CSTE

eCR Consensus Criteria : Completeness Thresholds for Priority Data Elements

Prepared by the CSTE eCR Consensus Criteria Workgroup

February 4, 2026

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Glossary

Acronym	Description
AIMS	APHL Informatics Messaging Services
APHL	Association of Public Health Laboratories
CDA	Clinical Document Architecture
CDC	Centers for Disease Control and Prevention
CSTE	Council of State and Territorial Epidemiologists
DQ	Data Quality
eCR	Electronic Case Reporting
EHR	Electronic Health Record
eICR	Electronic Initial Case Report
eRSD	Electronic Reporting and Surveillance Distribution
HCO	Healthcare Organizations
HL7	Health Level 7
HTML	Hypertext Markup Language
ICD10CM	International Classification of Diseases, Tenth Revision, Clinical Modification
LOINC	Logical Observation Identifiers, Names, and Codes
OID	Object ID
PHA	Public Health Agency
POC	Point-of-contact
QA	Quality Assurance
RCKMS	Reportable Condition Knowledge Management System
SNOMED	Systematized Nomenclature of Medicine
USCDI	US Core Data for Interoperability
XPath	XML Path Language
XML	Extensible Markup Language

Background and Scope of Workgroup

In February 2025, the Council of State and Territorial Epidemiologists (CSTE) convened the Electronic Case Reporting (eCR) Consensus Criteria Workgroup. Membership for this workgroup was solicited from the larger CSTE eCR Workgroup and public health agency (PHA) eCR contacts, with the goal of having representation from all jurisdictions participate. There are 55 jurisdictions currently participating in the workgroup. Direction and facilitation of this workgroup is provided by CSTE, the CSTE eCR Workgroup co-chairs, and eCR team members from the Centers for Disease Control and Prevention (CDC) and Association of Public Health Laboratories (APHL). Initial discussions and materials were supported by consultants from J Michael Consulting.

Electronic Case Reporting (eCR) is a joint effort of the Association of Public Health Laboratories (APHL), CSTE, and CDC, and these organizations play key roles in advancing eCR efforts across healthcare organizations, electronic health record (EHR) vendors and PHAs. eCR is a technology to deliver information electronically for certain diseases or health conditions from healthcare providers to public health, based on legal requirements in state, Tribal, local, and territorial jurisdictions. The real-time electronic exchange of case report information between healthcare and PHAs reduces the reporting burden on healthcare providers and provides timely and complete data to enable public health action. Many healthcare organizations (HCOs) and providers across the country are using eCR, and several EHR and Health IT products are available to support eCR implementation. There are several steps in the eCR implementation process for HCOs, EHR vendors, and public health agencies, facilitated by the CDC and APHL eCR teams.

The data exchange standard used by Healthcare Organizations (HCOs) for the transmission of eICR data is the *HL7 CDA® R2 Implementation Guide: Public Health Case Report*.[1] The eCR onboarding process for EHRs and HCOs is outlined in Exhibits 1 & 2, and consists of 3 main stages:

The eCR Onboarding Process

1. EHR Readiness Process
   - The eCR Consensus Criteria described in the following sections of this document will be applied during the EHR readiness process as both data quality expectations and as the minimum data elements that an EHR must support before beginning onboarding their customers for eCR and engaging with public health agencies.
   - If an EHR product does not support these necessary data elements, the eCR team will not continue working with that EHR product until they support all CSTE

Dealbreaker data elements since the absence of these elements may mean the data will not meet public health reporting needs.

