Connecticut Department of Public Health electronic case reporting (eCR) guidance: local implementation and validation guide for the electronic initial case reporting HL7 V3 clinical document architecture (CT eCR guide)

September 2024

Table of Contents

Glossary of Acronyms and Terms

AIMS	Association of Public Health Laboratories Informatics Messaging Services
APHL	Association of Public Health Laboratories
CDA	Clinical Document Architecture (HL7)
C-CDA	Consolidated Clinical Document Architecture (HL7)
CDC	Centers of Disease Control and Prevention
CMS	Centers for Medicare & Medicaid Services
CSTE	Council for State and Territorial Epidemiologists
CT DPH	Connecticut Department of Public Health
eCR	Electronic case report
eICR	Electronic initial case report
eCR Now	Electronic case report project supported by APHL
eRSD	Electronic Reporting and Surveillance Distribution System
HCO	Healthcare organization
HL7	Health Level Seven
HTML	HyperText markup language
LOINC	Logical Observation Identifiers Names and Codes
MIPS	CMS Merit based incentive payment system
OID	Object Identifier
PIP	CMS Promoting Interoperability Programs
RCKMS	Reportable Conditions Knowledge Management System
RR	Reportability Response
SNOMED-CT	Systematized Nomenclature of Medicine Clinical Terms
XML	Extensive markup language

Electronic Case Reporting (eCR)

The Commissioner of the Connecticut Department of Public Health (CT DPH) is required to issue an annual list of reportable diseases, emergency illnesses and health conditions as required by Conn. Gen. Stat. Sec. 19a-2a and 19a-215 and Conn. Agencies Regs. 19a-36-A3 and 19a-36-A4[1]. This list has two parts: (A) reportable diseases; and (B) reportable emergency illnesses and conditions. To help facilitate timely reporting, CT DPH is implementing electronic case reporting (eCR) using HL7 Version 3.1 Clinical Document Architecture (CDA®)[2].

What is eCR?

Electronic case reporting (eCR) is the automated reporting of case report information from a healthcare organization's (HCOs) electronic health records system (EHRs) to CT DPH. Case reports are generated based on Connecticut's reportable disease/condition list and populated following a standard format. Once received by CT DPH, the eCR message is processed using a transformation and validation process creating output files that can be uploaded into end public health systems or further shared as appropriate with CT DPH programs. To assist HCOs in developing the eCR messages, CT DPH is working with the Centers for Disease Control and Prevention (CDC) and the Association of Public Health Laboratories (APHL) to leverage the APHL Informatics Messaging Services (AIMS) platform as part of the eCR Now project[3]. HCOs wishing to enroll in electronic case reporting with DPH must engage via the eCR Now project.

As part of public health reporting requirements under the Centers for Medicare & Medicaid Services (CMS) Promoting Interoperability Programs[4] (PIP) and Merit Based Incentive Payment System[5] (MIPS), CT DPH, as the CT Public Health Agency, declared readiness for eCR in April 2022. Engagement in eCR is required for eligible hospitals, healthcare organizations, and applicable clinicians to receive public health reporting credit; HCOs should be aware that requirements

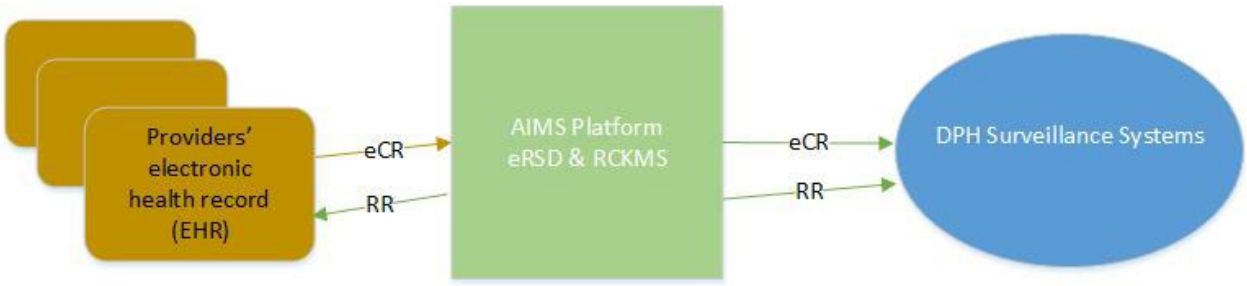
[1] https://portal.ct.gov/DPH/Epidemiology-and-Emerging-Infections/Reporting-of-Diseases-Emergency-Illnesses-Health-Conditions-and-Laboratory-Findings
[2] https://www.hl7.org/implement/standards/product_brief.cfm?product_id=436
[3] https://ecr.aimsplatform.org
[4] https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms
[5] https://qpp.cms.gov/mips/how-eligibility-is-determined

under CMS may change year to year. For further information on how to enroll with eCR Now or about the CMS eCR public health reporting requirement, please email DPH.ECRInformatics@ct.gov .

How does the eCR Now project work?

As mentioned, eCR Now is a joint effort between CDC, APHL, state public health agencies, and EHRs vendors. The focus is on generation of *initial* eCR (eICR) messages from HCOs to the AIMS platform based on an HL7 eICR CDA implementation guide. The eICR message is then forwarded to CT DPH (based on CT reporting requirements). The AIMS platform sends a Reportability Response (RR) message back to the EHR and to CT DPH. The messages are received in XML and html formats. An overall diagram of this process is shown in Figure 1 below.

Figure 1. eICR flow



For Connecticut, the eCR Now CDC/APHL team provides initial testing and validation of eICR messages from the HCO's EHR to the AIMS platform. If needed, the eCR Now team will provide a FHIR app that an EHR vendor can install and can be used to create the eICR message. When complete, the testing and validation process carried out by the eCR Now team will put the HCO into a pre-production validation status. This step is a holding phase that is maintained until CT DPH eCR staff are ready to further validate and process eICR and RR messages from that HCO. The step-by-step process is further described in the CT DPH eCR Checklist (appendix A) and in this local guide.

Note: CT DPH prefers HCOs implement eICR based on the HL7 CDA® R2 Implementation Guide: Public Health Case Report - the Electronic Initial Case Report (eICR) Release 2, STU Release 3.1 -

US Realm; Vol 1 and Vol 2 but will accept agencies still working with version 1.1 with the intent to upgrade within one year.

How does an HCO know what to report?

Reportable disease and condition criteria are defined by each state PHA engaging in eCR. These criteria are entered into the Reportable Conditions Knowledge Management System (RCKMS) that is maintained on the AIMS platform. RCKMS has three components: (1) an authoring interface where the reporting logic for each disease/condition is entered; (2) a knowledge repository database that contains reporting specifications; and (3) a Decision Support Service that is invoked on receipt of an eICR message to determine if a potential case is reportable and to which jurisdictions. CT DPH Informatics eCR staff author the reporting logic for Connecticut.

How reporting is "triggered" from the HCO EHR

Reporting of a disease/condition is based on "trigger codes" derived from the reporting logic authored in RCKMS. Case definitions published by CSTE form the basis of logic statements used by the RCKMS Content Team. The RCKMS team develops separate logic statements for each reporting criterion or combination of reporting criteria that can be refined by each PHA to include, exclude, or add criteria. CT DPH choses the diseases/conditions to author and refines the criteria to publish for inclusion and case ascertainment for Connecticut.[6] The authoring is an ongoing process.

