

The Office of the National Coordinator for
Health Information Technology



The Fight against Zika: Leveraging Health IT

Joint Public Health Forum & CDC
Nationwide
Webinar
April 18, 2017

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

Joint Public Health Forum & CDC Nationwide

<http://www.cdc.gov/ehrmeaningfuluse/joint-public-health-forum-cdc-nationwide.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

Joint Public Health Forum & CDC Nationwide

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

Community Profile

The Office of the National Coordinator for Health IT (ONC) and the Centers for Disease Control & Prevention (CDC) jointly sponsor this initiative, which features monthly webinars to foster collaboration amongst the public health jurisdictions across the nation, in response to the widespread adoption of electronic health records (EHRs) for Meaningful Use.

The objectives for this initiative include:

- Identify common questions and concerns around meaningful use
- Provide updates on federal partner activities in preparing for meaningful use
- Allow public health jurisdictions to share useful practices and current progress
- Identify technical assistance needs and priorities

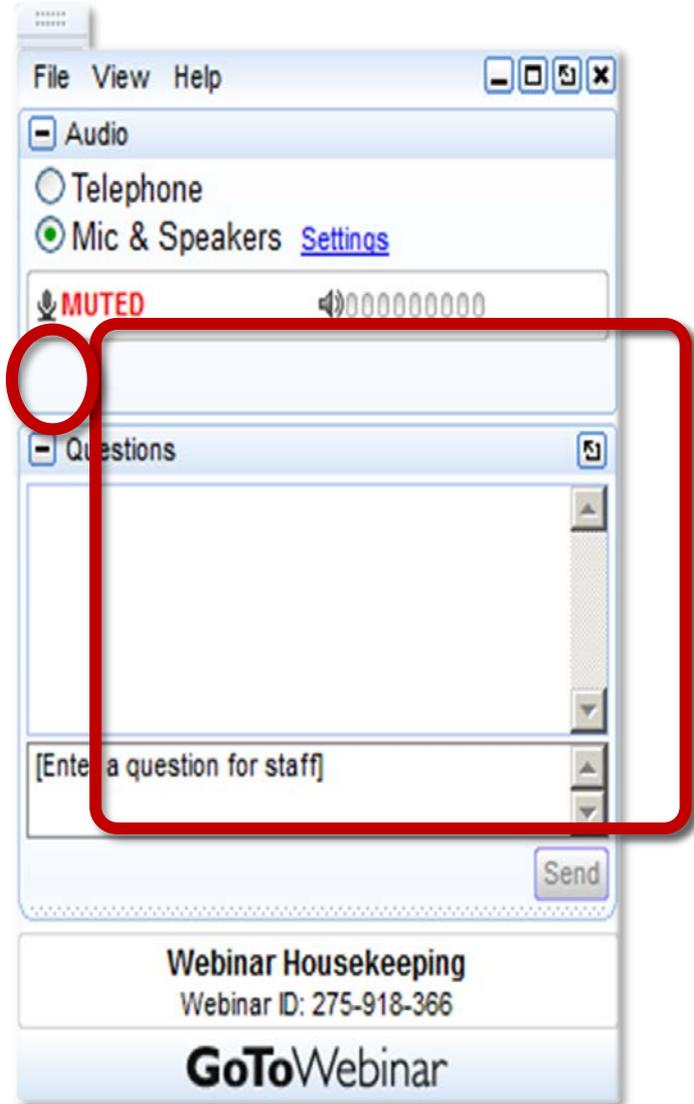
Note: Webinar pre-registration is required and the instructions to register are provided in the Monthly Webinar Registration section below.

Please send in your feedback, questions, and/or suggestions for these Joint Public Health Forum & CDC Nationwide Webinars to the Meaningful Use Mailbox (meaningfuluse@cdc.gov).

Meeting Schedule and Webinar Information

Meeting Schedule:

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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Health Information Technology

