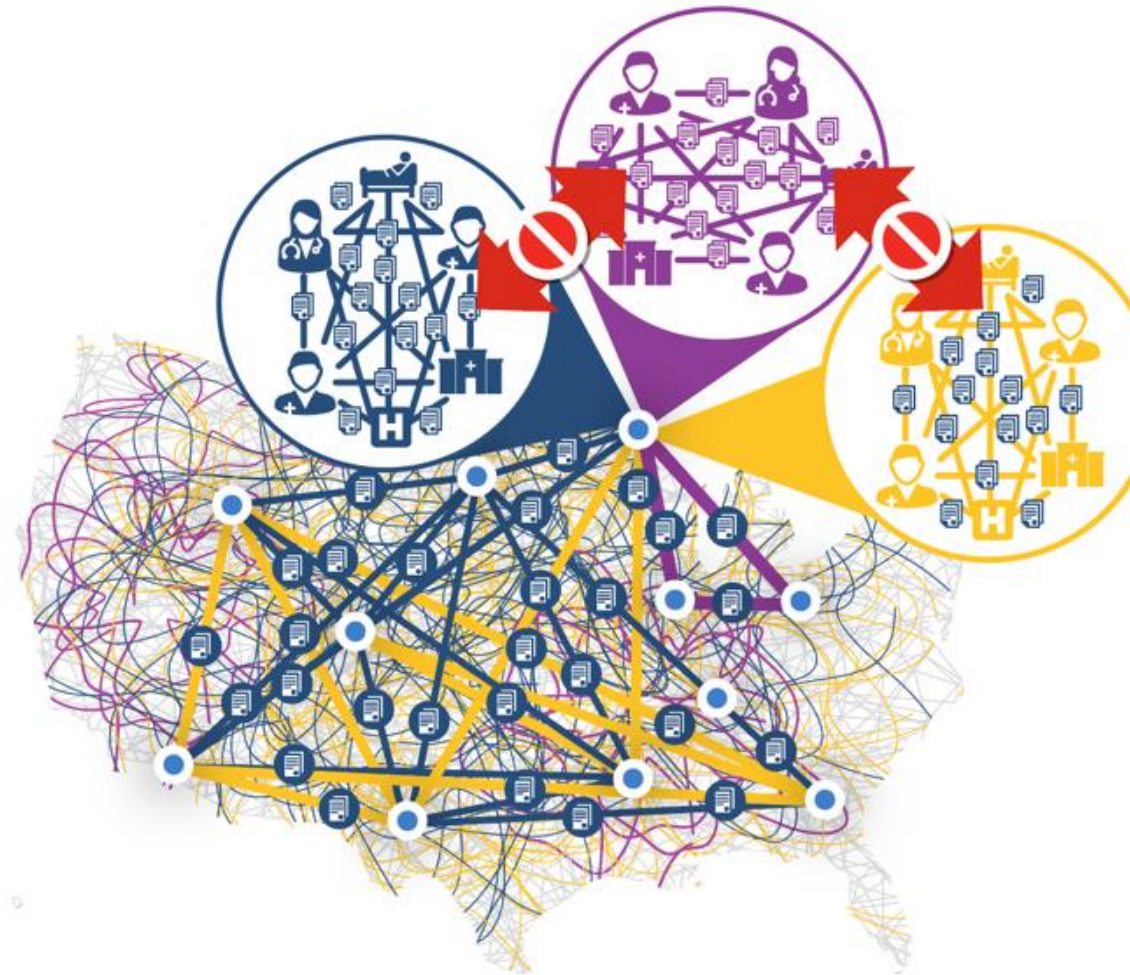
Improve quality, reduce costs, and expand participation in clinical research.

For more detail on the benefits of TEFCA for stakeholders, see factsheets at: <https://rce.sequoiaproject.org/tefca-and-rce-resources/>

# TEFCA Will Simplify Health Data Exchange

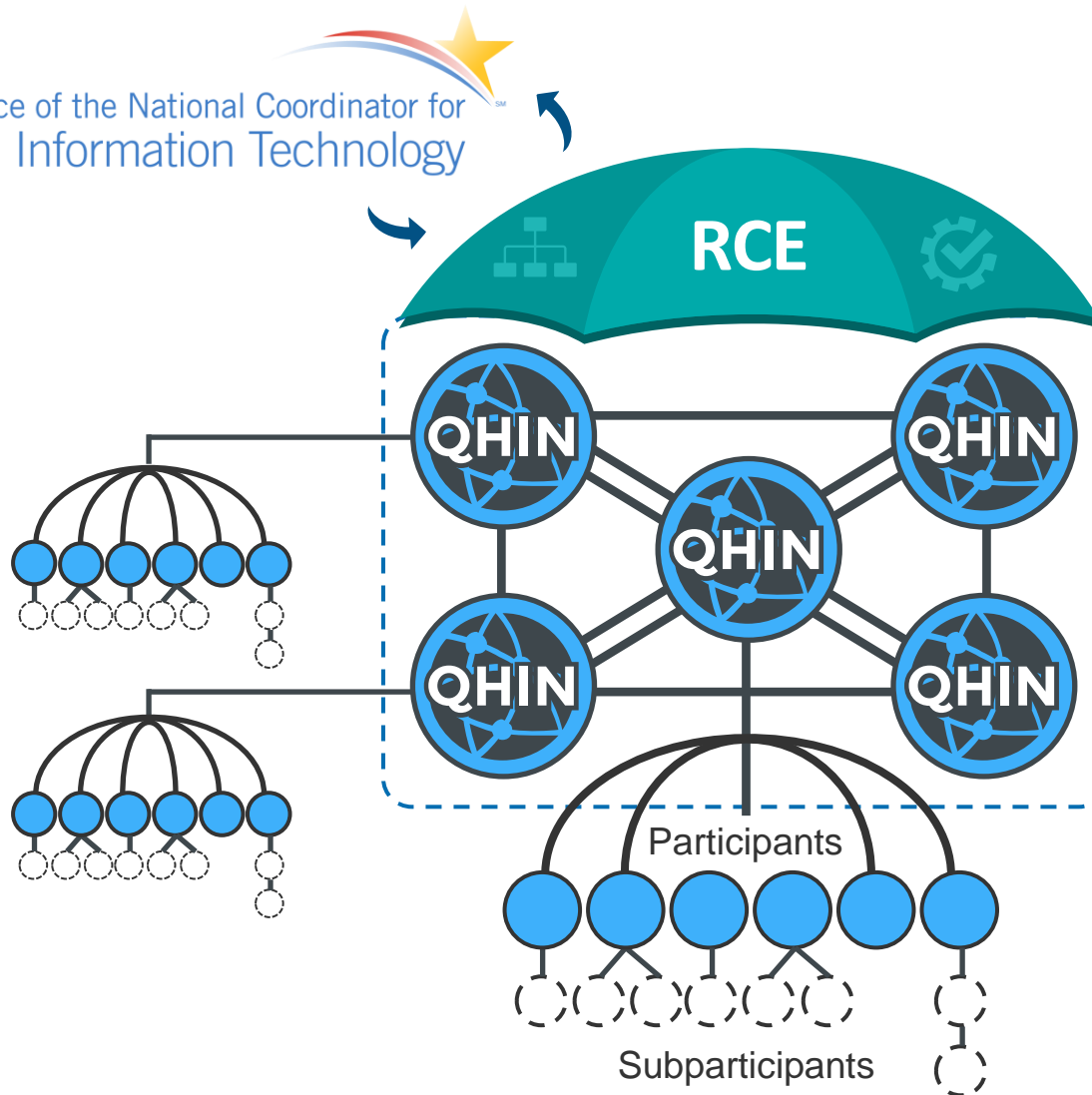
**While there has been growth in national networks, there is much unfinished business**

