

Global Laboratory Leadership Programme

Future Africa - 1Hope Webinar Series 2

2 December 2020

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Background

Workforce Challenges

Health workforce challenges

- Lack of specialized training of health professionals in the areas of leadership and management¹

Laboratory leadership workforce challenges

- Laboratory science education lacks adequate management training
- Uncertain career path
- Laboratory directors have limited input to national financial planning of health funding

¹Howard K. Koh, Marsha Jacobson; Fostering public health leadership, *Journal of Public Health*, Volume 31, Issue 2, 1 June 2009, Pages 199-201, <https://doi.org/10.1093/pubmed/fdp032>

The GLLP Partners

A multisectoral collaboration of six leading organizations targeting human and animal health laboratories, as well as laboratories with public health impact (e.g. environmental, agricultural, food, aquatic or chemical laboratories).

GLLP Founding Partners

- 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)



Goal of the GLLP

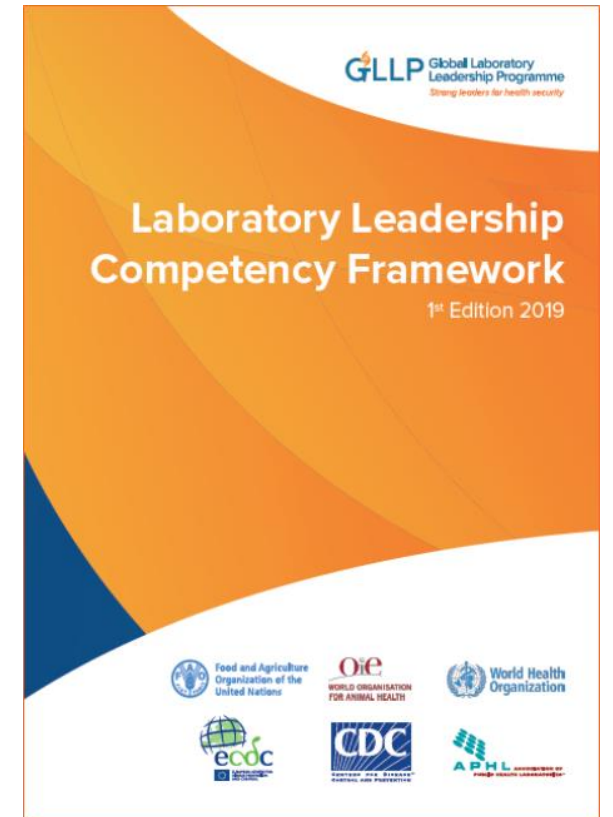
Foster and mentor current and emerging laboratory leaders to build, strengthen and sustain national laboratory systems.

Laboratory Leadership Competency Framework

Laboratory Leadership Competency Framework

Purpose: to outline the essential competencies needed by laboratory leaders to build and direct sustainable national laboratory systems for disease detection, control and prevention in health systems

- Multisectoral, One Health approach
- Addresses entire national health laboratory system
- Available in English, French, Russian, and Spanish





Competencies

1. Laboratory system
2. Leadership
3. Management
4. Communication
5. Quality management system
6. Biosafety and biosecurity
7. Disease surveillance and outbreak investigation
8. Emergency preparedness, response and recovery
9. Research

The GLLP Programme and Implementation

Learning Package Overview

The programme, available for **virtual or in-person implementation**, is flexible in length, format, and content and may be adapted to meet country-specific workforce needs. The GLLP Learning Package provides the materials necessary to implement programmes in any country or educational institution in the world and includes:

- GLLP Planning and Implementation Guide
 - Course monitoring and evaluation
- GLLP Mentorship Guide
- Virtual and in-person course materials
 - PowerPoint presentations
 - Instructor and participant guides
 - Additional resources (readings or prework online)
- The GLLP Learning Package will be available on the [WHO Health Security Learning Platform](#).



Training content

- Interactive didactic sessions
- Practical, mentored laboratory experience and small projects between sessions support learning



Mentorship

Mentorship at regular intervals throughout the programme duration to support learning and professional development

- In-person or through a relationship such as a twinning



Projects: support learning and national needs

- Small projects (complete during first 18 months of programme)
- Capstone project (complete during last 6 months of programme)



Community building

- Community building activities within and between cohorts and over time, between cohorts from other areas (regional)
- Network building and creation of a community of practice

Implementation

- Face-to-face, virtual, or blended learning
 - A combination of methods based on adult learning principles:
 - Using your own experiences and knowledge to learn more
 - Highly interactive: plenary exercises, group work, individual exercises
 - Different types of exercises: brainstorm, test, quiz, role-play, discussions
 - Learning from others
- Activity-based learning
 - Between face-to-face sessions, complete on-the-job projects supported by mentors as needed

Recent and Ongoing Activities

Recent & ongoing activities

- **Laboratory Leadership Competency Framework** - available in English, French, Russian and Spanish
- **GLLP Learning Package** - alpha version completed, in-country validations and pilot projects ongoing (43 modules, >1700 pages)
- **Communication tools promoting GLLP, Competency Framework and international collaboration**

frontiers in Public Health | CURRICULUM, INSTRUCTION, AND PEDAGOGY | published: 20 August 2019 | doi: 10.3389/fpubh.2019.00189

A Competency Framework for Developing Global Laboratory Leaders

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Supporting the development of strong laboratory leaders for global health security: the Global Laboratory Leadership Programme (GLLP)

