

The Office of the National Coordinator for  
Health Information Technology



# Electronic Laboratory Reporting at the Texas Department of State Health Services

November 20, 2018

Putting the **I** in **Health IT**  
[www.HealthIT.gov](http://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

[f](#) [t](#) [+](#)

### 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**

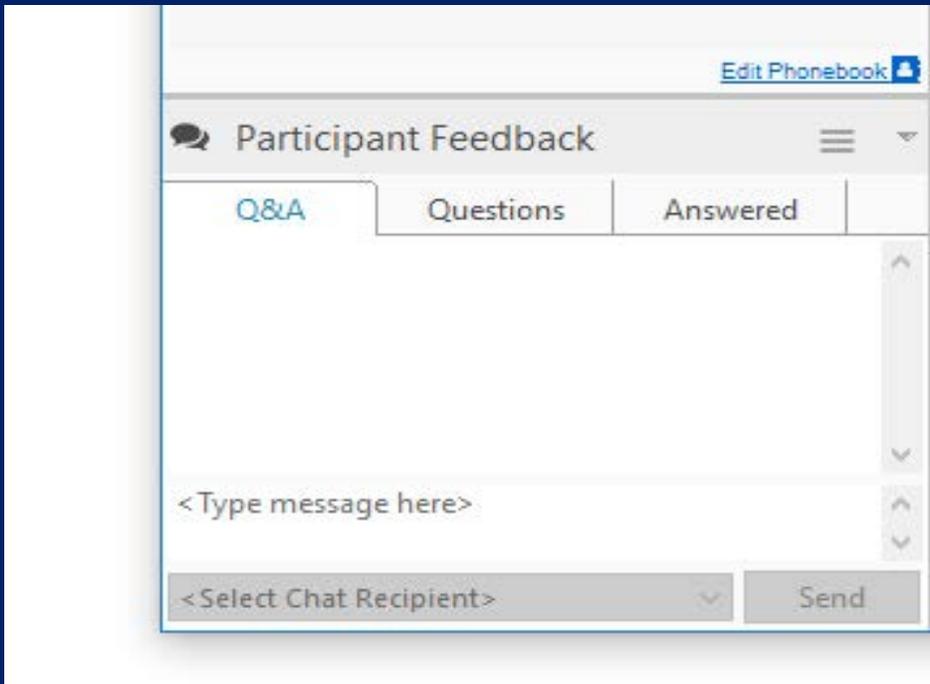
This webinar will be focused on the recommendations around Ask at Order Entry (AOE)\* for pregnancy status in Zika virus (ZIKV) laboratory test orders with the possibility of a broader discussion on the capture of pregnancy status in electronic health records, per the clinical workflow and an update 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 in Ready Talk 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.



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# **Electronic Laboratory Reporting at the Texas Department of State Health Services**

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**Improving Data and Reducing Provider Effort**

# Public Health and Electronic Data Exchange



Texas Department of State Health Services

- The Department of State Health Services (DSHS) is working to update its information systems to support the electronic exchange of protected health information (PHI).
- House Bill 2641, 84<sup>th</sup> Legislative Session, directs Health and Human Services agencies to use standards developed by accredited standards development organizations for exchanging PHI, or be interoperable with national standards for electronic health records, for all new information systems planned or procured September 1, 2015 or later.

# What is Electronic Laboratory Reporting (ELR)?



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ELR is the electronic transmission from laboratories to public health of laboratory reports which identify reportable conditions.

<http://www.cdc.gov/ehrmeaningfuluse/elr.html>

# ELR and *Promoting Interoperability* Programs



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Hospitals seeking to meet the ELR measures in the Centers for Medicare and Medicaid Services' Meaningful Use (now *Promoting Interoperability*) programs need to provide messages with ELR information, generated by Certified Electronic Health Record Technology (CEHRT) to the appropriate public health authority.

# What Does ELR Accomplish?



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- Enables automated reporting from laboratory's information systems to public health on a daily basis with little to no regular human interaction with the IT system.
- Provides public health with necessary data to understand and control the spread of contagious diseases and other health conditions.