- Less well-resourced providers, rural, behavioral health, LTPAC
  - Payers (government and commercial)
  - Public health
  - Social services
  - Research
- 
- **Federal government involvement required to spur the further evolution of nationwide network interoperability**



# What is the structure of TEFCA?

The Office of the National Coordinator for Health Information Technology



← ONC defines overall policy and certain governance requirements.

← (Recognized Coordinating Entity)  
RCE provides oversight and governing approach for QHINs through the Common Agreement.

← Qualified Health Information Networks (QHINs) connect directly to each other to facilitate nationwide interoperability.

← Each QHIN connects Participants, which connect Subparticipants.

# TEFCA is Operational!

The following organizations have officially been designated as Qualified Health Information Networks™ (QHINs™) after completing the rigorous TEFCA onboarding process:



Once designated, these QHINs were able to immediately begin supporting the exchange of data under TEFCA's policies and technical requirements.



APRIL 2024

## Common Agreement v2.0 Released

Paving the Way for TEFCA Exchange via FHIR

[Learn More](#)

- 1
- 2
- 3
- 4



## Permitted Exchange Purposes



**Treatment**



**Payment**



**Health Care Operations**



**Public Health**



**Government Benefits Determination**



**Individual Access Services**



**(FUTURE) Research**

Individuals, health care providers, health plans, public health authorities, and government agencies routinely need to query HINs for these purposes.

For example:

- Patients with multiple health care providers want to manage their own health information through consumer-facing applications without visiting each patient portal across all their health care providers
- Primary care physicians and specialists need to have their patient's health information available to coordinate care
- Public health authorities performing case investigations need to understand previous care provided to a particular patient



**2024-2030**

# Federal Health IT Strategic Plan

**Draft for Public Comment**

Prepared by:

The Office of the National Coordinator for  
Health Information Technology, Office of  
the Secretary, United States Department  
of Health and Human Services

**HealthIT.gov**

**MARCH 2024**



# Federal Health IT Mission and Vision



## Federal Health IT *Mission*

Improve the health and well-being of individuals and communities using technology and health information that is accessible when and where it matters most.



## Federal Health IT *Vision*

A health system that uses information to engage individuals, lower costs, deliver high-quality care, and improve individual and population health.

# Federal Health IT Strategic Plan Framework

## GOALS AND OBJECTIVES

### GOAL 1 : OBJECTIVES

- A Individuals are empowered to manage their health
- B Individuals and populations experience modern and equitable health care
- C Communities are healthier and safer

### GOAL 2 : OBJECTIVES

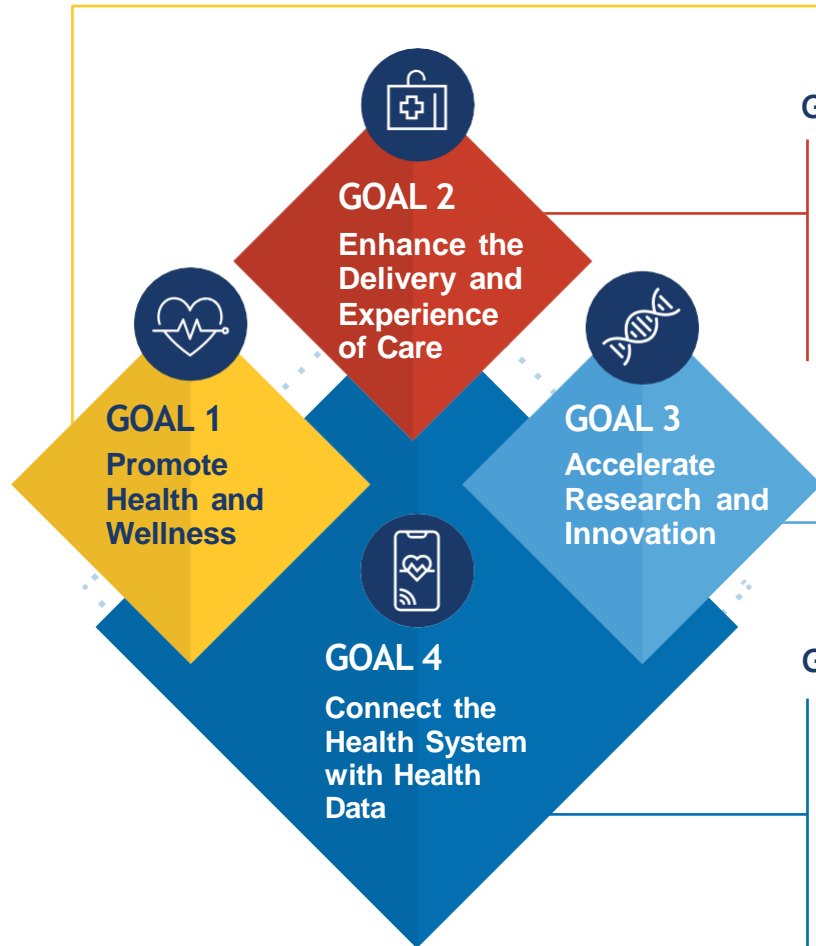
- A Providers deliver safe, equitable, high-quality, and improved care
- B Patients experience expanded access to quality care and reduced or eliminated health disparities
- C Health care is improved through greater competition and transparency
- D Providers experience reduced regulatory and administrative burden
- E The health care workforce uses health IT with confidence

