



LIMS

(Laboratory Information Management System)

Origin Story

The bioterrorism events of 2001 involving anthrax made it clear that public health laboratories needed a more robust information-sharing option. In response, the Association of Public Health Laboratories (APHL) took steps to establish common components and processes of a universal Laboratory Information Management System (LIMS).

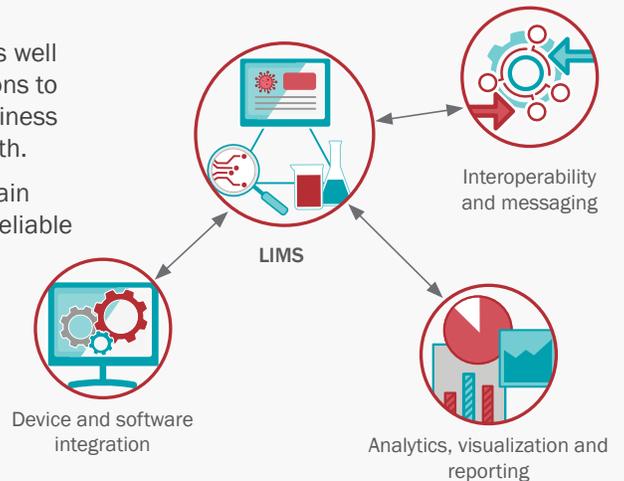
With funding from the Robert Wood Johnson Foundation, APHL worked with the Public Health Informatics Institute and public health labs across the country to identify common business practices at public health labs that could form the basic requirements of what LIMS needed to accomplish. The team identified 16 such processes, including lab test processing, specimen collection, general lab reporting, and statistical analysis and surveillance.

How It Works

At its core, LIMS is an information system that provides the infrastructure for labs to store, organize, retrieve and process, as well as streamline certain lab operations. By empowering organizations to manage higher specimen volumes and improve their overall business operations, LIMS improves patient care and protects public health.

By adapting common coding languages and complying with certain requirements, public health labs using LIMS benefit from more reliable specimen tracking, accurate analysis, seamless data exchange among partners and timely reporting within a traceable environment. Other advantages include:

- Increased compliance with quality standards
- Decreased transcription errors
- Faster turnaround times from specimen to result
- Improved patient outcomes



COVID-19 Response

Public health labs across America are implementing new, preconfigured LIMS solutions and adapting their existing systems to perform and accommodate more COVID-19 testing at an accelerated pace.

Part of this effort includes a Lab Web Portal (LWP) solution offered to interested public health labs by APHL, in partnership with CDC and iConnect consulting, for electronic COVID-19 test orders and results. APHL is also providing informatics expertise, software and required tools for implementation.

LWP enhances critical and timely communication between laboratory staff, epidemiologists and healthcare providers during response efforts. LWP also supports overall lab testing workflow, provides a customizable dashboard for tracking specimens and includes other role-based, configurable tools.

Additional Reading

- [LIMS and Public Health Requirements for Public Health Laboratory Information Management Systems](#)
- [Brave New World of Laboratory Informatics II](#)
- [Laboratory Information Systems Project Management: A Guidebook for International Implementations](#)
- [One LIMS to Rule them All: Solving a Terminology Conundrum](#)