What are Laboratory Systems?

Laboratory systems include the technical domains that all clinical or environmental laboratories must have in place regardless of location, size, or expertise. Every clinical or environmental laboratory needs quality and safety management systems, informatics and data systems, training and workforce development programs, active partnerships and outreach, and preparedness planning for responding to unusual circumstances or emergencies. These systems are necessary for the testing community to produce quality laboratory results that advance patient care and protect public health.

Division of Laboratory Systems

STRATEGIC FRAMEWORK FY2023-2025

Excellent laboratories, outstanding health

Centers for Disease
Control and Prevention

Division of Laboratory Systems



STRATEGIC FRAMEWORK

The Centers for Disease Control and Prevention's (CDC) Division of Laboratory Systems (DLS) works to advance quality and safety systems, informatics and data science, and training and workforce development.

MISSION

Improve public health, patient outcomes, and health equity by advancing laboratory systems

VISION

Exemplary laboratory practice and systems strengthen clinical care, public health, emergency response, and health equity

GUIDING PRINCIPLES

Our core values guide all we do in DLS.

ORGANIZATIONAL EXCELLENCE

Cultivate an equitable, inclusive, and accessible environment that fosters a diverse, innovative, result-driven, and collaborative workforce

PARTNERSHIPS

Foster public and private partnerships to strengthen the role of laboratory practice in clinical care, public health, and emergency response

SCIENTIFIC EXCELLENCE

Promote scientific quality and integrity of laboratory standards, practice, innovation, and evaluation to improve the public's health

COMMUNICATION

Deliver timely, actionable messages using plain language, inclusive principles, and appropriate communication channels

HEALTH EQUITY

Apply health equity principles in all DLS activities

GOALS

Quality and Safety

Improve the quality and safety of clinical and public health testing and practice

- Advance the integration of laboratory expertise in healthcare systems to improve diagnoses
- Generate and increase the use of adaptive quality management systems that support next generation sequencing workflows
- Advance the development and use of standards, guidelines, and regulations to improve the quality of laboratory testing
- Lead the implementation of biorisk management system standards for the safety of laboratory and testing professionals and their communities

Data Exchange and Analytics

Improve the exchange and use of clinical laboratory testing data

- Modernize the public health informatics infrastructure for the testing community to improve the timely exchange of clinical laboratory data
- Advance the quality and interoperability of clinical laboratory data through the development and use of standards
- Conduct studies that use data from or about the clinical and public health testing community

Training and Workforce Development

Reach, train, and sustain clinical and public health laboratory professionals and the testing community

- Develop an ongoing learning community that strengthens links among clinical laboratories, public health laboratories, and CDC
- Increase the extent to which training and workforce development resources are accessible and responsive to the evolving needs of laboratory professionals
- Improve the capacity of public health and clinical laboratories to sustain their own training and workforce development programs
- Develop a community of practice to connect testers in nonlaboratory settings to CDC and to each other, provide training resources tailored to testers' needs, and empower them to train each other

CDC Biorepository

Expand access by preserving sample quality and enhancing collection and data standards

- Lead and promote a culture of excellence and continuous quality improvement for the CDC Biorepository
- Improve the development, integration, and visibility of biorepository safety and operation standards to minimize risks to the workforce and samples
- Enhance services and tools that address the critical need for sample management across CDC
- Develop an infrastructure and implement sample sharing for CDC programs

Preparedness and Response

Enhance the preparedness and response capabilities and capacities of the clinical and public health testing community

- Engage in new partnership opportunities to enhance response capabilities for public health emergencies and surveillance for emerging threats
- Improve communications and reach for continual engagement with the testing community
- Identify testing facilities and implement mechanisms to enhance surge testing capacity
- Increase the availability of resources and develop materials for testing facilities to respond to public health threats

www.cdc.gov/labsystems

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