### GOAL 3 : OBJECTIVES

- A Researchers and other health IT users have appropriate access to health data to drive individual and population health improvement
- B Individual and population-level research and analysis are enhanced by health IT
- C Researchers advance health equity by using health data that includes underrepresented groups

### GOAL 4 : OBJECTIVES

- A Development and use of health IT capabilities continues to advance
- B Health IT users have clear and shared expectations for data sharing
- C Underserved communities and populations have access to infrastructure that supports health IT use
- D Individuals' electronic health information is protected, private, and secure
- E Communities are supported by modern and integrated U.S. public health data systems and infrastructure





## GOAL 2 | Enhance the Delivery and Experience of Care

# Enhance the Delivery and Experience of Care

Goal 2 focuses on improving how patients and caregivers experience care, how health care providers and others across the health care continuum deliver care, and how health plans reimburse for care

2024-2030

## Federal Health IT Strategic Plan

### OBJECTIVES

- A** Providers deliver safe, equitable, high-quality, and improved care
- B** Patients experience expanded access to quality care and reduced or eliminated health disparities
- C** Health care is improved through greater competition and transparency
- D** Providers experience reduced regulatory and administrative burden
- E** The health care workforce uses health IT with confidence

OBJECTIVE **D**

2024-2030

Federal Health IT  
Strategic Plan

# Providers experience reduced regulatory and administrative burden



STRATEGIES

The federal government plans to . . .	So that . . .
<b>Simplify and streamline electronic documentation requirements for provider payments</b>	• •▶ Health care providers can reduce “note bloat” and create more useful and coherent patient health records
<b>Leverage health IT to standardize data and processes related to electronic prior authorizations to allow for increased automation</b>	• •▶ Health care providers experience reduced administrative burden and improved timeliness of prior authorization decisions
<b>Advance health IT and related policies to improve alignment and increase automation related to health care provider data collection and reporting</b>	• •▶ Health care providers experience reduced burden and costs (e.g., manual chart abstraction) associated with federal clinical quality and public health reporting requirements
<b>Provide education and outreach on applicable regulations and expected business practices related to EHI sharing</b>	• •▶ Health care providers and health plans safeguard personal health information, incorporate privacy and security into their practices, and perform privacy and security risk assessments of their practices
<b>Promote the safe and responsible use of AI tools</b>	• •▶ Health care providers and patients experience streamlined, more efficient care delivery supported by Decision Support Interventions (DSI)

# Evaluating Burden of EHR Documentation and Work Processes Outside of Traditional Fee-For-Service (FFS)



## Stage 1

- Conduct a comprehensive literature review of research that compares EHRs used in FFS environments to non-FFS.

## Stage 2

- Conduct in-depth clinical and technical discussions with organizations who have developed/deployed non-FFS-driven EHRs.
- Conduct quantitative analyses that examine the association between the FFS environment, along with other factors, and time spent documenting.

Non-FFS environments being evaluated as a part of this study:

- Accountable Care Organizations
- Full-Risk Medicare Advantage
- Integrated Payer-Provider Organizations
- Concierge Medicine Practices



# Health Equity

# ONC: Health Equity and Health IT

## Background:

- Performed an extensive landscape analysis, conducted a literature review, engaged federal partners and non-governmental entities through listening sessions, webinars, direct interviews, and held a health equity focused hearing through our Health IT Advisory Committee
- Completed a scrub of our activities and authorities to determine:
  - What are we currently doing from a health equity and health IT perspective?
  - What more can we be doing in our current activities and programs?
  - What new activities or programs could we initiate with existing authorities?

## Current Status:

- Two key categories of health equity focused activities:
  - Collection and use of data to better identify health inequities
  - Mechanisms to mitigate health inequities
- Initial set of core activities developed – some already implemented, others being scoped into discrete projects
- We developed and released a concept paper for public focused on Health Equity by Design



# What Does “Health Equity by Design” Mean?

## What is it?

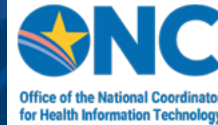
- Equity considerations identified and incorporated as early as possible in design, build, implementation of health information technology policies, programs, projects, and workflows
- Health IT products and capabilities are designed to be foundationally equity enforcing, making the implicit explicit.



# Health Equity By Design Concept Paper

APRIL 2024

## Health Equity by Design Concept Paper Available for Public Comment



## Advancing Health Equity by Design and Health Information Technology: Proposed Approach, Invitation for Public Input, and Call to Action

Prepared by:

