

Cures Update: Single Patient API

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A seamless and connected world where everyone thrives

Cerner Vision

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Open Platform Vision

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Accelerate Health Care Innovation and
Foster Data Interoperability by
Enabling a Global Community to Amplify
the Power of Cerner's Open Platforms

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Enable Organizations to Share Information

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Agenda



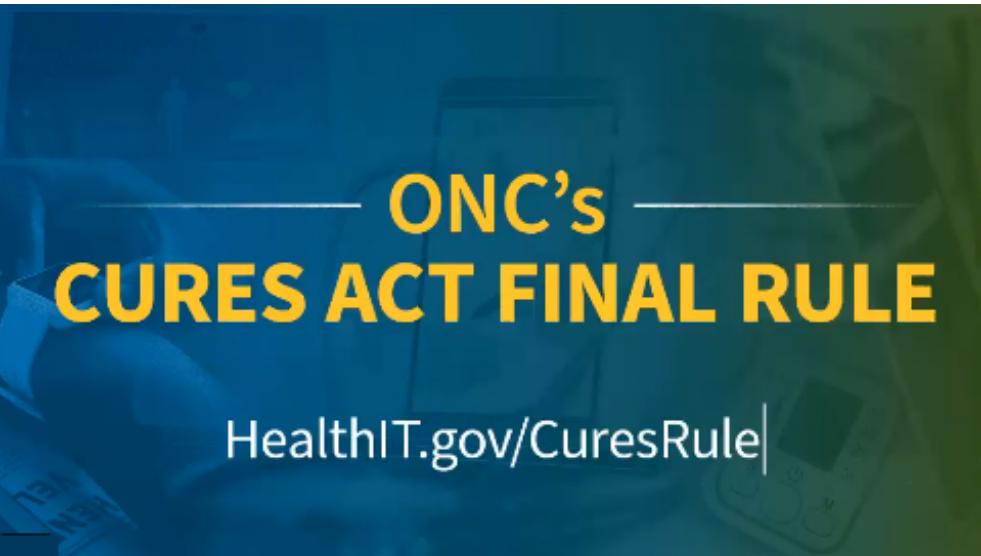
Background

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Background: What is it?

Updated requirements for Health IT vendors and developers



Certification Updates

“2015 CEHRT Cures Updates”

- New Certification Criteria
- Revised Certification Criteria
- Removed and Time-Limited Certification Criteria*

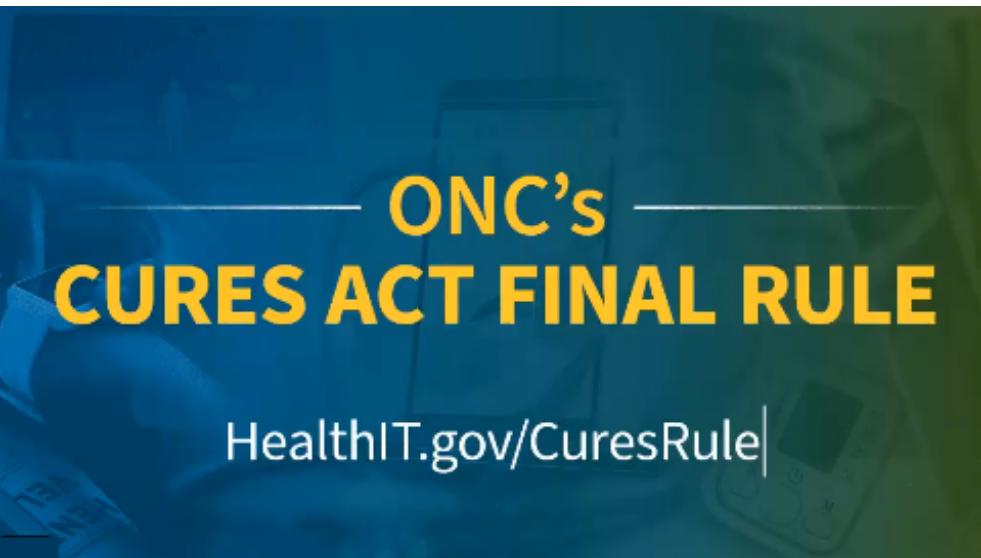
Information Blocking*

Patient Access

*Not addressed in this presentation

Background: What is it?