Trigger codes are based on specific value sets and reporting parameters for each disease/condition. These value sets form the basis of the trigger codes available in RCKMS and usually fall under one of the following categories:

- Clinical (diagnoses, problems, symptoms, and clinical findings)
- Laboratory tests that are organism or substance specific
- Laboratory tests that are not organism or substance specific
- Laboratory result values, abnormal interpretations, specimen type, or status
- Radiography, other imaging procedures, and their results
- Medications, including drugs, vaccines, and immune globulins

[6] Background and Guidance about the RCKMS Content Release (April 2022) https://www.rckms.org/wp-content/uploads/2022/04/RCKMS-Release-Plan-April-2022.pdf

HCO vendors obtain the trigger codes specific for Connecticut from the eRSD that is part of the Decision Support Service (see below). Triggers codes are uploaded into the EHRs by the vendor and set to 'query' RCKMS to determine if patient encounter data meets reporting criteria for CT DPH. If the criteria are met, the eICR is sent to AIMS and then to CT DPH for investigation and follow-up as shown in Figure 1 with a RR for each eICR message sent back to the healthcare organization and to CT DPH. The RR contains the results of the evaluation of the eICR against CT DPH's reporting requirements, information that might be helpful to the HCO regarding patient care or follow-up reporting requirements, and a record of other public health agencies who may have been sent a copy of the report. Because multiple eICRs can be generated, the overall process is known as eCR.

Scope of this document

This Connecticut eICR local guide was developed to be a companion implementation and validation guide and intended to provide further context for analysts and developers who must understand and implement elements of the HL7 CDA® R2 Implementation Guide: Public Health Case Report - the Electronic Initial Case Report (eICR) Release 2, STU Release 3.1 - US Realm; Vol 1 and Vol 2.

This local guide will provide the following information:

- CT DPH local specifications for data elements to be retrieved from the EHR to produce the eICR.
- Structural formats and specifications of the eICR data requirements as specified by CSTE and CT DPH (HL7 CDA R2 format).
- Data elements required for message acceptance from CT DPH.
- CT DPH onboarding including pre- and post-eCR validation procedures.

Onboarding and Parallel Processing

Healthcare organizations will work with CT DPH to validate the data that CT DPH is receiving from the eICR to ensure all applicable reportable diseases are received and that the data is timely and complete. Prior to validation, the HCO will ensure that it is utilizing the most recent Electronic Reporting and Surveillance Distribution (eRSD) package in its EHR. The HCO will need to register for ***Electronic Case Reporting Update Notifications*** at the following link: Electronic Reporting and Surveillance Distribution, if not previously done, to ensure prompt and consistent eRSD updates from AIMS. The HCO will be required to update their trigger codes within 3 weeks of an update notification from AIMS.

CT DPH will contact each HCO when it is ready to do the CT DPH pre-production validation. All facilities associated with the parent HCO will be validated simultaneously. The order of diseases validated and the length of the evaluation period will be determined by CT DPH. Not all diseases may be validated at the same time. During this validation period, HCOs will still need to submit case reports in their non-eCR processes. Regular meetings will be set up with the HCO during the validation period, and the HCO will ensure that technical resource staff are available to address and fix issues in a timely manner. CT DPH will provide feedback identifying issues and/or successes to the HCO at least once a week during the validation period via Smartsheet. Once the HCO has met the validation standards, CT DPH will notify the HCO that they are being moved to production and no longer need to submit manual reports**. Please note production submission of the eICRs does not remove the healthcare organization's obligation to notify CT DPH via telephone for category 1 diseases and on suspicion of an outbreak or unusual illness**.

Once the HCO is moved to production, CT DPH will continue to monitor the HCO's submissions for quality and timeliness and will notify the HCO if corrections are needed via Smartsheet. Messages missing patient first name, patient last name, encounter date, or the triggered condition in the reportability response will fail validation and will not be processed. Corrections to the data and new eCRs will need to be submitted within 48 hours of notification.

Criteria for validation and onboarding to production

1. Completion of required fields (Priority 1 & 2 variables): ≥90% (Table 1)
2. Completion of reporting: eICR received ≥ manual reporting
3. Consistent reporting: no lapse in reporting during the evaluation period
4. Timeliness: submitted ≤ 12 hours of the laboratory test date or encounter date
5. Accuracy: reported required diseases

Table 1. eCR variables for validation evaluation

Standard	Minimum required fields (Priority 1)
Application/ Message details 100%	Date of report
	Report ID
	SetID
	Version number
	Sending application
Patient demographics ≥95%	Patient first and last name
	Patient date of birth
	Patient telephone number (home, cell, or work)
	Patient address – street
	Patient address – city
	Patient address – state
	Patient address – zip code
	Patient sex
	Patient race
	Patient ethnicity
	Guardian first and last name (if patient <18 years old)
	Guardian telephone number (if patient <18 years old)
	Death indicator
	Date of death
Encounter detail/clinical variables ≥95%	Attending provider or responsible party name
	Facility phone number
	Facility name
	Facility address - street
	Facility address - city
	Facility address - state
	Admission date
	Discharge date
	Visit date for outpatient encounter
	Encounter type
	Discharge diagnoses
	Date of diagnosis
	Pregnancy status
	Estimated Date of Delivery (version 3.1 only)
	Specimen collection dates (test date)
	Laboratory results
	Medications administered
	Procedures: chest x-ray (covid, pertussis), ultrasound (zika), transfusion (malaria), ventilation (tetanus, flu, AFM), MRI (AFM), lumbar puncture (AFM)

Standard	Priority 2 variables
Patient value added ≥ 90%	Patient current occupation
	Preferred language
	Patient ID number (MRN)
	Birthplace
Encounter details/clinical variables ≥90%	Facility Type/Hospital Unit
	Review of systems (version 3.1 only)
	Symptom's list
	Onset date
	Admitting diagnoses (version 3.1 only)
	Reason for visit
	Social history: smoking, alcohol use, drug use, sexual history
	Discharge disposition

Formatting and required data elements for the eICR message

C-CDA

CDA developed by HL7 is a broad-based structure for exchange of documents containing clinical information between two entities[7]. It allows for structured (XML) and unstructured data. Consolidated Clinical Document Architecture (C-CDA) is the directed instruction (implementation guide; IG) on how to create and implement specified documents (messages) based on the CDA standard. Templates are the mechanism most used to constrain the CDA. Table 2 lists the C-CDA template terminology used.

Table 2. C-CDA Template Terminology

Terminology	Definition
Document-Level Template	Broadest level of a C-CDA template. Contains Section-Level and Entry-Level templates. Document-Level templates are defined with a templateId and sometimes an extension.
Section-Level Template	These templates are more finely defined than the Document-Level and contain information in relation to a specific category. Ex: Immunization Section, Pregnancy Section, etc. Section-Level templates are also defined with templateId.
Entry-Level Template	Entry-Level templates are the next step of granularity contained in C-CDA documents. These templates will define what and how much data is

[7] https://www.hl7.org/implement/standards/product_section.cfm?section=10

	required using the conformance verbs and cardinality, respectively. Ex: Determination of Reportability. Entry-Level templates can also be nested within each other. For example, the Encounter Activity (V3) entry-level template contains the Service Delivery Location and Encounter Diagnosis (V3) entry-level templates.
Data Element	This is the data contained in the C-CDA document and defined in the entry-level template. Ex: Date of Report, Diagnosis, and Patient Name.
Data Type	Nearly any data types can be used in C-CDA documents unless specified in the Implementation Guide. Please see the Data Types table for information on abbreviations/notation.
Template Identifier (templateId)	populated by CDA R2 instance to assert conformance to a given template version. Allows the recipient to test the instance of conformance against the CDA R2 XML schema and against the asserted template.
Cardinality	Specifies how many times something (section or entry) appears in a document. Cardinality can also be defined as "Required" and "Optional". Required is when one or more data elements/sections need to be present. Optional cardinality is when the object can appear zero or more times.

