

Sustainable GLP certification in vector control research

Exploring enablers, barriers, and Research Capacity Strengthening benefits

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- ✓ Working towards GLP **strengthens research capacity** at the **institutional** level, but also at **individual** (staff) and **systems** (networks) levels
- ✓ Facility **leadership's awareness, engagement and understanding** of GLP is pivotal in the facility's progress towards GLP
- ✓ Sustainable GLP certification will require facilities to be able to “**sell**” their services, and marketing or selling is a current **skills gap**

Background

The Kilimanjaro Christian Medical University College - Pan-African Malaria Vector Research Consortium (KCMUCo-PAMVERC) trial site in Moshi, Tanzania obtained GLP certification in 2017; a first for an African laboratory conducting vector control research.

The Centre for Capacity Research (CCR) at the Liverpool School of Tropical Medicine (LSTM) joined with the Innovative Vector Control Consortium (IVCC) in a collaborative project to investigate how GLP certification was achieved by KCMUCo-PAMVERC.

Lessons learnt from this research will be applied to other IVCC supported sites, and will build on evidence on how best to strengthen research capacity in laboratories.



Figure 1: Interview, KCMUCo-PAMVERC

Objectives

- To identify key challenges and enablers of progress towards GLP certification;
- To identify research capacity strengthening (RCS) benefits associated with GLP certification
- To support sites to develop a strategy, action plan and progress indicators for long-term sustainability

Methods

- Document review of project management records and internal audits at KCMUCo site
- Semi-structured interviews with questions addressing all objectives, and developed following document review, conducted with staff at 6 sites –Test Facility Managers, Study Directors, QA Managers, GLP Project Managers, Technicians
 - 3 in-person site visits (complete, ≈ 60 interviews)
 - 3 via Skype interviews (upcoming)
- An analysis framework was developed and verified using field notes from two sites (CSRS and NIMR Amani Centre).

Results

Data from selected interviews from KCMUCo were independently coded by two researchers, to develop a coding framework which correspond to the three objectives (Figure 2).

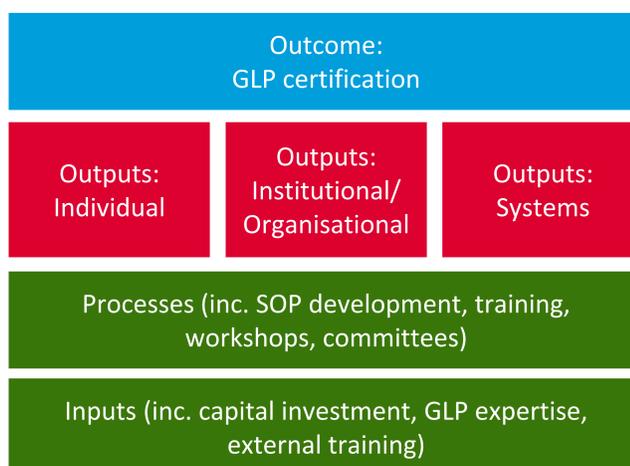


Figure 2: Diagram illustrating the process of implementing and sustaining a GLP certified system.

Early findings related to each category include:

Processes and Inputs: GLP awareness key

Enablers and challenges to progress towards GLP certification act on both inputs (resources, knowledge) and processes (training, SOP development). Key factors include “start-to-end” GLP awareness at all levels of the site, but particularly within leadership, and robust communication channels between laboratory technicians and senior management.

Outputs: 3-level RCS benefits

While the GLP project is targeted at strengthening the institution's research capacity by developing capacity to deliver GLP studies, this process also strengthens research capacity at the individual level (e.g. development of technical and “soft” skills) and at the systems level (e.g. development of inter-site learning relationships).

Outcome: Sustaining GLP

Sustainable GLP certification will need facilities to develop marketing skills to “sell” their services, which is a skills gap in some sites. A focus on selling services as a key means to sustainability results in perceived competition for studies between sites and may limit inter-institutional learning.

“ Before I think the job was just to maintain the mosquito colonies but now it's different. You get to know new things ... for example, documentation ... You can actually come and review yourself: "I've been a supervisor for this year, what did I do? How did I do it? Where did I do right, where did I do wrong?" It becomes easier if you were keeping records.

“ I think it's a lot clearer for the staff on who does what and who has responsibility for what ... we have been able to delegate a lot more responsibility because there was a system in place. I also think because the staff take on more responsibility, we can do more things.

“ We had several meetings with the staffs telling them ... that we're going to transform from non-GLP into a GLP, what it is going to take and what do we expect from them ... Making meetings with the staff and every individual that is going to be participating in one or another way is important.

Next Steps

Additional interviews to explore individual-level strengthened capacity. Full analysis of data across all sites will be conducted, including:

- Timelines, enablers and barriers at KCMUCo-PAMVERC, critically examining WHO's stepwise guidelines and recommended timeframes.
- Enablers and barriers across all sites, including contextual and geographical factors.
- Examination of how research capacity is strengthened at three levels.

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