

The Office of the National Coordinator for
Health Information Technology



Public Health – EHR Vendors Collaboration Initiative
Webinar

Electronic Case Reporting (eCR)
Standards Update

February 20, 2018

Putting the **I** in Health **IT**
www.HealthIT.gov



<https://www.cdc.gov/ehrmeaningfuluse/public-health-ehr-vendors-collaboration-initiative.html>

Meaningful Use

- Meaningful Use
- Introduction
- Calendar
- Connect with Others -
- CDC Meaningful Use ListServ
- Meaningful Use Community -
- Public Health - EHR Vendors Collaboration Initiative**
- Joint Public Health Forum & CDC Nationwide
- Meaningful Use (MU) Public Health (PH) Reporting Requirements Task Force
- Community of Practice (CoP)
- ELR Task Force +
- Jurisdiction Meaningful Use Websites
- S & I Framework
- Reportable Conditions Knowledge Management System
- External Links

Meaningful Use

CDC > Meaningful Use > Connect with Others > Meaningful Use Community

Public Health - EHR Vendors Collaboration Initiative

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In Focus

Special Session # 7-Zika Virus Disease Update

Coming Up! Special Session # 7: Zika Virus Disease Update for Electronic Health Record (EHR) Vendors, Health Information Technology Developers, Public Health, and Clinical Healthcare Partners on Nov 2, 2016 1:00 PM- 2:00 PM EDT

Please pre-register for the webinar by clicking the link below:

<https://attendee.gotowebinar.com/register/3504905897385264131>

Abstract

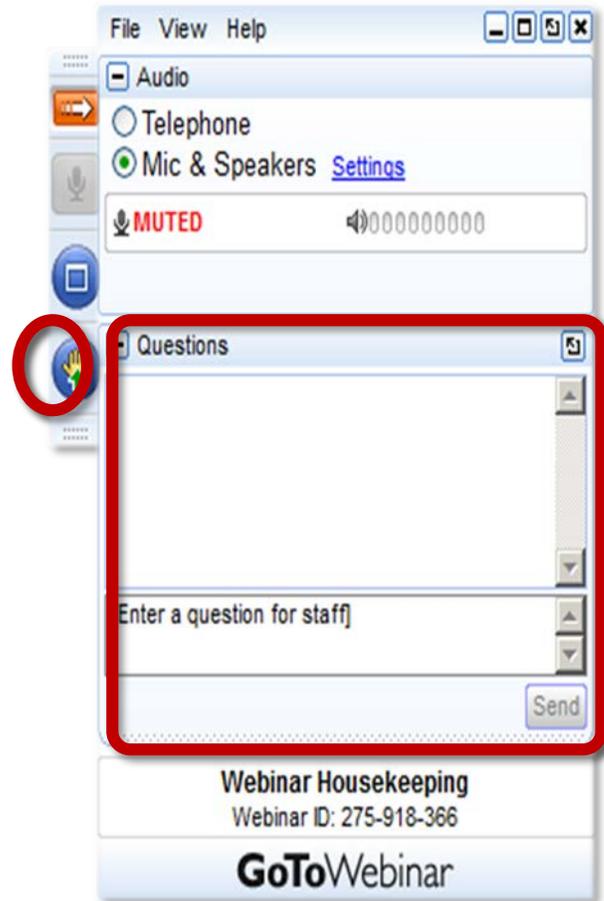
This webinar will be focused on the recommendations around Ask at Order Entry (AOE)* for pregnancy status in Zika virus (ZIKV) laboratory test orders with the possibility of a broader discussion on the capture of pregnancy status in electronic health records, per the clinical workflow and an update on the algorithm for ZIKV risk assessment in pregnant women, based on the latest Centers for Disease Control and Prevention (CDC) guidelines.

Terms explained-

* Ask at Order Entry (AOE)-Some tests, such as microbiology cultures and those that determine heavy metal ion concentration, require additional

Question and Answer Session

How to submit or ask questions for the panel members?



Submit or Ask Questions

- Submit your text question and comments using the Question Panel
- Please raise your hand to be unmuted for verbal questions.