2. Pre-Onboarding and AIMS Onboarding
   - HCOs must complete all necessary eCR setup activities, valueset/ laboratory mapping before onboarding begins. This means that the HCOs are responsible for completing all eCR setup activities and their own quality assurance (QA), and they should not rely on the eCR team for any data quality validation until these steps are completed. These activities may be coordinated with their EHR team.
     - Note: Some EHR products do not require extensive setup; HCOs may simply activate their eCR feed. However, these organizations may still encounter issues with laboratory data or data entry/ workflow, which will be documented in the Known Issues list.
   - Onboarding will only proceed with EHR products that have been pre-approved by public health agencies.
3. PHA Validation
   - Appendix A includes critical details for PHA Validation criteria and checklist requirements.
   - Each PHA will determine the method for routing eCR data into their surveillance system, as well as the approach they will use to conduct PHA Validation using the CSTE Consensus Criteria.
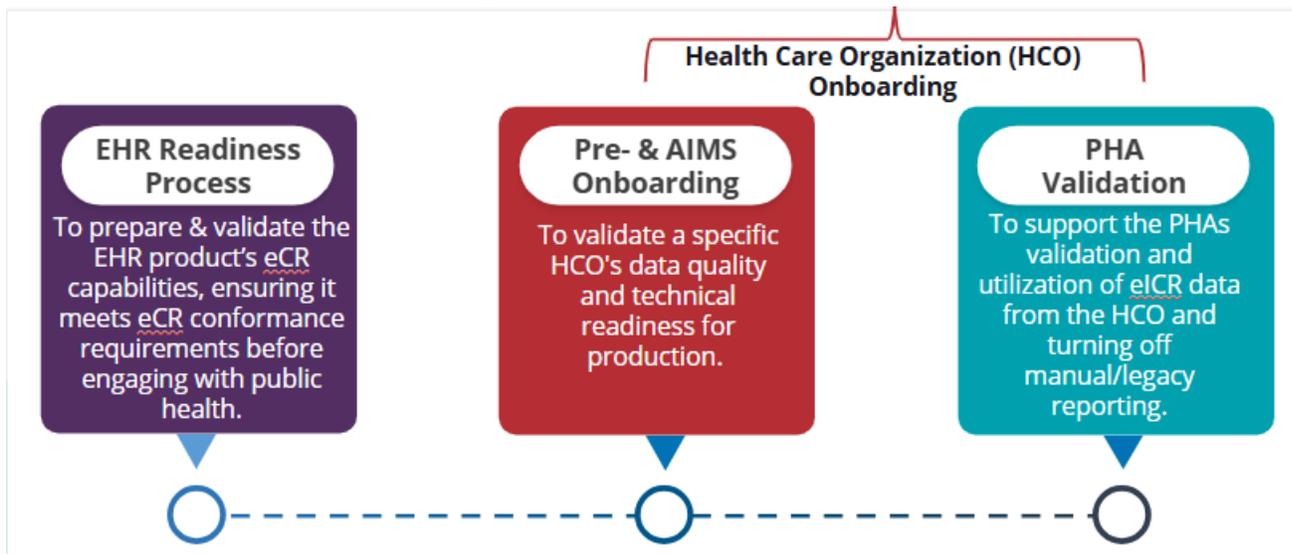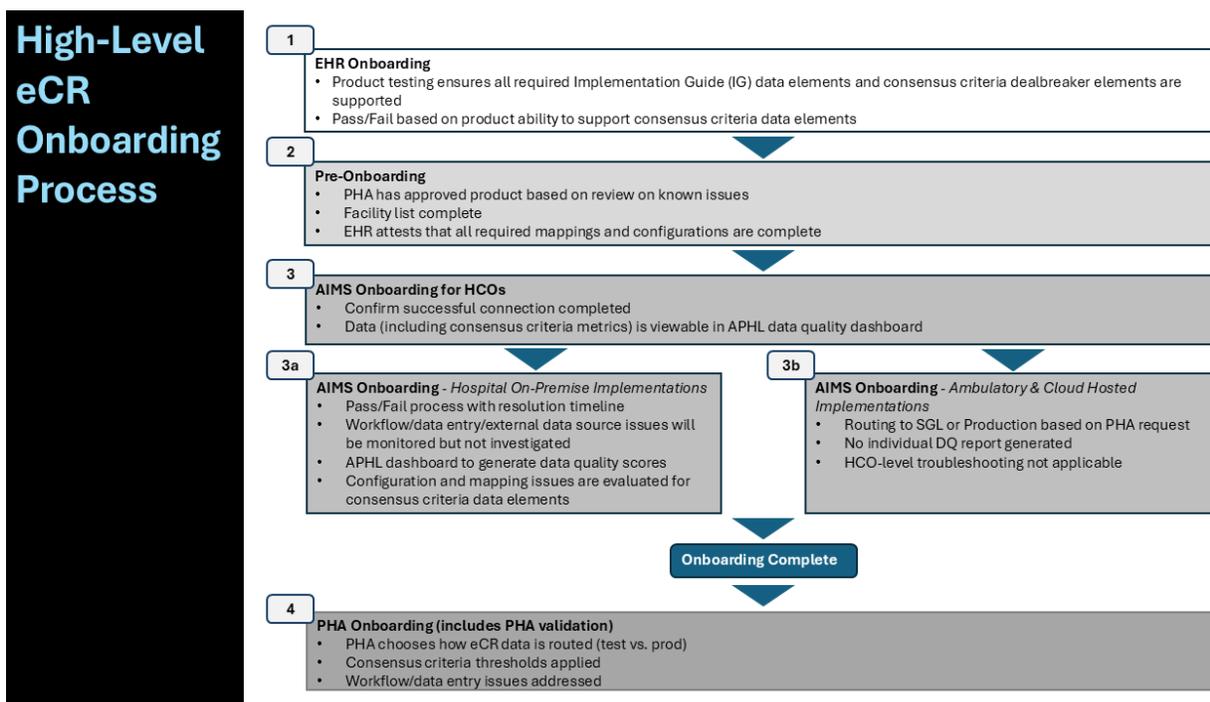
Exhibit 1. The New eCR Onboarding Process

Health Care Organization (HCO) Onboarding

EHR Readiness Process
To prepare & validate the EHR product's eCR capabilities, ensuring it meets eCR conformance requirements before engaging with public health.

Pre- & AIMS Onboarding
To validate a specific HCO's data quality and technical readiness for production.

PHA Validation
To support the PHAs validation and utilization of eICR data from the HCO and turning off manual/legacy reporting.

Exhibit 2: High-level eCR Onboarding process

High-Level eCR Onboarding Process

1
EHR Onboarding
- Product testing ensures all required Implementation Guide (IG) data elements and consensus criteria dealbreaker elements are supported
- Pass/Fail based on product ability to support consensus criteria data elements

2
Pre-Onboarding
- PHA has approved product based on review on known issues
- Facility list complete
- EHR attests that all required mappings and configurations are complete

3
AIMS Onboarding for HCOs
- Confirm successful connection completed
- Data (including consensus criteria metrics) is viewable in APHL data quality dashboard

3a
AIMS Onboarding - *Hospital On-Premise Implementations*
- Pass/Fail process with resolution timeline
- Workflow/data entry/external data source issues will be monitored but not investigated
- APHL dashboard to generate data quality scores
- Configuration and mapping issues are evaluated for consensus criteria data elements

3b
AIMS Onboarding - *Ambulatory & Cloud Hosted Implementations*
- Routing to SGL or Production based on PHA request
- No individual DQ report generated
- HCO-level troubleshooting not applicable

Onboarding Complete

4
PHA Onboarding (includes PHA validation)
- PHA chooses how eCR data is routed (test vs. prod)
- Consensus criteria thresholds applied
- Workflow/data entry issues addressed

The goals of this Workgroup were to develop consensus criteria for two distinct phases of the eCR onboarding process:

- EHR Readiness: For EHR products, these criteria will be used early in an EHR's readiness and product development process as a minimum set of requirements they must support to achieve General Availability

- HCO Onboarding: Thresholds will be incorporated into the eCR Data Quality Schematron and Data Quality Dashboard during Initial HCO implementation and go-live for PHA Validation. The goal of these criteria is to reduce the variation in PHA requirements for HCOs before go-live is approved.