The Fight against Zika: Leveraging Health IT

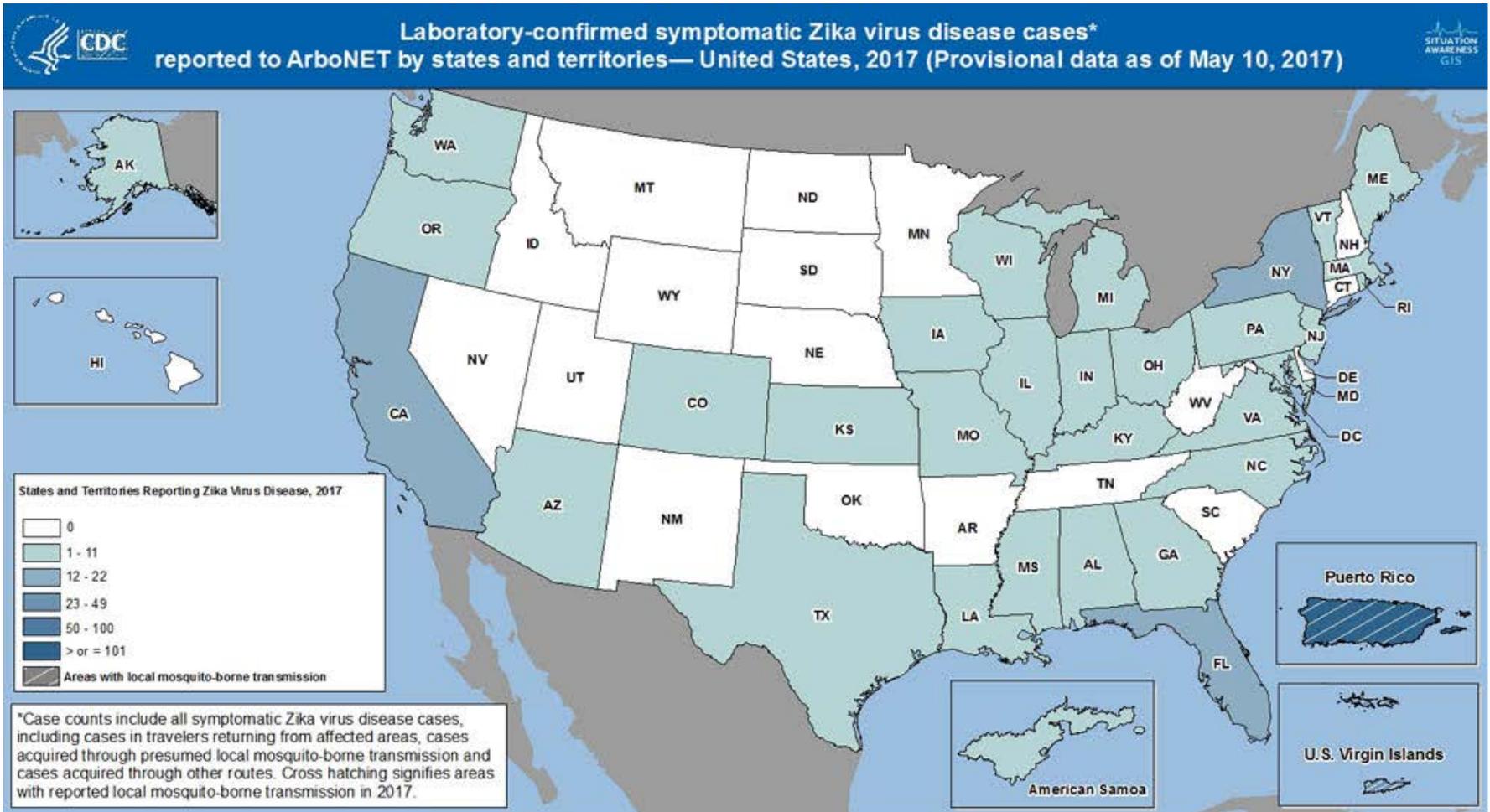
May 18, 2017



Abstract

- To combat the devastating effects of Zika virus, ONC wants to create the ability and capacity for public health laboratories (PHLs) to receive a standard pregnancy status with electronic lab orders. ONC will partner with the Association of Public Health Laboratories to create a national system for electronic order entry that can interface with the PHLs and electronic health records and use HL7 messaging or a web-based tool to create efficient and standard transmittance of pregnancy status for lab orders. Currently, public health labs do not have the capacity to exchange this information electronically. This project will save lives and leverage limited resources in the most effective way possible. In addition to assisting in combating Zika virus, this technology solution is extensible to other pregnancy-related conditions such as HIV, hepatitis B, etc.