The Office of the National Coordinator for Health Information Technology

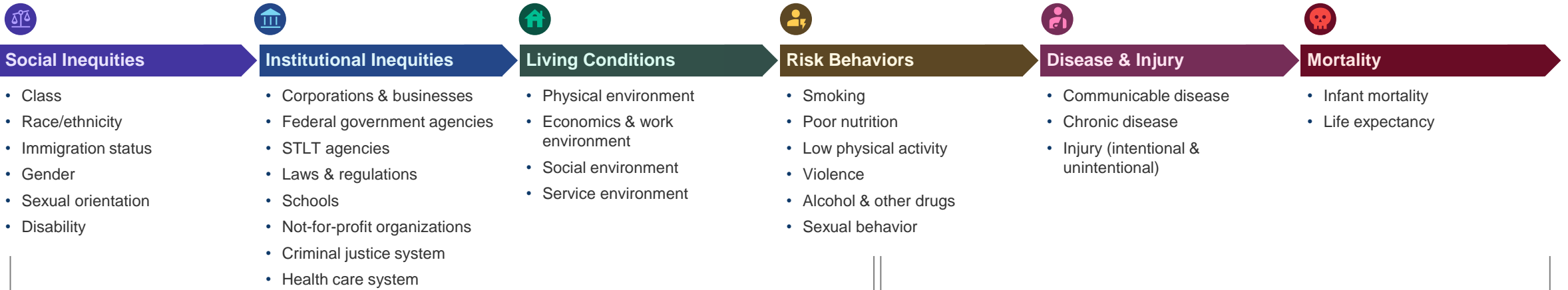
APRIL 2024



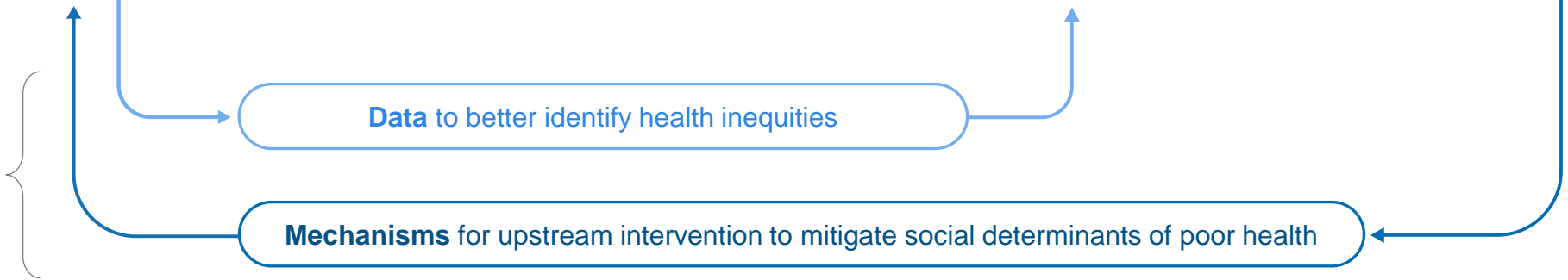
# Robert Wood Johnson Foundation: Achieving Health Equity

## Causal Chain of Health Disparities

*Inequities upstream lead to disparities in care and outcomes downstream*



**Data needs to turn into actions**



# Health Equity by Design Core Activities

## Data to identify health inequities

- |   |   |
|---|---|
| 1. US Core Data for Interoperability (USCDI): | v2: Added Social Determinants of Health and Sexual Orientation Gender Identity data elements<br>v3: Added additional HE data elements (disability status, mental function, and tribal affiliation<br>v4: Added Care experience & treatment intervention preferences |
| 2. Race, ethnicity, language (REL) data:      | Identify levers for adoption of standards across USG and industry   |
| 3. ONC Health IT Certification Program        | Continue to update certification requirements to advance health equity  |

## Mechanisms to mitigate health care inequities

- |   |   |
|---|---|
| 4. Public Health IT Workforce Development program:                    | 10 awardees to train/place 4000+ students from MSI's and other institutions of higher education   |
| 5. Referrals for social services:                                     | Leading Edge Acceleration Project (LEAP)- innovative open-source technology tool development<br>2021 Award - UT Austin for SDOH referral systems to address food insecurity<br>2022 Award – OCHIN increasing HE by addressing housing insecurity needs in underserved communities |
| 6. Representation in policy development: HHS Federal Advisory / HITAC | Health equity on 2024 Health IT Advisory Committee agenda   |
| 7. Address Digital Divide (patient & provider)                        | Support the development of FHIR-based API standards for data access to help close the digital divide  |
| 8. AI / ML bias in health IT  | HTI-1 Final Rule - provides users of C-HIT with transparency to help determine if Ai tools exhibit bias   |



# HTI-1 Final Rule

**Health Data, Technology, and Interoperability:  
Certification Program Updates, Algorithm  
Transparency, and Information Sharing**

**December 2023**

# HTI-1 Policies for Predictive Decision Support Interventions

**Objective:** Enable improved information transparency on the trustworthiness of predictive DSIs to support their widespread use in health care.

## Improve Transparency



Regarding how a predictive DSI is designed, developed, trained, evaluated, and should be used

## Enhance Trustworthiness



Through transparency on how certified health IT developers manage potential risks and govern predictive DSIs that their certified Health IT Modules enable or interface with

## Support Consistency



In the availability of predictive DSI information to users, so that users may determine the DSI's quality and whether its recommendations are fair, appropriate, valid, effective, and safe (FAVES)

## Advance Health Equity by Design



By addressing bias and health disparities, potentially propagated by predictive DSIs, to expand the use of these technologies in safer, more appropriate, and more equitable ways



# Predictive DSI, supplied by Certified Health IT Developer

- Predictive Decision Support Intervention definition:
  - Technology that supports decision-making based on algorithms or models that derive relationships from training data and then produce an output that results in prediction, classification, recommendation, evaluation, or analysis
- Supplied by the health IT developer as part of its Health IT Module
  - Includes Predictive DSIs that are authored or developed by the certified health IT developer
  - Includes Predictive DSIs that are authored or developed by other parties if those Predictive DSIs are sold, marketed, or otherwise explicitly included as part of a Health IT Module
- Supplied by means that:
  - Certified health IT developer has taken on stewardship and accountability for that Predictive DSI for the purposes of the Health IT Module
  - Knowledge of its use is known by the certified Health IT developer

# An inclusive framing of how to address challenges

**FAVES** is our quality framework describing the characteristics of “high-quality” algorithms and communicates how we may get the best out of predictive models in health care.

## **F**air (unbiased, equitable)

Model does not exhibit biased performance, prejudice or favoritism toward an individual or group based on their inherent or acquired characteristics. The impact of using the model is similar across same or different populations or groups.

## **A**ppropriate

Model is well matched to specific contexts and populations to which it is applied.

## **V**alid

Model has been shown to estimate targeted values accurately and as expected in both internal and external data.

## **E**ffective

Model has demonstrated benefit and significant results in real-world conditions.

