

GLLP Global Laboratory
Leadership Programme
Strong leaders for health security

The goal of the Global Laboratory Leadership Programme (GLLP) is to foster and mentor current and emerging laboratory leaders to build, strengthen, and sustain national laboratory systems.

www.who.int/initiatives/global-laboratory-leadership-programme



Strong leaders support strong laboratory systems and contribute to health security.



ABOUT THE GLLP PARTNERS

The GLLP partners are committed to empowering and providing tools for laboratory leaders to develop their competencies and advance their national laboratory systems to improve health security using a One Health approach.

The GLLP Partners are:

- [Association of Public Health Laboratories \(APHL\)](#)
- [Centers for Disease Control and Prevention \(CDC\)](#)
- [European Centre for Disease Prevention and Control \(ECDC\)](#)
- [Food and Agriculture Organization of the United Nations \(FAO\)](#)
- [World Organisation for Animal Health \(OIE\)](#)
- [World Health Organization \(WHO\)](#)

BACKGROUND

Laboratories are an essential and fundamental part of health systems, playing a critical role in the detection, diagnosis, and control of diseases. Past outbreaks have demonstrated how a lack of robust laboratory systems can dramatically impede these efforts.

Infectious disease outbreaks such as the COVID-19 pandemic and Ebola outbreaks have put unprecedented pressure on health services worldwide, including laboratories. These events further highlight the importance of building sustainable national health laboratory systems, run by leaders capable of understanding all system components and working collaboratively across all sectors.

Strong laboratory leadership is crucial to ensure a functional laboratory system and there are currently few programmes that meet this need. To build leaders, the GLLP provides a comprehensive, competency-based programme focused on laboratory leadership and management.

The GLLP advocates for a One Health approach where all relevant sectors and disciplines across the human-animal-environment interface are involved to address health in a more effective, efficient, and sustainable way. Specialized trainings for laboratory leaders, such as the GLLP, support a country's capacity to respond to future outbreaks and health emergencies.

“GLLP provided me with the opportunity to work in a real One Health scenario, interacting with other sector persons as well as the course mentor. It also gave me a vision of leadership and how to use communication skills as a way forward in our endeavors.

With the emergence of the COVID-19 pandemic, there came many challenges related to management and communication, but our learning during the course helped us to counter these issues.”

Dr. Muhammad Abubakar, Senior Scientific Officer, National Veterinary Laboratory, Pakistan



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TARGET AUDIENCE

The GLLP target audience includes current and emerging laboratory leaders, specifically mid- to upper-level career laboratory professionals with a minimum of two years of managerial, leadership, and decision-making experience related to laboratory services. GLLP participants may include, but are not limited to laboratory managers, supervisory laboratory scientists, laboratory directors, and non-bench laboratory personnel in multidisciplinary, private, university, and public sectors related to laboratory services. Multidisciplinary and multisectoral participant cohorts are encouraged to support the integration of the One Health approach at all levels of national health laboratory systems, as well as the sustained development of communities of practice for health laboratory leaders.

A laboratory leader is an individual laboratory science subject matter expert responsible for leading staff, managing finances, advocating for the laboratory, building relationships with external partners and navigating legislative processes.

A laboratory system is a grouping of laboratories and other partners within a country that supports the overall health system within that country. The laboratory system may include various laboratory networks operating within an area to facilitate the exchange of information, optimize laboratory services, and help control and prevent diseases and other health threats across the span of human, animal and environmental health.

PROGRAMME LEARNING OBJECTIVES

Upon completion of the programme, participants will be able to:

- Successfully demonstrate laboratory management and leadership skills including effective communication
- Mentor laboratory professionals in order to help build human resource capacity
- Assess the laboratory system performance and formulate plans to advance and sustain the system
- Recognize, adopt, and apply best practices in the human, animal, and environmental sectors to ensure quality laboratory services
- Advocate for the contribution of human, animal and environmental laboratories

The GLLP encapsulates the following nine core competencies outlined in the [Laboratory Leadership Competency Framework](#):

- Laboratory System
- Leadership
- Management
- Communication
- Quality Management System
- Biosafety and Biosecurity
- Disease Surveillance and Outbreak Investigation
- Emergency Preparedness, Response, and Recovery
- Research

Ensuring laboratories can effectively fill their critical role in the prevention, detection, and control of diseases.

One Health: Improving the health of people, animals, and our environment.



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LABORATORY LEADERSHIP COMPETENCY FRAMEWORK

The GLLP is designed to support expert level achievement of the competencies described in the [Laboratory Leadership Competency Framework](#). The Framework outlines the essential competencies needed by laboratory leaders to direct sustainable laboratories and build laboratory systems; it provides the foundation for the GLLP.