These criteria are intended to create a floor of requirements that are consistently applied across the nation. The creation of a minimum set of requirements will encourage data quality improvement and standardize expectations for EHRs and HCOs. This initial set of requirements is intended to apply to new EHR and HCO onboardings, and further guidance needs to be developed for previously onboarded EHR products and HCOs.

Indicated Data Quality thresholds for completeness and other requirements are proposed for EHR product onboarding, initial HCO implementation and onboarding for PHA validation. The thresholds do not impact decisions on ending manual reporting. The PHA has the authority to determine what moves to production environments & the criteria for ending manual reporting may differ across PHAs.

To support the new onboarding process and implement the output from the eCR Consensus Criteria Workgroup, the eCR Data Quality Monitoring Dashboard is being developed to replace the legacy Data Quality Monitoring Report–previously a static, manually generated Excel snapshot. By providing continuous, self-service access to EHR vendors, HCOs, and PHAs, this tool translates the consensus criteria into actionable checks, thus enabling partners to instantly validate data against agreed-upon thresholds and deal breaker requirements. PHAs can utilize the dashboard to drive sustained improvements by leveraging features that automatically categorize errors and flag EHR known issues. These insights provide the necessary context to understand why a threshold was not met and determine if the root cause is resolvable during onboarding. This visibility empowers PHAs to move from reactive troubleshooting to proactive identification of data quality issues, facilitating faster resolution, and maintaining the integrity of eICR data long after the initial onboarding phase.

CSTE's role in this effort is to convene eCR partners to develop consensus driven criteria for eCR processes (via the eCR Consensus Criteria Workgroup)

- CSTE does not have authority to enforce adoption of protocols
- The products will be widely vetted amongst the CSTE community, particularly those within the Surveillance/ Informatics community
- Consensus is achieved when a majority of participating PHAs favorably agree with a product or criterion developed by the Workgroup

Methods

The Workgroup initially met February-July 2025 and then reconvened to meet biweekly November 2025 through January 2026. Input from workgroup members was gathered through group discussions, interactive polling during meetings, and shared Excel spreadsheets or polls between meetings. The 2025 eCR Summit in Atlanta, GA (May 6-7, 2025) provided an in-person opportunity for robust discussion around the identification of priority eICR data elements for public health surveillance.

For workgroup meeting discussions and polls, the guidelines used to determine consensus are shown below:

- 80% = Agreement met, no further discussion
- 50-80% = Further discussion and poll again
- <50% = No agreement

To establish data quality standards for transitioning HCOs to PHA Validation, APHL previously convened a Quality Assurance (QA) Workgroup to identify important data elements within the eICR and develop data quality rules related to their validity and completeness. This work identified three QA requirements: (1) data elements of public health importance within eICR, (2) evaluation criteria for each data element for implementation within a schematron, and (3) thresholds of the evaluation criteria that met public health expectations. Once agreed upon, the Data Quality (DQ) Schematron - a robust assessment tool that layers public health-specific rules on top of standard IG requirements - was created and implemented by APHL.[2]

The eCR DQ Monitoring Report (DQMR) was subsequently introduced to evaluate adherence to these QA requirements by utilizing the DQ Schematron's output to calculate scores and determine if data quality thresholds are met. This report enables HCOs, EHR vendors, the CDC Onboarding Team, and PHAs to understand, investigate, and resolve potential data quality issues. However, while the DQMRs have helped improve eICR data

and create visibility of data quality issues for all PHAs, no standard enforcement on meeting those thresholds occurred. A reevaluation of thresholds and priority data elements was conducted by the eCR Consensus Criteria Workgroup to incorporate newer eICR implementation guide version data elements available and identify 52 data elements that are critical for public health surveillance that all PHAs will require during onboarding and validation. These data elements have been defined by the Workgroup as "dealbreakers," meaning an HCO will not be able to move forward in the onboarding and validation process unless the stated requirements are met.

When developing the list of potential dealbreaker data elements there were five considerations that contributed towards a data element being identified as a potential dealbreaker:

- **Essential Public Health Functions:** Does the absence of this data directly impede core activities?
- **Data Quality and Reliability:** Does the absence or inaccuracy of this data compromise the overall quality and reliability of eCR data for public health action?
- **Legal:** Are there any legal mandates (e.g., state reporting laws) that require this data element?
- **US Core Data for Interoperability (USCDI) version 3 Alignment:** Is the data element included in the USCDI?
- **Feasibility and Implementation:** Is the data element realistically obtainable and manageable for HCOs to provide during the initial onboarding phase?
- **Essential for RCKMS rules functionality**

Consensus Criteria for EHR Readiness, HCO Onboarding and "go-live" for PHA Validation

Dealbreaker data element requirements for EHR Readiness, HCO onboarding and go-live for PHA validation are presented in Table 1. The column listing "New Threshold Requirement" contains completeness thresholds for data elements that must be present in eICRs from the HCO, and this can be evaluated utilizing the DQ report for HCO implementations. The threshold requirements range from 75%-95%, and were voted upon by the workgroup members based on trends of observed thresholds in current DQ reports for HCO implementations. The data elements with no threshold requirements will be assessed during EHR readiness to ensure EHR product capability to support the data element. For certain data elements, specifically for lab data and Patient Race/ethnicity data, there are some differences in ambulatory and inpatient facility data quality, and issues may be related to workflow or data entry. PHAs should review the Known EHR Issues reports on APHL Confluence to understand existing issues and track issue resolution.

