

The Office of the National Coordinator for  
Health Information Technology



**Public Health – EHR Vendors Collaboration Initiative  
Webinar**

**Leveraging Health IT to Support Public Health Labs  
June 19, 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 -
<b>Public Health - EHR Vendors Collaboration Initiative</b>
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



[CDC](#) > [Meaningful Use](#) > [Connect with Others](#) > [Meaningful Use Community](#)

## Public Health - EHR Vendors Collaboration Initiative



### 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

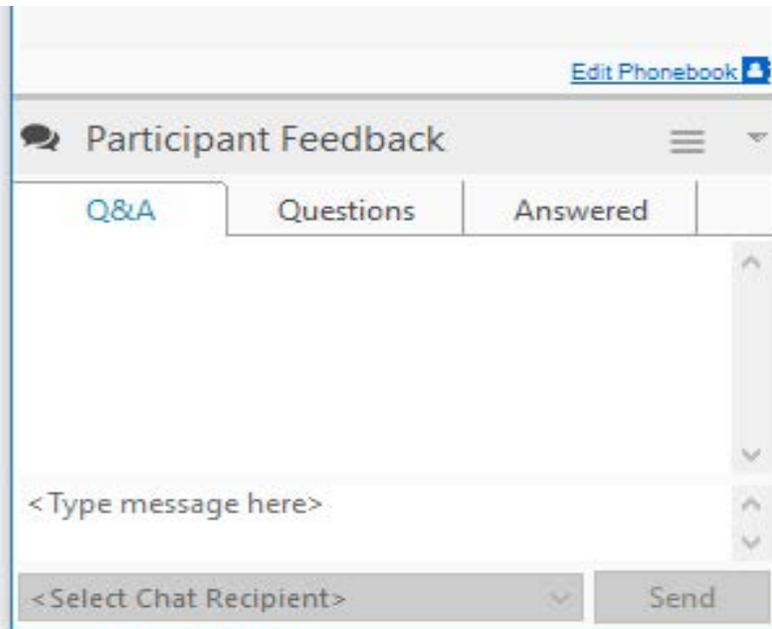
This webinar will be focused on the recommendations around Ask at Order Entry (AOE)\* for pregnancy status in Zika virus (ZIKV) laboratory test orders with the possibility of a broader discussion on the capture of pregnancy status in electronic health records, per the clinical workflow and an update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



## Leveraging Health IT to Support Public Health Labs

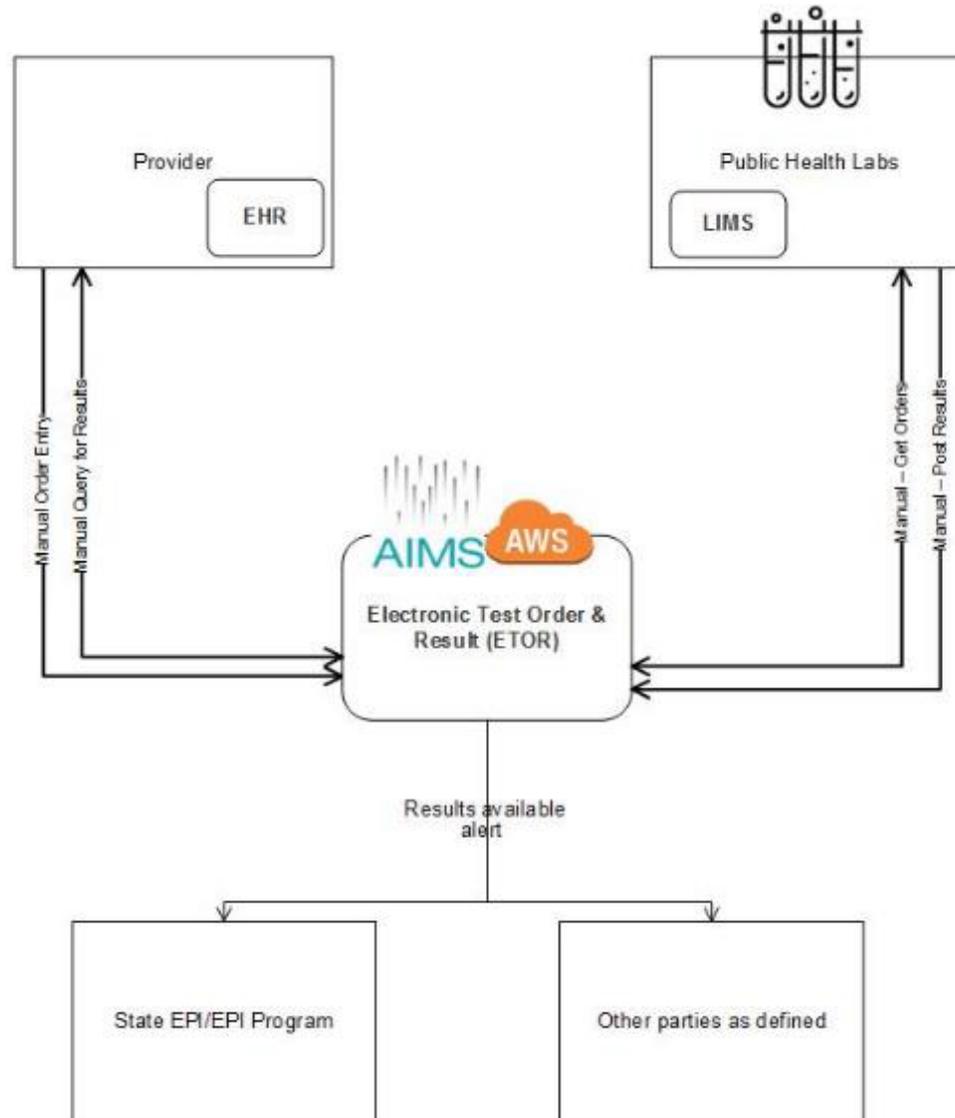
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Michael Baker, Policy Advisor, Department of Health and Human Services, Office of the Secretary,  
Office of Intergovernmental and External Affairs

June 19, 2018

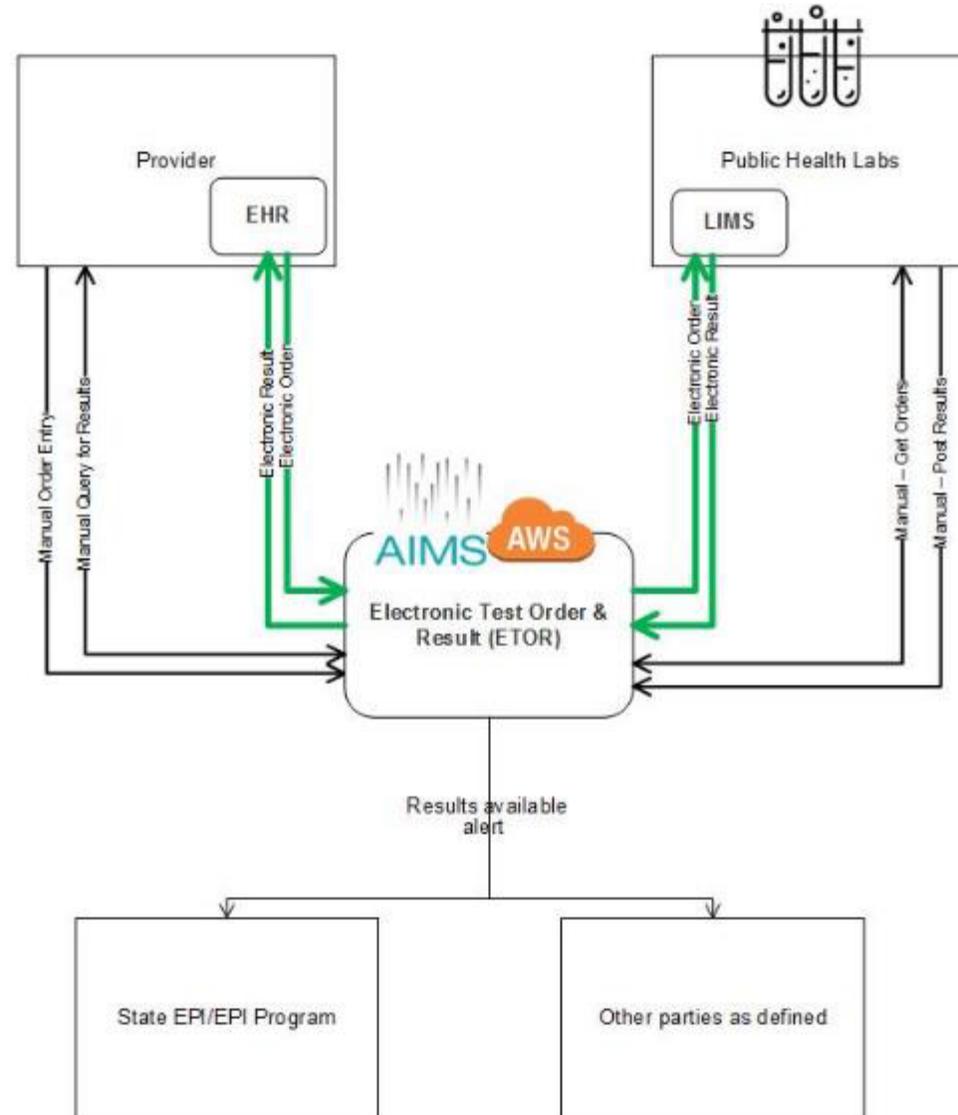


# Where we are





# Where We Want To Go





Analysis. Answers. Action.