PROGRAMME COMPONENTS AND FLEXIBLE IMPLEMENTATION OPTIONS

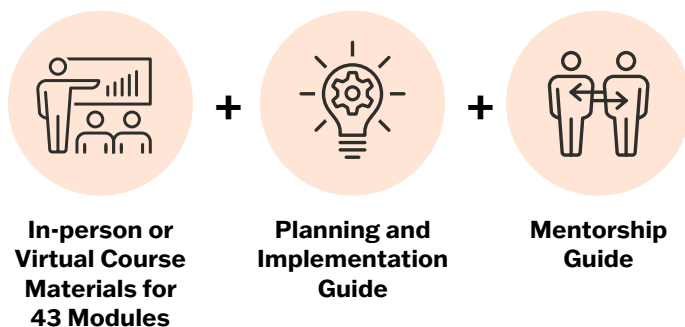
The GLLP Learning Package provides the materials necessary to implement a laboratory leadership programme in any region, country, or educational institution in the world.

The programme is designed to be delivered over a two-year period, however the schedule may be adapted to meet country needs. The programme is available for delivery in-person, virtually or in a blended format.

DETERMINING READINESS TO IMPLEMENT GLLP

Implementation of the GLLP requires commitment by all programme collaborators, the attainability of funding for the duration of the programme, as well as the accessibility of the human resources essential for a successful programme, including faculty, mentors and qualified participants. The GLLP Readiness Assessment Guide provides guidance on determining readiness to implement a GLLP.

← GLLP LEARNING PACKAGE →



GLOBAL LABORATORY LEADERSHIP PROGRAMME: 2 YEARS TOTAL

Training content (18 months)

- 200 contact hours
- Interactive didactic sessions

Mentorship (24 months)

- At regular intervals throughout the programme duration to support learning and professional development
- Mentored laboratory projects between sessions to support learning

Capstone project (6 months)

- Development and implementation which reinforce learning
- Supports national laboratory system needs

Community building activities (24+ months)

- Within and between cohorts for network building and creation of a community of practice

PROGRAMME CONTENT

1. Introduction
1.A Introduction to GLLP and Laboratory systems
1.A.1 An Introduction to GLLP
1.A.2 An Introduction to Laboratory Systems

The programme is designed to be delivered over a two-year period and is available for delivery in-person, virtually, or in a blended format.

2. Laboratory Management
2.A General Management Principles
2.A.1 General Management Skills
2.A.2 Financial Management
2.A.3 People Management
2.A.4 Laboratory Information Systems
2.B Quality Management System
2.B.1 Introduction to Quality Management System
2.B.2 Process Management
2.B.3 Documents and Records Management
2.B.4 Equipment and Consumables
2.B.5 Nonconforming Events Management
2.B.6 Assessments
2.B.7 Continual Improvement
2.B.8 Customer Focus
2.C Safety
2.C.1 Biosafety
2.C.2 Biosecurity
2.C.3 Shipment of Dangerous Goods
2.D Laboratory Role in Disease Surveillance
2.D.1 Principles of Surveillance
2.D.2 Outbreak Investigation
2.E Managing Emergencies
2.E.1 Emergency Preparedness
2.E.2 Emergency Response
2.E.3 Emergency Recovery

3. Laboratory Leadership
3.A General Leadership
3.A.1 General Leadership Skills
3.A.2 Laboratory Policy and Strategic Planning
3.A.3 Organizational Leadership
3.A.4 Critical Thinking, Problem-Solving, and Decision-Making
3.A.5 Partnerships and Coalition Building
3.A.6 Ethics in the Laboratory
3.B Communications
3.B.1 General Communication Skills
3.B.2 Proposal Writing
3.B.3 Messaging and Media Relations
3.B.4 Risk Communication
3.B.5 Scientific Communication
3.C Research
3.C.1 Research and Innovation

4. Laboratory Systems
4.A Model Laboratory Systems
4.A.1 Model Laboratory System Overview
4.B Laboratory System Essentials
4.B.1 Policy And Legal Framework
4.B.2 Infrastructure
4.B.3 Workforce
4.B.4 Information Systems
4.B.5 Quality Management System
4.B.6 Biosafety and Biosecurity
4.C Case Study
4.C.1 Infectious Disease Case Study
4.D Laboratory System Development
4.D.1 Moving Forward





ARE YOU INTERESTED IN IMPLEMENTING THE GLLP?

Visit our website:

<https://www.who.int/initiatives/global-laboratory-leadership-programme>

GLLP general email: GLLP@who.int

GLLP Partner contacts:

- APHL: Shannon Emery; shannon.emery@aphl.org
- CDC: Adilya Albetkova; aalbetkova@cdc.gov
- ECDC: Aftab Jasir; aftab.jasir@ecdc.europa.eu
- FAO: Lidewij Wiersma; lidewij.wiersma@fao.org
- OIE: Jennifer Lasley; j.lasley@oie.int
- WHO: Virginie Dolmazon; dolmazonv@who.int

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