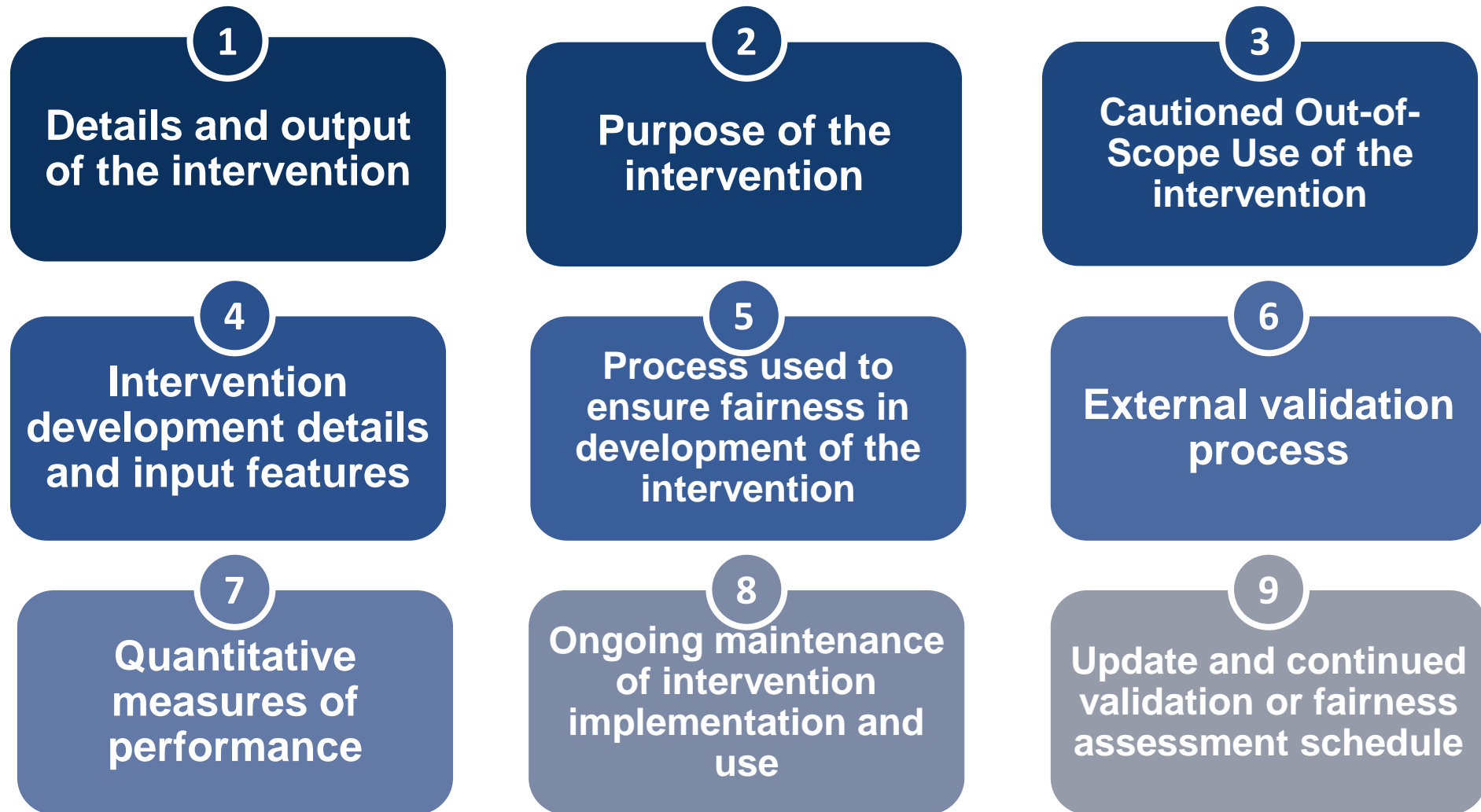
## **S**afe

Model use has probable benefits that outweigh any probable risk.





# Nine Predictive DSI Source Attribute Categories



### 1. Details and output of the intervention, including:

- Name and contact information for the intervention developer;
- Funding source of the technical implementation for the intervention(s) development;
- Description of value that the intervention produces as an output; and
- Whether the intervention output is a prediction, classification, recommendation, evaluation, analysis, or other type of output.

### 4. Intervention development details and input features, including at a minimum:

- Exclusion and inclusion criteria that influenced the training data set;
- Use of variables in paragraph (b)(11)(iv)(A)(5)-(13) as input features;
- Description of demographic representativeness according to variables in paragraph (b)(11)(iv)(A)(5)-(13) including, at a minimum, those used as input features in the intervention;
- Description of relevance of training data to intended deployed setting.

### 7. Quantitative measures of performance, including:

- Validity of intervention in test data derived from the same source as the initial training data;
- Fairness of intervention in test data derived from the same source as the initial training data;
- Validity of intervention in data external to or from a different source than the initial training data;
- Fairness of intervention in data external to or from a different source than the initial training data;
- References to evaluation of use of the intervention on outcomes, including, bibliographic citations or hyperlinks to evaluations of how well the intervention reduced morbidity, mortality, length of stay, or other outcomes.

### 2. Purpose of the intervention, including:

- Intended use of the intervention;
- Intended patient population(s) for the intervention's use;
- Intended user(s); and
- Intended decision-making role for which the intervention was designed to be used/for (e.g., informs, augments, replaces clinical management).

### 5. Process used to ensure fairness in development of the intervention, including:

- Description of the approach the intervention developer has taken to ensure that the intervention's output is fair; and
- Description of approaches to manage, reduce, or eliminate bias.

### 8. Ongoing maintenance of intervention implementation and use, including:

- Description of process and frequency by which the intervention's validity is monitored over time;
- Validity of intervention in local data;
- Description of the process and frequency by which the intervention's fairness is monitored over time;
- Fairness of intervention in local data.

### 3. Cautioned out-of-scope use of the intervention, including:

- Description of tasks, situations, or populations where a user is cautioned against applying the intervention; and
- Known risks, inappropriate settings, inappropriate uses, or known limitations.