Certification Updates: 2015 CEHRT Cures Updates



New Certification Criteria

- § 170.315(b)(10) Electronic Health Information (EHI) Export*
- § 170.315(g)(10) Standardized API for Patient and Population Services
- Two new privacy and security certification criteria*

Revised Certification Criteria

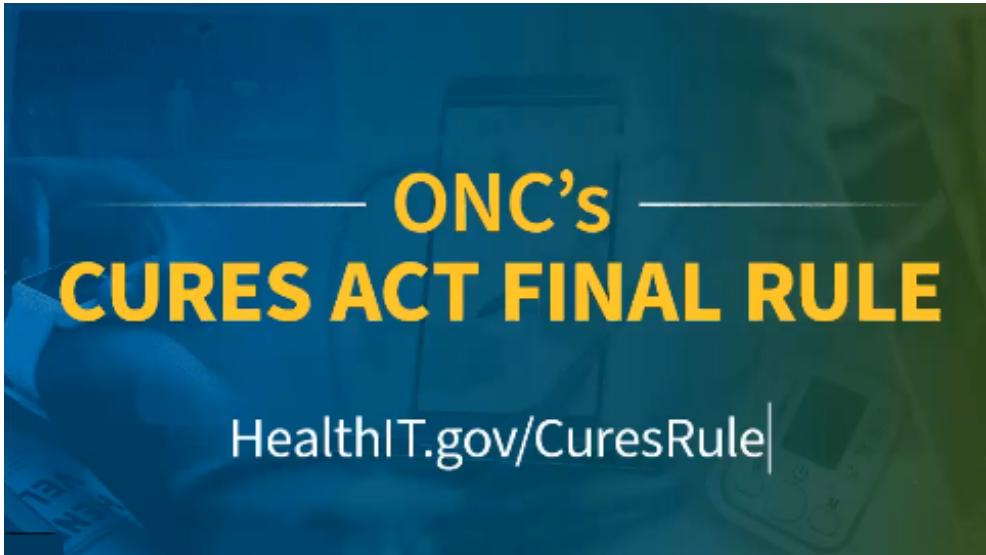
- Standards Revision*
- USCDI Updates

Removed and Time-Limited Certification Criteria*

*Not addressed in this presentation

Background: What is it?