Geographical instances of Zika in the U.S. and territories



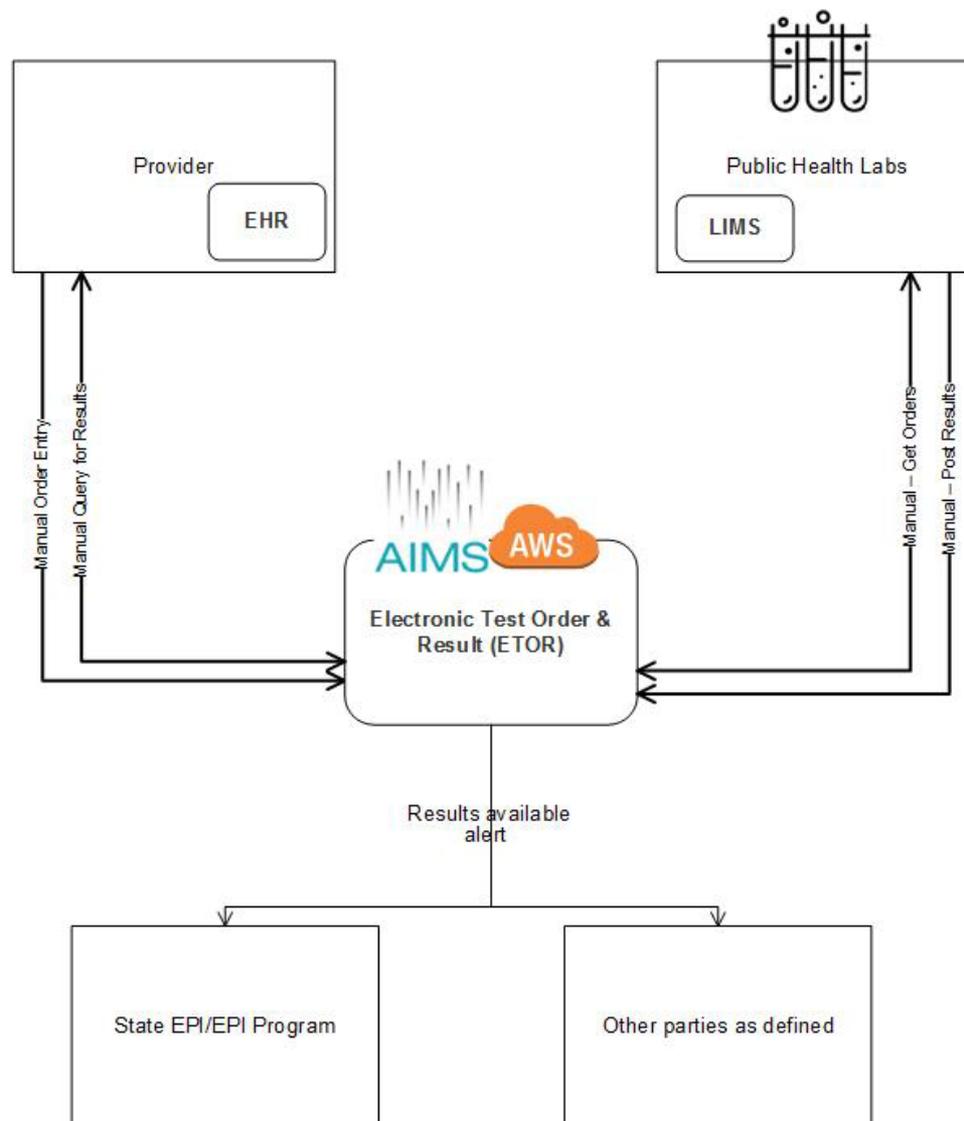
Source: <https://www.cdc.gov/zika/intheus/maps-zika-us.html>

The lack of current solutions...

- ...creates a larger-than-necessary demand for testing reagents.
 - » This can become very expensive if the tests are not strictly needed or used inefficiently.
 - » Slows testing of high-importance cases, which can lead to
- ...delays epidemiological tracking of Zika due to inefficient data transmission.

- Ideally, ONC will assist in the creation of an interface between Public Health Labs and EHRs to allow for electronic lab orders and results.

Where we are





Public Health Laboratories
12750 Erickson Avenue
Downey, CA 90242
Phone: 562-658-1330/1300
Fax: 562-401-5999

CA Certified PHL #335637
CLIA #05D1066369

ZIKA TEST REQUEST FORM

FAILURE TO COMPLETE ALL FIELDS WILL RESULT IN SPECIMEN REJECTION OR DELAYED TESTING
SUBMIT A SEPARATE TEST REQUEST FOR EACH SPECIMEN TYPE

For Zika virus testing eligibility:

www.publichealth.lacounty.gov/acd/Diseases/EpiForms/ZikaEligibility.pdf

For Zika virus testing and notification information:

www.publichealth.lacounty.gov/acd/ZikaTesting.htm



PUBLIC HEALTH
LAB USE ONLY

SUBMITTER INFORMATION

Requesting Physician Name (Last, First)			Requesting Physician Phone		Requesting Physician Email		Date Submitted	
Facility Name		Facility Address (Street)			City	State	Zip	
Facility Phone Number		Secure Fax Number For Results Reporting			Contact Person For Specimen and Phone Number			