### 6. External validation process, including:

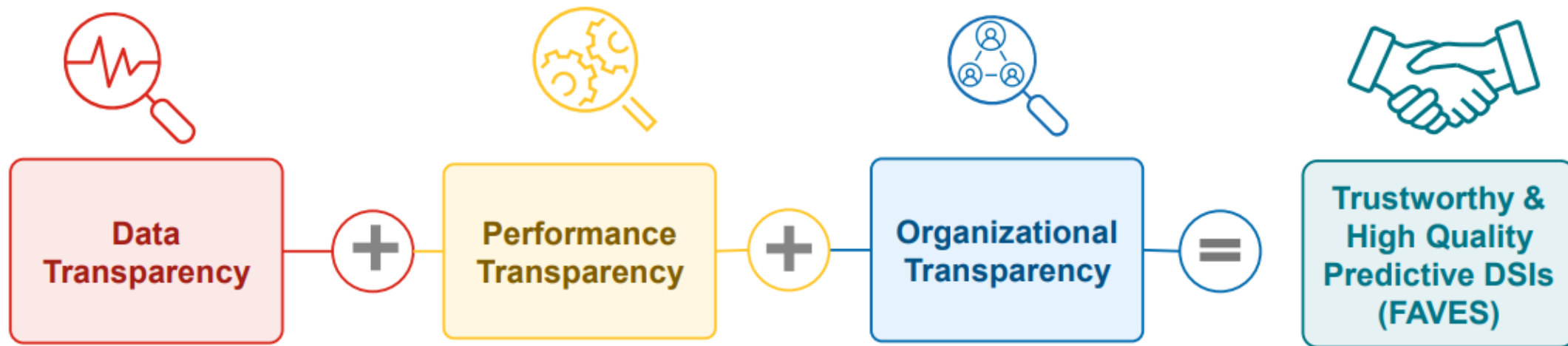
- Description of the data source, clinical setting, or environment where an intervention's validity and fairness has been assessed, other than the source of training and testing data;
- Party that conducted the external testing;
- Description of demographic representativeness of external data according to variables in paragraph (b)(11)(iv)(A)(5)-(13) including, at a minimum, those used as input features in the intervention; and
- Description of external validation process.

### 9. Update and continued validation or fairness assessment schedule, including:

- Description of process and frequency by which the intervention is updated; and
- Description of frequency by which the intervention's performance is corrected when risks related to validity and fairness are identified.



## Transparency Is a Prerequisite for Trustworthy AI



### Data Transparency

Requirements enable users to know when a DSI uses specific data elements relevant to health equity

### Performance Transparency

Enable users to have consistent and routine electronic access to technical, and performance information on Predictive DSIs

### Organizational Transparency

Requirement for Certified Health IT developers to apply intervention risk management for each Predictive DSI they supply as part of their Health IT Module

# Resources Available on HealthIT.gov!

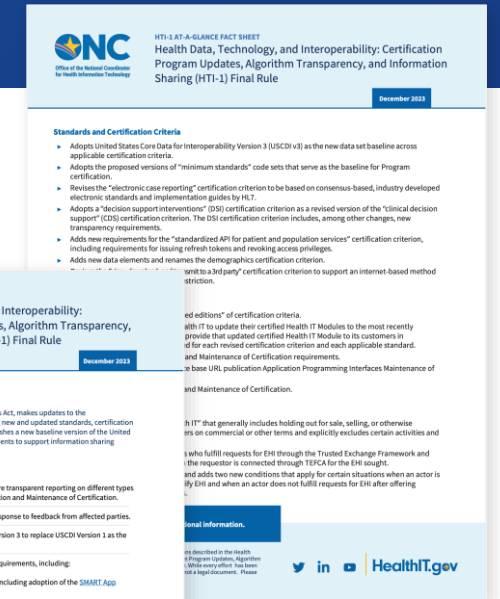
Visit <https://healthIT.gov/HTI-1> for additional information.

## Fact Sheets

- General Overview
- Final Rule At-a-Glance
- Decision Support Interventions and Predictive Models
- Insights Condition
- HTI-1 Information Blocking
- HTI-1 Key Dates