[www.aphl.org](http://www.aphl.org)

# Enhancing Clinical/Epi/Lab Coordination through the Use of a Electronic Test Order and Result Web Portal

*Medicaid Public Health CoP & Public Health EHR Vendors call  
June 19, 2018*

# Synopsis

- Project background
- Critical success factors
- Developing the solution
- Outcomes and Next Steps

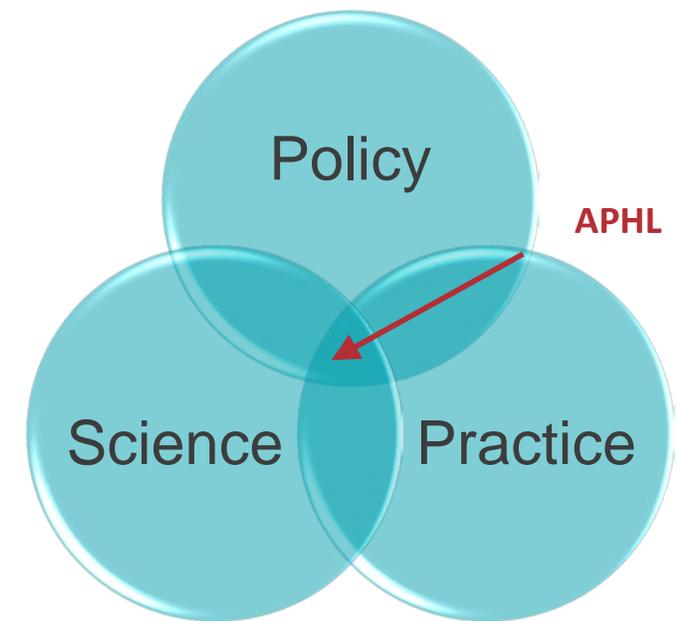
# APHL

## Vision

A healthier world through quality laboratory systems

## Mission

**Shape** national and global health outcomes by promoting the value and contribution of **public health laboratories** and continuously **improving** the public health laboratory **system and practice**.



# Public Health Programs

Infectious Diseases

Preparedness & Response

Environmental Health

NBS & Genetics

Food Safety

# Public Health Systems

Institutional Research

Quality Systems

Global Health

**Informatics**

# Electronic Test Order and Result Work

- Web Portal RFP distributed

- CDC TB program supported
- National DST reference center
- iConnect/Lab Web Portal (LWP) Selected

- Programmatic Efforts to assist ETOR

- White paper / policy statement (CDC DLS)
- Standards Development (LOI/LRI)

- LWP deployed on AIMS VPC

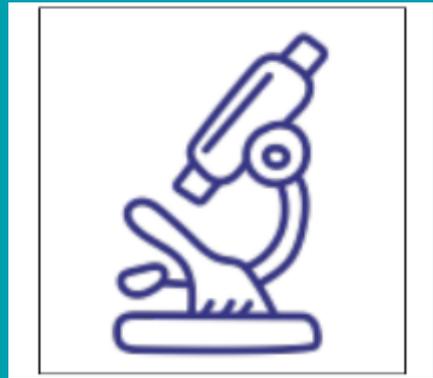
- 5 Antibiotic Resistance Lab Network (ARLN) regional labs
- CDPH National TB DST reference center

- HHS ONC ETOR process improvement

- Expand use of LWP to support emerging infectious disease use case.
- Expand to look at provider, lab and epi communication channels-

# ETOR in the Clinical Domain

## *Care & Treatment: Passive Surveillance*



DETECT



REPORT

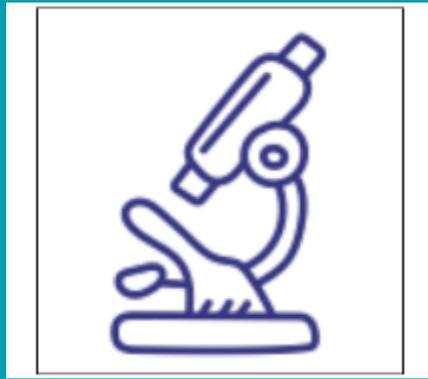


REPORT



RESPOND

# ETOR in Public Health: *Active Surveillance Needed*



DETECT



REPORT



RESPOND



# Public Health Data Needs Constantly Evolve



**For Zika virus testing eligibility:**

[www.publichealth.lacounty.gov/acd/Diseases/EpiForms/ZikaEligibility.pdf](http://www.publichealth.lacounty.gov/acd/Diseases/EpiForms/ZikaEligibility.pdf)

**For Zika virus testing and notification information:**

[www.publichealth.lacounty.gov/acd/ZikaTesting.htm](http://www.publichealth.lacounty.gov/acd/ZikaTesting.htm)

### Clinical Data

Name of Clinic
Date of treatment
Observations
Preliminary Diagnosis

Patient Identifier
--------------------

### Lab Data

Patient Identifier
--------------------

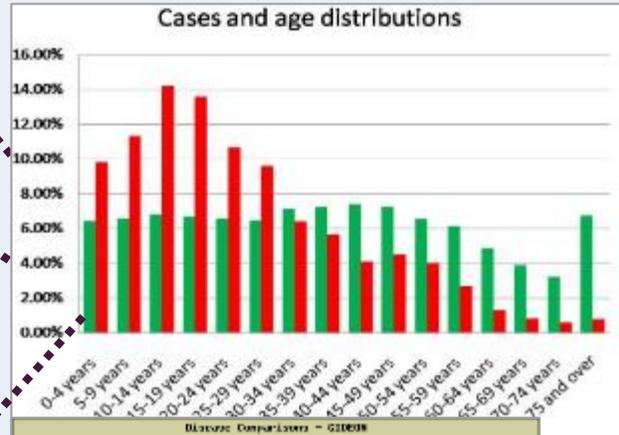
Sample ID (Lab)
Test Method Ordered
Date Collected
Test Result

### Population Data

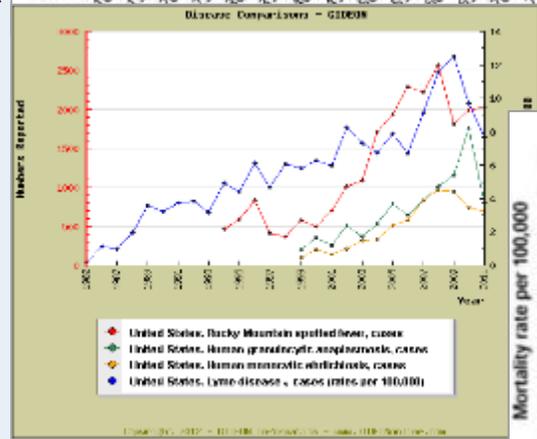
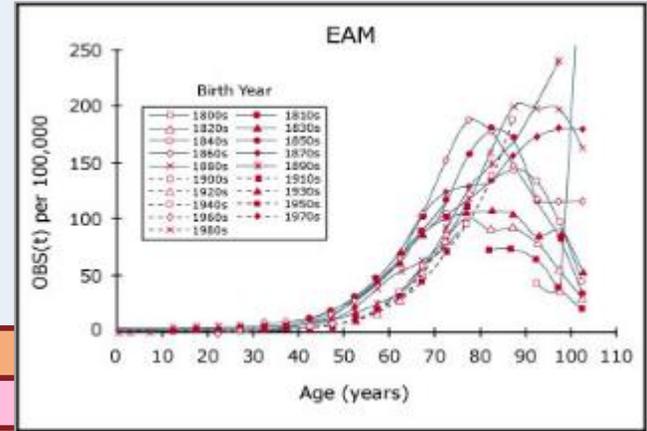
Patient Identifier
--------------------

Dates of Travel
Country Visited
Exposure to Stagnant Water
Exposure to Mosquitos

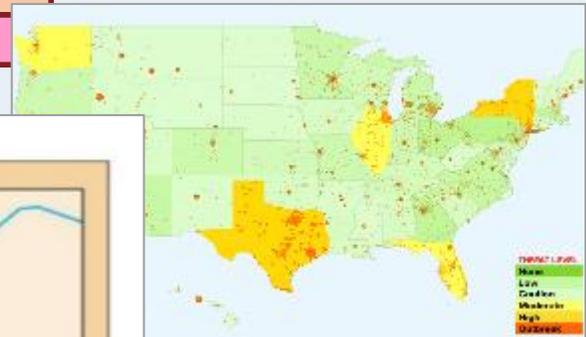
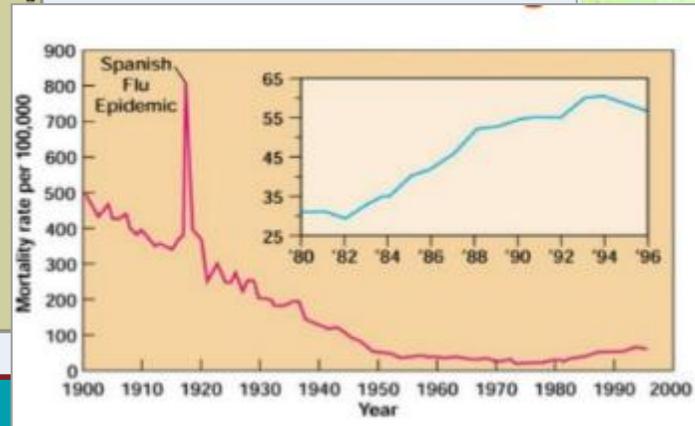
# Integrated Disease Surveillance



