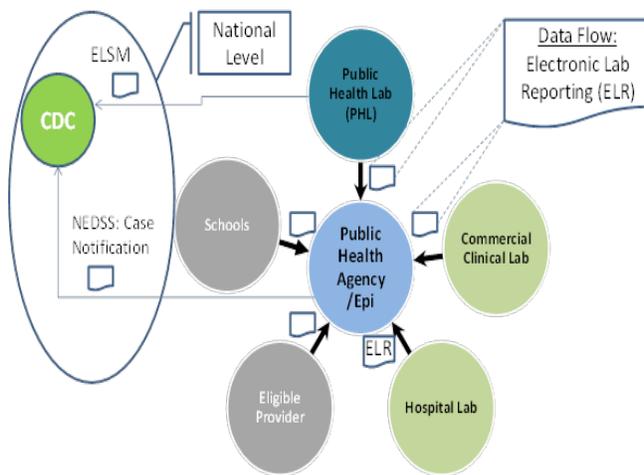


### Overview

Electronic Laboratory Reporting (ELR) supports disease surveillance and response capabilities of the public health community and is a key component of meaningful use. APHL programs enable ELR between public health agencies (PHA), Public Health Labs (PHL), Hospitals, Commercial Labs and other data exchange partners while enhancing the ELR capability and capacity at the PHL and PHA. The ELR initiative furthers the goal of nationwide electronic laboratory data exchange—a major priority for public health and homeland security.



The APHL Informatics ELR initiative is comprised of two programs:

- Laboratory Technical Implementation Assistance for Public Health (LTIAPH)
- Electronic Laboratory Reporting Technical Assistance (ELRTA)

In-Scope Data Flows:

- PHL → PHA
- Hospital (Electronic Health Record) → PHA
- Clinical labs → PHA

### Laboratory Technical Implementation Assistance for Public Health (LTIAPH)

LTIAPH, an ARRA HITECH sponsored project, represented APHL's initial focus on ELR to support the Reportable Laboratory Results (RLR) Public Health requirement of the **meaningful use** objectives for Hospitals. LTIAPH addressed 1) data-flow automation from Public Health Lab (sender) to Public Health Agency (receiver), helping PHAs to receive HL7 v.2.5.1 messages, and 2) systems approach to implementation systems, services and project methodology. As part of this program, assistance was committed for recipients of the HITECH Act's **Epidemiology and Laboratory Capacity (ELC)** grants. APHL Informatics provided technical assistance to public health agencies and laboratories in **Arizona, Florida, Iowa, Virginia, Rhode Island, Michigan, Massachusetts, New York, Houston, and Philadelphia** to enhance their ability to send and receive electronic laboratory reporting. Fiscal management enabled LTIAPH to provide assistance to several additional jurisdictions.

### Electronic Lab Reporting Technical Assistance (ELRTA)

By leveraging the knowledge, processes and project management experience developed through APHL Informatics' other interoperability projects, including LTIAPH Public Health Laboratory Interoperability Program (PHLIP), ELRTA enables ELR capability on a larger scale, supporting not only PHAs and PHLs but also commercial labs with a HL7 v.2.3.1 lab results message. To date, this program is providing technical assistance to more than a dozen jurisdictions with several more requests in the pipeline. The program is still accepting technical assistance requests.

## APHL ELR Vision

- Promote interoperability: the ability of different types of systems, including computers, networks, and operating systems and applications, to work together effectively in order to exchange information in a useful and meaningful way.
- Enable state public health labs (SPHLs) to exchange laboratory data with public health agencies (PHAs) and build the data exchange infrastructure for other use cases.
- Promote adherence of messaging and data standards amongst data exchange partners including LOINC, SNOMED and HL7 messages
- Offer one-on-one technical assistance, tailoring the solutions to meet the needs of each implementation, while developing a common framework and reusable components.

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## APHL Informatics Technical Assistance Team Approach

APHL Informatics has developed the Technical Assistance Team (TAT) approach to provide hands-on assistance and guidance for data exchange implementations in the Public Health domain. The TAT works with TA recipients remotely and on-site to assist in technical architecture, messaging and vocabulary standardization. This direct assistance has been very effective and beneficial to the resource constrained Public Health institutions, across all APHL Informatics projects. To date, APHL TATs have visited  $\frac{3}{4}$  of the nation's SPHLs, many of the PHA's and numerous Laboratory data exchange partners.

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## ELR Goals

- Offer **Menu-of-services** that are grouped into **General Assistance** and **Targeted Assistance** categories.
- Balance level-of-effort between providing and developing a common framework and re-useable components and one-on-one assistance
- Promote adherence to interoperability standards in areas like laboratory processes, vocabulary (syntax and semantics of message and applicable value sets like **HL7 codes, LOINC, SNOMED**, etc.) and information technology (data transport and transmission, data security, cross-reference mapping and directory look-ups, etc.)
- Collaborate with other parallel efforts in ELR landscape such as the National ELR Taskforce and the Vocabulary and Messaging Community of Practice (VMCoP)
- Compile and share knowledge across agencies through Webinars, presentations, vocabulary harmonization efforts, and other resources
- Leverage APHL's efforts across the Public Health space to accelerate and enhance electronic laboratory reporting, while also advancing APHL's long-term interoperability strategy
- Continue collaboration within a pre-defined operational framework with HITECH grant LIC (Laboratory Interoperability Cooperative)

## Technical Assistance

- Offer best practices and specific guidance related to ELR implementations
- Develop position statements to clarify requirements related to **Meaningful Use**
- Facilitate adoption of national ONC standards and implementation guide, "**HL7 Version 2.5.1 Implementation Guide: Electronic Laboratory Reporting to Public Health, Release 1 (US Realm)**", by developing a constrained profile
- Specialize in one-on-one implementation assistance:
  - Design
    - Vocabulary & HL7 messaging
    - Solution/Technical Architecture
  - Implementation
    - Development support
    - Testing/validation frameworks
  - Processes
    - Partner agreements
    - Operational aspects

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*For more information on the **Electronic Laboratory Reporting Technical Assistance** program, or on any of APHL's other initiatives visit*

<http://www.aphl.org/aphlprograms/informatics/data-exchange-initiatives>

*or contact Wes Kennemore, MD, Health Information Technology Manager at [wes.kennemore@aphl.org](mailto:wes.kennemore@aphl.org).*