

# Developing Good Laboratory Practice in insecticide test facilities in Africa: the vital role of laboratory technicians and laboratory supervisors

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Laboratory capacity strengthening efforts should **actively involve** technical staff who form the **backbone** of data generation.

This can in turn create opportunities for **peer-to-peer learning** in these roles.





  
 COMBATING INSECT BORNE DISEASE  
 The Innovative Vector Control Consortium

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## Rationale

Insecticidal mosquito vector control products tested against local mosquito populations are vital to effectively control malaria.

Implementing Quality Management Systems (QMSs) compliant with Good Laboratory Practice (GLP) principles in test facilities in sub-Saharan Africa can improve data quality.

*Laboratory staff play a key part in generating this data.*

## Context

Since 2013/4, seven insecticide testing facilities in Tanzania, Côte d'Ivoire, Burkina Faso and Benin have, with technical and financial support from Innovative Vector Control Consortium (IVCC), sought to develop GLP compliant QMSs.

## Methods

Semi-structured interviews and online surveys with 74 staff at test facilities in Tanzania, Côte d'Ivoire and Burkina Faso, covering:

- Key activities for success
- Challenges limiting progress
- Project outcomes

Data analysis: framework analysis, identifying themes in data.

## Results

Laboratory technicians and supervisors were vital in developing a GLP compliant QMS.

Staff in these roles experienced significant career progression through their involvement.

*Major challenge:* Development of new working habits, working to Standard Operating Procedures (SOPs).

*Solutions:*

- Early sensitisation to the purpose and benefits of GLP – *individual* and *institutional* benefits
- Collaborative and iterative SOP development process – accounting for infrastructural limitations
- Regular sustained training

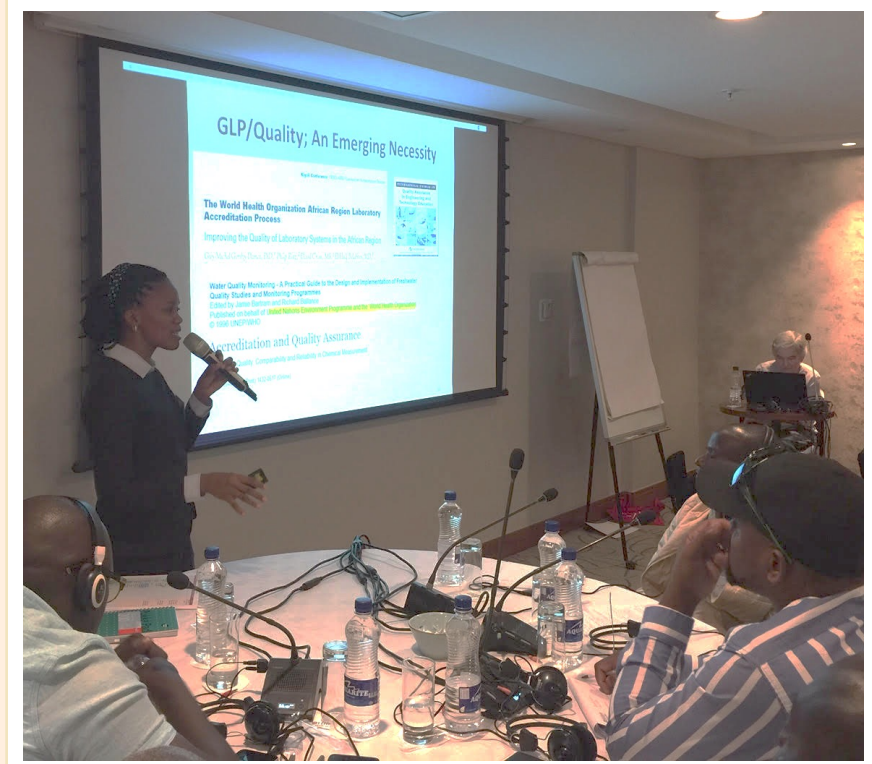
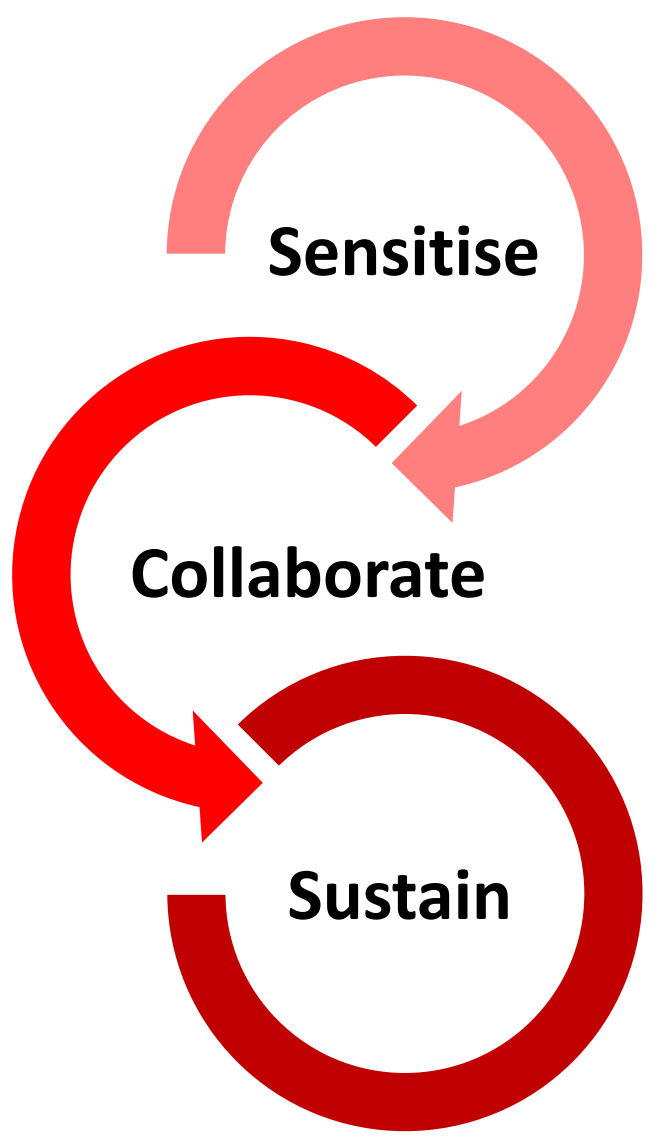


Image: Presentation by laboratory technician from collaborating test facility in Tanzania, to technicians from One Health laboratories in Lusaka, Zambia.

*Outcomes:*

- Internal promotions into Quality Assurance and project management roles
- Transitions into academic roles (funded PhDs)
- Inter-facility and inter-disciplinary learning: laboratory staff provided training to collaborating test facilities and African One Health laboratories.