PATIENT INFORMATION

Patient Name (Last, First, Middle Initial)			Date of Birth (mm/dd/yyyy)		Sex <input type="checkbox"/> Male <input type="checkbox"/> Female	
Patient Address (Street)		City			State	Zip
Patient Primary Telephone Number		Patient Alternate Phone Number			MRN/Patient ID	

LAB INFORMATION

Specimen Source <input type="checkbox"/> Serum <input type="checkbox"/> Cord Blood <input type="checkbox"/> Amniotic Fluid <input type="checkbox"/> Urine <input type="checkbox"/> Placenta <input type="checkbox"/> Other: _____			Specimen Collection Date/Time (hh:mm AM/PM) ____/____/____ :____ AM/PM		Specimen Storage Condition <input type="checkbox"/> Refrigerated <input type="checkbox"/> Frozen (-20°C)	
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TEST(S) REQUESTED – Current Lab Testing Algorithms Available at <http://www.cdc.gov/zika/laboratories/lab-guidance.html>

- Arbovirus serology panel (with reflex to confirmatory PRNT or rRT-PCR if required) for Zika, Chikungunya, Dengue, and West Nile Viruses
- Arbovirus rRT-PCR (with reflex to serology or PRNT if required) for Zika, Chikungunya, and Dengue Viruses
- Immunohistochemistry (fixed tissue or paraffin block)
- Histopathology (fixed tissue or paraffin block)
- PRNT for Zika/Chikungunya/Dengue/West Nile Virus Confirmation (Previous IgM serology positive result(s) required for PRNT)