Electronic Case Reporting (eCR) Standards Update

Laura Conn MPH

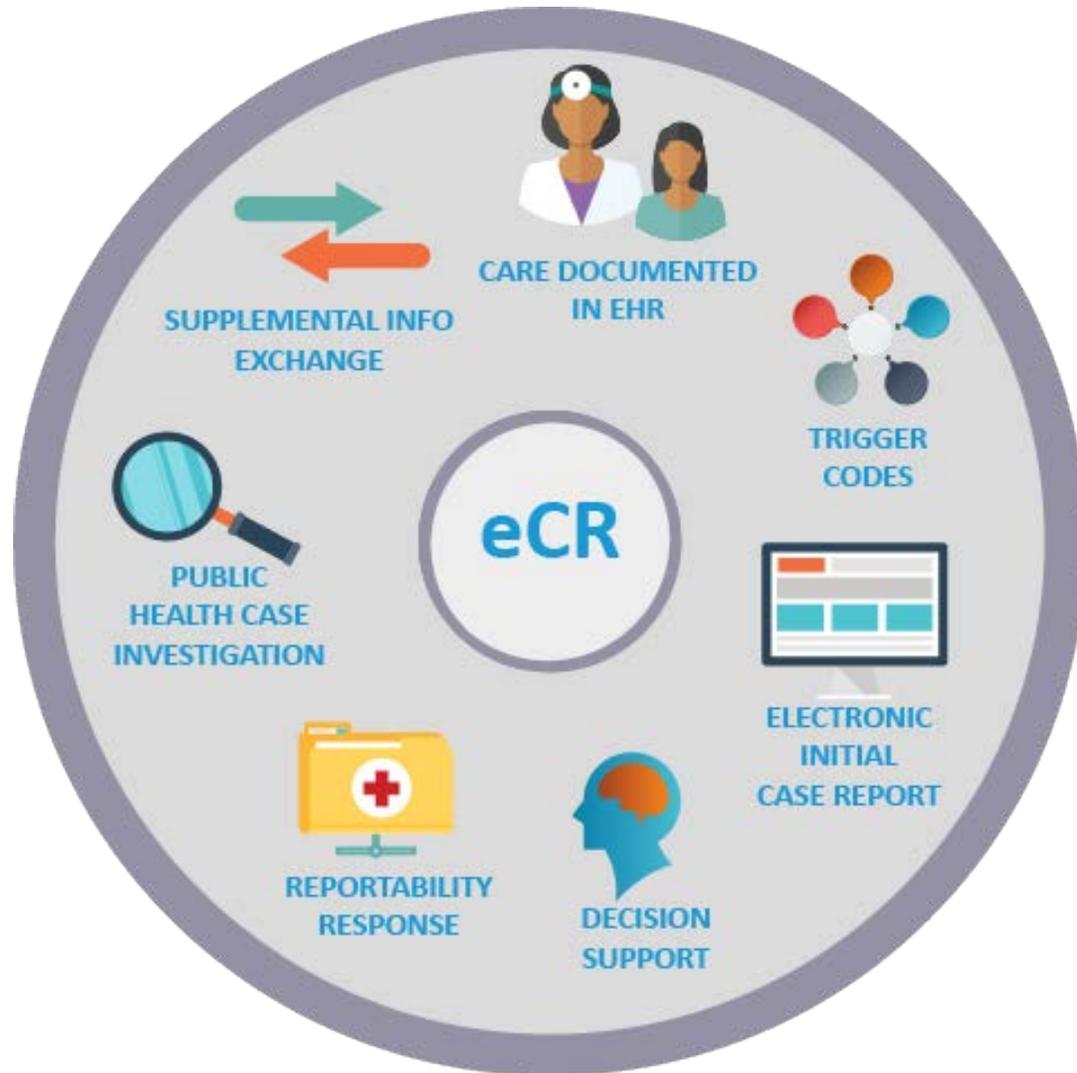
CDC and Co-Chair Digital Bridge eCR Implementation Taskforce

John W. Loonsk MD FACMI

eCR lead HL7, Consultant APHL, CMIO CGI Federal

February, 2018

What is Electronic Case Reporting (eCR)?



