

2013 YEAR IN REVIEW



LABORATORY EFFICIENCIES INITIATIVE

TRANSFORMING TO A SUSTAINABLE
PUBLIC HEALTH LABORATORY SYSTEM



LABORATORY EFFICIENCIES INITIATIVE

2013 Year in Review

The Association of Public Health Laboratories (APHL) and the Centers for Disease Control and Prevention (CDC) founded the Laboratory Efficiencies Initiative (LEI) in 2011 to help public health laboratories (PHLs) improve their individual efficiency and sustainability and their collective contribution to the improved efficiency and sustainability of the nation's public health laboratory system.

During 2013, PHL directors, APHL, CDC, and partners continued to advance the LEI in three key areas:

- *Products and tools*
- *Planning and leadership*
- *Partnership and outreach*

LEI activities in 2013 were guided by the goals and objectives of the strategic plan originally developed in 2012. This report summarizes some of the principal LEI achievements in 2013 and the foundation they laid for continued progress in 2014.



**LABORATORY
EFFICIENCIES
INITIATIVE**

Vision

A sustainable and integrated network of public health laboratories.

Mission

To assure that the public health laboratory network efficiently provides high-confidence scientific evidence to drive decision-making that protects and improves the health of the public.

Products and Tools

New Products and Tools

During 2013, APHL and CDC completed and released four new LEI products for public health laboratories and stakeholders and initiated or continued development of four additional products scheduled for distribution in 2014. These resources address laboratory management and quality improvement practices, legal considerations for shared services and workforce development.

Products and tools completed in 2013:

- The [Informatics Self-Assessment Tool, text version](#), was published in June 2013. The tool gives PHL professionals the ability to identify and plan for their required informatics capabilities, prioritize the use of existing resources, document and communicate these priorities to policy makers, and monitor current informatics capabilities on an on-going basis.
- The [State Public Health Laboratory Billing: Status Report and Recommendations](#) was released in October 2013. This guide was created as a resource in response to increasing pressure on PHLs to bill for their services as a way to supplement diminishing budgets. This report contains an overview of current PHL billing capacity, examples of successful PHL billing processes, examples of challenging aspects of initiating PHL billing, basic billing processes, a set of recommendations, and a directory to additional, related resources.
- In collaboration with APHL's [National Center for Public Health Laboratory Leadership \(NCPHLL\)](#), the LEI program coordinated and supported advanced training courses in preparation for Lean certification. Fifteen laboratory professionals participated in the advanced Lean training; three of those were selected for additional training for Lean certification.
- APHL and CDC sponsored the September/October 2013 Public Health Reports supplement "[Public Health Laboratory Systems: At the Crossroads](#)," which focuses on PHL system improvements and research. The 15 editorials, commentaries and manuscripts in the supplement describe and evaluate innovative and effective processes that demonstrate strengthening of the PHL system and showcase improvement activities that have been successfully carried out.

Development of the following four additional products began in 2013 and will be completed in 2014:

- The online version of the **Informatics Self-Assessment tool** is expected to be released in mid-2014. The tool will be available in an online system, allowing for easier use across multiple laboratory sections and multiple laboratory information management systems (LIMS). The online format will also allow APHL to aggregate and analyze data across the PHL system.
- The **Policy Guide for Public Health Laboratory Test Service Sharing** was released in early 2014. The Policy Guide is a resource that public health laboratory directors and their colleagues can use as they explore legal and other policy questions related to state PHLs' sharing test services with each other. It presents practical information and examples that laboratory directors might find helpful as they explore ways to address formal test sharing agreements. Research for the policy guide was funded by the Public Health Law Research Program at Temple University with support from the Robert Wood Johnson Foundation.

- The **Public Health Laboratory System Database** (PHLSD) is a tool that enables PHLs to manage their own data on personnel, regulations, test methods, and equipment. Each PHL will have its own local database and can use it to generate reports for a variety of purposes, such as regulatory inspections and CDC program requests. PHLs also will be able to export data to Excel spreadsheets for further analysis. Data will be uploaded to APHL and used to develop a national PHL test service directory. The tool was launched in March 2014 to a limited number of states and initial data will be collected shortly thereafter. Nationwide distribution will occur in mid-2014.
- A comprehensive set of **PHL workforce competencies** are expected to be published in late 2014. The competencies are the first ever targeted to the PHL workforce and will address multiple long-standing workforce development needs. The competency set contains 15 domains (topic areas) that will allow development of competency-based job descriptions, performance assessments, and training/education (among other uses) for the PHL workforce.