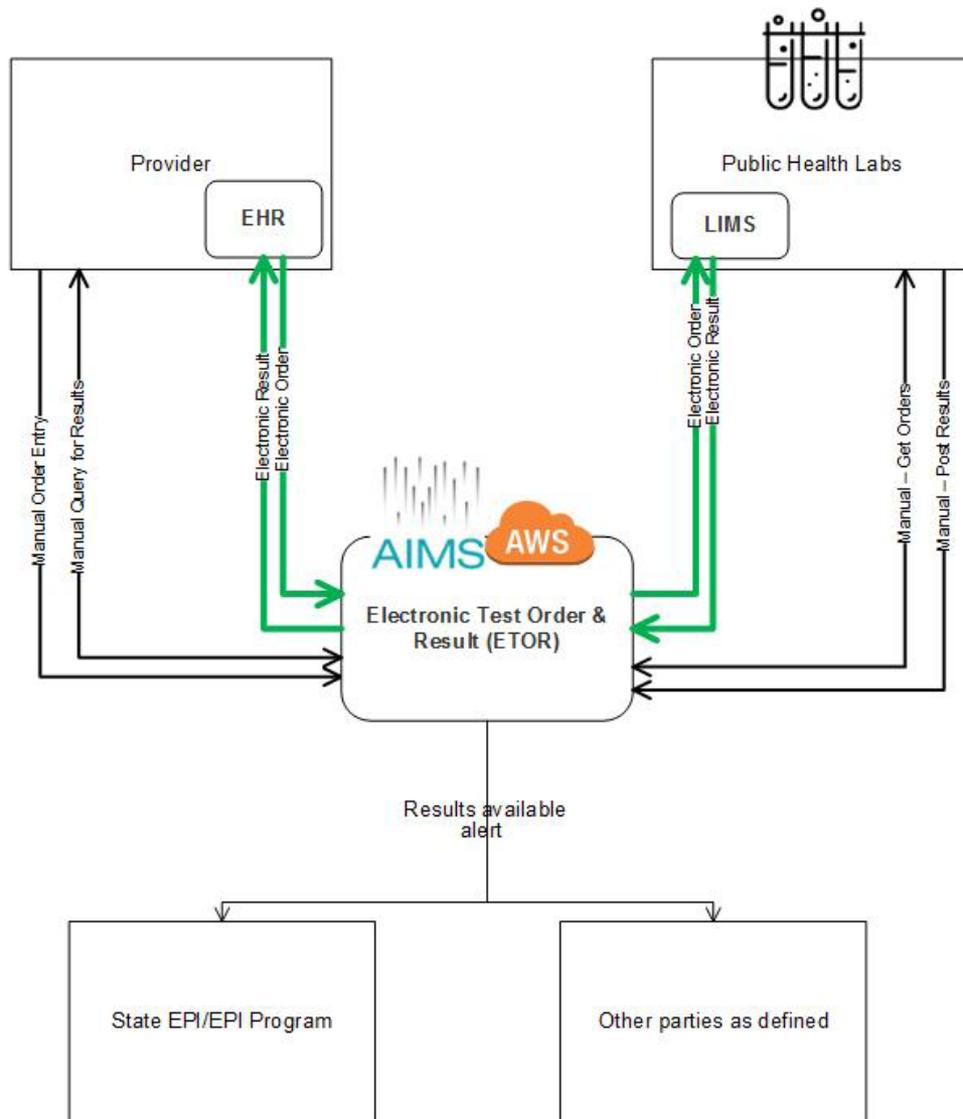
The Pregnancy Status Question

CLINICAL INFORMATION

PREGNANCY STATUS

- Yes: # Weeks Pregnant _____ OR Estimated Due Date: _____ Ultrasound Evidence of Microcephaly/Calcification
 Not Pregnant Not Applicable
-

Where We Want To Go



System Proof-of-Concept

- There are several instances where a comparable system is already in place.
- 5 PHLs under the Epidemiology and Laboratory Capacity funded Antimicrobial microbial resistance network project will use iConnect LabWeb Portal tool for CRE colonization test orders and results using LOI/LRI standard
 - » Maryland, Tennessee, Texas, Washington, Wisconsin
- 1 state will use the iConnect LabWeb Portal to support national TB drug susceptibility reference testing (DST)
 - » California

The Pilot Group

- Currently we have commitments from Texas and Florida to be pilots in this project.
 - » As most of the U.S. Zika cases are located here, it will cover a large amount of the population most at risk.
- It is LIMS agnostic, so there will not need to be a unique configuration for each lab connection.
 - » This is generally a “one-size-fits-all” solution. Once it is built and deployed, it can be scaled as necessary, with the opportunity to customize for the exact needs of the jurisdiction.

The Extraction Method/Expansion Beyond Pilot

- After the initial budget and timeline, the idea is to use Medicaid 90/10 funding for expansion beyond Texas and Florida to other states.
- Scalability is the next step.
 - » We need states and state public health labs to agree to participate in this system. While there is some initial commitment, the system will need to expand to other states for nationwide coverage.
- Extensibility is a future goal.
 - » Other diseases such as HIV and HepB place large importance on pregnancy status, and this system can accommodate that.

Expanded HITECH Support for Medicaid Health Information Exchanges

Background:

- The guidance of how to allocate the matching funds for Health Information Exchange (HIE) based on the State Medicaid Director's letter of May 18, 2011*, limited to supporting HIE for Eligible Professionals and Eligible Hospitals, that is, Eligible Providers (EPs) who were eligible for EHR incentive payments.
- That guidance was issued when Meaningful Use Stage 1 was in effect. Meaningful Use Stage 2 and Stage 3, however, later broadened the requirements for the electronic exchange of health information.

State Medicaid Directors Letter February 29, 2016** (SMD# 16-003):

- This updated guidance will allow Medicaid HITECH funds to support all Medicaid providers that Eligible Providers want to coordinate care **with** until 2021.
- Medicaid HITECH funds can now support HIE onboarding and systems for behavioral health providers, long term care providers, substance abuse treatment providers, home health providers, correctional health providers, social workers, and so on.
- It may also support the on-boarding of laboratory, pharmacy or public health providers onto HIEs.

What this means:

- States may support HIE architecture such as provider directories, encounter alerting systems, secure messaging, query exchange, care plan exchange, and public health systems.
- States may now support broader HIE on-boarding, i.e., the technical process of establishing secure connections, aligning encryptions standards and certificates, as well as the administrative processes such as consent models, contracts, and business associate agreements.
- These systems, in keeping with the principles of the Medicaid Information Technical Architecture (MITA) supports broader HHS goals around delivery system reform, including CPC+

*<https://www.medicaid.gov/Federal-Policy-Guidance/downloads/SMD11004.pdf>

**<https://www.medicaid.gov/federal-policy-guidance/downloads/SMD16003.pdf>



Team Members

- **Michael Baker**

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- » Analyst
- » Office of Standards and Technology, ONC

- **Dr. Sanjeev Tandon**

- » Lead- Electronic Health Records Meaningful Use and CSELS Health IT Team (CDC IMS Zika Virus Response)
- » Center for Surveillance, Epidemiology, and Laboratory Services, CDC



Analysis. Answers. Action.

www.aphl.org

Zika Electronic Test Order & Result

Michelle Meigs
Manager, Informatics
Association of Public Health Labs

To be impactful-

- Zika data needs to get into the right hands quickly
- Data are needed by multiple stakeholders- from the clinician to the public health agency
- Informatics solutions have to evolve to meet new demands just as epi and lab capacity does



WHAT HAPPENS WHEN I AM TESTED FOR ZIKA AND WHEN WILL I GET MY RESULTS?