Albetkova A¹, Balish A¹, Becker S³, Chaignat E¹, Cognat S¹, DeBattisti C⁴, Dolmazov V¹, Emery S⁵, Gasquet P¹, Gomez P¹, Isadore J¹, Jaisr A¹, Konings F¹, Lasley J¹, Martin R¹, Robinson LM¹, Mouille R¹, Peruski L¹, Rayfield M¹, Struelens M¹, Varela Santos C¹ and Wicke B⁶

Soutenir la formation de responsables de laboratoire efficaces pour promouvoir la sécurité sanitaire mondiale: programme mondial de direction des laboratoires (GLLP)

Albetkova A¹, Balish A¹, Becker S³, Chaignat E¹, Cognat S¹, DeBattisti C⁴, Dolmazov V¹, Emery S⁵, Gasquet P¹, Gomez P¹, Isadore J¹, Jaisr A¹, Konings F¹, Lasley J¹, Martin R¹, Robinson LM¹, Mouille R¹, Peruski L¹, Rayfield M¹, Struelens M¹, Varela Santos C¹ et Wicke B⁶

OPEN ACCESS

Edited by: Connie J. Evershick, George Washington University, United States

Reviewed by: Tim Sande, University of Manchester, United Kingdom; Armin D. Wenzberg, Baylor College of Medicine, United States

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Keywords: laboratory

Laboratories are a fundamental part of health systems, essential for the detection, diagnosis, treatment and control of diseases.^{1,2} A national laboratory system is one of the technical areas that should be assessed and strengthened for implementation of the *International Health Regulations* (2005).^{3,4} Reliable laboratory services continue, however, to be rare in many low- and middle-income countries.⁵ Although there have been examples of effective laboratory responses to outbreaks,^{6,7} experience has shown that lack of a robust laboratory system can impede disease control and prevention.^{8,9,10} Able personnel are required to manage laboratories in complex environments and to build strong, collaborative national laboratory networks and strengthen

Éléments fondamentaux des systèmes de santé, les laboratoires sont essentiels pour le dépistage, le diagnostic, le traitement et la lutte contre les maladies.^{1,2} Les systèmes de laboratoires nationaux constituent l'un des domaines techniques devant être évalués et renforcés dans le cadre de la mise en œuvre du *Règlement sanitaire international* (2005).^{3,4} Cependant, dans de nombreux pays à revenu faible et intermédiaire, les services de laboratoire fiables demeurent rares.⁵ Bien qu'il existe des exemples d'interventions efficaces des laboratoires en cas de flambées,^{6,7} l'expérience a montré que le manque de système de laboratoires solide peut entraver la lutte contre les maladies.^{8,9,10} Les laboratoires ont besoin d'un personnel capable de les gérer dans des environnements complexes, de mettre en place des réseaux nationaux solides de collaboration entre laboratoires et

¹ Brown CS, et al. New policy formulation methodology paves the way for sustainable laboratory systems in Europe. *Public Health Parasitol.* 2015;10:141-7.

² Edwards S, Jorgio MH. Governance and management of veterinary laboratories. *Rev Sci Tech Off Int Epiz.* 2016;35(2):493-503.

³ International Health Regulations (2005) monitoring and evaluation framework. Geneva: World Health Organization; 2018. (<https://apps.who.int/iris/bitstream/handle/10665/276651/WHO-WHE-CPI-2018.51-eng.pdf?sequence=1&isAllowed=y>, accessed April 2019).

⁴ WHO benchmarks for International Health Regulations capacities. Geneva: World Health Organization; 2019. (<https://apps.who.int/iris/bitstream/handle/10665/211158/9789241515429-eng.pdf?sequence=1>, accessed April 2019).

⁵ Olinstad S, et al. Strengthening laboratory systems in resource-limited settings. *Am J Clin Pathol.* 2010;134:374-80.

⁶ Sarawathy Subramaniam TS, et al. Sharing experiences from a reference laboratory in the public health response for Ebola viral disease, MERS-CoV and H7N9 influenza virus investigations. *Asian Pac J Trop Med.* 2016;9(2):201-3.

⁷ Responses to avian influenza and state pandemic readiness, fourth global progress report. Washington DC: World Bank; 2008.

⁸ Goodfellow I, et al. Laboratory support during and after the Ebola virus epidemic: towards a sustained laboratory infrastructure. *Euro Surveill.* 2015;20(12):21074.

⁹ Freni CA, et al. Laboratory medicine in Africa: a barrier to effective health care. *Clin Infect Dis.* 2006;42(3):377-82.

¹⁰ Rieder H, et al. Recent animal disease outbreaks and their impact on human populations. *J Agromed.* 2006;1(1):5-15.

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¹⁰ Rieder H, et al. Recent animal disease outbreaks and their impact on human populations. *J Agromed.* 2006;1(1):5-15.

WEEKLY EPIDEMIOLOGICAL RECORD, SPECIAL ISSUE, 24 MAY 2019

Recent & ongoing activities In-Country Validation

- Pakistan
 - 3 Phase approach between 2019 and 2021
 - Mix of in-person and virtual instruction
 - Participants: 8 laboratory professionals from human and animal health sectors.
- Liberia
 - Implementation between 2019 and 2021
 - Participants: 8 laboratory professionals from human and animal health sectors
- Africa: one-week course with Fondation Mérieux

Thank You!