C-CDA implementation requires that data elements/templates follow defined conformance rules. Table 3 describes these conformance requirements. This local guide will differentiate conformance requirements by CT DPH and the HL7 C-CDA IG. The difference will be highlighted in the conformance column in Table 4 in bold print and brackets e.g., SHOULD | **[SHALL]**. **[SHALL]** specifying a required variable by CT DPH.

Table 3. Conformance Verbs used in CDA Templates[8]

CDA Conformance Verb	Interpretation
SHALL	required
SHALL NOT	exclude
SHOULD/SHOULD NOT	best practice or recommendation
MAY/NEED NOT	optional

Code Sets, Value Sets, and Object Identifiers

Codes systems such as Logical Observation Identifiers Names and Codes (LOINC) and Systematized Nomenclature of Medicine Clinical Terms (SNOMED CT) are important for uniformly communicating information about the patient. CDA uses a wide variety of code and value sets to assist with reporting conditions accurately, and the sets DPH expects to be used in the eCR message are specified in Table 4. Object Identifiers (OID) in HL7 CDA messages are used

[8] HL7, Version 3 Publishing Facilitator's Guide. http://www.hl7.org/v3ballot/html/help/pfg/pfg.htm

to identify coding and identification schemes and message components. The OIDs included in Table 4 will point to the templates where the data should be found in the eICR message. Date formats should be YYYYMMDD unless otherwise specified in Table 4 below.

Table 4, along with the criteria in Table 1, will be the basis for eCR validation, and be used to determine if the HCO can be promoted to production. In addition to these tools, CT DPH will use a Quality Assurance schematron developed in conjunction with other states, APHL, and the CDC, to validate and test the incoming messages. Criteria in Table 4 is divided into sections based on templates for easier reading.

Table 4. Data Element Specifications

4a. Document Header Section

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Report Submission Date/Time‡	The date and time at which the EHR system sends the eICR to DPH	/cda:ClinicalDocument/cda:effectiveTime/@value	YYYYMMDDhhmmss-0000. The zeros specify the time zone e.g., 20221024001217-0400	SHALL
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Report ID (Document ID)	Unique number for each eICR	/cda:ClinicalDocument/cda:id/@root		SHALL
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	SetID	Unique number assigned to the encounter. Can be used for matching different eCRs for the same encounter	/cda:ClinicalDocument/cda:setId/@extension		MAY|**[SHALL]**
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Version Number	Number of eICR sent for a particular encounter	/cda:ClinicalDocument/cda:versionNumber/@value		MAY|**[SHALL]**
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Sending Application (Assigned Authoring Device)	The name of the sending application	/cda:ClinicalDocument/cda:author/cda:assignedAuthor/cda:assignedAuthoringDevice/cda:manufacturerModelName /cda:ClinicalDocument/cda:author/cda:assignedAuthor/cda:assignedAuthoringDevice/cda:softwareName		SHOULD|**[SHALL]**
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Custodian ID	The organization that oversees maintaining and is entrusted with the care of the document	/cda:ClinicalDocument/cda:custodian/cda:assignedCustodian/cda:representedCustodianOrganization/cda:name		

† Coded

‡ Special Format (needs to adhere to special format)

4b. Patient Section

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Patient ID Number	Patient medical record number	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:id/@extension		SHALL
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Patient First Name	Patient's current legal first name	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/cda:name[@use='L'][cda:validTime/cda:high/@nullFlavor or not(cda:validTime/cda:high)]/cda:given[1]		SHALL
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Patient Middle Name	Patient's legal middle name, if available	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/cda:name[@use='L'][cda:validTime/cda:high/@nullFlavor or not(cda:validTime/cda:high)]/cda:given[2]		MAY
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Patient Last Name	Patient's current legal last name	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/cda:name[@use='L'][cda:validTime/cda:high/@nullFlavor or not(cda:validTime/cda:high)]/cda:family		SHALL

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Patient Address Street Line 1	Patient's current street address linked to "HP" in addr element	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:addr[@use= 'H' or @use= 'HP'][cda:useablePeriod/cda:high/@nullFlavor or not(cda:useablePeriod/cda:high)]/cda:streetAddressLine[1]		SHALL
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Patient Address Street Line 2	Patient's current street address (used for designating an apartment or suite number)	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:addr[@use= 'H' or @use= 'HP'][cda:useablePeriod/cda:high/@nullFlavor or not(cda:useablePeriod/cda:high)]/cda:streetAddressLine[2]		SHOULD
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Patient Address City	Patient's current city linked to "HP" in addr element.	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:addr[@use= 'H' or @use= 'HP'][cda:useablePeriod/cda:high/@nullFlavor or not(cda:useablePeriod/cda:high)]/cda:city		SHALL
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Patient Address County	Patient's current county linked to "HP" in the addr element	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:addr[@use= 'H' or @use= 'HP'][cda:useablePeriod/cda:high/@nullFlavor or not(cda:useablePeriod/cda:high)]/cda:county	County FIPS codes urn:oid:2.16.840.1.114222.4.11.829 https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.829	SHOULD

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Patient Address State	Patient's current state linked to "HP" in addr element.	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:addr[@use= 'H' or @use= 'HP'][cda:useablePeriod/cda:high/@nullFlavor or not(cda:useablePeriod/cda:high)]/cda:state	StateValueSet https://ushik.ahrq.gov/ViewItemDetails?system=mdr&itemKey=86669000	SHOULD| **[SHALL]**
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Patient Zip Code	Patient's current zip code linked to "HP" in addr element.	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:addr[@use= 'H' or @use= 'HP'][cda:useablePeriod/cda:high/@nullFlavor or not(cda:useablePeriod/cda:high)]/cda:postalCode	PostalCode http://ushik.ahrq.gov/ViewItemDetails?system=mdr&itemKey=86671000	SHOULD
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Patient Address Country	Patient's current state linked to "HP" in addr element.	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:addr[@use= 'H' or @use= 'HP'][cda:useablePeriod/cda:high/@nullFlavor or not(cda:useablePeriod/cda:high)]/cda:country	Country urn:oid:2.16.840.1.113883.3.88.12.80.63 http://hl7.org/fhir/ValueSet/iso3166-1-2	SHOULD
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Time at Current Address	The date from which the patient has been residing at their current address	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:addr[@use= 'H' or @use= 'HP']/cda:useablePeriod/cda:low/@value		MAY
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Patient Home Phone‡	Patient phone number linked to "HP" in telecom element.	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:telecom[@use='HP']/@value	telecom use= "HP" value="tel: +1-XXX-XXX-XXXX"	SHALL