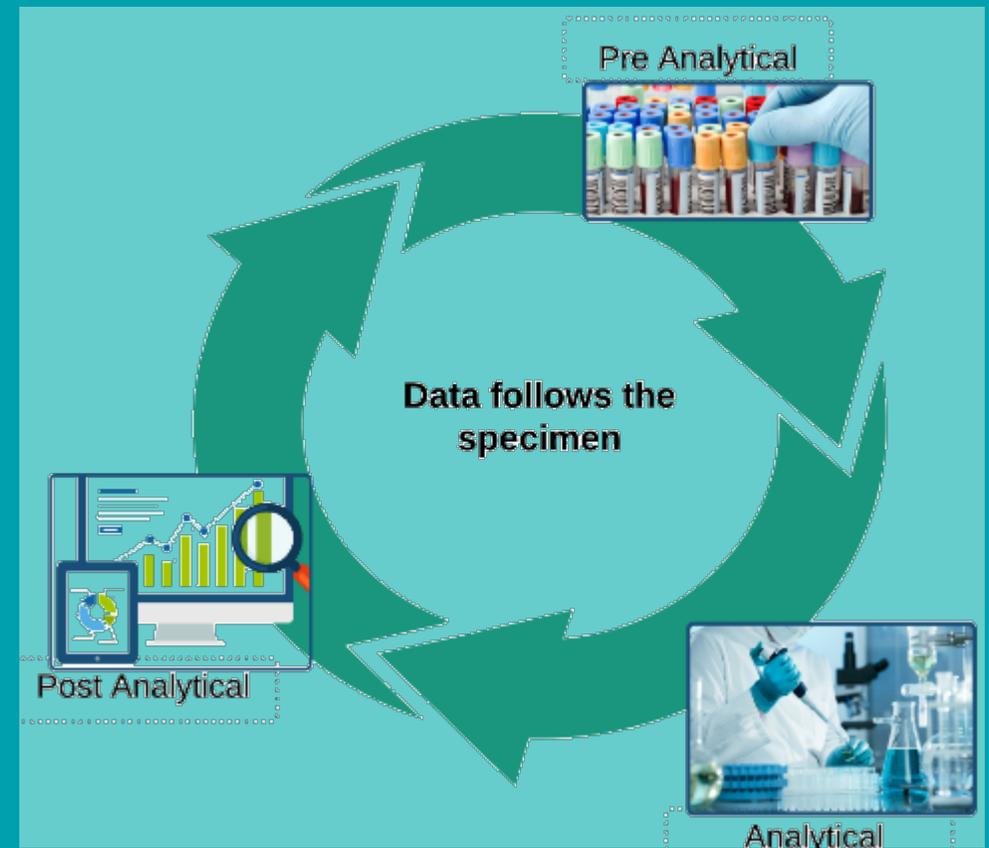
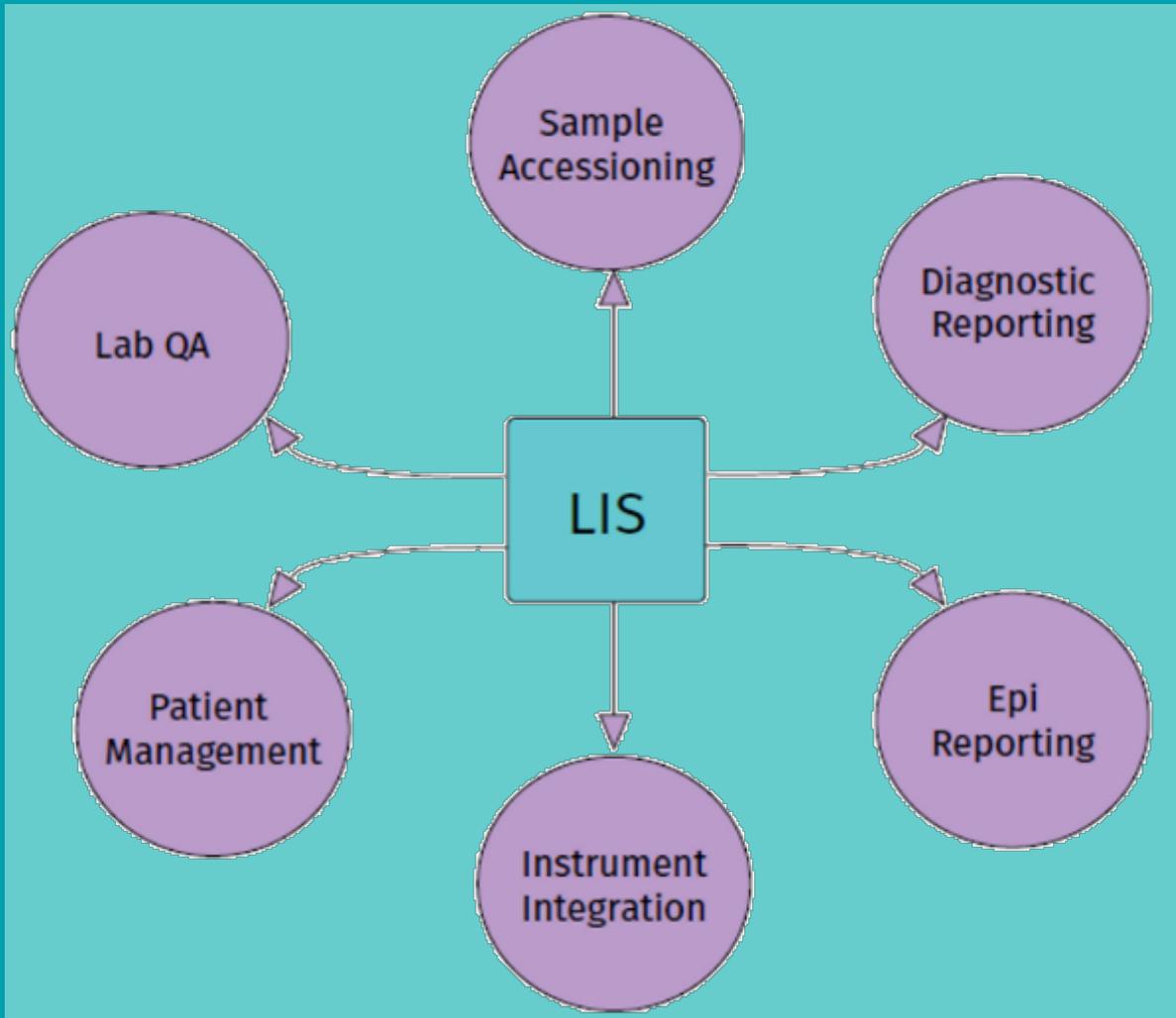
Name of Clinic
Date of treatment
Observations
Preliminary Diagnosis
Patient Identifier



Sample ID (Lab)
Test Method Ordered
Date Collected
Test Result
Dates of Travel
Country Visited
Exposure to Stagnant Water
Exposure to Mosquitos



# Laboratory data



**Modifying LIMS to support epidemiologically significant data difficult**

# Problem Statement: Zika and Other “non-standard” tests

- Clinical submitters lack an **efficient way of ordering tests, retrieving status and receiving results** for suspect Zika cases.
- Current methods to **capture epidemiological significant questions** when a specimen is submitted for Zika testing (known as Ask at Order Entry questions), are not efficient or cumbersome and “after the fact” to help with testing prioritization.
- Epidemiologists do not have an **efficient way to assist in the testing process to authorize, sort and prioritize testing** based on submitter provided information and national case definitions.

## **HHS Challenge:**

**Build on current informatics tools to support clinical and public needs in the face of Zika and other emerging diseases**

# National Tuberculosis Drug Susceptibility Testing Reference Lab

Provide ETOR tools that support TB-DST  
shared services



# Antibiotic Resistance Lab Network

Electronically report CRE colonization results to a network of cross-jurisdictional clinical and public health partners within 48 hours of specimen receipt



LRI

LOI

CDC Antibiotic Resistance Laboratory Network: 7 Regional Labs



# Critical Success Factors

- Use existing resources and share best practices
- Design flexible, extensible ETOR system
- LIMS EMR agnostic
- Accommodate multiple workflow submission modes:
  - Paper, Web-based, EMR Submission, LIMS Synchronization
- Ensure solution standardization, while maintaining flexible approach

# Identified Barriers

- Tough to meet all user expectations out of the gate
- Use of cloud computing tools
- Extensive support needed for long-term maintenance of different HL7 message specifications, transport configurations
- Ongoing maintenance requires time, personnel, and technical support expertise

# Proof of Concept Approach



# Discovery Phase Deliverables

- Document and validate **existing and potential** workflows
- Document **functional** requirements
- Perform **Gap Analysis** between LWP and Requirements
- Define user scenarios and **prioritize enhancements**