Several state and local health departments are certified to perform Zika testing. If your health department doesn't currently perform Zika testing, it will coordinate testing with CDC. CDC is receiving hundreds of samples each week. Depending on the lab's workload, processing and reporting times may take 2 to 4 weeks. Reporting times may take longer during summer months or when other viruses spread by mosquitoes increase.



1

- When you visit your doctor, you discuss any recent travel and symptoms. Tell your doctor if you are pregnant or planning to become pregnant.
- Your doctor may decide to test for Zika and other viruses like dengue or chikungunya.



2

Health department contacted

- Zika testing is needed, your doctor will get approval for the health department to collect your samples.



3

Samples collected

- Your doctor will send you to a laboratory that will collect samples for testing.
- Your doctor will select the test(s) that need to be performed and complete paperwork for the health department.



4

Samples shipped

- After samples are collected, the laboratory ships them to the health department.
- The health department logs each of the samples.



5

Samples tested

- If your health department has been certified to perform Zika testing, then your samples will be tested there.
- If your health department is not able to perform testing, your samples will be shipped to CDC and tested.



6

Results reported

- If your health department performed testing, it will send the results to your doctor.
- If CDC performed testing, CDC will report results to your health department, which will report the results to your doctor. Your doctor will then report lab test results to you.

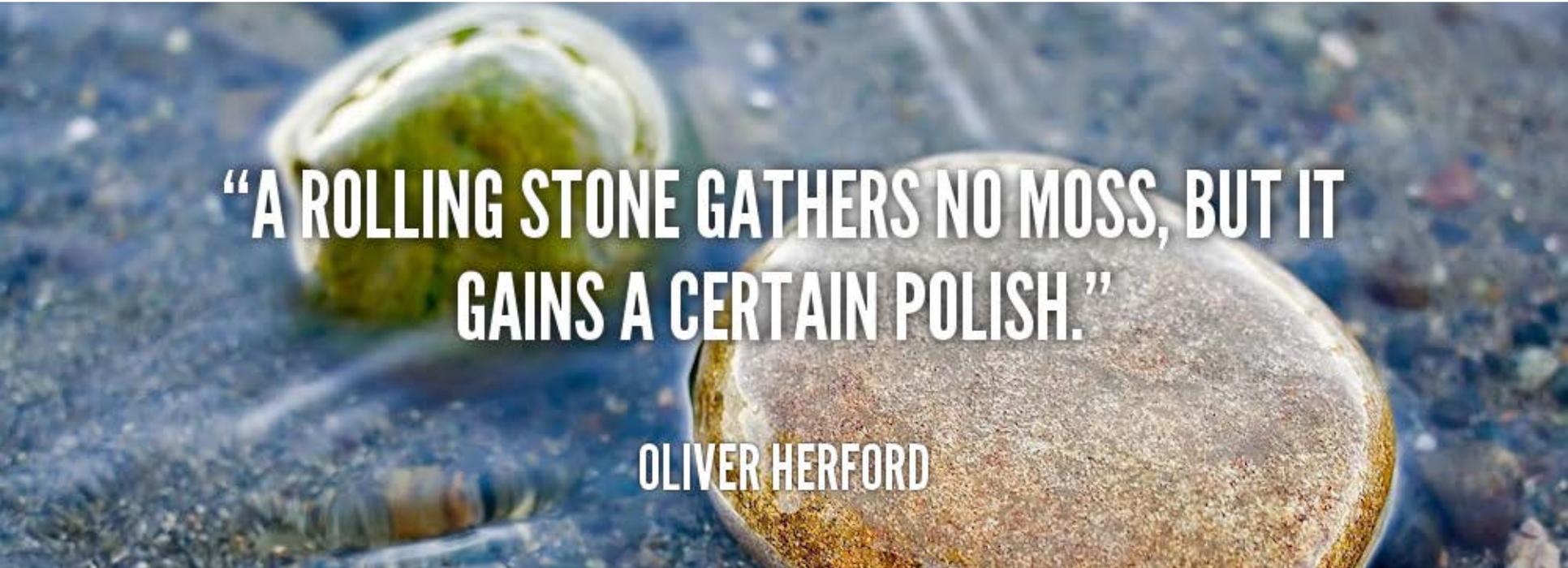
Zika lab testing capacity is starting to increase- but few tools are in place to manage specimen data throughout the testing lifecycle



The Challenge-

Evolve informatics tools to support both private and public needs in the face of Zika and other emerging diseases