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Patient Mobile Phone‡	Patient phone number linked to “MC” in telecom element.	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:telecom[@use='MC']/@value	telecom use= “MC” value=”tel: +1-XXX-XXX-XXXX”	MAY
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Patient Work Phone‡	Patient phone number linked to “WP” in telecom element.	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:telecom[@use='WP']/@value	telecom use= “WP” value=”tel: +1-XXX-XXX-XXXX”	MAY
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Patient Email‡	The email address for the patient.	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:telecom[contains(@value, ‘mailto’)][1]/@value	telecom use="HP" value="mailto:mail@XXX.XXX "	SHALL| **[MAY]**
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Patient Birth Date	Patient’s date of birth	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/cda:birthTime/@value		SHALL
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Birthplace†	Patient’s country of birth	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/cda:birthplace/cda:place/cda:addr/cda:country	urn:oid:2.16.840.1.113883.3.88.12.80.63 http://hl7.org/fhir/ValueSet/iso3166-1-2	SHOULD
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Administrative Gender Code†	Patient’s gender assigned by the healthcare organization	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/cda:administrativeGenderCode/@code	Administrative Gender urn:oid: 2.16.840.1.113883.5.1 https://phinvads.cdc.gov/vads/ViewCodeSystem.action?id=2.16.840.1.113883.5.1	SHALL
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Death Indicator‡	Indicates that the patient had died or is dead	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/sdtc:deceasedInd/@value	urn:hl7-org:sdtc sdtc:deceasedInd: “true”, “false”	SHALL

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Death date	The patient's date of death	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/sdtc:deceasedTime/@value	sdtc:deceasedTime= MAY unless sdtc:deceasedInd/@value is "true" then sdtc:deceasedTime SHALL be present	SHALL
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Race†	The patient's race (may include multiple races)	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/cda:raceCode/@code Multiple races: //sdtc:raceCode/@code	Race & Ethnicity-CDC: 1002-5, 2028-9, 2054-5, 2076-8, OR 2106-3, PHC1175 or Null flavor (UNK)	SHALL
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Ethnicity†	The patient's ethnicity: Hispanic or Non-Hispanic	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/cda:ethnicGroupCode/@code Multiple ethnicities: //sdtc:ethnicGroupCode/@code	Race & Ethnicity-CDC: 2135-2 or 2186-5	SHALL
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Marital Status†	Patient marital status	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/cda:maritalStatusCode/@code	https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12212/expansion	SHOULD
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Preferred Language†	The patient's preferred language	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/cda:languageCommunication/cda:languageCode/@code	Language urn:oid:2.16.840.1.113883.1.11.11526 http://www.loc.gov/standards/iso639-2/php/code_list.php	SHALL| **[SHOULD]**
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Parent/Guardian First Name	First name of parent/guardian **(if patient age is < 18 years)**	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/cda:guardian/cda:guardianPerson/cda:name/cda:given		MAY| **[SHOULD]**

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Parent/Guardian Last Name	Last name of parent/guardian **(if patient age is < 18 years)**	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/cda:guardian/cda:guardianPerson/cda:name/cda:family		MAY| **[SHOULD]**
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Parent/Guardian Home Phone‡	Home telephone number for parent and/or guardian. **(if patient age is < 18 years)**	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/cda:guardian/cda:telecom[@use='HP']/@value	"HP" value="tel: +1-XXX-XXX-XXXX"	MAY| **[SHOULD]**
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Parent/Guardian Mobile Phone‡	Mobile telephone number for parent and/or guardian. **(if patient age is < 18 years)**	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/cda:guardian/cda:telecom[@use='MC']/@value	"MC" value="tel: +1-XXX-XXX-XXXX"	MAY
US Realm Header (V3) 2.16.840.1.113883.10.20.22.5.2	Parent/Guardian Work Phone‡	Workplace telephone number for parent and/or guardian. **(if patient age is < 18 years)**	/cda:ClinicalDocument/cda:recordTarget/cda:patientRole/cda:patient/cda:guardian/cda:telecom[@use='WP']/@value	"WP" value="tel: +1-XXX-XXX-XXXX"	MAY

4c. Encompassing Encounter Section

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Encounter Type†	Patient type for encounter (outpatient, inpatient, emergency, urgent care)	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:code/@code	ActEncounterCode urn:oid:2.16.840.1.113883.1.11.13955 https://www.hl7.org/fhir/stu3/v3/ActEncounterCode/vs.html	SHALL

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Healthcare Facility Name	Facility name found in encompassingEncounter	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:location/cda:healthCareFacility/cda:serviceProviderOrganization/cda:name		SHALL
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Facility Type/Hospital Unit†	The type of facility where patient received is receiving healthcare for reportable condition (e.g., hospital, ambulatory, urgent care; if inpatient then unit)	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:location/cda:healthCareFacility/cda:code/@code	if inpatient: NHSN Healthcare Facility Patient Care Location or ServiceDeliveryLocationRoleType	SHALL
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Facility Phone‡	The facility's phone number with area code	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:location/cda:healthCareFacility/cda:serviceProviderOrganization/cda:telecom[contains(@value, 'tel')]/@value	telecom use= "WP" value="tel: +1-XXX-XXX-XXXX"	SHALL
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Facility Fax‡	The facility's fax number with area code	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:location/cda:healthCareFacility/cda:serviceProviderOrganization/cda:telecom[contains(@value, 'fax')]/@value	telecom use= "WP" value= "fax: +1-XXX-XXX-XXXX"	SHALL

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Facility Street Address	The street address for the facility where patient received or is receiving healthcare for the reportable condition.	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:location/cda:healthCareFacility/cda:serviceProviderOrganization/cda:addr/cda:streetAddressLine[1] /cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:location/cda:healthCareFacility/cda:serviceProviderOrganization//cda:addr/cda:streetAddressLine[2]		SHALL
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Facility City	City where the sending facility is located. In the encompassingEncounter	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:location/cda:healthCareFacility/cda:serviceProviderOrganization/cda:addr/cda:city		SHALL
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Facility State	State where the sending facility is located. In the encompassingEncounter	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:location/cda:healthCareFacility/cda:serviceProviderOrganization/cda:addr/cda:state	StateValueSet urn:oid:2.16.840.1.113883.3.88.12.80.1 https://ushik.ahrq.gov/ViewItemDetails?system=mdr&itemKey=86669000	SHALL
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Facility Zip Code	Zip Code of the sending facility. In the encompassingEncounter	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:location/cda:healthCareFacility/cda:serviceProviderOrganization/cda:addr/cda:postalCode	PostalCode http://ushik.ahrq.gov/ViewItemDetails?system=mdr&itemKey=86671000	SHALL