# Technical Approach



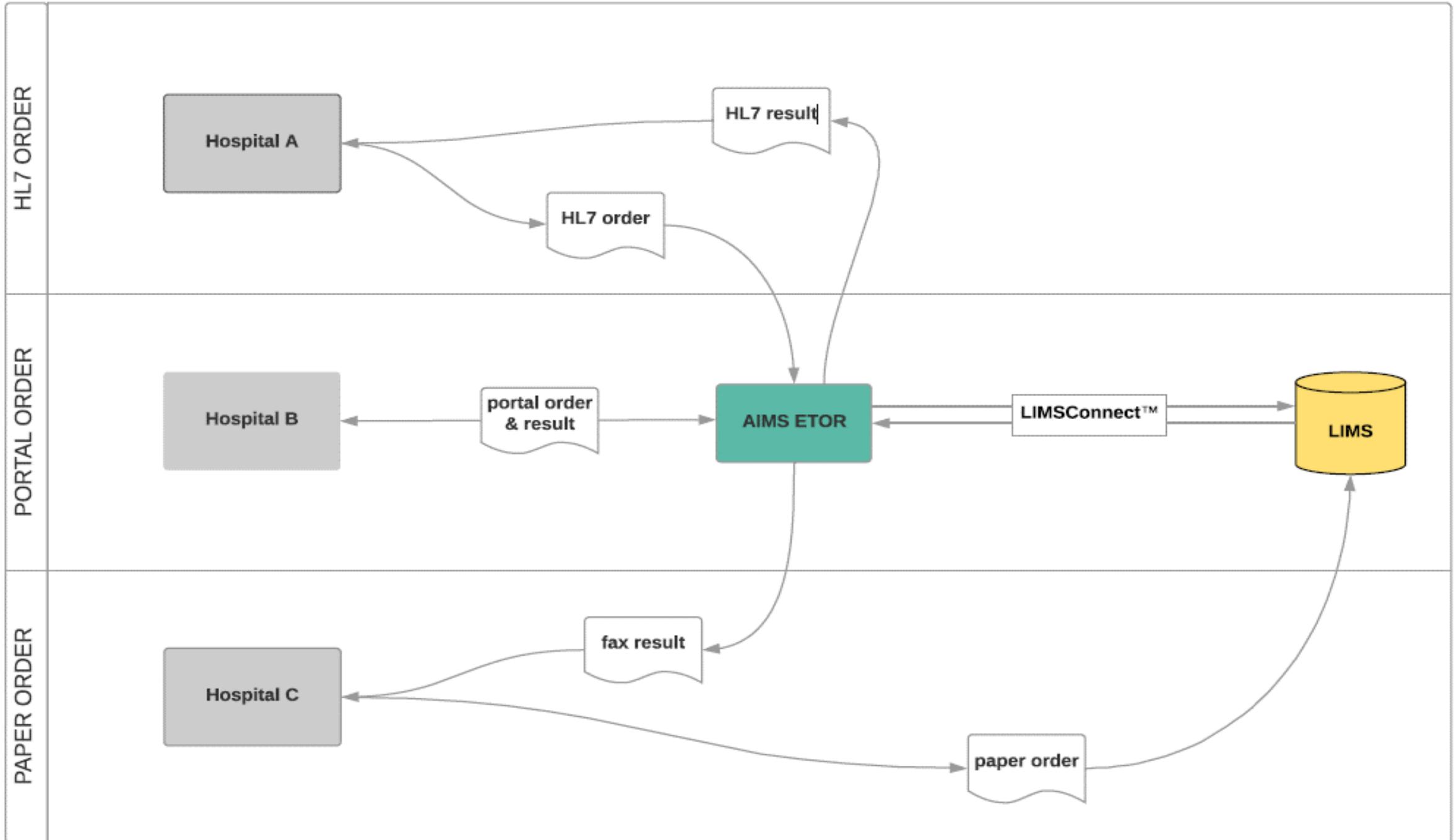
Selected competitively



LIMS agnostic



Centrally hosted





A **secure, cloud based** environment that accelerates the implementation of health messaging by providing shared services to aid in the **transport, validation, translation, transformation and routing** of electronic data.

# AIMS in Action

 **25 Million**  
Messages Lifetime  
Transported

 **20 Million**  
Messages/week  
via Interface Engine  
Processing

 **26 Million**  
Number of Daily Security  
Log Files

 **~100**  
Number of Servers

**160**  
Trading Partners



**13**  
States Cross  
Jurisdictional Exchange



 **2.5 TB**  
of WGS Data Processed and Counting

## Quest

**1 Million**  
Number of Quest ELR Messages  
Per Month

## Use Cases

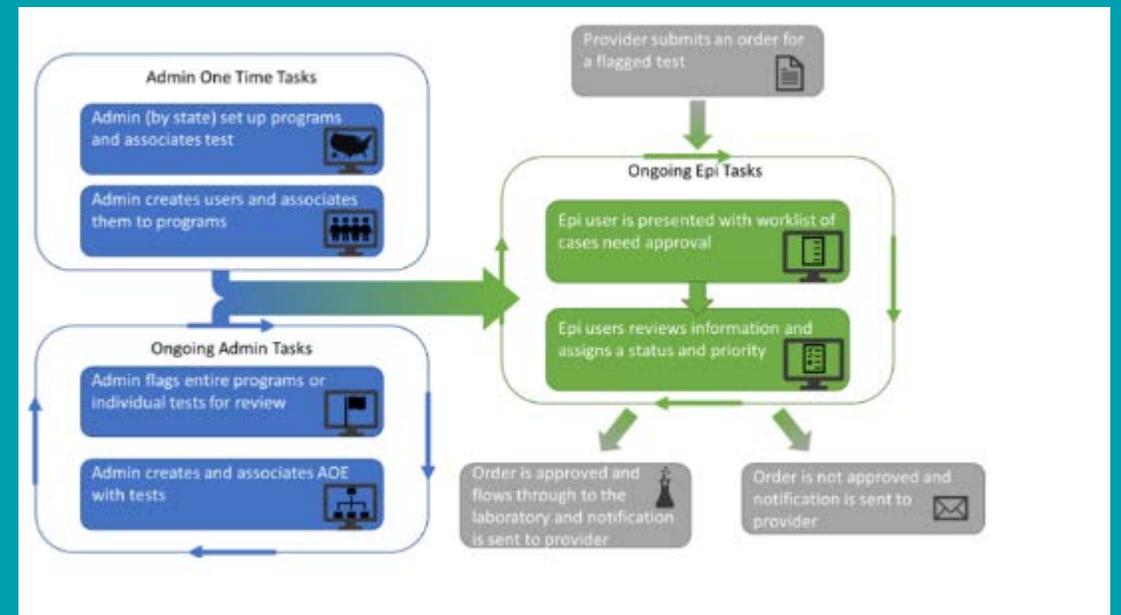
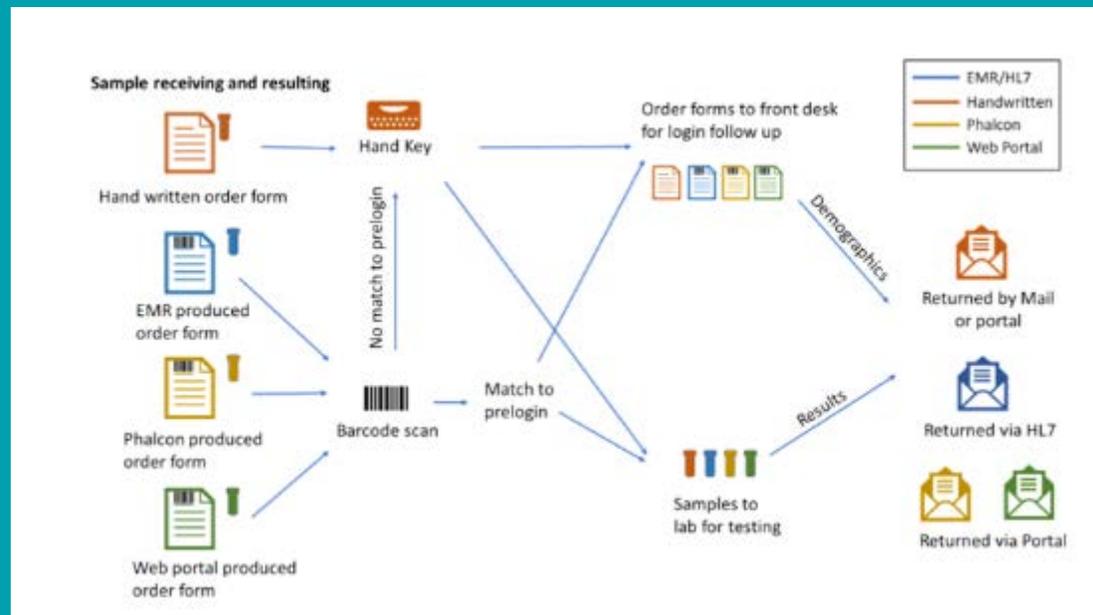
**28,149**  
PHLIP  
Messages  
Per Month

**63,070**  
Electronic Lab  
Results Per  
Month

**222,874**  
Syndromic  
Surveillance

Excluding Quest

# Project Results



# Enhancement 1:

## EPI prioritization functionality & admin tool expansion

The screenshot displays a web application interface for managing specimens. At the top, there are navigation tabs: DASHBOARD, TEST ORDER, INCOMPLETE ORDERS, ALL SPECIMENS (highlighted), and PUBLISHED REPORTS. Below the tabs, the page title is "All Specimens" with a count of 15. A search bar is located on the right. The main content area features a table of specimens with columns: Key, PatientName, Patient DOB, Date Collected, Status, Date Submitted, Date Received, Review, and Priority. The table has 6 rows, with the first row highlighted in blue. Below the table, a "Patient Information" form is expanded, showing fields for Last Name, First Name, MR, Date of Birth, Age, Gender, and Patient Address. A callout box at the bottom left points to the expanded form with the text: "Option 1: Records expand to display Patient Information and EPI questions".