# What Gets Exchanged with Public Health?



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- Laboratory information
- Testing information for notifiable conditions
- Provider information
- Patient-identifying information

# Where does the Reportable Test List Come From?



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- Core condition list developed in collaboration with the Council of State and Territorial Epidemiologists.
- May vary slightly state-to-state.
- Available on the DSHS web page.
- Different conditions have different reporting windows.
- DSHS currently supports multiple reporting channels.

# DSHS, Local Health Departments, and Data Reporting



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- DSHS' ELR service extends across much of the state
- Harris County, Houston, and Tarrant are examples of other jurisdictions in Texas that may directly receive ELR data. That data will be reported to DSHS consistent with applicable law.

# What Hospitals/Hospital Organizations Participate?



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<i>ELR Status</i>	<i>Number</i>	<i>Percent of Total</i>
Registered	82	14.4
Excluded	3	0.5
Pre-testing	151	26.4
Testing	62	10.9
Acceptance Testing	80	14.0
Production	193	33.8
<b>Total</b>	<b>571</b>	<b>100.0</b>

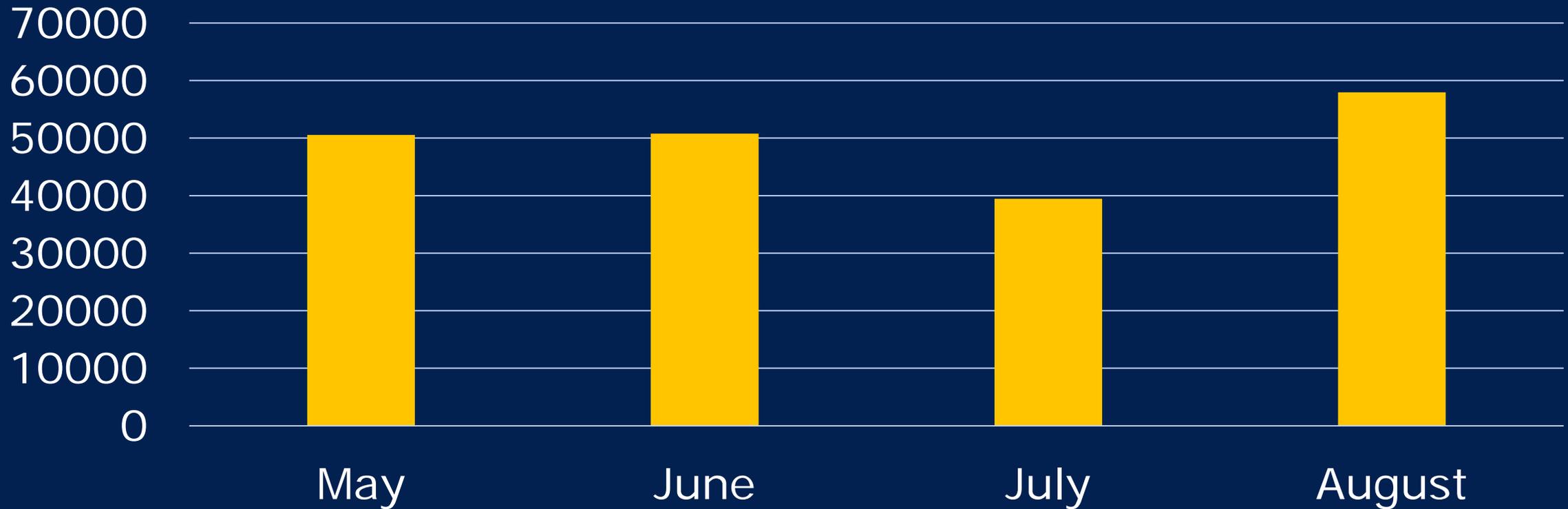
# Message Volume



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## ELRs Submitted



# Five Steps to Production



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- Registration
- Pretesting
- Testing
- Acceptance Testing
- Production

# Step One- Registration of Intent

- The DSHS' NEDSS team will set up an initial planning meeting to discuss the on-boarding process with the facility.
- Representative from the facility should include infection prevention and control staff, terminology experts, and IT staff/vendors with system integration expertise.

# Step Two- Pretesting



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- Facility must proceed with **vocabulary mapping and validation with DSHS**. The facility will complete the ELR vocabulary mapping worksheet provided by DSHS.
- The link to the vocabulary mapping spreadsheet can be found at [Texas ELR Vocabulary Mapping Worksheet, Reportable Conditions Mapping Tables \(RCMT\), and Specimen Type SNOMED Value Set](#).