Patient Access



Patient's Ease of Access to Their Chart

- Smartphones
- Modern Software Apps

Protecting Patient Privacy and Security*

Providing the Ability to Shop for Care and Manage Costs*

*Not addressed in this presentation

Background: Who's The Boss

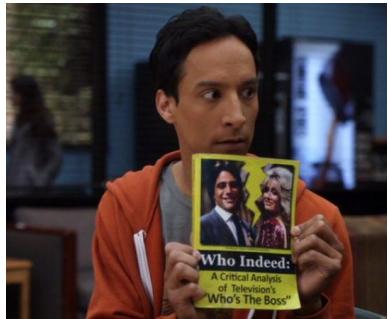
New Certification Criteria

- Standardized API for Patient Services

Revised Certification Criteria

- USCDI Updates

Others



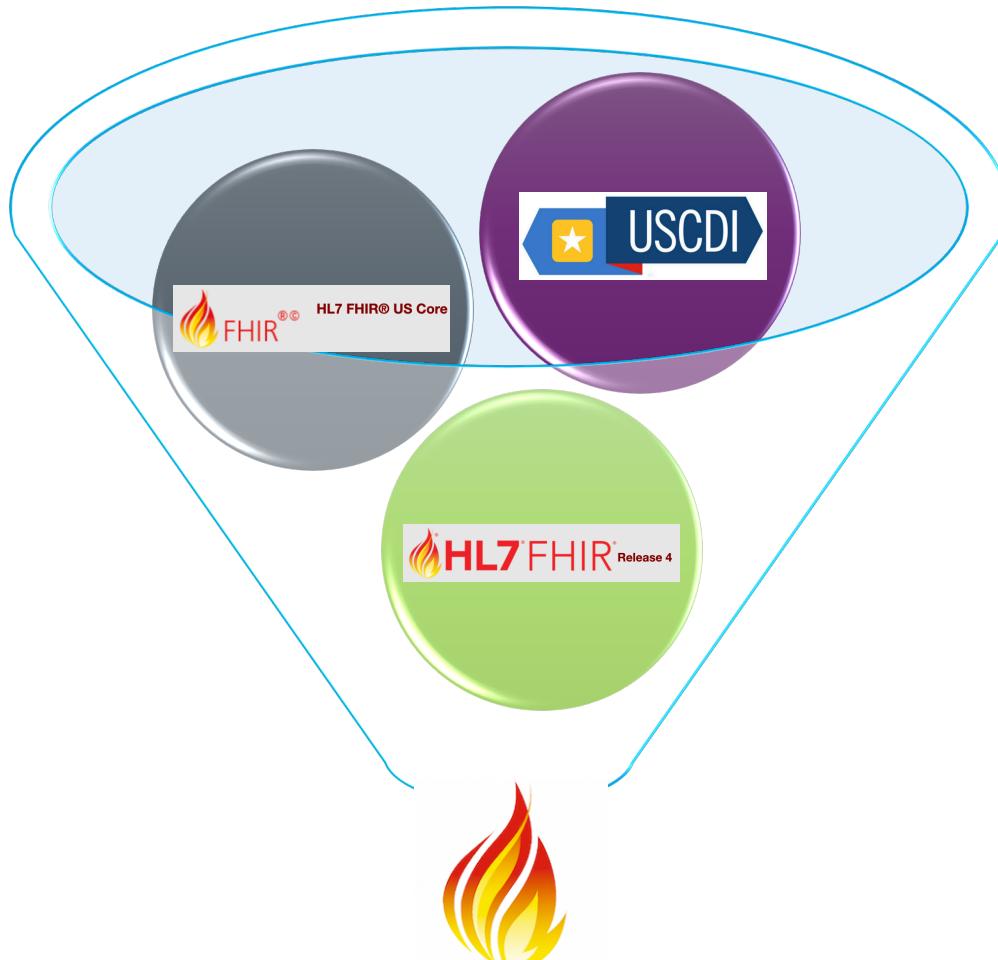
United States Core Data for Interoperability



HL7 FHIR® US Core Implementation Guide CI Build



Background: Who's The Boss



Cerner Ignite APIs

FHIR Resources

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FHIR Resources: US Core

1.1.5 US Core Profiles

The list of US Core Profiles is shown below. Each profile defines the minimum mandatory elements, extensions and terminology requirements that **MUST** be present. For each profile, requirements and guidance are given in a simple narrative summary. A formal hierarchical table that presents a [logical view](#) of the content in both a differential and snapshot view is also provided along with references to appropriate terminologies and examples. For each US Core Profile, an overview of the required set of RESTful FHIR interactions - for example, search and read operations - is provided in the *Quick Start* Section of the profile page.