Key	PatientName	Patient DOB	Date Collected	Status	Date Submitted	Date Received	Review	Priority
OIDCA170000027	Ion, Pop J	02/02/2000	11/28/2017 07:00 PM	InTransit	11/20/2017 07:17 PM	12/31/0000 07:00 PM		
OIDCA170000028	Joe, Doe K	01/01/2000	11/24/2017 11:14 AM	InTransit	11/24/2017 11:16 AM	12/31/0000 07:00 PM		
OIDCA170000025	Ion, Pop J	02/02/2000	11/24/2017 11:14 AM	InTransit	11/24/2017 11:15 AM	12/31/0000 07:00 PM		
OIDCA170000023	Ion, Pop J	02/02/2000	11/23/2017 12:28 AM	InTransit	11/23/2017 12:29 AM	12/31/0000 07:00 PM		
OIDCA170000022	ana, maria	01/01/2000	11/21/2017 06:39 AM	InTransit	11/21/2017 06:40 PM	12/31/0000 07:00 PM		
OIDCA170000021	Ion, Pop J	02/02/2000	11/15/2017 07:00 PM	InTransit	11/15/2017 11:26 PM	12/31/0000 07:00 PM		

**Patient Information**

Last Name:  First Name:  MR:

Date of Birth:  Age:  Gender:

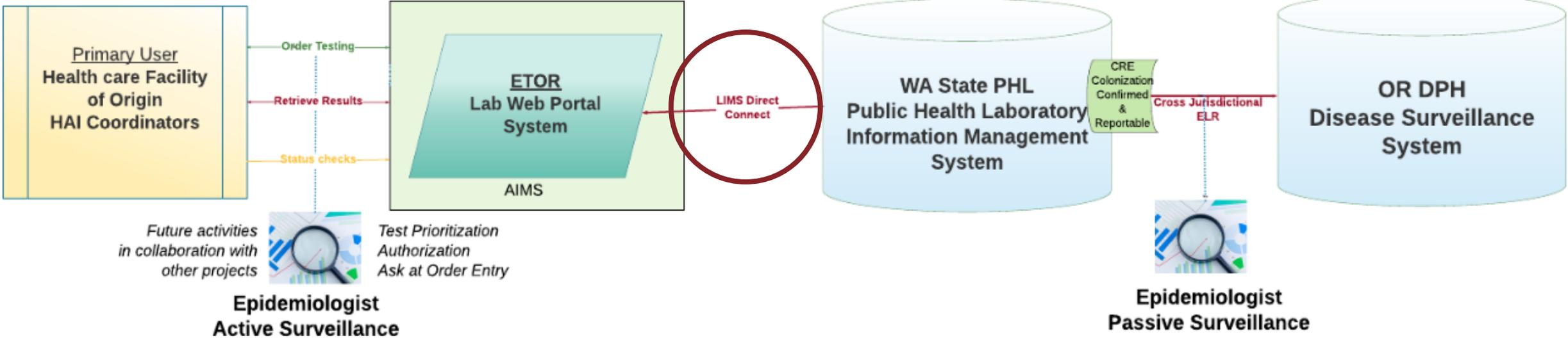
Patient Address: Street Address:

Option 1: Records expand to display Patient Information and EPI questions

B2.1 Users can populate review status 1) directly from the worklist or 2) by drilling down into each record

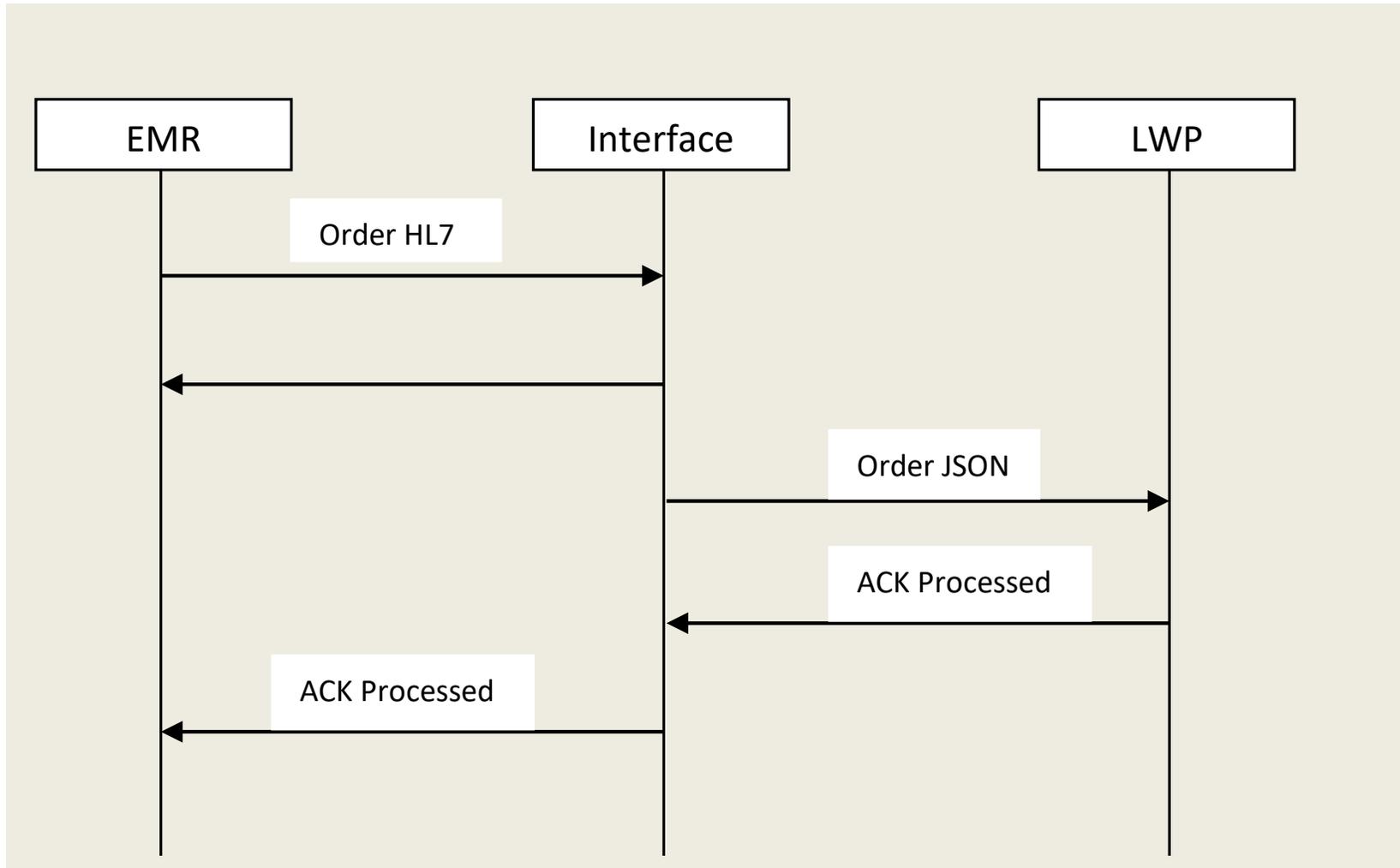
B2.1 Users can populate priority status 1) directly from the worklist or 2) by drilling down into each record

# Enhancement 2: *StarLIMS to LWP sync-up*



# Enhancement 3:

## *EMR to LWP Order Interface*



# Enhancement 4: Patient Centric Functions

- Ability to track patients over time, across systems
- Ability to manage patient demographics, insurance, diagnosis, medications
- Ability to define custom patient metrics
- Ability to view trends and track patient results over time

# New Patients page - Demographics

- Dashboard
- Failed Orders
- Incomplete Orders
- In Transit
- On Hold
- All Specimens
- Published Reports
- My Patients

ORDER TESTS

VIEW REPORTS



Cricket, Jimmy D

Office Patient Id:

SSN: 798465202

DOB: 01/16/1974

Gender: Male



Demographics

Medications and Diagnoses

Insurances

Orders

2  
Medications

25  
Orders

4  
Insurances

Orders 12 months: 25

Orders YTD: 25

Trends



## Personal Information

Last Name

Cricket

First Name

Jimmy

Middle Initial

D

Date of Birth

01/16/1974

Gender

Female  Male

SSN

798-46-5202

Office Patient ID

Phone

Email

## Address

Address

Address (2nd line)

City

Jacksboro

State

TN

Zip

37757

EDIT

# New Patients page – orders specific to patient

- Dashboard
- Failed Orders
- Incomplete Orders
- In Transit
- On Hold
- All Specimens
- Published Reports
- My Patients

ORDER TESTS

VIEW REPORTS



Cricket, Jimmy D

Office Patient Id:

SSN: 798465202

DOB: 01/16/1974

Gender: Male



Demographics

Medications and Diagnoses

Insurances

Orders

2 Medications

25 Orders

4 Insurances

Orders 12 months: 25

Orders YTD: 25

Trends



Quick Search

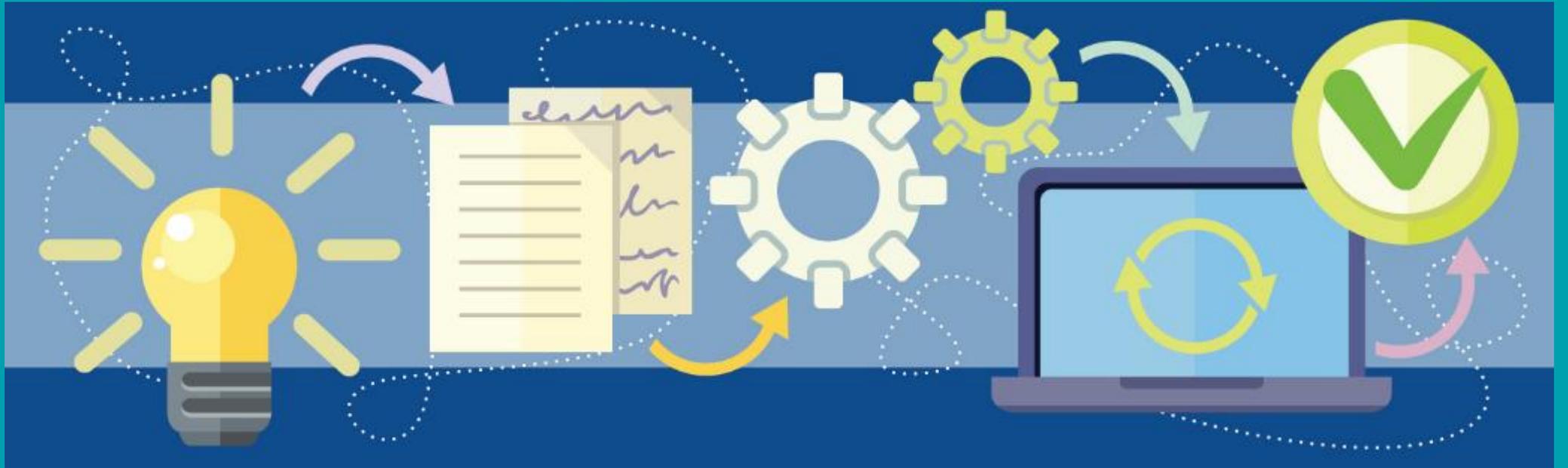
Specimen Id	Collected	Submitted	Received	Facility Name	Specimen Type	Status
<a href="#">EMRONC13</a>	06/11/2018 09:00 ...	06/13/2018	01/01/0001	ABC CLINIC	Urine	InTransit
<a href="#">testw324</a>	06/13/2018 08:36 ...	06/13/2018	01/01/0001	ABC CLINIC	Urine	InTransit
<a href="#">EMRONC12</a>	06/10/2018 09:00 ...	06/12/2018	06/12/2018	ABC CLINIC	Urine	Released
<a href="#">EMRONC11</a>	06/10/2018 09:00 ...	06/12/2018	06/12/2018	ABC CLINIC	Urine	Released
<a href="#">ANDREW069</a>	06/12/2018 04:39 ...	06/12/2018	06/12/2018	ABC CLINIC	Urine	Released
<a href="#">EMRONC10</a>	06/10/2018 09:00 ...	06/12/2018	06/12/2018	ABC CLINIC	Urine	Released
<a href="#">EMRONC09</a>	06/07/2018 09:00 ...	06/12/2018	06/12/2018	ABC CLINIC	Oral Fluid	Released
<a href="#">EMRONC08</a>	05/31/2018 09:00 ...	06/12/2018	06/12/2018	ABC CLINIC	Oral Fluid	Released
<a href="#">EMRONC06</a>	06/06/2018 05:00 ...	06/12/2018	01/01/0001	ABC CLINIC	Urine	InTransit
<a href="#">EMRONC05</a>	06/08/2018 05:00 ...	06/12/2018	06/12/2018	ABC CLINIC	Oral Fluid	Released
<a href="#">EMRONC004</a>	06/05/2018 05:00 ...	06/12/2018	01/01/0001	ABC CLINIC	Oral Fluid	InTransit
<a href="#">EMRONC03</a>	06/04/2018 05:00 ...	06/12/2018	01/01/0001	ABC CLINIC	Urine	InTransit
<a href="#">EMRONC02</a>	06/03/2018 05:00 ...	06/12/2018	01/01/0001	MED PLUS SC	Oral Fluid	InTransit
<a href="#">EMRONC01</a>	06/10/2018 05:00 ...	06/12/2018	01/01/0001	MED PLUS SC	Oral Fluid	InTransit
<a href="#">EMRORDER0004</a>	06/04/2018 09:00 ...	06/11/2018	01/01/0001	MED PLUS SC	Oral Fluid	InTransit
<a href="#">EMRORDER0003</a>	06/04/2018 09:00 ...	06/11/2018	06/11/2018	ADAPT PROGRAMS LLC ...	Oral Fluid	ReceivedInLat
<a href="#">EMRORDER0002</a>	06/03/2018 09:00 ...	06/11/2018	01/01/0001	ABC CLINIC	Oral Fluid	InTransit
<a href="#">EMRONC07</a>	06/03/2018 09:00 ...	06/12/2018	06/12/2018	ABC CLINIC	Oral Fluid	ReceivedInLat
<a href="#">SFTTEST009</a>	01/17/2018 12:34 ...	01/16/2018	01/01/0001	ABC CLINIC	Urine	InTransit
<a href="#">123456780</a>	04/24/2018 10:16 ...	05/08/2018	01/01/0001	ABC CLINIC	Urine	InTransit
<a href="#">111111114</a>	04/25/2018 09:49 ...	05/01/2018	01/01/0001	ABC CLINIC	Urine	InTransit
<a href="#">test00201</a>	04/18/2018 01:19 ...	04/19/2018	01/01/0001	ABC CLINIC	Urine	InTransit
<a href="#">test00017</a>	04/18/2018 12:57 ...	04/18/2018	01/01/0001	ABC CLINIC	Urine	InTransit

EXPORT

Rows per page: 25

1-25 of 29

# Proof of Concept System Screens

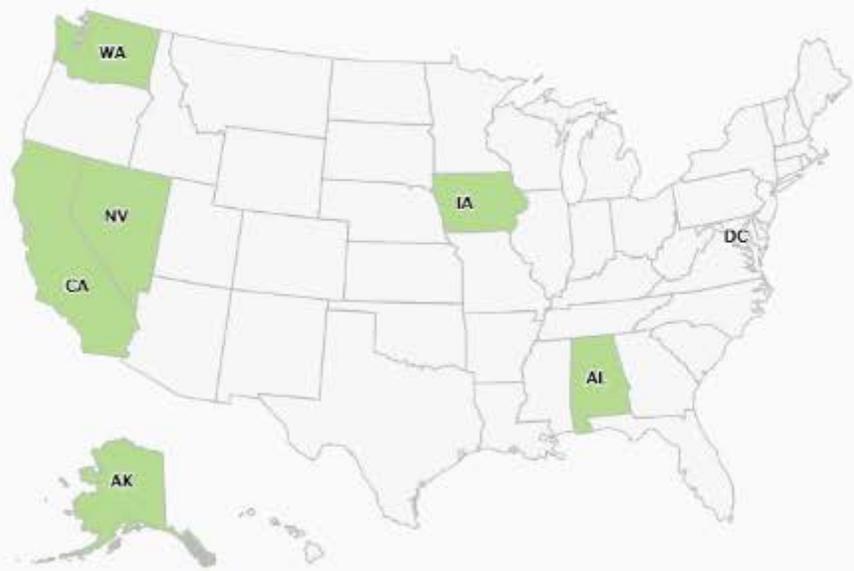


- Dashboard
- Failed Orders
- Incomplete Orders
- In Transit
- On Hold
- All Specimens
- Published Reports
- My Patients