# Step Three- Testing



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- Facility will develop and generate HL7 messages for specific conditions that conform to the HL7 Implementation Guide: Electronic Laboratory Reporting.
- The facility will pretest their message(s) using the National Institute of Standards and Technology (NIST) [validation tool](#).
- Examples of result types to be tested include:
  - Coded result (CWE),
  - Numeric result,
  - Titer result, and
  - Structured numeric result.
- After the facility has met the message applicable criteria, they will contact DSHS to set up a secure message transport system.

# Step Four- Acceptance Testing/Onboarding



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The facility will begin to send live production batch transmission of messages to DSHS for structure and content validation.

# Step Five- Production



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- Once an eligible hospital has completed validation, they will receive an acknowledgement of their success and be placed into production status.
- Facility will continue to send batch messages to DSHS for validation.
- DSHS will work with the facility to conduct **parallel validation**, a process whereby the Subject Matter Experts (SMEs) at DSHS will perform gap analysis to compare the data submitted into DSHS NEDSS with the content of the paper laboratory report to make sure the content are similar and synonymous.
- Any issues with parallel validation will be discussed with the facility for appropriate action.
- Once parallel validation is concluded, DSHS will inform the facility when to discontinue paper submission of reportable disease events.

# What Programs Does ELR Serve?



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- NEDSS- National Electronic Disease Surveillance System
  - Data in NEDSS is available to local health departments across Texas to conduct disease investigations.
  - Data is also directed to CDC from NEDSS.
- Texas Cancer Registry
- HIV
- STD
- Tuberculosis
- Blood Lead (Adult and child)

# Next Steps



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- DSHS is working with the Texas Health Services Authority (THSA) and health information exchanges across Texas to support ELR through the HIE network in Texas.
- Health Services Gateway is being established as a single channel for message exchange with the Health and Human Services Commission and the Department of State Health Services.
- DSHS is exploring new tools to assist providers in mapping SNOMED and LOINC codes.

# Summary

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- Public health is continuously improving the electronic exchange of health data.
- ELR is a key tool for getting critical information to advance public health.
- Considerable focus is on reducing provider burden while ensuring public health receives necessary information.
- The use of Certified Electronic Health Record Technology will help reduce effort to utilize ELR.
  - Challenges are what content is used for certain elements in messaging standards.
- DSHS has a documented process for onboarding.
- Further improvements are being planned.



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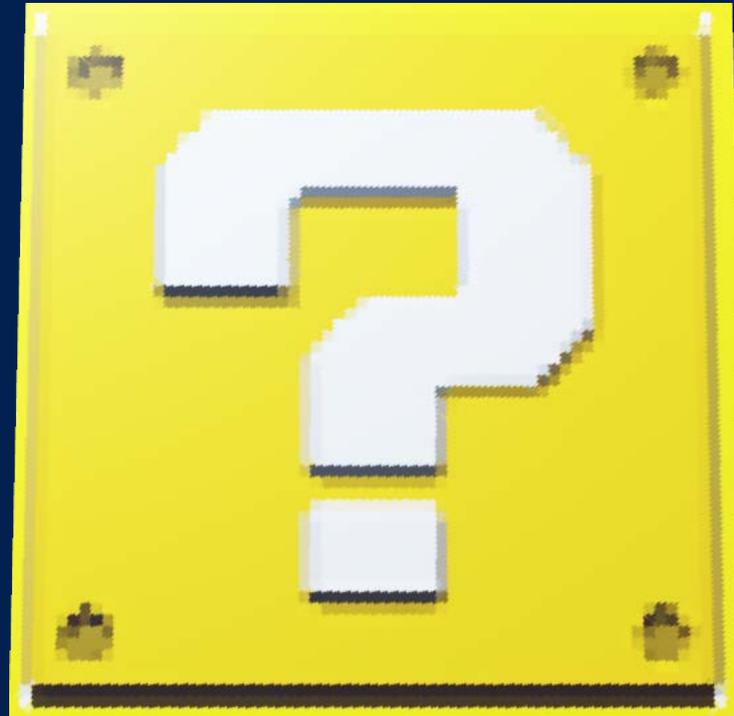
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# Questions



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# Thank you!

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