Building on current projects



**“A ROLLING STONE GATHERS NO MOSS, BUT IT
GAINS A CERTAIN POLISH.”**

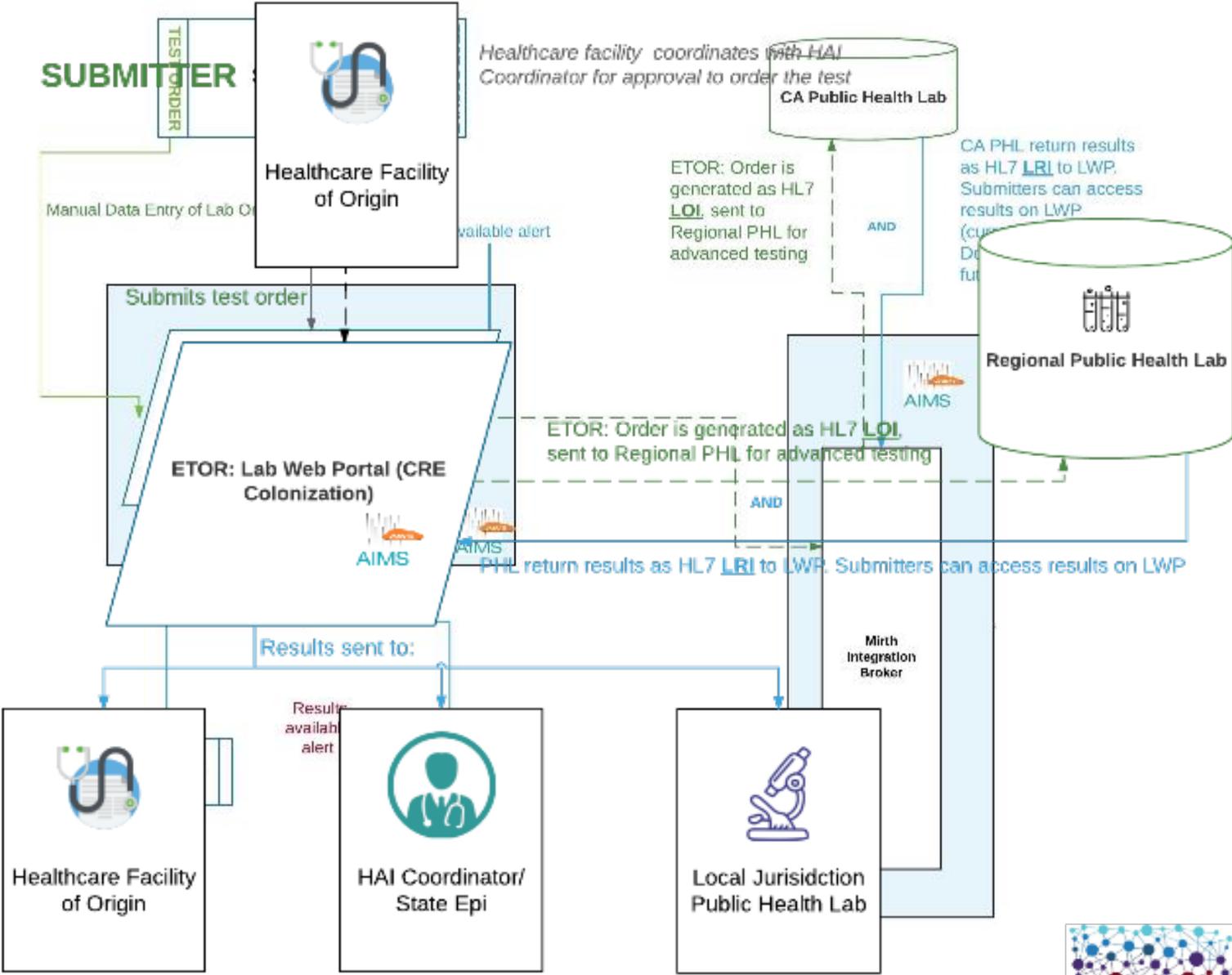
OLIVER HERFORD



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ARLN and TB





Sign In

Login

[Forgot Password?](#)

Secure | <https://build.labwebportal.com/LWP/vil.Website/aims.tn/#/dashboard>



HELP ADMIN ▾

DASHBOARD TEST ORDER INCOMPLETE ORDERS IN TRANSIT ON HOLD ALL SPECIMENS

Welcome Message

Welcome Valued TN Customer,
Welcome to our new Electronic Test Order and Result (ETOR) Portal! If you need any assistance, please call our Client Services team at 615-262-6300. We are here to help!