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Admission Date/Time‡ (Inpatient encounter)	Date and time the patient was admitted to the treatment facility; e.g., hospital (Inpatient Encounter)	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter[cda:code/@code='IMP']/cda:effectiveTime/cda:low/@value	YYYYMMDDhhmmss-0000. The zeros specify the time zone e.g., 20221024001217-0400	SHALL| **[SHALL NOT contain nullFlavor]**
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Visit Date/Time‡ (Outpatient encounter only)	Date and time of the provider's most recent encounter with the patient regarding the reportable condition	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter[cda:code/@code!='IMP']/cda:effectiveTime/cda:low/@value	YYYYMMDDhhmmss-0000. The zeros specify the time zone e.g., 20221024001217-0400	SHALL| **[SHALL NOT contain nullFlavor]**
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Discharge Date/Time‡	Date and time patient was discharged from the treatment facility (Inpatient encounter)	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:effectiveTime/cda:high/@value	YYYYMMDDhhmmss-0000. The zeros specify the time zone e.g., 20221024001217-0400	SHALL
Encounter Activity (V3) 2.16.840.1.113883.10.20.22.4.49	Discharge Disposition†	The final place or setting to which the patient was discharged on the day of discharge.	//cda:encounter[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.49']/sdtc:dischargeDispositionCode/@code	National Uniform Billing Code UB-04 Patient Discharge Status code set 2.16.840.1.113883.6.301.5 https://www.nubc.org/ or HL7 Discharge Disposition 2.16.840.1.113883.12.112 https://phinvads.cdc.gov/vads/ViewCodeSystem.action?id=2.16.840.1.113883.12.112	MAY| **[SHOULD (for Inpatients when discharge date is not null)]**

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Admitting Physician First Name	First name of physician who admitted the patient.	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:encounterParticipant[@typeCode='ADM']/cda:assignedEntity/cda:assignedPerson/cda:name/cda:given		SHOULD
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Admitting Physician Last Name	Last name of physician who admitted the patient.	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:encounterParticipant[@typeCode='ADM']/cda:assignedEntity/cda:assignedPerson/cda:name/cda:family		SHOULD
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	First Name of Attending Provider (responsible party)	First name of Attending provider when report was sent.	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:responsibleParty/cda:assignedEntity/cda:assignedPerson/cda:name/cda:given		SHALL
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Last Name of Attending Provider (responsible party)	Last name of Attending provider when report was sent.	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:responsibleParty/cda:assignedEntity/cda:assignedPerson/cda:name/cda:family		SHALL
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Attending Provider Phone‡ (responsible party)	Attending provider's phone number with area code	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:responsibleParty/cda:assignedEntity/cda:telecom[contains(@value, 'tel')]/@value	telecom use= "WP" value="tel: +1-XXX-XXX-XXXX"	SHOULD

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Attending Provider Fax‡ (responsible party)	Attending provider's fax number with area code	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:responsibleParty/cda:assignedEntity/cda:telecom[contains(@value, 'fax')]/@value	telecom use= "WP" value= "fax: +1-XXX-XXX-XXXX"	SHOULD
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Attending Provider Email‡ (responsible party)	Attending provider's email address	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:responsibleParty/cda:assignedEntity/cda:telecom[contains (@value, 'mailto')]/@value	telecom use="WP" value="mailto:XXX@XXX.XXX "	SHOULD|**[MAY]**
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Attending Provider Facility/Office Name (responsible party)	Facility name where the Attending provider works	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:responsibleParty/cda:assignedEntity/cda:representedOrganization/cda:name		SHOULD
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Attending Provider Street Address (healthCareFacility)	Street address of Attending provider's facility. **Address must include street address, office or suite number (if applicable)**	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:location/cda:healthCareFacility/cda:location/cda:addr/cda:streetAddressLine		SHOULD
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Attending Provider City (healthCareFacility)	City of Attending provider's facility.	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:location/cda:healthCareFacility/cda:location/cda:addr/cda:city		SHALL

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Attending Provider State (healthCareFacility)	State of Attending provider's facility.	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:location/cda:healthCareFacility/cda:location/cda:addr/cda:state	StateValueSet urn:oid:2.16.840.1.113883.3.88.12.80.1 https://ushik.ahrq.gov/ViewItemDetails?system=mdr&itemKey=86669000	SHALL
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	Attending Provider Zip Code (healthCareFacility)	Zip code of Attending provider's facility.	/cda:ClinicalDocument/cda:componentOf/cda:encompassingEncounter/cda:location/cda:healthCareFacility/cda:location/cda:addr/cda:postalCode	PostalCode urn:oid:2.16.840.1.113883.3.88.12.80.2 http://ushik.ahrq.gov/ViewItemDetails?system=mdr&itemKey=86671000	SHALL

4d. Encounter and Problem Section

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Review of Systems Section 1.3.6.1.4.1.19376.1.5.3.1.3.18	Review of Systems ***Version 3.1 only***	A relevant collection of symptoms and functions systematically gathered by a clinician	//cda:section[cda:templateId/@root='1.3.6.1.4.1.19376.1.5.3.1.3.18']/cda:text		SHALL

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Problem Concern Act (V3) 2.16.840.1.113883.10.20.22.4.3 & Encounter Diagnosis Act (V3) 2.16.840.1.113883.10.20.22.4.80	Symptoms (list)† and Diagnoses† ***Note for EPIC users: resolved problems should not be loaded into the eICR message***	List of patient symptoms (structured) for the reportable event	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.4']/cda:value/@code	Problem (SNOMED-CT, ICD-10CM) urn:oid:2.16.840.1.113883.3.88.12.3221.7.4 https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.3.88.12.3221.7.4	SHALL| **[SHALL NOT contain nullFlavor]**
Problem Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.3 & Encounters Section (entries optional) (V3) 2.16.840.1.113883.10.20.22.2.22	Date of Onset	The date when the diagnosis was reported to have begun	//cda:encounter[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.49']/cda:effectiveTime/cda:low/@value		SHALL
Admission Diagnosis Section (V3) 2.16.840.1.113883.10.20.22.2.43	Admitting Diagnosis† ***Version 3.1 only***	This section contains a narrative description of the problems or diagnoses identified by the clinician at the time of the patient's admission.	//cda:section[cda:templateId/@root='2.16.840.1.113883.10.20.22.2.43']/cda:entry/cda:act[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.34']/cda:entryRelationship/cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.4']/cda:value/@code	Problem Type (SNOMED-CT, ICD-10CM) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.2/expansion	SHALL

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Encounter Activity 2.16.840.1.113883.10.20.22.4.49	Date of Diagnosis	The date of provider diagnosis	//cda:act[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.80']/cda:effectiveTime/cda:low/@value		SHALL
Problem Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.3	Problem Concern Act Date	The date when the diagnosis was recorded	//cda:act[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.3']/cda:effectiveTime/cda:low/@value		SHALL
Past Medical History (V2) 2.16.840.1.113883.10.20.22.2.20	Past Medical History (Problems' list) ***Version 3.1 only***	A record of the patient's past complaints, problems, and diagnoses	//cda:section[cda:templateId/@root='2.16.840.1.113883.10.20.22.2.20']/cda:text		SHALL
Past Medical History (V2)2.16.840.1.113883.10.20.22.2.20	Past Medical History Coded† (Problems' list) ***Version 3.1 only***	Coded record of the patient's past complaints, problems, and diagnoses	//cda:section[cda:templateId/@root='2.16.840.1.113883.10.20.22.2.20']/cda:entry/cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.4']/cda:value/@code	Problem Type (SNOMED-CT, LOINC ICD-10CM) urn:oid:2.16.840.1.113883.3.88.12.3221.7.2 https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.7.2/expansion	SHALL

† Coded

‡ Special Format (needs to adhere to special format)