- [US Core AllergyIntolerance Profile](#)
- [US Core CarePlan Profile](#)
- [US Core CareTeam Profile](#)
- [US Core Condition Profile](#)
- [US Core DiagnosticReport Profile for Laboratory Results Reporting](#)
- [US Core DiagnosticReport Profile for Report and Note exchange](#)
- [US Core DocumentReference Profile](#)
- [US Core Encounter Profile](#)
- [US Core Goal Profile](#)
- [US Core Immunization Profile](#)
- [US Core Implantable Device Profile](#)
- [US Core Laboratory Result Observation Profile](#)
- [US Core Location Profile](#)
- [US Core Medication Profile](#)
- [US Core MedicationRequest Profile](#)
- [US Core Organization Profile](#)
- [US Core Patient Profile](#)
- [US Core Pediatric BMI for Age Observation Profile](#)
- [US Core Pediatric Head Occipital-frontal Circumference Percentile Profile](#)
- [US Core Pediatric Weight for Height Observation Profile](#)
- [US Core Practitioner Profile](#)
- [US Core PractitionerRole Profile](#)
- [US Core Procedure Profile](#)
- [US Core Provenance Profile](#)
- [US Core Pulse Oximetry Profile](#)
- [US Core Smoking Status Observation Profile](#)
- In addition US Core uses the [Vital Signs Profile](#) from the FHIR Specification.

See the General Guidance page for a [mapping](#) to the U.S. Core Data for Interoperability (USCDI).

FHIR Resources: USCDI

USCDI V1

USCDI Draft V2

Level 2

Level 1

Comment

To view applicable standards supporting data elements, click the data element name below.

Allergies and Intolerances

Represents harmful or undesirable physiological response associated with exposure to a substance.

Substance (Drug Class)
Substance (Medication)
Reaction

Assessment and Plan of Treatment

Represents a health professional's conclusions and working assumptions that will guide treatment of the patient.

Assessment and Plan of Treatment

Care Team Member(s)

The specific person(s) who participate or are expected to participate in the care team.

Care Team Member(s)

Clinical Notes

Composed of both structured (i.e. obtained via pick-list and/or check the box) and unstructured (free text) data. A clinical note may include the history, Review of Systems (ROS), physical data, assessment, diagnosis, plan of care and evaluation of plan, patient teaching and other relevant data points.

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

Goals

An expressed desired health state to be achieved by a subject of care (or family/group) over a period of time or at a specific point of time

Patient's Goals

Health Concerns

Health related matter that is of interest, importance, or worry to someone who may be the patient, patient's family or patient's health care provider.

Health Concerns

Immunizations

Record of an administration of a vaccination or a record of a vaccination as reported by a patient, a clinician, or another party.

Immunizations

Laboratory

Tests
Values/Results

Medications

Medications

Patient Demographics

First Name
Last Name
Previous Name
Middle Name (including middle initial)
Suffix
Birth Sex
Date of Birth
Race
Ethnicity
Preferred Language
Current Address
Previous Address
Phone Number
Phone Number Type
Email Address

Problems

Information about a condition, diagnosis, or other event, situation, issue, or clinical concept that is documented.

Problems

Procedures

An activity that is performed with or on a patient as part of the provision of care.

Procedures

Provenance

The metadata, or extra information about data, that can help answer questions such as when and who created the data.

Author Time Stamp
Author Organization

Smoking Status

Classification of a patient's smoking behavior.

Smoking Status

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

A unique numeric or alphanumeric code that consists of a device identifier (DI) and a production identifier (PI).

Unique Device Identifier(s) for a patient's implantable device(s)

Vital Signs

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

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)
Weight-for-length Percentile (Birth - 36 Months)
Head Occipital-frontal Circumference (Birth - 36 Months)

FHIR Resources: Requirements Profile Matrix

The table below lists the US Core Profile and FHIR Resources used for the corresponding USCDI Data elements:

USCDI v1 Summary of Data Classes and Data Elements	US Core Profile	FHIR Resource
Allergies and Intolerances:		
Substance (Medication)	US Core Allergies Profile	AllergyIntolerance
Substance (Drug Class)	US Core Allergies Profile	AllergyIntolerance
Reaction	US Core Allergies Profile	AllergyIntolerance
Assessment and Plan of Treatment	US Core CarePlan Profile	CarePlan
Care Team Members	US Core CareTeam Profile	CareTeam
Clinical Notes:		
Consultation Note	US Core DocumentReference Profile	DocumentReference
Discharge	US Core DocumentReference Profile	DocumentReference
Summary Note	US Core DocumentReference Profile	DocumentReference
History & Physical	US Core DocumentReference Profile,US Core DiagnosticReport Profile for Report and Note exchange	DocumentReference,DiagnosticReport
Imaging Narrative	US Core DocumentReference Profile,US Core DiagnosticReport Profile for Report and Note exchange	DocumentReference,DiagnosticReport
Laboratory Report Narrative	US Core DocumentReference Profile,US Core DiagnosticReport Profile for Report and Note exchange	DocumentReference,DiagnosticReport
Pathology Report Narrative	US Core DocumentReference Profile,US Core DiagnosticReport Profile for Report and Note exchange	DocumentReference,DiagnosticReport
Procedure Note	US Core DocumentReference Profile,US Core DiagnosticReport Profile for Report and Note exchange	DocumentReference,DiagnosticReport
Progress Note	US Core DocumentReference Profile	DocumentReference
Consultation Note	US Core DocumentReference Profile	DocumentReference
Goals:		
Patient Goals	US Core Goal Profile	Goal
Health Concerns	US Core Condition Profile	Condition
Immunizations	US Core Immunization Profile	Immunization

Prerequisites

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Prerequisites

Summary

Developers: HL7 FHIR R4

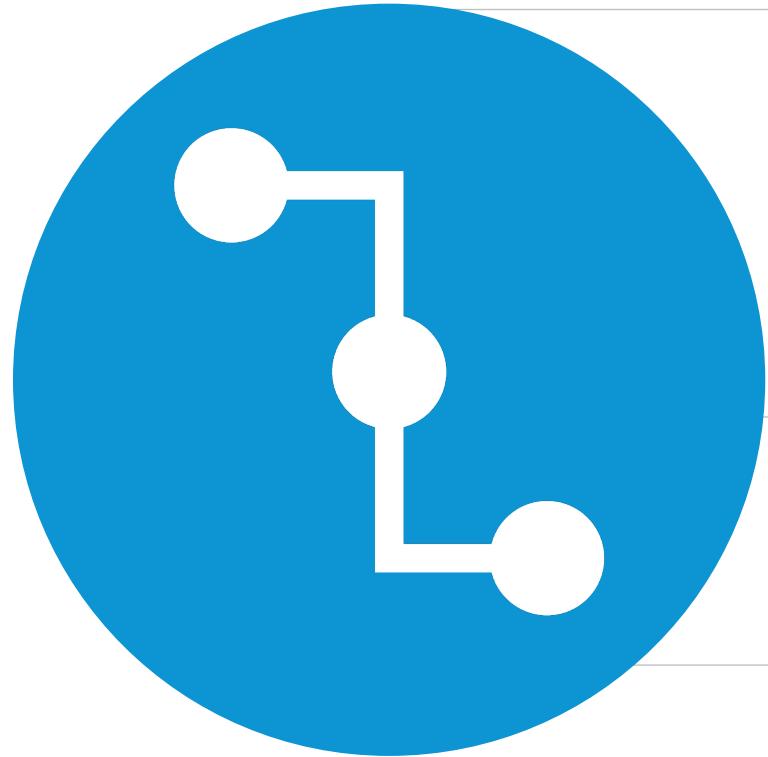
Clients: FHIR API R4 Mappings

Clients: Code Level

Clients: Foundational Configuration

Prerequisites

FHIR API R4 mappings



Overview

Mapping of local/proprietary codes for clinical data to required vocabulary standards to ensure conformant API responses

Who?