SPECIMEN

999+

In Transit



Click To Order

ORDERS

0

Incomplete Orders

0

All Specimens

217

On Hold

TX TRF

* Last Name	<input type="text"/>	+ Q	First Name	<input type="text"/>	M.I.	<input type="text"/>
Address	<input type="text"/>			Telephone Number	<input type="text"/>	
City	<input type="text"/>	State	<input type="text"/>	Zip Code	<input type="text"/>	
Date of Birth	<input type="text"/>			SSN	<input type="text"/>	
Sex	<input type="text"/>					
Race	<input type="text"/>			Ethnicity	<input type="text"/>	
Medical Record						

Section 2. Patient Information ⓘ ▾

Section 3. SPECIMEN SOURCE OR TYPE ▾

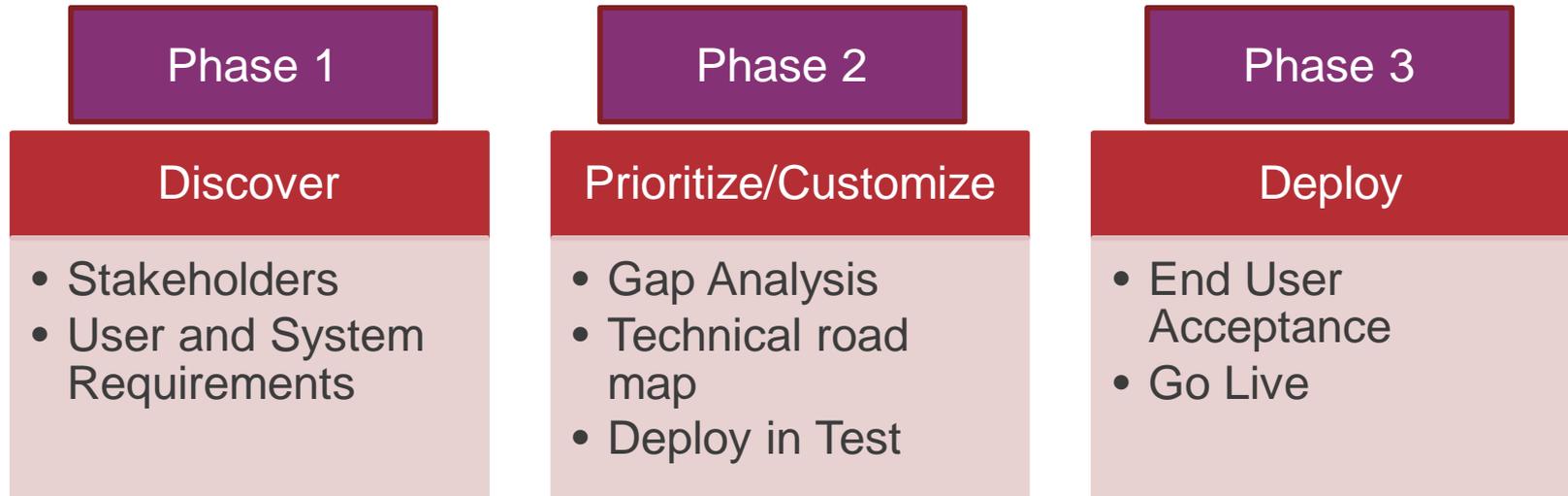
Section 5. ORDERING PHYSICIAN INFORMATION ▾

Section 6. PAYOR SOURCE ▾

Section 7. Collection Site Information (CDC Special Projects) ⬆

* Collection Site Name	<input type="text"/>	+ Q	CLIA #	<input type="text"/>
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The Approach: *standard but reliable!*



Phase 1

Discover

- Stakeholders
- User and System Requirements

June - September 2017

Deliverables

- Full project road map and approach
- Business case
- Requirements document and context diagram(s)
- Functional gap analysis of requirements vs. LWP



Phase 2

Prioritize/Customize

- Gap Analysis
- Technical road map
- Deploy in Test

September - December 2017

Deliverables

- **Finalize functional gap analysis/LOE**
- **Design, validate & begin customizing new functions**
- **Review and revise infrastructure deployment**
- **Terminology and Standards work**
 - **Business Rules**
 - **Data dictionary/value sets**
 - **HL7 specification(s)**



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Phase 3

Deploy

- End User Acceptance
- Go Live

December - xx 2017

a bit too far out...

- **Message validation and end user testing commences**
 - Clinician EHR orders to LWP
 - Epidemiology UI/functionality (pregnancy status)
 - Test order LWP to PHL
 - Test result PHL to LWP
 - Test result LWP to clinician EHR
- **Go Live**



Questions

Comments

Concerns