Lab Data

- External reference labs do not consistently send back coded data to EHRs
- Large health care systems with in-house labs are generally setup to send back coded data
- Ambulatory practices working with external labs often manage lab mappings themselves, but some do not
- The eCR Team will commit to working with EHRs and CDC Lab teams to raise and resolve this issue across HCOs

For Race & Ethnicity, the eCR team will confirm ValueSet mappings during onboarding, and two scores will be shown on the Data Quality Dashboard (Allowing null flavors in score calculations & NullFlavors count against score). Workflow & data entry issues may require additional outreach to HCOs. For PHAs with legal/ statutory requirements for Race/ Ethnicity reporting, additional follow up may be required with HCOs and eCR teams.

IMPORTANT: The dealbreaker data element requirements presented in Table 1 are **required by public health agencies**. If any of these data elements are not supported, public health may not accept data from sending organizations.

Table 1. Consensus Criteria "Dealbreaker" Data Element Requirements for EHR Readiness, HCO Onboarding and "go-live" for PHA Validation

Note: In the "New Threshold Requirement" column, "Present at x%" means that the data element will be present x% of the time in eICRs based on observed metrics in data quality reports. These values represent draft requirements agreed upon by the eCR Consensus Criteria Workgroup

KEY	95% Threshold	80% Threshold	75% Threshold	No Threshold

eICR Section	Data Elements	IG Conformance Statement Number*	New Threshold Requirement***	XPath
Encounter	Date of Diagnosis (Encounter)	1198-8715	Present at 95%	//encounter[templateId/@root='2.16.840.1.113883.10.20.22.4.49']/effectiveTime /low
Encounter	Diagnoses (Encounter)	1198-9058	Present at 95%; Utilizing SNOMED CT or ICD10CM	//encounter[templateId/@root='2.16.840.1.113883.10.20.22.4.49']/entryRelationship/act[templateId/@root='2.16.840.1.113883.10.20.22.4.80']/entryRelationship/observation[templateId/@root='2.16.840.1.113883.10.20.22.4.4']/value
Encounter	Encounter Disposition	1198-32176	No Threshold- Must be EHR product supported to be present when available in the encounter	//encounter[templateId/@root='2.16.840.1.113883.10.20.22.4.49']/sdtc:dischargeDispositionCode
Encompassing Encounter	Discharge Date/Time	R1.1: 3284-21 R3.1.1: 4527-21	No Threshold- Must be EHR product supported	/ClinicalDocument/componentOf/encompassingEncounter/effectiveTime/high

eICR Section	Data Elements	IG Conformance Statement Number*	New Threshold Requirement***	XPath
Encompassing Encounter	Encompassing Encounter Type (Code)	R1.1: 3284-4 R3.1.1: 4527-4	Present at 95%; Valid Code	/ClinicalDocument/componentOf/encompassingEncounter/code
Encompassing Encounter	Facility Address	R1.1: 3284-32 R3.1.1: 4527-32	3.1.1: Present at 95%; Utilizing state abbreviation	/ClinicalDocument/componentOf/encompassingEncounter/location/healthCareFacility/location/addr
Encompassing Encounter	Facility ID Number	R1.1: 3284-13 R3.1.1: 4527-13	3.1.1: Present at 95%	/ClinicalDocument/componentOf/encompassingEncounter/location/healthCareFacility/id
Encompassing Encounter	Facility Name	R3.1.1: 4527-1149	3.1.1: Present at 95%	1.1: /ClinicalDocument/componentOf/encompassingEncounter/location/healthCareFacility/serviceProviderOrganization/name 3.1.1: /ClinicalDocument/componentOf/encompassingEncounter/location/healthCareFacility/location/name
Encompassing Encounter	Facility Type/Hospital Unit	R1.1: 3284-14 R3.1.1: 4527-14	3.1.1: Present at 95%; Utilizing correct value set	/ClinicalDocument/componentOf/encompassingEncounter/location/healthCareFacility/code
Encompassing Encounter	Healthcare Organization Address	R1.1: 3284-126 R3.1.1: 4527-126	3.1.1: Present at 95%; Utilizing state abbreviation	/ClinicalDocument/componentOf/encompassingEncounter/location/healthCareFacility/serviceProviderOrganization/addr
Encompassing Encounter	Healthcare Organization ID	R3.1.1: 4527-1147	3.1.1: Present at 95%	/ClinicalDocument/componentOf/encompassingEncounter/location/healthCareFacility/serviceProviderOrganization/id

eICR Section	Data Elements	IG Conformance Statement Number*	New Threshold Requirement***	XPath
Encompassing Encounter	Healthcare Organization Name	R1.1: 3284-33 R3.1.1: 4527-33	3.1.1: Present at 95%	3.1.1: /ClinicalDocument/componentOf/encompassingEncounter/location/healthCareFacility/serviceProviderOrganization/name
Encompassing Encounter	Provider Address	R1.1: 3284-27 R3.1.1: 4527-27	Present at 80%; Utilizing state abbreviation	/ClinicalDocument/componentOf/encompassingEncounter/responsibleParty/assignedEntity/representedOrganization/addr
Encompassing Encounter	Provider Name	R1.1: 3284-25 R3.1.1: 4527-25	Present at 80%	/ClinicalDocument/componentOf/encompassingEncounter/responsibleParty/assignedEntity/assignedPerson/name
Encompassing Encounter	Provider Phone	R1.1: 3284-26 R3.1.1: 4527-26	Present at 80%	/ClinicalDocument/componentOf/encompassingEncounter/responsibleParty/assignedEntity/telecom/[tel:]
Encompassing Encounter	Visit Start (outpatient) and Admission (inpatient) Date/Time	R1.1: 3284-20 R3.1.1: 4527-20	Present at 95%	/ClinicalDocument/componentOf/encompassingEncounter/effectiveTime/low
Header	Custodian Address**	1198-5525	No Threshold- Must be EHR product supported	/ClinicalDocument/custodian/assignedCustodian/representedCustodianOrganization/addr
Header	Custodian ID**	1198-5522	No Threshold- Must be EHR product supported	/ClinicalDocument/custodian/assignedCustodian/representedCustodianOrganization/id
Header	Custodian ID – Extension**	1198-5522	No Threshold- Must be EHR product supported	/ClinicalDocument/custodian/assignedCustodian/representedCustodianOrganization/id/extension
Header	Custodian Name**	1198-5524	No Threshold- Must be EHR product supported	/ClinicalDocument/custodian/assignedCustodian/representedCustodianOrganization/name