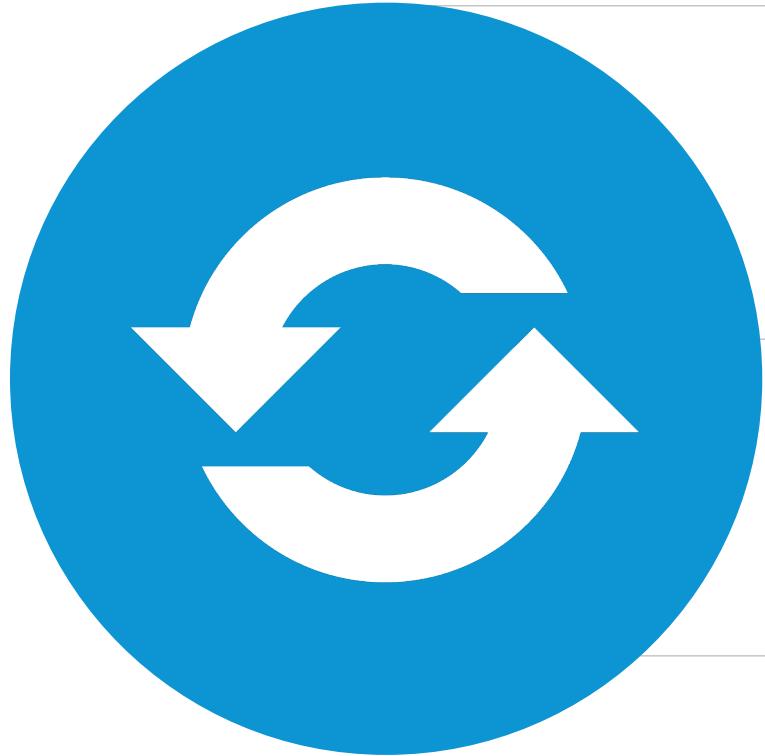
Performed by Cerner as part of Ignite API licensing (no engagement necessary)

When?

Mapping work is already underway but will continue through summer 2022 for full scope of FHIR resources

Prerequisites

Millennium code upgrade



Overview

Uplifting to new required Millennium code base of 2018.08

Who?

Can be performed via Cerner Upgrade Center services or client-owned (if using Upgrade Center, engage w/ CAE or submit a slotting request [here](#))

When?

June 2021 – June 2022 (upgrade project = ~14 weeks)

Prerequisites

FHIR API configuration



Overview

Various system configurations to ensure all required data is available for FHIR API responses in accordance with the standard specifications

Who?

Can be performed via Regulatory Consulting Services or client-owned (if seeking services, contact Katie Batliner (katie.batliner@cerner.com))

When?

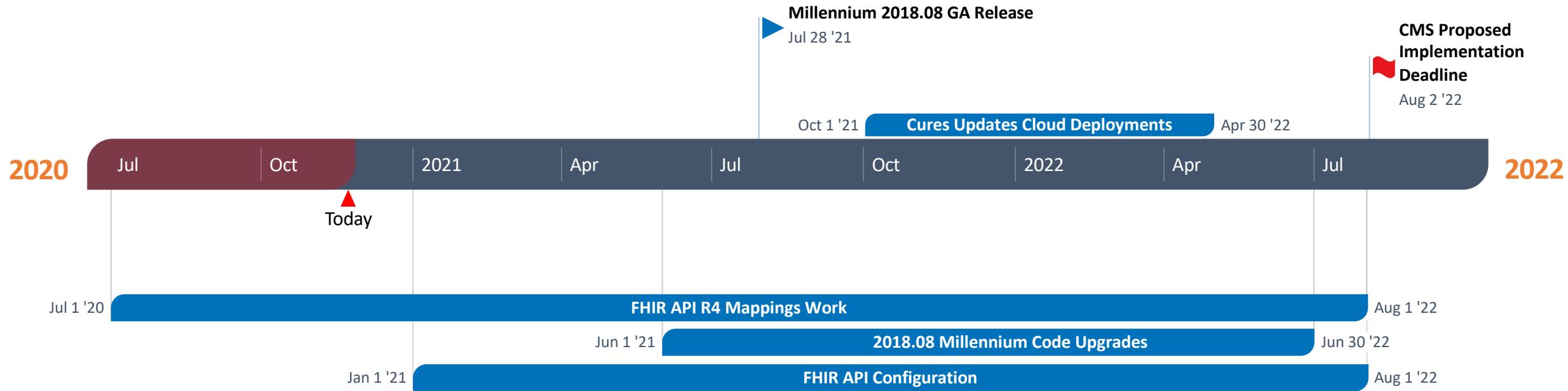
January 2021 – July 2022 (some work can be started on your own now – see *Resources* slide)