Planning and Leadership

Updated Strategic Plan

LEI leadership from APHL and CDC convened in the fall of 2013 to update the 3-year LEI strategic plan and review progress and metrics. The group discussed opportunities and challenges present in the current fiscal environment; proposed next steps for LEI; further developed activities for each goal; and established new metrics for each activity for the next 12 months. The final LEI strategic plan with projected activities can be viewed at www.aphl.org/lei.

Updated Strategic Plan Goals

- I. Implement and sustain innovative laboratory management practices
- II. Assure that public health laboratories have full informatics capability to participate in electronic information exchanges
- III. Identify and address institutional, legal and policy barriers to greater efficiency
- IV. Assure that resources, infrastructure and partnerships are adequate to meet the LEI mission
- V. Communicate, inform and educate on the critical purpose of public health laboratories and the value of LEI in sustaining them
- VI. Transform all laboratories in the public health system to a culture of efficiency

Partnerships and Outreach

Partners Forum

Representatives of the American Public Health Association (APHA), the Council of State and Territorial Epidemiologists (CSTE), and the National Association of County and City Health Officials (NACCHO) participated in a conference call with APHL and CDC to follow-up on the Partners Forum that APHL held in December 2012. The call in December 2013 updated the partners on LEI activities, with special emphasis on sharing products and tools that have been created or are in various stages of development; exploring efficiency-related activities that the partners are considering and have adopted; and engaging in open discussion to explore opportunities for collaboration on additional efficiency related directions.

Partnerships

- APHL partnered with Abbott Diagnostics on a Lean pilot project which conducted workflow studies at three PHLs. The laboratories selected were Missouri and Rhode Island state PHLs, and the City of Long Beach local PHL. A poster showcasing the findings was presented at the 2013 APHL Annual Meeting.
- APHL partnered with Deloitte Consulting to offer APHL member laboratories the opportunity to participate in a spend management project to assess and identify opportunities for reducing spending through category assessment and review of current purchasing strategies. The New Mexico, Tennessee, and California state PHLs were selected to participate in this project.

Outreach

Promoting the LEI to stakeholders is crucial to the success and future of the initiative. Outreach and communications for the LEI have occurred through many different channels.

Promotional Materials

- The [LEI Fact Sheet](#) was updated to promote the LEI and provide a quick reference on the tools and resources available to increase laboratory efficiency.
- APHL's [LEI website](#) was updated quarterly to share information about the many LEI activities and products. CDC maintains an [LEI website](#) as well.
- The [Laboratory Efficiencies Initiative Policy Fact Sheet](#) was updated for use by APHL members and staff to educate policymakers about the LEI during APHL's Hill Day.
- A call for papers for a [Public Health Reports supplement](#) led to the August 2013 publication of the "Public Health Laboratory Systems: At the Crossroads" supplement.
- LEI-related articles were solicited and published in APHL's [Lab Matters](#) including:
 - Winter 2013: "[Public Health Leaders Assemble to Support Laboratory Efficiencies](#)"
 - Spring 2013: "[Efficient Test Sharing at WI Occupational Health Lab](#)"
- The LEI Newsletter was created. [Spring](#) and [fall](#) issues were emailed to all APHL members and partners during 2013.

LEI Communication Plan

A communication strategic plan was created for the LEI. The three-year plan (2013-2015) is designed to convey LEI goals, activities and successes to gain support for these critical changes to improve the efficiency of the PHL system. The LEI communication plan will help to advance the LEI through encouraging an effort among laboratories to communicate improvements, sharing progress with laboratories and partners, and confirming a return on investment by communicating the fundamental value of the work of PHLs to the public and legislators.