## Measurement Spec Sheets

- For each of the Insights Condition measures





Office of the National Coordinator  
for Health Information Technology

# How HHS is Aligning Health IT Policies

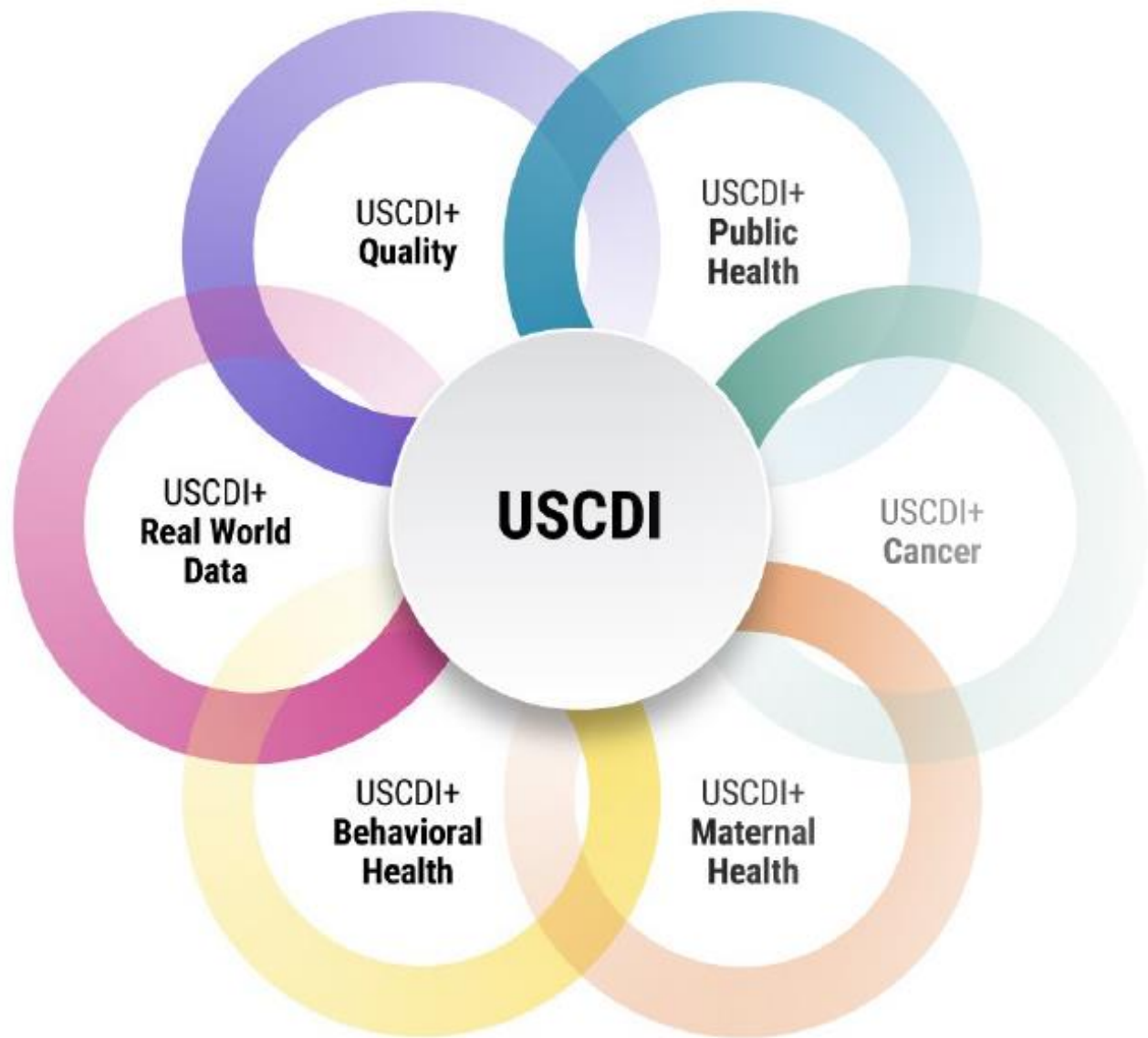
**HIMSS24**

**Wednesday, March 13, 2024**

**11:45am – 12:05pm**







# USCDI+: Extending Beyond the USCDI

# USCDI+: Extending Beyond the USCDI



- Unique program and use case-specific data needs are sometimes 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 CDC, CMS & HRSA.

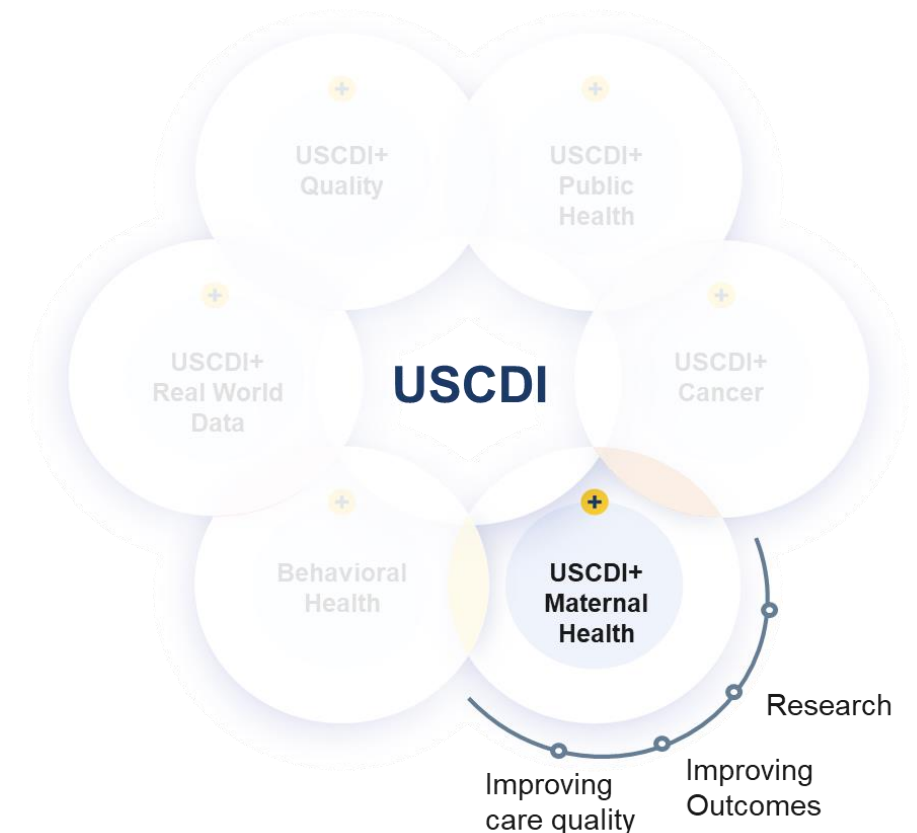
ONC is advancing USCDI+ efforts with support and input from federal and industry partners including and not limited to:

- The Assistant Secretary for Preparedness and Response (ASPR)
- The Centers for Medicare & Medicaid Services
- The Centers for Disease Control and Prevention
- The Health Resources and Services Administration
- The National Institutes of Health
- The National Cancer Institute
- The U.S. Food and Drug Administration
- The Substance Abuse and Mental Health Services Administration



# USCDI+ Maternal Health

- Goals of Proposed Maternal Health Dataset
  - Establish a core set of data necessary for high quality care, equitable outcomes, and maternal health research
  - Advance care delivery and research during the prenatal, birth, and postpartum periods
  - Facilitate standard implementation and support of core data for maternal health care within:
    - One or more implementation guides
    - Healthcare technology systems
- Dataset Inclusion or Exclusion Considerations
  - Importance for promoting high quality care and addressing care gap
  - Likelihood of data availability through routine documentation
  - Potential implementation burden (e.g., electronic capture in discrete, structured fields)
  - Exploration of emerging use cases (e.g., SDOH, SOGI, Respectful Care/Care Experience)



**Currently Open for comment until July 31**



# USCDI+ Maternal Health Draft Dataset

32 Data Classes, 222 Data Elements

The number of data elements per data class is represented in the parenthesis

<b>Advance Directives (4)</b>
<b>Adverse Event (4)</b>
<b>Allergies and Intolerances (6)</b>
<b>Behavioral Health (4)</b>
<b>Care Team Member(s) (6)</b>
<b>Clinical Notes (11)</b>
<b>Clinical Tests (2)</b>
<b>Diagnostic Imaging (2)</b>
<b>Encounter Information (7)</b>
<b>Facility Information (4)</b>
<b>Family Health History (1)</b>