4e. Medication Section

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Medications Administered Section (V2) 2.16.840.1.113883.10.20.22.4.23	Medications Administered Code†	Medications relevant to the reportable event (includes admission, administered, historical, planned medications)	//cda:substanceAdministration[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.16']/cda:consumable/cda:manufacturedProduct[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.23']/cda:manufacturedMaterial/cda:code/@code	Medication Clinical Drug urn:oid:2.16.840.1.113762.1.4.1010.4 https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1010.4/expansion	SHALL
Medications Administered Section (V2) 2.16.840.1.113883.10.20.22.4.23	Medications Administered Time	Time at which the medications are administered to the patient.	//cda:substanceAdministration[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.16']/cda:effectiveTime/cda:low/@value //cda:substanceAdministration[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.16']/cda:effectiveTime/cda:high/@value		SHALL
Medications Administered Section (V2) 2.16.840.1.113883.10.20.22.4.23	Medications Administered Route	Route that medications are administered to the patient.	//cda:substanceAdministration[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.16']/cda:routeCode/@code	SNOMED-CT urn:oid:2.16.840.1.113762.1.4.1099.12 https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1099.12/expansion or NCI: urn:oid 2.16.840.1.113883.3.88.12.3221.8.7 https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.3221.8.7/expansion/Latest	SHOULD

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Medications Administered Section (V2) 2.16.840.1.113883.10.20.22.4.23	Medications Administered Dose	The numerical amount and scale used to measure medication dose.	//cda:substanceAdministration[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.16']/cda:doseQuantity/@value //cda:substanceAdministration[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.16']/cda:doseQuantity/@unit		SHALL
Medications Administered Section (V2) 2.16.840.1.113883.10.20.22.4.23	Medications Administered Frequency	Administration times per day.	//cda:substanceAdministration[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.16']/cda:effectiveTime[2]/cda:period/@value //cda:substanceAdministration[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.16']/cda:effectiveTime[2]/cda:period/@unit		MAY| **[SHOULD when a medication is adminstered]**

4f. Results Section

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Results Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.2	Lab Code for Laboratory Test† (Result observation code)	Coded representation of the resulted lab test name	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.2']/cda:code/@code	LOINC http://loinc.org	SHALL| **[SHALL NOT contain nullFlavor]**
Result Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.415	Test date (Result observation time)	The date of the laboratory, radiology, or study was performed	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.2']/cda:effectiveTime/@value		SHALL

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Result Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.415	Specimen Collection Date ***Version 3.1 only***	Date specimen collected	//cda:procedure[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.415']/cda:effectiveTime/cda:low/@value		SHALL
Results Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.2	Specimen ID ***Version 1.1***	Accession number for the specimen. The unique alphanumeric character set which is assigned to each specimen processed in the laboratory	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.2']/cda:id/@extension		SHALL
Result Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.410	Specimen ID ***Version 3.1 only***	Accession number for the specimen. The unique alphanumeric character set which is assigned to each specimen processed in the laboratory	//cda:procedure[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.415']/cda:participant[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.410']/cda:participantRole/cda:id/@root		SHALL
Result Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.2	Laboratory result (Result observation value)	The result of a laboratory test for the patient during the encounter	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.2']/cda:value/@value //cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.2']/cda:value/@unit		
Result Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.2	Laboratory Result Interpretation Code† (Result observation interpretation)	Interpretation of the laboratory result (Abnormal, Normal, etc)	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.2']/cda:interpretationCode/@code	Observation Interpretation (HL7) urn:oid:2.16.840.1.113883.1.11.78 https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.1.11.78	SHALL

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Result Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.2	Resulting Laboratory Name (Performing organization)	Name of the laboratory where testing was performed. Most likely the same as the facility name	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.2']/cda:performer/cda:assignedEntity/cda:representedOrganization/cda:name		MAY
Result Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.2	Specimen Type ***Version 1.1***	Plasma, blood, urine etc.	//cda:procedure[cda:code/@code='17636008']/cda:targetSiteCode/@code	SNOMED-CT	SHALL
Result Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.410	Specimen Type† ***Version 3.1 only***	Plasma, blood, urine etc.	//cda:procedure[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.415']/cda:targetSiteCode/@code	SNOMED-CT	SHALL
Procedures Section (entries required) (V2) 2.16.840.1.113883.10.20.22.4.14	Procedure† (Result observation value) ***Version 3.1 only***	Interventional, surgical, diagnostic, or therapeutic procedures or treatments pertinent to the encounter.	//cda:procedure[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.14']/cda:code/@code	SNOMED-CT http://www.snomed.org/snomed-ct/get-snomed-ct or value in physical quantity. If value is a physical quantity, the unit SHALL be from units of measure case sensitive	SHALL

† Coded

‡ Special Format (needs to adhere to special format)

4g. Immunization Section

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Immunizations Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.52	Immunization Status†	The patient's current immunization status and pertinent immunization history. Date, dose, quantity vaccine code	//cda:substanceAdministration[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.52']/cda:statusCode/@code	urn:oid:2.16.840.1.113762.1.4.1010.8 https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1010.8/expansion	SHALL
Immunizations Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.52	Immunization Vaccine Code†		//cda:substanceAdministration[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.52']/cda:consumable/cda:manufacturedProduct[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.54']/cda:manufacturedMaterial/cda:code/@code	CVX Vaccines Administered - Vaccine Set urn:oid:2.16.840.1.113762.1.4.1010.6 https://vsac.nlm.nih.gov/?rpt=cvx	SHOULD|**[SHALL NOT contain nullFlavor when vaccine is applicable]**
Immunizations Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.52	Immunization Date‡		//cda:substanceAdministration[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.52']/cda:effectiveTime/@value		SHOULD
Immunizations Section (entries required) (V3) 2.16.840.1.113883.10.20.22.4.52	Amount of Vaccine Given†		//cda:substanceAdministration[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.52']/cda:doseQuantity/@value //cda:substanceAdministration[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.52']/cda:doseQuantity/@unit	UnitsOfMeasureCaseSensitive urn:oid:2.16.840.1.113883.1.11.12839 https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.1.11.12839/expansion	SHOULD
Immunizations Section (entries required) (V3) 2.16.840.1.113883.10.20.22.2.1	Immunization Information	Immunization information in HTML format	//cda:section[cda:templateId/@root='2.16.840.1.113883.10.20.22.2.2.1'][cda:code/@code='11369-6']/cda:text		SHOULD

† Coded

‡ Special Format (needs to adhere to special format)

4h. Plan of Treatment Section

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Plan of Treatment Section (V2) 2.16.840.1.113883.10.20.22.2.10	Lab Order Code† (Ordered labs)	Ordered tests for the patient during the encounter	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.44']/cda:code/@code	LOINC http://loinc.org	SHALL

4i. Chief Complaint Section

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Chief Complaint Section 1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1	Chief Complaint ***Version 3.1 only***	Patient's Chief complaint (the patient's own description)	//cda:section[cda:templateId/@root='1.3.6.1.4.1.19376.1.5.3.1.1.13.2.1']/cda:text		SHALL

4j. History of Present Illness Section

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
eICR Initial Public Health Case Report Document (V5) 2.16.840.1.113883.10.20.15.2	History of Present Illness	Physician's narrative of the history of the reportable event	//cda:section[cda:templateId/@root='1.3.6.1.4.1.19376.1.5.3.1.3.4']/cda:text		SHALL

† Coded

‡ Special Format (needs to adhere to special format)

4k. Reason for Visit Section

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Reason for Visit Section 2.16.840.1.113883.10.20.22.2.12	Reason for Visit	Provider's interpretation for the patient's visit for the reportable event	//cda:section[cda:templateId/@root='2.16.840.1.113883.10.20.22.2.12'][cda:code/@code='29299-5']/cda:text		SHALL