- ORDER TESTS
- VIEW REPORTS



- CLINICS
- ORDERS
- PATIENTS
- OUTCOME



# Specimens Grid

☰ All Specimens 913

⚙️ ANDREW SINYAVER

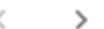
🔍 Quick Search

<input type="checkbox"/>		Specimen Id	Patient Name	Patient DOB	Collected	Submitted	Received	Facility Name	Specimen Type	Status	Trend	Outcome
<input type="checkbox"/>		<a href="#">EMRONC025</a>	<a href="#">Duddupudi, Rajesh</a>	01/01/1990	04/28/2018 09:00 pm	05/01/2018	05/01/2018	ABC CLINIC	Oral Fluid	ReceivedInLab		
<input type="checkbox"/>		<a href="#">2</a> <a href="#">ANDREW060</a>	<a href="#">Cruz, Tom J</a>	01/23/1961	05/01/2018 03:36 pm	05/01/2018	05/01/2018	ABC CLINIC	Urine	Released		NEGAT
<input type="checkbox"/>		<a href="#">ANDREW059</a>	<a href="#">Cruz, Tom J</a>	01/23/1961	05/01/2018 02:42 pm	05/01/2018	05/01/2018	ABC CLINIC	Urine	ReceivedInLab		
<input type="checkbox"/>		<a href="#">ANDREW058</a>	<a href="#">Cruz, Tom J</a>	01/23/1961	05/01/2018 10:14 am	05/01/2018	01/01/0001	ABC CLINIC	Urine	InTransit		
<input type="checkbox"/>		<a href="#">1</a> <a href="#">ANDREW058</a>	<a href="#">Duddupudi, Rajesh</a>	01/01/1990	05/01/2018 02:14 pm	05/01/2018	05/01/2018	ABC CLINIC	Urine	ReceivedInLab		
<input type="checkbox"/>		<a href="#">EMRONC999</a>	<a href="#">Duddupudi, Rajesh</a>	01/01/1990	04/27/2018 09:00 pm	05/01/2018	01/01/0001	ABC CLINIC	Oral Fluid	PendingReview		
<input type="checkbox"/>		<a href="#">2</a> <a href="#">EMRONC022</a>	<a href="#">Duddupudi, Rajesh</a>	01/01/1990	04/27/2018 09:00 pm	05/01/2018	05/01/2018	ABC CLINIC	Oral Fluid	Released		NEGAT
<input type="checkbox"/>		<a href="#">ANDREW057</a>	<a href="#">Cruz, Tom J</a>	01/23/1961	04/27/2018 11:35 am	05/01/2018	05/01/2018	ABC CLINIC	Urine	Released		NEGAT
<input type="checkbox"/>		<a href="#">ANDREW056</a>	<a href="#">Cruz, Tom J</a>	01/23/1961	04/27/2018 07:30 am	05/01/2018	01/01/0001	ABC CLINIC	Urine	PendingReview		
<input type="checkbox"/>		<a href="#">2</a> <a href="#">EMRONC021</a>	<a href="#">Duddupudi, Rajesh</a>	01/01/1990	04/23/2018 12:00 am	04/30/2018	01/01/0001	ABC CLINIC	Oral Fluid	Released		POSITIV
<input type="checkbox"/>		<a href="#">ANDREW055</a>	<a href="#">Cruz, Tom J</a>	01/23/1961	04/30/2018 09:57 pm	04/30/2018	01/01/0001	ABC CLINIC	Urine	Released		POSITIV
<input type="checkbox"/>		<a href="#">ANDREW054</a>	<a href="#">Cruz, Tom J</a>	01/23/1961	04/30/2018 09:39 pm	04/30/2018	01/01/0001	ABC CLINIC	Urine	ReceivedInLab		
<input type="checkbox"/>		<a href="#">ANDREW051</a>	<a href="#">Cruz, Tom J</a>	01/23/1961	04/30/2018 08:44 pm	04/30/2018	01/01/0001	ABC CLINIC	Urine	PendingReview		
<input type="checkbox"/>		<a href="#">EMRONC020</a>	<a href="#">Duddupudi, Rajesh</a>	01/01/1990	04/28/2018 12:00 am	04/30/2018	01/01/0001	ABC CLINIC	Oral Fluid	Released		POSITIV
<input type="checkbox"/>		<a href="#">EMRONC007</a>	<a href="#">Duddupudi, Rajesh</a>	01/01/1990	04/26/2018 09:00 pm	04/30/2018	01/01/0001	ABC CLINIC	Oral Fluid	InTransit		
<input type="checkbox"/>		<a href="#">EMRONC005</a>	<a href="#">Duddupudi, Rajesh</a>	01/01/1990	04/26/2018 09:00 pm	04/30/2018	04/30/2018	ABC CLINIC	Urine	ReceivedInLab		

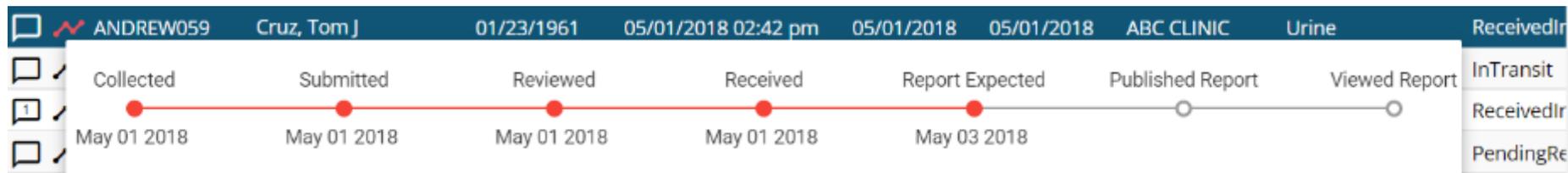
EXPORT

Rows per page: 25

1-25 of 913



# Timeline displays key events in specimen life cycle



## Commentary panel enables secure message exchange between clinics and laboratory



- A** Andrew Sinyaver  
05/01/2018 11:43 am  
answered all the AOE questions. let me know if anything else is needed
- T** Test User  
05/01/2018 11:44 am  
roger that

# Test Ordering

≡ TRF

ANDREW SINYAVER

Specimen Id \*

ONC110211

## 1 Physician Information

Physician Name \*

DOE, JANE MD



Facility Name \*

ABC CLINIC

## 2 Patient Information

Last Name \*

Cruz



First Name

Tom

Middle Initial

J

Birth Date

01/23/1961

Gender

Male

Address

Address (2nd line)

City

Philadelphia

State

PA

Zip

23121

Billing Method \*

Insured  Self-Pay  Uninsured

# AOE Questions based on program/test

Answer few questions.

Is patient pregnant? \*

Yes  No

Date of Exposure?

06/06/2018



Symptoms (select all that apply):

Cough

Fever

Chills

CANCEL

SUBMIT

# EPI Review screen

modified    CANCEL    SUBMIT

		Specimen Id	Patient Name	Patient DOB	Collected	Submitted	Facility Name	Epi Program Name	Priority	Review	Specimen Type
]  	<a href="#">testbb555</a>	WHYNOT, TIM	11/12/1975	06/13/2018 09:12 am	06/13/2018 01:13 am	ABC CLINIC	Zika	High	▼ Approved	▼ Urine	
]  	<a href="#">test3424o</a>	Vera, Oscar	10/02/1976	06/12/2018 12:43 pm	06/12/2018 04:44 am	ABC CLINIC	Zika		▼	▼ Urine	
]  	<a href="#">ANDREW067</a>	Wayne, John	10/16/1917	06/12/2018 12:35 pm	06/12/2018 04:38 am	ABC CLINIC	FLU	Low	▼ Rejected	▼ Urine	
]  	<a href="#">test342pp</a>	WHYNOT, TIM	11/12/1975	06/12/2018 06:37 am	06/12/2018 04:37 am	ABC CLINIC	Zika		▼	▼ Urine	

# Published Patient Reports

Quick Search

<input type="checkbox"/>	SpecimenId	LimsAccessionId	PatientName	PatientDateOfBirth	DateCollected	DateReceived	Outcome
<input type="checkbox"/>	<b>OIDPR180001260</b>	170700048	pregnancy, nancy	10/10/2010	07/27/2017 11:12 am	07/27/2017 11:12 am	POSITIVE
<input type="checkbox"/>	<b>OIDPR180001259</b>	170700046	pregnancy, nancy	10/10/2010	07/26/2017 01:31 pm	07/26/2017 01:31 pm	POSITIVE
<input type="checkbox"/>	<b>OIDPR180001256</b>	170700042	pregnancy, nancy	10/10/2010	07/20/2017 01:56 pm	07/20/2017 01:56 pm	POSITIVE
<input type="checkbox"/>	<b>OIDPR180001255</b>	170700041	pregnancy, nancy	10/10/2010	07/20/2017 01:38 pm	07/20/2017 01:38 pm	POSITIVE
<input type="checkbox"/>	<b>OIDPR180001235</b>	170700017	pregnancy, nancy	10/10/2010	07/06/2017 07:58 am	07/06/2017 07:58 am	POSITIVE
<input type="checkbox"/>	<b>OIDPR180001233</b>	170700012	pregnancy, nancy	10/10/2010	07/01/2017 12:00 am	07/05/2017 10:04 am	POSITIVE
<input type="checkbox"/>	<b>OIDPR180001232</b>	170700011	pregnancy, nancy	10/10/2010	07/01/2017 12:00 am	07/05/2017 09:17 am	POSITIVE
<input type="checkbox"/>	<b>OIDPR180001231</b>	170700010	pregnancy, nancy	10/10/2010	07/01/2017 12:00 am	07/05/2017 09:11 am	POSITIVE
<input type="checkbox"/>	<b>OIDPR180001230</b>	170700009	pregnancy, nancy	10/10/2010	07/01/2017 12:00 am	07/05/2017 09:07 am	POSITIVE
<input type="checkbox"/>	<b>OIDPR180001229</b>	170700008	pregnancy, nancy	10/10/2010	07/01/2017 12:00 am	07/05/2017 09:02 am	POSITIVE
<input type="checkbox"/>	<b>OIDPR180001228</b>	170700007	pregnancy, nancy	10/10/2010	07/05/2017 08:54 am	07/05/2017 08:54 am	POSITIVE
<input type="checkbox"/>	<b>OIDPR180001227</b>	170700006	pregnancy, nancy	10/10/2010	07/01/2017 12:00 am	07/05/2017 08:50 am	POSITIVE
<input type="checkbox"/>	<b>OIDPR180001218</b>	170600127	GORDON, FLASH	11/12/1941	06/19/2017 11:50 am	06/27/2017 10:04 am	NEGATIVE
<input type="checkbox"/>	<b>OIDPR180001216</b>	170600124	GORDON, FLASH	11/12/1941	06/19/2017 11:50 am	06/27/2017 07:36 am	POSITIVE
<input type="checkbox"/>	<b>OIDPR180001212</b>	170600118	GORDON, FLASH	11/12/1941	06/19/2017 11:50 am	06/26/2017 03:09 pm	NEGATIVE
<input type="checkbox"/>	<b>OIDPR180001211</b>	170600116	GORDON, FLASH	11/12/1941	06/19/2017 11:50 am	06/26/2017 02:44 pm	POSITIVE
<input type="checkbox"/>	<b>OIDPR180001209</b>	170600113	GORDON, FLASH	11/12/1941	06/19/2017 11:50 am	06/23/2017 10:28 am	NEGATIVE

EXPORT

Rows per page: 25 26-50 of 103

## Send to Physician

If you would like to share this patient report with another physician, please enter his or her email address below. Please note that you are responsible for verifying that the receiver has appropriate rights to see this patient's PHI. This email is not encrypted.