<b>Goals and Preferences (3)</b>
<b>Health Insurance Information (7)</b>
<b>Health Status Assessments (16)</b>
<b>High Risk Perinatal Care Referrals (3)</b>
<b>Immunizations (3)</b>
<b>Interventions (3)</b>
<b>Labor and Delivery (4)</b>
<b>Laboratory (7)</b>
<b>Lactation (20)</b>
<b>Medications (9)</b>
<b>Mortality (2)</b>


<b>Newborn's Delivery Information (11)</b>
<b>Patient Demographics (24)</b>
<b>Patient Summary and Plan (1)</b>
<b>Postpartum (8)</b>
<b>Pregnancy Information (15)</b>
<b>Problems (6)</b>
<b>Procedures (8)</b>
<b>Provenance (2)</b>
<b>Vital Signs (15)</b>
<b>Work Information (5)</b>

# New HHS Policy on Alignment of Health IT Activities

Interoperability

## E Pluribus Unum

Micky Tripathi and Steven Posnack | AUGUST 5, 2022



[Tweet](#)
[Share](#)
[Share](#)
[Email](#)

As our nation transitions to a digital healthcare system, our stakeholders are discovering new opportunities for using health information technology to advance health care delivery, public health, and research to improve people's lives. The federal government is no exception in this regard; agencies across the Department of Health and Human Services (HHS) are beginning to leverage the data and capabilities available through electronic health records for a broad range of federal activities and programs, including product safety and surveillance, real world data and real world evidence for regulatory approvals, research, pandemic response, and social service integration, to name just a few.

While this is an exciting development for HHS overall, it does call for more proactive alignment and coordination of health IT activities across the department to ensure that we are operating as efficiently and cohesively as possible. To that end, Secretary Becerra has put into place a department-wide management policy directing ONC to engage with HHS agencies to align and coordinate health IT-related activities in support of HHS health IT and interoperability goals. Specifically, the secretary has directed ONC to establish and oversee a consistent HHS-wide approach for: 1) incorporating standard health IT requirements language in all applicable HHS funding programs, contracts, and policies; and 2) providing direct ONC assistance to HHS agencies to maximize the use of HHS-approved standards and authorities (such as [Section 3004 of the Public Health Service Act](#)) in their agency programs.

While it won't happen overnight, what we expect to see over time is greater consistency in health IT-based activities across HHS, which should result in lower cost and higher effectiveness agency programs, more sharing of data and health IT infrastructure across programs and agencies, and lower burden on health care providers, technology developers, and other stakeholders who engage with multiple HHS agencies. Maximizing federal use of open-industry, non-proprietary, scalable standards and approaches – such as the US Core Data for Interoperability (USCDI) and FHIR APIs as called for by the 21<sup>st</sup> Century Cures Act – will multiply the impact of the department's regulations and purchasing power to reinforce HHS health IT and interoperability goals. It will also directly support key Biden-Harris Administration priorities in [health equity](#), [federal customer experience and service delivery](#), and [promoting competition](#). ONC already works collaboratively with our federal agency partners, and we are excited to be able to better support our sister HHS agencies and ensure that HHS is more than the sum of its parts.

- HHS Health IT Alignment Policy established in July 2022
- Secretary directs ONC to establish and oversee a consistent HHS-wide approach for:
  1. incorporating standard health IT requirements language in all applicable HHS funding programs, contracts, and policies; and
  2. providing direct ONC assistance to HHS agencies to maximize the use of HHS-approved standards and authorities

# HHS Office of the Chief Artificial Intelligence Officer (Acting) - Micky Tripathi



Administr

OCTOBER 30, 2023

## Executive Order on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence



BRIEFING ROOM

PRESIDENTIAL ACTIONS

### OCAIO's Primary Function:

- Drive implementation of the HHS AI strategy
- Stand up the HHS AI governance structure
- Coordinate the HHS response to AI-related federal mandates
- Foster collaboration across HHS agencies and offices



# Interoperability Standards Advisory (ISA)

Annual comment period is open until August 12, 2024 for the 11th Annual ISA Reference Edition in January 2025

The ISA is organized and structures into four sections:

- *Vocabulary/Code Sets/Terminology* Standards and Implementation Specifications (i.e., “semantics”).
- *Content/Structure* Standards and Implementation Specifications (i.e., “syntax”).
- Standards and Implementation Specifications for *Services and Exchange* (i.e., the infrastructure components deployed and used to address specific interoperability needs)
- *Administrative* Standards and Implementation Specifications (i.e., payment, operations and other "non-clinical" interoperability needs)

# Leading Edge Acceleration Projects (LEAP)

## FY 2024 Special Emphasis Notice of Funding Opportunity:

**Area of Interest 1:** Develop innovative ways to evaluate and improve the quality of healthcare data used by artificial intelligence (AI) tools in healthcare

**Area of Interest 2:** Accelerate adoption of health information technology in behavioral health

The application period closes July 12, 2024, at 12:00PM ET.





# Notice of Funding Opportunity – Assessing Use of Health IT by US Physicians Providing Outpatient Care



The application period closes on July 22, 2024 at 12:00PM ET.

- Assess extent to which physicians use interoperable health IT and their experience using that technology to support effective care of their patients
- Provide insights into whether Federal policy is having the intended effect of leading better health enabled by data and to highlight remaining challenges, inadequacies, and pain points
- Inform ongoing policy and coordination work by ONC to address remaining barriers to the widespread use of interoperable health IT





Office of the National Coordinator  
for Health Information Technology

# Thank you!!

## Contact ONC

**Thomas Mason MD**

**Chief Medical Officer**

**Thomas.mason@hhs.gov**



**Phone:** 202-690-7151



**Health IT Feedback Form:**

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



**Twitter:** [@onc\\_healthIT](https://twitter.com/onc_healthIT)



**LinkedIn:** [Office of the National Coordinator for Health Information Technology](https://www.linkedin.com/company/office-of-the-national-coordinator-for-health-information-technology)



**Youtube:**

<https://www.youtube.com/user/HHSONC>

6/21/2024

[INTERNAL]

**HealthIT.gov**

Subscribe to our weekly eblast  
at [healthit.gov](https://www.healthit.gov) for the latest updates!