eICR Section	Data Elements	IG Conformance Statement Number*	New Threshold Requirement***	XPath
Header	Date of the Report	1198-5256	Present at 95%	/ClinicalDocument/effectiveTime
Header	Document ID	1198-5363	Present at 95%	/ClinicalDocument/id
Header	Set ID	R1.1: 1198-5261 R3.1: 4527-460	Present at 95%	/ClinicalDocument/setId
Header	Version Number	R1.1: 1198-5264 R3.1.1: 4527-461	Present at 95%	/ClinicalDocument/versionNumber
Immunizations	Immunization Date	1198-8834	No Threshold- Must be EHR product supported	//substanceAdministration[templateId/@root='2.16.840.1.113883.10.20.22.4.52']/effectiveTime
Immunizations	Immunization Vaccine Code	1098-9007	No Threshold- Must be EHR product supported; Value Set OID is CVX or RXNORM	//manufacturedProduct[templateId/@root='2.16.840.1.113883.10.20.22.4.54']/manufacturedMaterial/code
Medications	Medication Administered (list)	1098-7412	No Threshold- Must be EHR product supported; Value Set OID is RXNORM	//manufacturedProduct[templateId/@root='2.16.840.1.113883.10.20.22.4.23']/manufacturedMaterial/code
Medications	Medication Administration Time	1098-7508	No Threshold- Must be EHR product supported	//substanceAdministration[templateId/@root='2.16.840.1.113883.10.20.22.4.16']/effectiveTime[ivl_ts]
Patient	Date of Death	R1.1: 3284-106 R3.1.1: 4527-106	No Threshold- Must be EHR product supported	/ClinicalDocument/recordTarget/patientRole/patient/sdtc:deceasedTime
Patient	Death Indicator	R1.1: 3284-306 R3.1: 4527-404	No Threshold- Must be EHR product supported	/ClinicalDocument/recordTarget/patientRole/patient/sdtc:deceasedInd

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eICR Section	Data Elements	IG Conformance Statement Number*	New Threshold Requirement***	XPath
Patient	Ethnicity	1198-5323	No Threshold- Must be EHR product supported Two scores will be shown on the Data Quality Dashboard. • Allowing null flavors in score calculations • NullFlavors count against score	//recordTarget/patientRole/patient/ethnicGroupCode
Patient	Patient Address	R1.1: 3284-147 R3.1.1: 4527-147	Present at 95%; Utilizing state abbreviation	/ClinicalDocument/recordTarget/patientRole/addr
Patient	Patient Birth Date	1198-5298	Present at 95%; No mapping issues	/ClinicalDocument/recordTarget/patientRole/patient/birthTime
Patient	Patient Gender	1198-6394	Present at 95%; Valid code	/ClinicalDocument/recordTarget/patientRole/patient/administrativeGenderCode
Patient	Patient ID	R1.1: 3284-146 R3.1.1: 4527-146	Present at 95%	/ClinicalDocument/recordTarget/patientRole/id
Patient	Patient Name	R1.1: 1198-5284 R3.1.1: 4527-595	Present at 95%	/ClinicalDocument/recordTarget/patientRole/patient/name
Patient	Patient Phone	1198-5280	Present at 80%	/ClinicalDocument/recordTarget/patientRole/telecom[tel:]
Patient	Language Code (was Preferred Language)	1198-5407	No Threshold- Must be EHR product supported	/ClinicalDocument/recordTarget/patientRole/patient/languageCommunication/languageCode

eICR Section	Data Elements	IG Conformance Statement Number*	New Threshold Requirement***	XPath
Patient	Race	1198-5322	No Threshold- Must be EHR product supported Two scores will be shown on the Data Quality Dashboard. • Allowing null flavors in score calculations • NullFlavors count against score	//recordTarget/patientRole/patient/race
Problems	Date of Diagnosis (Problem List)	1198-9030	Present at 95%	//act[templateId/@root='2.16.840.1.113883.10.20.22.4.3']/effectiveTime
Problems	Date of Onset (Problem List)	1198-15603	No Threshold- Must be EHR product supported	/ClinicalDocument/component/structuredBody/component/section[templateId/@root='2.16.840.1.113883.10.20.22.2.5.1']/entry/act/entryRelationship/observation[templateId/@root='2.16.840.1.113883.10.20.22.4.4']/effectiveTime/low/
Problems	Diagnosis (Problem List)/ Symptom (list)	1198-9058	Present at 95%	/ClinicalDocument/component/structuredBody/component/section[templateId/@root='2.16.840.1.113883.10.20.22.2.5.1']/entry/act/entryRelationship/observation/value
Reason for Visit	Reason for Visit	81-7839	No Threshold- Must be EHR product supported	//section[templateId/@root='2.16.840.1.113883.10.20.22.2.12']/text
Results	Result Observation Code (Lab Code -resulted)	1198-7133	Present at 75% when Results template present; LOINC codes utilized	//observation[templateId/@root='2.16.840.1.113883.10.20.22.4.2']/value/code