4l. Vital Sign Section

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH

Vital Sign Section (V3) 2.16.840.1.113883.10.20.22.4.27	Vital Signs† (patient's temperature)
	
	Version 3.1 only
		The patient's relevant vital signs.	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.27']/cda:code/@code
			//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.27']/cda:value/@value
			//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.27']/cda:value/@units
				Vital Sign Result Type urn:oid:2.16.840.1.113883.3.88.12.80.62
				
				https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.80.62/expansion
					SHALL

4m. Social History Section

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Pregnancy Observation 2.16.840.1.113883.10.20.15.3.8	Pregnant†	Pregnancy status	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.15.3.8']/cda:value/@code	SNOMED-CT Value Set: Extended Pregnancy Status urn:oid:2.16.840.1.113762.1.4.1099.24	SHALL

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Pregnancy Observation 2.16.840.1.113883.10.20.15.3.8	Estimated Date of Delivery (EDD) ***Version 1.1***	Estimated date a woman will give birth.	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.15.3.1'][cda:code/@code='11778-8']/cda:value/@value		SHALL
Pregnancy Observation (SUPPLEMENTAL PREGNANCY) 2.16.840.1.113883.10.20.22.4.293	Estimated Date of Delivery (EDD) ***Version 3.1 only***	Estimated date a woman will give birth.	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.297']/cda:value/@value		SHALL
Pregnancy Observation (SUPPLEMENTAL PREGNANCY) 2.16.840.1.113883.10.20.22.4.293	Estimated Gestational Age‡ ***Version 3.1 only***	The estimated gestational age of the pregnancy (in contrast to the gestational age at birth), beginning from the time of fertilization.	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.280']/cda:value/@value //cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.280']/cda:value/@unit	@value= numerical amount of time (1, 15, etc.) @unit= measurement of time (days, weeks, etc.)	SHALL
Pregnancy Observation (SUPPLEMENTAL PREGNANCY) 2.16.840.1.113883.10.20.22.4.293	Pregnancy Outcome† ***Version 3.1 only***	The result(s) of the pregnancy, such as live birth, still birth, miscarriage, etc.	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.284'][cda:code/@code='63893-2']/cda:value/@code	Pregnancy Outcome urn:oid:2.16.840.1.113883.11.20.9.86 https://vsac.nlm.nih.gov/valueset/expansions?pr=all&rel=Latest&q=2.16.840.1.113883.11.20.9.86	SHALL
Pregnancy Observation (SUPPLEMENTAL PREGNANCY) 2.16.840.1.113883.10.20.22.4.293	Pregnancy Outcome Date ***Version 3.1 only***	Date on which the pregnancy outcome occurred.	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.284'][cda:code/@code='63893-2']/cda:effectiveTime/@value		SHALL

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Social History Observation (V3) 2.16.840.1.113883.10.20.22.4.38	Social history: alcoholism, current smoker, drug use, sexual history	Questions bearing on a patient's behavior, achievement, and exogenous health factors	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.38']/cda:value/@code	Social History type oid: 2.16.840.1.113883.6.96 https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.80.60/expansion	SHOULD
Social History Section (V3) 2.16.840.1.113883.10.20.22.4.200	Patient Birth Sex†	The patient's biological sex (not gender)	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.200'][cda:code/@code='76689-9']/cda:value/@code	ONC Administrative Sex urn:oid:2.16.840.1.113762.1.4.1 https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1/expansion	SHALL| **[SHOULD]**
Social History Section (V2) 2.16.840.1.113883.10.20.22.4.200	Gender Identity† (Different from Administrative Gender Code and Patient Birth Sex) ***Version 3.1 only***	The patient's gender identity, e.g. male, female, transwoman, transman	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.34.3.45'][cda:code/@code='76691-5']/cda:value/@code	Gender Identity urn:oid:2.16.840.1.113762.1.4.1021.32 https://vsac.nlm.nih.gov/valueset/2.16.840.1.113762.1.4.1021.32	SHALL
Social History Section (V2) 2.16.840.1.113883.10.20.22.4.109	Living Accommodation† e.g., Homeless ***Version 3.1 only***	Patient's home situation	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.109'][cda:code/@code='75274-1']/cda:value/@code	Residence and Accommodation Type urn:oid:2.16.840.1.113883.11.20.9.49 https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.11.20.9.49/expansion	SHALL| **[SHOULD]**

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Social History Section (V3) 2.16.840.1.113883.10.20.15.2.3.1	Travel History	This is a free text section with the potential to capture patient's travel history, purpose of travel, dates of travel, locations of travel, details of transportation (ship, plane, etc.)	//cda:act[cda:templateId/@root='2.16.840.1.113883.10.20.15.2.3.1'][cda:code/@code='420008001']/cda:text		MAY
Social History Section (V3) 2.16.840.1.113883.10.20.15.2.3.1	Travel History Dates	Arrival (low) and departure (high) dates to a location	//cda:act[cda:templateId/@root='2.16.840.1.113883.10.20.15.2.3.1'][cda:code/@code='420008001']/cda:effectiveTime/cda:low/@value //cda:act[cda:templateId/@root='2.16.840.1.113883.10.20.15.2.3.1'][cda:code/@code='420008001']/cda:effectiveTime/cda:high/@value		SHALL
Social History Section (V3) 2.16.840.1.113883.10.20.15.2.3.1	Travel History Location†	Coded location where patient visited	//cda:act[cda:templateId/@root='2.16.840.1.113883.10.20.15.2.3.1'][cda:code/@code='420008001']/cda:participant/cda:participantRole/cda:code/@code	Geographic location history 2.16.840.1.114222.4.11. 3201 http://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3201	MAY
Social History Section (V3) 2.16.840.1.113883.10.20.15.2.3.1	Travel History City	City visited by patient	//cda:act[cda:templateId/@root='2.16.840.1.113883.10.20.15.2.3.1'][cda:code/@code='420008001']/cda:participant/cda:participantRole/cda:addr/cda:city		SHOULD

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Social History Section (V3) 2.16.840.1.113883.10.20.15.2.3.1	Travel History State	State visited by patient	//cda:act[cda:templateId/@root='2.16.840.1.113883.10.20.15.2.3.1'][cda:code/@code='420008001']/cda:participant/cda:participantRole/cda:addr/cda:state	StateValueSet urn:oid:2.16.840.1.113883.3.88.12.80.1 https://ushik.ahrq.gov/ViewItemDetails?system=mdr&itemKey=86669000	SHOULD
Social History Section (V3) 2.16.840.1.113883.10.20.15.2.3.1	Travel History Country	Country visited by patient	//cda:act[cda:templateId/@root='2.16.840.1.113883.10.20.15.2.3.1'][cda:code/@code='420008001']/cda:participant/cda:participantRole/cda:addr/cda:country	Country urn:oid:2.16.840.1.113883.3.88.12.80.63 http://hl7.org/fhir/ValueSet/iso3166-1-2	SHOULD
Occupational Data for Health Template Requirements Section (V2) 2.16.840.1.113883.10.20.22.2.17 Social History Section (V3) [STU 1.1) 2.16.840.1.113883.10.20.22.4.38	Current Occupation†	Current patient occupation.	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.38'][cda:code/@code='364703007']/cda:value/@code	Social History Type urn:oid:2.16.840.1.113883.3.88.12.80.60 Occupation Value Set https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.113883.3.88.12.80.60	SHOULD
Occupational Data for Health Template Requirements Section (V2) 2.16.840.1.113883.10.20.22.2.17	Current Industry† ***Version 3.1 only***	Type of business (industry) in which the subject currently holds a job.	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.217'][cda:code/@code='11341-5']/cda:value/@code	Occupation CDC Census 2010 urn:oid:2.16.840.1.114222.4.11.7186 https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7186	SHOULD