Subject

patient report

(optional)

Emails \*

3rd\_party\_physician@abchospital.com

Message

please take a look at the attached report

(optional)

CLOSE

SUBMIT

## Resources

### CONTACT US

#### Corporate Info

phone (415) 287-2300

fax (415) 287-2450

email [customercare@caredx.com](mailto:customercare@caredx.com)

3260 Bayshore Blvd

Brisbane, CA 94005

## Documents

[AlloMap](#)

[Draw site locator](#)

[Quick Guide](#)

[Quick guide example](#)

## Frequently Asked Questions

Quick Search

How do I submit a test order? ^

Go to Dashboard and click on "Click to Order" tile to open electronic Test Requisition Form.

How do I track my test order? v

How to view published lab report? v

How to view submitted order? v

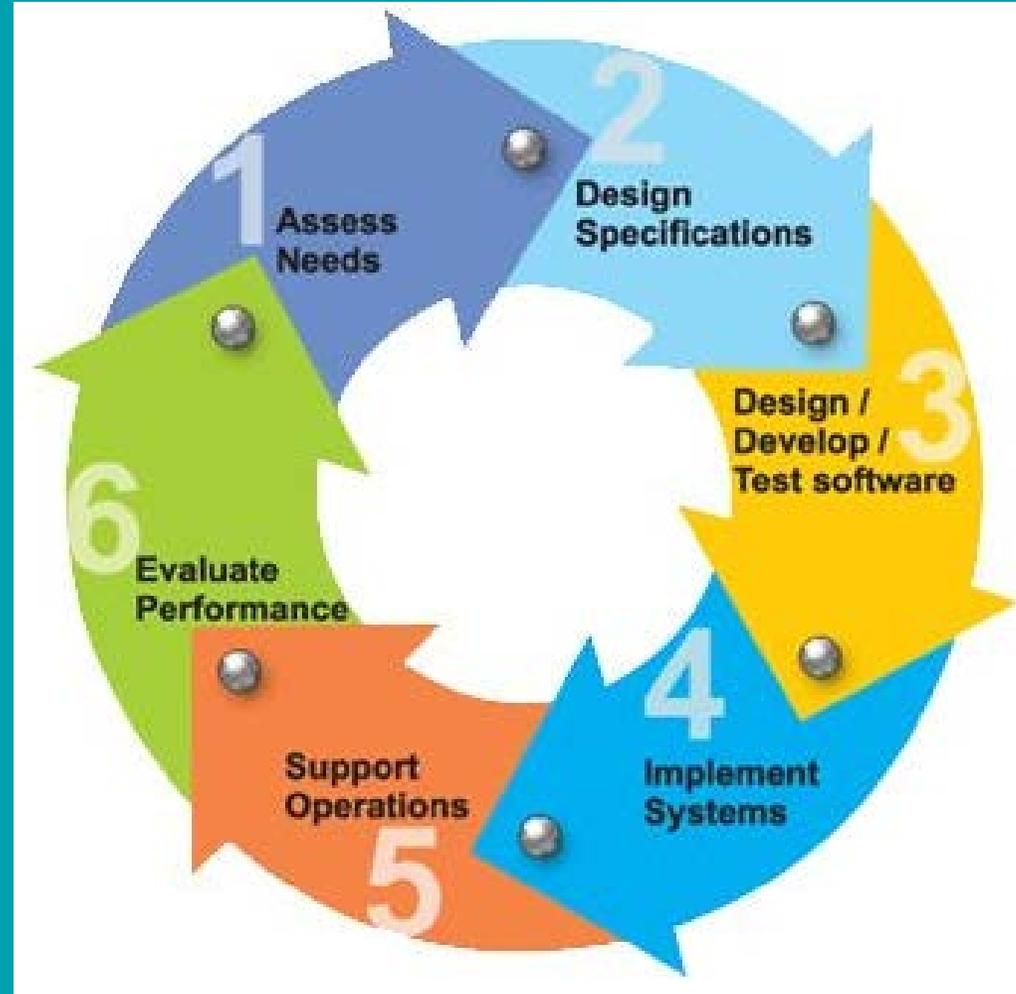
# EMR to ETOR to LIMS integration

Patient: Jimmy Cricket (PIDON180000174) + Open Encounter: None  
DOB: 1976-08-10 Age: 41

## LIMS Order LIMS History

Order ID	Specimen ID	Facility	Physician	Date Collected	Results
1	EMRONC02	MED PLUS SC	BURRESS, KELLI FNP	2018-06-04 00:00:00	Not Available
2	EMRONC03	ABC CLINIC	DOE, JOHN MD	2018-06-05 00:00:00	Not Available
3	EMRONC004	ABC CLINIC	DOE, JOHN MD	2018-06-06 00:00:00	Not Available
4	EMRONC05	ABC CLINIC	DOE, JOHN MD	2018-06-09 00:00:00	<a href="#">Download</a>
5	EMRONC06	ABC CLINIC	DOE, JOHN MD	2018-06-07 00:00:00	Not Available
6	EMRONC07	ABC CLINIC	DOE, JOHN MD	2018-06-04 00:00:00	Not Available
7	EMRONC08	ABC CLINIC	DOE, JOHN MD	2018-06-01 00:00:00	<a href="#">Download</a>
8	EMRONC09	ABC CLINIC	DOE, JOHN MD	2018-06-08 00:00:00	<a href="#">Download</a>
9	EMRONC10	ABC CLINIC	DOE, JOHN MD	2018-06-11 00:00:00	<a href="#">Download</a>
10	EMRONC11	ABC CLINIC	DOE, JOHN MD	2018-06-11 00:00:00	<a href="#">Download</a>
11	EMRONC12	ABC CLINIC	DOE, JOHN MD	2018-06-11 00:00:00	<a href="#">Download</a>
12	EMRONC13	ABC CLINIC	DOE, JOHN MD	2018-06-12 00:00:00	Not Available

# What's Next?



Continued system evolution & deployment

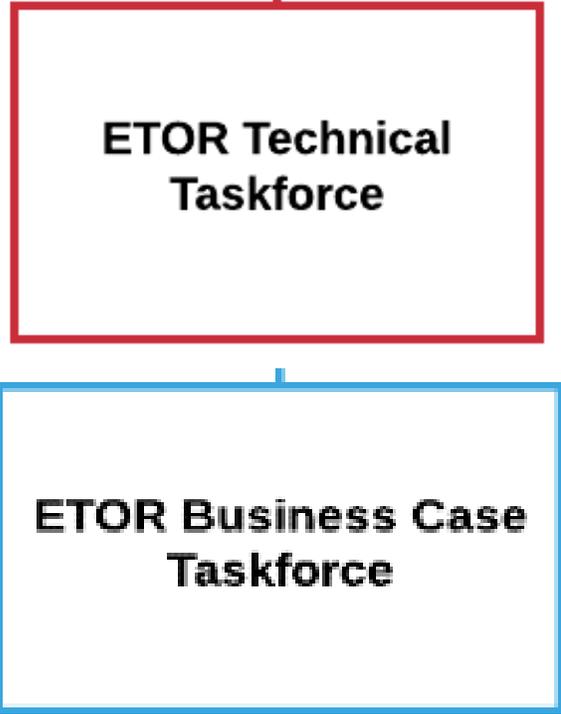
# Implementation of Enhanced Epi Functionality:

Use Case: *ARLN: CRE Colonization*

Objective: *Interrupt AMR Transmission*



# Engage and Collaborate

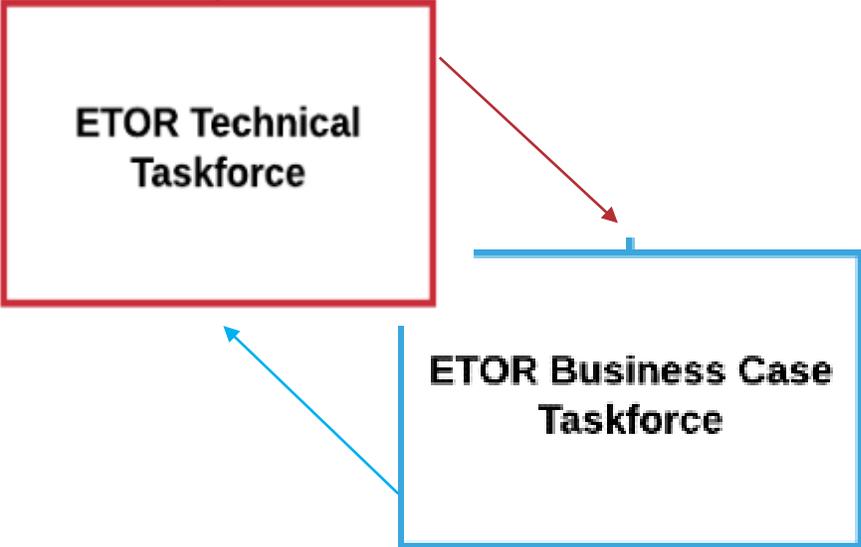


**ETOR Technical  
Taskforce**

**ETOR Business Case  
Taskforce**

- Complex initiative- needed to expand membership beyond PHLs
- Technical, business and operational components
- Meeting the needs of the project sponsors and PH stakeholders
- APHL technical efforts come into play
  - AIMS/member services
  - Cloud Computing options

# Identify operational/institutional topics for BC taskforce to consider



**Look at an all-hazards approach-**

**How can we better leverage the community to:**

- ✓ **Define and evolve common solutions to support both clinical and public health ETOR**
- ✓ **Identify the ETOR business case/operational drivers**

# Thank You!

## Questions?



Analysis. Answers. Action.

[www.aphl.org](http://www.aphl.org)