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eICR Section	Data Elements	IG Conformance Statement Number*	New Threshold Requirement***	XPath
Results	Result Observation Interpretation	1198-7147	No Threshold- Must be EHR product supported	//observation[templateId/@root='2.16.840.1.113883.10.20.22.4.2']/interpretationCode
Results	Result Observation Reference Range	1198-7150	No Threshold- Must be EHR product supported	//observation[templateId/@root='2.16.840.1.113883.10.20.22.4.2']/referenceRange
Results	Result Observation Value (Laboratory Result)	1198-7143	Present at 75% when Results template present	//observation[templateId/@root='2.16.840.1.113883.10.20.22.4.2']/value
Results	Specimen Collection Date	3378-329	No Threshold- 3.1.1: Must be EHR product supported	//procedure[templateId/@root='2.16.840.1.113883.10.20.22.4.415']/effectiveTime****
Results	Specimen ID	3378-462	No Threshold- 3.1.1: Must be EHR product supported	//participant[templateId/@root='2.16.840.1.113883.10.20.22.4.410']/participantRole/id****
Results	Specimen Source	3378-330	No Threshold- 3.1.1: Must be EHR product supported	//procedure[templateId/@root='2.16.840.1.113883.10.20.22.4.415']/targetSiteCode****
Results	Specimen Type	3378-460	No Threshold- 3.1.1: Must be EHR product supported	//participant[templateId/@root='2.16.840.1.113883.10.20.22.4.410']/participantRole/code****

eICR Section	Data Elements	IG Conformance Statement Number*	New Threshold Requirement***	XPath
Social History	Pregnancy Value (Pregnancy status) or Pregnant	81-457 81-26460	No Threshold - Must be EHR product supported	//observation[templateId/@root='2.16.840.1.113883.10.20.22.4.293']/value Or //observation[templateId/@root='2.16.840.1.113883.10.20.15.3.8']/value

*Note: Each constraint within the eICR implementation guide is identified by a unique number (e.g., CONF:86-7345). The digits before the hyphen identify which implementation guide the template belongs to, and the number after the hyphen is unique to the owning implementation guide. Together, these two numbers uniquely identify each constraint.

**The fields used to identify the HCO sending data are inconsistently implemented across EHR platforms and inconsistently utilized across surveillance systems. Standardization of this across all senders and receivers is important to work towards.

*** All "New Threshold Requirement" values are requirements agreed upon by the eCR Consensus Criteria Workgroup

**** Subject to change: Alternative XPath options may be added in the future.

Application of Consensus Criteria with Previously Onboarded HCOs

HCOs that have previously been approved for go-live and are considered "In Production" from PHA Validation may not meet all the Consensus Criteria requirements outlined in this document. A barrier to working with existing HCOs on data quality is that the DQ Schematron is not available to easily run on HCOs that are past the SGL stage of onboarding. Addressing data quality issues with existing implementers may not be feasible for PHAs without local tools, and the creation or adoption of new local tools is not realistic for some PHAs with current resource challenges.

	PHA	CDC	APHL	CSTE
Actionable Opportunities for Application of Consensus Criteria with Previous Onboarded HCOs	Consider strategies for encouraging currently onboarded HCOs to align with the Consensus Criteria	Socialize the Consensus Criteria with EHR vendors and begin discussions on what is needed to achieve alignment	Development of shared tools (DQ Dashboard) that allow for data quality assessment by enabling HCOs, EHR vendors, and PHAs to collaboratively monitor data quality and ensure ongoing adherence to the new Consensus Criteria. Socialize the Consensus Criteria with EHR vendors and begin discussions on what is needed to achieve alignment	Reconvene the eCR Consensus Criteria Workgroup to develop a plan for how PHAs can engage with currently onboarded HCOs and encourage alignment with the Consensus Criteria

Ongoing Maintenance of the eCR Consensus Criteria

The work reflected in this document is intended to be an initial set of Consensus Criteria that represent a minimum floor of requirements. It reflects the baseline needs of public health and considers the existing data quality issues and opportunities present in eCR implementations with EHR vendors. These criteria are intended to be evaluated and updated over time as revisions occur to the implementation guide or USCDI, as public health data needs change, and as additional data elements are able to be supported more broadly across EHR platforms.

Contingent on availability of funding to support these activities, the eCR Consensus Criteria Workgroup can be reconvened to discuss the addition of new data element requirements or adjust thresholds in current requirements.

	PHA	CDC	APHL	CSTE
Actionable Opportunities for Ongoing Maintenance of Consensus Criteria	Participate in Workgroup discussions and provide input on draft documentation as able	Assist with Workgroup discussions and provide input for draft documentation as able	Assist with Workgroup discussions and provide input for draft documentation as able	Reconvene the eCR Consensus Criteria Workgroup as needed for revisions of the dealbreaker requirements

References

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3. Assistant Secretary for Technology Policy. *United States Core Data for Interoperability (USCDI)*. n.d. 5 June 2025. <https://www.healthit.gov/isp/united-states-core-data-interoperability-uscdi>.

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Maine Centers for Disease Control and Prevention	Jana Meredith
Maryland Department of Health	Helen Karn
Massachusetts Department of Public Health	Molly Crockett Tara Fleckner Kaleigh Carney
Michigan Department of Health and Human Services	Rutendo Goto Lindsay Leigh Deb Loniewski
Minnesota Department of Health	Jacqueline Cassman
Missouri Department of Health and Senior Services	Angela McKee
Montana Department of Public Health and Human Services	Kristen Merrell
Nebraska Department of Health and Human Services	Fnu Kanishka
Nevada Division of Public and Behavioral Health	Erica Ruud Theron Huntmer
New Hampshire Department of Health and Human Services	Corinne Davis Myron Lizak
New Jersey Department of Health	Li Kuang
New Mexico Department of Health	Stephanie Moberg
New York City Department of Health and Mental Hygiene	Rachel Corrado Kripa Patel
New York State Department of Health	Jacquelin Griffin Charleen Cox
North Carolina Department of Health and Human Services	Mackenzie Hackney Renika Kenan Xue Zhang
North Dakota Health and Human Services	Lakin Mauch-Kath Jill Hanson
Ohio Department of Health	Matt Belcher Anya Martin John Hubbard
Oklahoma State Department of Health	Lori Walker
Oregon Health Authority	Jennifer Young Heather Crawford
Pennsylvania Department of Health	Michael Eberhart
Puerto Rico Department of Health	Xavier Muniz
Santa Clara County Public Health Department	Lindsay Horn
South Carolina Department of Public Health	Katie Platt Anthwan Braumuller
South Dakota Department of Health	Chris Dumas
Southern Nevada Health District	Hannah parsons Prut Udomwattawee Lei Zhang Greg Lang
Tennessee Department of Health	Marisa Hopper Angelique Harding