Roadmap

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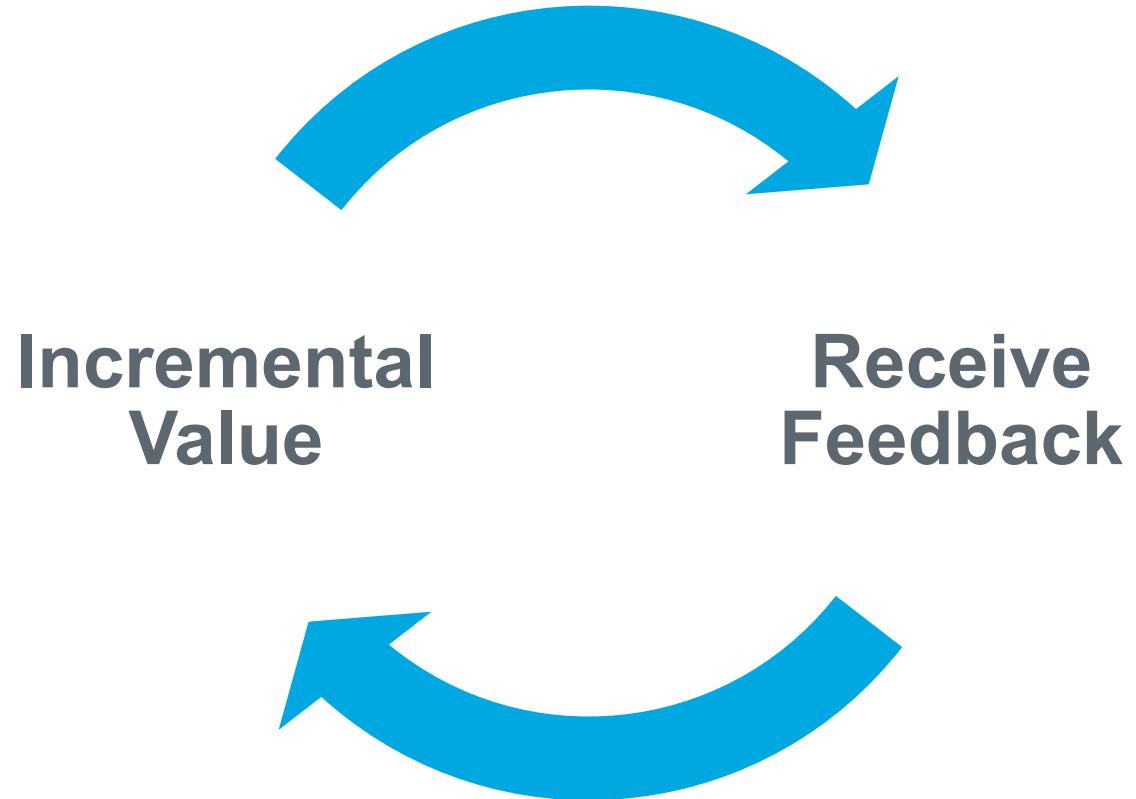


Roadmap



Roadmap

Iterative Production Releases



Validation

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INFERNO



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 Cerner

References

References

Cerner

[Cerner Ignite APIs for Millennium Release Notes](#)

[Implement Cerner Ignite APIs for Millennium](#)

[Code Portal](#)

[Google Group](#)

[FHIR.Cerner.com](#)

Follow uCern [Regulatory Engagement Group \(REG\)](#) for updates

[Cerner Cures Act Final Rule White Paper](#)

References

Industry

[ONC Cures Act Final Rule Policy](#)

[HealthIT.gov](#)

[US Core Profiles](#)

[US Core Data for Interoperability and 2015 Common Clinical Data Set](#)

[USCDI](#)

[Inferno](#)



Thank you.

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