The LEI Communications Plan will:

- Position LEI as a smart intervention to ensure that the public's health is protected despite cuts in health budgets. Key messages are that the LEI is a comprehensive solution to a systemic problem and it addresses the issue of diminishing capacity and capability head-on.
- Engage PHLs and health departments as supporters and participants in the LEI.
- Share information with LEI partners such as PHLs, federal agencies involved in protecting public health and safety, public health associations, state and local health agencies, corporate partners and others.

APHL 2013 Annual Meeting Presentations

- Informational posters jointly created by APHL and CDC and presented at the APHL Annual Meeting include: [Encouraging an Effective Public Health Laboratory System](#), [LEI Policy Guide](#), [Improving Data Management](#), and [Informatics Self-Assessment Tool](#).
- APHL and laboratory leadership from MO, RI and Long Beach, CA created the [APHL and Abbott Laboratories Lean Pilot Project](#) poster.
- A list of additional posters presented at the Annual Meeting on topics related to efficiency can be viewed at www.aphl.org.
- A breakout session, "The [Update on Laboratory Efficiency Initiative Activities](#)," at the APHL Annual Meeting gave an overview of LEI accomplishments and resources.

LEI Representation at Other Meetings

Presentations were made by LEI leadership through different outlets across the nation to educate audiences about the background of LEI and the importance of increasing efficiencies for sustainability, including:

- National Laboratory Training Conference VII, Atlanta, GA, April 30, 2013
- Clinical Virology Symposium, Daytona Beach, FL, April 30, 2013
- American Society for Microbiology Annual Meeting, Denver, CO, May 2013
- APHL's New Public Health Laboratory Director Orientation, Atlanta, GA, May 2013
- APHL Council of Chairs, Raleigh, NC, June 2, 2013
- CSTE Annual Meeting, Pasadena, CA, June 10, 2013
- National TB Conference, Atlanta, GA, June 11, 2013
- NACCHO Annual Meeting, Dallas, TX, July 11, 2013

- APHL Corporate Leadership Council, Silver Spring, MD, October 9, 2013
- SHO/ASTHO 50 state call, February and November 2013
- Updates given to APHL standing committees as requested

Meetings and Consultations

Due to intensive engagement by a large number of stakeholders in the LEI, APHL and CDC convened a number of outcome-oriented meetings.

- As a follow up to the 2012 data consultation meeting where APHL and CDC began developing the Public Health Laboratory System Database (PHLSD), a kickoff meeting was held on August 27, 2013 with a workgroup of APHL, CDC, and public health laboratory leaders. Meeting topics included discussing the structure and framework of the database, brainstorming on how and what data are to be uploaded to national file hosted at APHL, deciding what reporting features are needed, and initial planning of a marketing campaign. Numerous teleconferences were held to continue reviewing the database. APHL committees were solicited for input and advice at various stages of the project.
- APHL and CDC convened an annual meeting between policy staff in the CDC programs that operate or support laboratories and APHL's standing Legislative and Policy Committee to discuss current legislation and policies that are important for PHLs. The CDC Advanced Molecular Detection Initiative was highlighted. In addition, an intermediate draft of the Policy Guide for Public Health Laboratory Test Service Sharing was shared.
- In an effort to expand on the workforce goal of the LEI Strategic Plan, APHL and CDC convened 30 participants in Atlanta on May 13-14, 2013. PHL leaders, APHL staff, and CDC principals collaborated to design a workforce strategic plan that strengthens current activities, offers new strategies for addressing unmet needs, and refines existing recommendations to ensure a strong public health laboratory workforce.

Products and Tools Pending Funding

The following activities were part of the strategic plan and targeted for completion in 2013, but were not funded. As additional funding is identified, the need for these projects will be re-evaluated and prioritized.

- The potential for one-time equipment support will be explored through a task force composed of PHL directors to develop a possible list of equipment or products and explore various methods of funding.
- A PHL informatics strategic plan will be created.
- Regional forums for sharing of information and education related to lessons learned in laboratory efficiencies activities will be held.
- A forum on forecasting new and emerging technologies will be convened.
- A strategy and road map will be developed for identifying and integrating new and emerging technologies which will impact PHLs.
- New and emerging areas of public health where PHLs can use current and new technologies to improve public health will be identified.

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