	Hardik Patel Nathan Williams Justine Maxwell
Texas Department of State Health Services	Lucille Palenapa Steve Eichner
Tule River Indian Health Center, Inc.	Eric Coles
Utah Department of Health and Human Services	Teri Bills
Vermont Department of Health	Katie Jones
Virginia Department of Health	Antoine Ward Nan Haugan Jeff Rubinos Merylyn Huitz Logan Smith Katie Gallant
Washington State Department of Health	Mariana Rosenthal
Wisconsin Department of Public Health	Sara Mader
Wyoming Department of Health	Cori Herzberger
Centers for Disease Control and Prevention	Laura Conn Melinda Thomas Sarah Sobonya Rob Brown Nicole Fagan
Association of Public Health Laboratories	Joel Hartsell Kailah Davis Jessica Acharya
Council of State and Territorial Epidemiologists	Gillian Haney Shaily Krishan Shahidah Williams Devra Barter
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Appendix A.

Other Criteria for PHA Validation

While defining dealbreaker data elements monitored by the DQ Schematron, it was identified that certain important data quality criteria for PHAs could not be added to the Schematron, including:

- Evaluation of string or HTML in the narrative text
- Evaluation of string content to identify bad data, e.g., provider = "Test Provider"
- Correlation between data elements (e.g. If x condition then look for y medication)
- Dynamic evaluation where validation rules need to evolve based on changing data requirements

These criteria were incorporated into the **eCR Validation Checklist** (as shown below) as guidelines developed by the eCR Consensus Criteria Workgroup. These items may be evaluated during PHA Validation at the discretion and capability of the PHA.

eCR Validation Checklist

- ☐ The HCO must be triggering on all conditions (all triggers), using the most recent version of the Electronic Reporting and Surveillance Distribution (eRSD). The HCO must implement Diagnosis and Lab Result triggering and must implement all other trigger types that the EHR is currently capable of, with agreement to work towards the other trigger types.
- ☐ EHR/ HCO must maintain the latest version of the eCR Now FHIR App in alignment with their EHR release cycle, when appropriate.
- ☐ Public Health requires the use of Health Level 7 (HL7) electronic initial case report (eICR) and Reportability Response (RR) standards for electronic case reporting (eCR)**.** Please ensure that your Electronic Health Record (EHR) product is capable of supporting the HL7 implementation guides shown below:
  - HL7 Clinical Document Architecture (CDA) implementation guides (https://www.hl7.org/implement/standards/product_brief.cfm?product_id=436)
    - eICR R3.1.1 (HL7 CDA® R2 Implementation Guide: Public Health Case Report - the Electronic Initial Case Report (eICR) Release 2, STU Release 3.1.1 - US Realm)
    - RR R1.1 (HL7 CDA® R2 Implementation Guide: Reportability Response, Release 1, STU Release 1.1 - US Realm)

- o HL7 Fast Healthcare Interoperability Resources (FHIR) Implementation Guide (http://hl7.org/fhir/us/ecr/STU2.1)
  - FHIR eCR R2.1.2 (HL7 FHIR® Implementation Guide: Electronic Case Reporting (eCR), Release 2.1.2 - US Realm)
- ☐ The HCO must provide a list of all the unique facilities/clinics that are going live and their respective point-of-contacts (POCs).
- ☐ The unique facility and HCO that the eICR is sent from must be identifiable in that eICR.
- ☐ The PHA will request/HCO will provide the naming convention for registration of patients without a name upon initial intake (e.g., Jane Doe).
- ☐ The PHA will request/HCO will provide documentation on how addresses are recorded when unknown, such as homelessness.
- ☐ The PHA and HCO agree upon a follow-up communication process.
- ☐ The PHA will inform the HCO of a start date that their data will be consumed by PHA surveillance systems and turning off manual/legacy reporting.
- ☐ The PHA will inform the HCO of any reportable condition that cannot be sent via eCR.
- ☐ HCOs/EHRs must closely align to AIMS trigger timing guidance, or have a good reason for not being able to align (as determined through conversation between the HCO and PHA).
- ☐ The EHR/ HCO must work with the eCR team and PHAs to resolve all schema violations (e.g., incorrect code, OID).
- ☐ Lab test results MUST be transmitted using LOINC codes for identification of the resulted test. For lab orders, the HCO should continue to work towards the use of LOINC codes.
- ☐ The HCO key contact(s) must confirm receipt and access to Reportability Responses (or have an alternative way to track what is being reported – this information will not be requested from the PHA).
- ☐ EHRs must include the EHR name, product number (or FHIR App Version), within the eICR document to support PHAs in identifying and troubleshooting issues.

Appendix B.

Summary of open comment period and disposition on comments received

- The eCR consensus criteria documentation was distributed for open comment (January 21-January 30, 2026) to several CSTE distribution lists: Electronic Laboratory & Disease Reporting Subcommittee, eCR Workgroup & eCR consensus criteria workgroup, State Epidemiologists; including posting the information on related CSTE Connect communities.

- The feedback was collected via a Smartsheet form, and respondents were asked to review the eCR consensus criteria documentation to indicate agreement/ disagreement with proposed metrics, and share other feedback in case of disagreement. Respondents were also given the opportunity to indicate if any data elements are missing from the proposed criteria, and offer any general comments.