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Occupational Data for Health Template Requirements Section (V2) 2.16.840.1.113883.10.20.22.2.17	Current Employer Name ***Version 3.1 only***	Name of patient's current employer.	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.217'][cda:code/@code='11341-5']/cda:participant[@typeCode='IND']/cda:participantRole/cda:playingEntity/cda:name		SHOULD
Occupational Data for Health Template Requirements Section (V2) 2.16.840.1.113883.10.20.22.2.17	Current Employer Phone‡ ***Version 3.1 only***	Phone number of patient's current employer	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.217'][cda:code/@code='11341-5']/cda:participant[@typeCode='IND']/cda:participantRole/cda:telecom/@value	"WP" value="tel: +1-XXX-XXX-XXXX"	SHOULD
Occupational Data for Health Template Requirements Section (V2) 2.16.840.1.113883.10.20.22.2.17	Current Employer Street Address ***Version 3.1 only***	Address of patient's current employer	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.217'][cda:code/@code='11341-5']/cda:participant[@typeCode='IND']/cda:participantRole/cda:addr/cda:streetAddressLine		SHOULD
Occupational Data for Health Template Requirements Section (V2) 2.16.840.1.113883.10.20.22.2.17	Current Employer City ***Version 3.1 only***	Street address of current employer	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.217'][cda:code/@code='11341-5']/cda:participant[@typeCode='IND']/cda:participantRole/cda:addr/cda:city		SHOULD
Occupational Data for Health Template Requirements Section (V2) 2.16.840.1.113883.10.20.22.2.17	Current Employer State ***Version 3.1 only***	State of patient's current employer	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.217'][cda:code/@code='11341-5']/cda:participant[@typeCode='IND']/cda:participantRole/cda:addr/cda:state	StateValueSet https://ushik.ahrq.gov/ViewItemDetails?system=mdr&itemKey=86669000	SHOULD

† Coded

‡ Special Format (needs to adhere to special format)

CDA Document/ Section	Variable name	Description	XPath	Value Set/Code System OID Required	Conformance CDA|DPH
Occupational Data for Health Template Requirements Section (V2) 2.16.840.1.113883.10.20.22.2.17	Occupational Exposure ***Version 3.1 only***	Actual contact or interaction with a specific hazard that increases an individual's risk of a detrimental physical or mental health outcome.	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.22.4.215']/cda:value		SHALL
Social History Section (V2) 2.16.840.1.113883.10.20.22.4.109	Exposure/ Contact Information† ***Version 3.1 only***	Potential patient exposure and contact information (risk indicator)	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.15.2.3.52']/cda:code/@code	Exposure Setting (COVID-19) urn:oid:2.16.840.1.114222.4.11.7942 https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.7942 Exposure Location urn:oid:2.16.840.1.114222.4.11.3209 https://phinvads.cdc.gov/vads/ViewValueSet.action?oid=2.16.840.1.114222.4.11.3209 Social History Type urn:oid:2.16.840.1.113883.3.88.12.80.60 https://vsac.nlm.nih.gov/valueset/2.16.840.1.113883.3.88.12.80.60/expansion	SHOULD
Emergency Outbreak Information 2.16.840.1.113883.10.20.15.2.3.40	Emergency Outbreak Information† ***Version 3.1 only***	Information that is required during a public health emergency/outbreak (risk indicator)	//cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.15.2.3.40']/cda:code //cda:observation[cda:templateId/@root='2.16.840.1.113883.10.20.15.2.3.40']/cda:code/cda:originalText	LOINC=83910-0 Public Health Note	MAY

† Coded

‡ Special Format (needs to adhere to special format)

Additional resources

Implementation guides

HL7 CDA® R2 Implementation Guide: Public Health Case Report, Release 2 STU Release 1.1–US Realm; HL7 Standard for Trial Use

HL7 CDA® R2 Implementation Guide: Public Health Case Report - the Electronic Initial Case Report (eICR) Release 2, STU Release 3.1 - US Realm; Vol 1-Introductionary Material

HL7 CDA R2 Implementation Guide: Reportability Response, Release 1, STU Release 1.0- US Realm

RCKMS content release materials

https://www.rckms.org/content-repository/

List of Conditions available in RCKMS and release notes

Appendix A:

CT DPH Healthcare Organization eCR Implementation Checklist		
	Yes	**Comments & Resources**
Step 1: HCO Obtain Documents Needed and Determine Readiness for eCR Implementation		
HCO downloads HL7 CDA® R2 Implementation Guide: Public Health Case Report, Release 2 STU Release 3.1 – US Realm*	☐	HL7.org
HCO determines EHR vendor readiness for eCR	☐	Consults with CT DPH if needed
HCO obtains CT DPH eICR Local Implementation Guide	☐	DPH.ECRInformatics@ct.gov
HCO reviews AIMS Readiness and Implementation Checklist AIMS	☐	Readiness and Implementation Checklist
HCO uploads latest eRSD package	☐	RCTC AIMS Platform
Step 2: HCO Complete Registration		
Register intent with CT DPH for eCR implementation	☐	CT DPH eCR registration
Referred by CT DPH to the CDC eCR now team to begin the process of onboarding and preliminary validation	☐	
Finish testing and preliminary validation with CDC	☐	
Step 3: CT DPH Testing and Validation		
CDC informs CT DPH and HCO that initial testing & validation is successful	☐	HCO in pre-production validation phase
CT DPH contacts HCO to begin local testing & validation	☐	Reportables being validated are determined by CT DPH and HCO
HCO/CT DPH review validation criteria for required fields	☐	CT eICR Local Guide, p.9, Table 1
≥ 95% of required fields submitted via eCR	☐	Patient demographics, laboratory criteria, diagnoses, problem list
≥ 90% of key clinical fields submitted via eCR	☐	Symptoms, discharge disposition, facility type/hospital unit
HCO sends case reports forms daily via RightFax	☐	CT DPH Reportable disease forms
eICR submitted ≤ 12 hours of the encounter date	☐	
eICR received ≥ manual reporting	☐	Comparison to paper reporting
HCO demonstrates continuous reporting during the evaluation period	☐	
CT DPH confirms message validation and accuracy	☐	
Step 4: Production eCR		
CT DPH approves the transition to production	☐	Not all conditions may be transitioned to production at the same time
CT DPH approves eliminating paper reporting	☐	Rare reportable conditions or those of immediate urgency will still require telephone notification to CT DPH

*DPH prefers HCOs implement eCR based on the HL7 CDA® R2 Implementation Guide: Public Health Case Report - the Electronic Initial Case Report (eICR) Release 2, STU Release 3.1 - US Realm; Vol 1 and Vol 2 but will accept agencies still working with version 1.1 with the intent to upgrade within one year.