The automated generation and transmission of case reports from electronic health records to public health agencies for review and action.

eCR Standards Status

Clinical
Care

Public
Health

- Electronic Initial Case Report (eICR) Release 1.1
 - HL7 eICR CDA – first published 6/2016
 - APHL supports on-line eICR document validation site
 - Example CDA documents are available
 - HL7 FHIR – draft data specification provided for comment
- Reportability Response (RR) Release 1.0
 - HL7 Reportability Response CDA – published 1/2018
 - Example CDA documents are available
 - HL7 FHIR – draft data specification provided for comment



Store and Forward
“Push”



Store and Forward
“Push”

eCR Standards Status

- Trigger codes (RCTC)
 - Excel spreadsheet available from PHIN VADS
 - HL7 FHIR – value set bundle and subscription service reviewed and tested in HL7 Connectathon
- More complex distributable reporting rules
 - Questions and planning in HL7 “For Comment” ballot
- Supplemental data
 - Demonstration using RFD/SDC URI standard at 2018 HIMSS Showcase

Clinical
Care

Public
Health



Download
At Setup



Web Form

Electronic Initial Case Report (eICR)

- Initial data on reportable conditions
- Automated transmission
 - From EHRs to APHL AIMS platform and on to Public Health Agencies (PHAs)
 - From EHRs to PHAs
- Manually initiated when requested by provider
- Routine and emergency use cases
 - Monitor disease trends
 - Manage potential cases in outbreaks



Electronic Initial Case Report (eICR) v1.1 - Value

Clinical Care / EHR Vendors

- Reduced reporting burden – automated
- Can address legal reporting requirements
- C-CDA Templates – easy to implement
- All jurisdiction, all condition – vs. ~200 different per PHA
- Focused, consistent interoperability target

Public Health

- Processable clinical care data
- Can be variably populated based on available data, but when data available uses consistent format
- Increased reporting yield, more complete, more timely data
- Critical clinical data not in lab results
- Travel history
- Plans to add pregnancy and eventually possibly other data

Electronic Initial Case Report (eICR) Data

History of Present Illness

Reason for Visit

Date of Onset

Diagnoses

Date of Diagnosis

Symptoms

Laboratory Results

Laboratory Order Code

Placer Order Number

Medications Administered

Immunization Status

Death Date

Patient's Travel History

Travel History Start Date

Travel History End Date

Text Description of Travel

Travel Location Code

Travel Location Address

Hospital Unit

Visit Date/Time

Admission Date/Time

Discharge Date

Patient Class

Patient ID Number

Patient Name

Parent/Guardian Name

Patient or Parent/Guardian Phone

Patient or Parent/Guardian Email

Street Address

Birth Date

Patient Sex

Race

Ethnicity

Preferred Language

Occupation

Pregnant

Date of the Report

Report Submission Date/Time

Sending Application

Trigger Condition Codes

HL7 Document ID

SetID and Version Number

Provider ID

Provider Name

Provider Phone

Provider Fax

Provider Email

Provider Facility/Office Name

Provider Facility/Office Name

Provider Address

Facility ID Number

Facility Name

Facility Type

Facility Phone

Facility Address

Facility Fax

Reportability Response

- One sent to clinical care for each eICR
- Narrative for provider / reporter when appropriate and machine processable data for EHR System Administrators (errors and warnings, etc.)
- Returned to clinical care the way the eICR was sent
- Can be sent to Public Health Agency for their use as well



Reportability Response (RR) v1.0 - Value

Clinical Care / EHR Vendors

- Confirmation of reporting
 - Place of care
 - Place of patient's residence
- Supports bidirectional communication
- Opportunity for actionable next steps in the context of the jurisdiction, the patient, and the condition(s)
- Viewable, queueable document

Public Health

- Connect responsible public health agency with provider / reporter
- Express / launch necessary next steps and enable follow-up
 - Specimen collection
 - Isolation and care
 - Supplemental data retrieval / investigation

Base Reportability Response

Reportability Response Function

Confirmation of receipt and reportability status for electronic processing

Present reportability message for reporter / provider when needed

Optional Uses

Reportability Response Function

Additional data request for possible case

Condition / outbreak specific instructions or requests

Additional resources as on PHA web pages

Subject:

Public Health Reporting Communication: one or more conditions are reportable, or may be reportable, to public health.