- Overall, 35 responses were received throughout the open comment period, and a majority of respondents agreed with all the criteria presented. There were 8 respondents that provided comments on disagreement with some criteria presented, and these are addressed in the eCR team disposition section below.

National eCR Team Disposition on comments received (by eICR section)

The *italicized blue text* in sub-bullets indicate the national eCR team's responses based on the comments received. Please note that the responses are based on feasible approaches given the current landscape of known data quality (DQ) metrics. The eCR onboarding team will continue to monitor DQ reports to make iterative improvements to the completeness thresholds where feasible in future versions of the eCR Consensus Criteria.

Original comment (s) have intentionally not been provided to protect the confidentiality of responses received. Please contact Shaily Krishan (skrishan@cste.org) if you need more details.

Encompassing Encounter Section

- Discharge Date/Time (No Threshold):

  o *The eCR onboarding team will verify that EHR products support this data element, and it is present when available in an encounter. Based on current/ observed Data Quality (DQ) reports, a threshold is not feasible due to ambulatory providers not sending this consistently.*

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- Facility ID Number, Facility Name, Healthcare Organization ID, Healthcare Organization Name - 95% threshold

  - *Based on observed DQ metrics, EHRs support all data elements referenced for parent organization & facility, and data quality is expected to improve as providers transition to eICR 3.1.1.*

- Visit Start & Admission date/time (95% threshold):

  - *This information is within the same data element & consistently populated in current DQ reports.*

- Facility Address (95% threshold) & Provider Address (80% threshold)

  - *Incorporating logic that checks if either one of these data elements meets the 95% threshold is not feasible at this time, both data elements should be present at the proposed thresholds. The eCR team will consider this recommendation as more DQ reports become available over the next few months.*

Header Section

- Date of the Report, Document ID, Set ID, Version Number (95% threshold)

  - *These data elements are consistently populated in observed DQ reports, and used by several PHAs in eCR ingestion workflows. There are a few discrepancies in 1.1 vs 3.1.1 eICR metrics, however we recommend that the thresholds remain at 95%, as these are consistently populated close to 100% in eICRs.*

- Custodian Address, Custodian ID, Custodian ID – Extension, Custodian Name (no threshold)

  - *We acknowledge that Custodian-related data elements may not always be populated, however the eCR onboarding team will verify that EHR products support the custodian data elements, and that they present when available in an encounter. The eCR team will track DQ metrics for custodian data elements, and will prioritize this review for a future version of the eCR Consensus Criteria.*

Medications Section

- Medication Administration Time (No threshold)

o *The eCR onboarding team will verify that EHR products support this data element and that it is coded for RX NORM which is needed for reportable conditions trigger codes to function appropriately. The eCR onboarding team will communicate mapping/ vocabulary issues to EHRs, and continue to examine DQ report trends for this data element, to propose reasonable thresholds for a future version of the eCR Consensus Criteria.*

Patient Section

- Patient Race, Patient Ethnicity, Date of Death, Death Indicator (No threshold)

  o *Patient Race/ Ethnicity data are impacted by data entry and workflow issues and not collected consistently in HCOs. The eCR onboarding team will verify that EHR products support these data elements, and DQ dashboard scores will check for mapping/ value set issues for null/ no null flavors for patient race & ethnicity. Both scores are needed to confirm correct mapping of these data elements. For PHAs with legal/ statutory requirements for Race/ Ethnicity reporting, additional follow up may be required with HCOs to indicate that the race/ ethnicity data elements are required.*

  o *Facilities may not receive Date of death/ death indicator, but these data are more likely be included if it is an inpatient encounter. The eCR onboarding team will examine DQ report trends for these data elements to propose reasonable thresholds for a future version of the eCR Consensus Criteria.*

Results Section

- Specimen Collection Date, Specimen ID, Specimen Source, Specimen Type (no threshold)

  o *eICR IG conformance will be tested at EHR readiness for "SHALL" data elements. Specimen data elements are in the eICR 3.1.1, the eCR onboarding team will verify that EHR products support these data elements, and will examine DQ report trends for these data elements as more providers move to 3.1.1 eICR in order to propose reasonable thresholds for a future version of the eCR Consensus Criteria.*

- Result Observation Code & Result Observation Value (75% threshold)

  o *The thresholds for these data elements were lowered due to known differences in completeness thresholds for ambulatory vs inpatient providers. During workgroup discussions, it was noted that it would be unrealistic to raise thresholds with observed DQ metrics. The eCR Team will*

commit to working with EHRs and CDC Lab teams to raise and resolve this issue across HCOs, and will examine DQ report trends for these data elements to propose reasonable thresholds for a future version of the eCR Consensus Criteria.

Reason for Visit Section

- Reason for visit (No threshold)

  - *This field is a part of the newer version (2.0) of the DQ report, and there are limited data to assess completeness threshold trends. The eCR onboarding team will verify that EHR products support these data elements, and examine DQ report trends for these data elements to propose reasonable thresholds for a future version of the eCR Consensus Criteria.*

Social History Section

- Pregnancy Value (Pregnancy status) (No threshold)

  - *The eCR onboarding team will verify that EHR products support these data elements, and examine DQ report trends for these data elements to propose reasonable thresholds for a future version of the eCR Consensus Criteria. There are some known DQ challenges with pregnancy related data elements; however estimated delivery date, pregnancy status are supported by most EHR vendors.*

General Notes

- The dealbreaker data element requirements are required to be met during several EHR and HCO onboarding stages for eCR. The eCR onboarding processes will continue to be built out with additional detail after the eCR Consensus Criteria are finalized and published. Future work will be done to update EHR/ HCO Onboarding checklists, in alignment with information on PHA websites.

- Future efforts will include identifying the priority schema errors and these can be added to the eCR Consensus Criteria and EHR/ HCO Onboarding checklists.