Summary:

Your organization electronically submitted an initial case report to determine if reporting to public health is needed for a patient. "Zika virus" is reportable to "Local Department of Health". An initial case report was sent to "State HIE". Additional information may be required for this report.

"Zika virus" for "Local Department of Health"

Reporting is required within "24 hours". Reporting to this Public Health Agency is based on "both patient home address and provider facility address".

Local mosquito-borne Zika virus transmission was reported in your area. Increased watchfulness for symptoms of Zika virus in your patients is warranted. (Immediate action requested)

Zika has particular risks for pregnant women. Follow-up guidance for pregnant women and couples who are planning pregnancy. ([Link](#) - Immediate action requested)

Further Laboratory testing for Zika may be needed. Guidance for additional testing and specimen collection ([Link](#) - Action requested)

If you have additional questions regarding Zika or reporting, the Local Department of Health can be reached at 800 555-5555 or here. ([Link](#) - Information only)

Additional Resources (Information only):

Control and prevention information for providers ([Link](#))

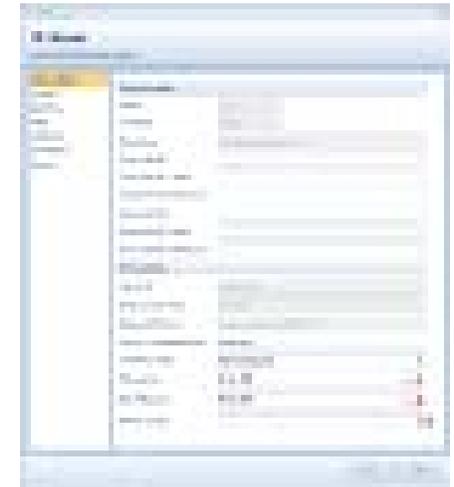
Prevalence in State ([Link](#))

CDC webpage ([Link](#))

Patient information factsheet ([Link](#))

Supplemental Data Demonstration

- Data not found in eICRs
 - May not be recorded in standard way as a part of care
 - Entry into a web form
 - Public health condition and investigation questions
 - Is variable by condition and jurisdiction, but is accommodated in form entry
 - URL in Reportability Response
 - Minimizes EHR integration needs
 - Eventually, in FHIR, some may be a supplement in the “push” transaction – e.g. for specialty EHRs



FHIR Futures - Transactions

- Fast Health Interoperability Resources (FHIR) are both data and transaction standards
- Major focus on RESTful queries, but “push messaging” is a part of FHIR API also
- Public health has relied heavily on “push messaging”
 - Reporting events begin in clinical care
 - Interorganizational queries and external dependencies have historically not been well received by clinical organizations / systems
- FHIR subscription service and value set bundle
 - XML or JSON representation of trigger codes – easier to manage
 - Email, SMS, other notifications, no FHIR needed on EHR side
- FHIR infrastructure offers possibilities for API – based rules engine (CDS Hooks, SMART on FHIR, FHIR EHR subscription) and CQL – based rules definition language



FHIR Futures - Data

- Conservation of FHIR resources enables more reuse (and hence less manual entry) in data supply chain
- Industry needs to consider CDA and FHIR roles and timing – two timeframes: 1) starting support of new and 2) ending support of old standards
- eICR and Reportability Response – pretty straightforward mappings
- Possible to use transforms between standards – both ways
- Working to lay out a path forward that cuts through the hype and builds on CDA accomplishments



Conclusions

- Case reporting is required by law in every state and territory
 - Regardless of federal regulation need to support
- Implement CDA eICR and RR now
 - Easy to implement, can help prevent fragmentation of requirements going forward
 - Readily transformable to FHIR when industry is ready
- Opportunity to continue to facilitate eCR for EHR vendors and PHAs
 - Partner in HL7 eCR Connectathon Track

Questions?