

Strengthening Laboratory Management
Toward Accreditation (SLMTA) –
A Systematic Review of Research Issues,
Results, and Remaining Gaps

By Beth Luman



Acknowledgements

Katy Yao, John Nkengasong

Linda Andiric, Rosemary Audu, Laura Eno, Thomas Gachuki, Giselle Guevara, Tilahun Hiwoto, Adino Lulie, Robert Maina, Ernest Makokha, Talkmore Maruta, Phidelis Maruti, Jessina Masamha, Mary Mataranyika, Kelebeletse Mokobela, Juliana Ndasi, Thuong Nguyen, Bernard Nkrumah, Siyem Nkwawir, Michael Noble, Keoratile Ntshambiwa, Innocent Nzabahimana, Phoebe Nzombe, and Edwin Shumba

Methods

• Literature Search

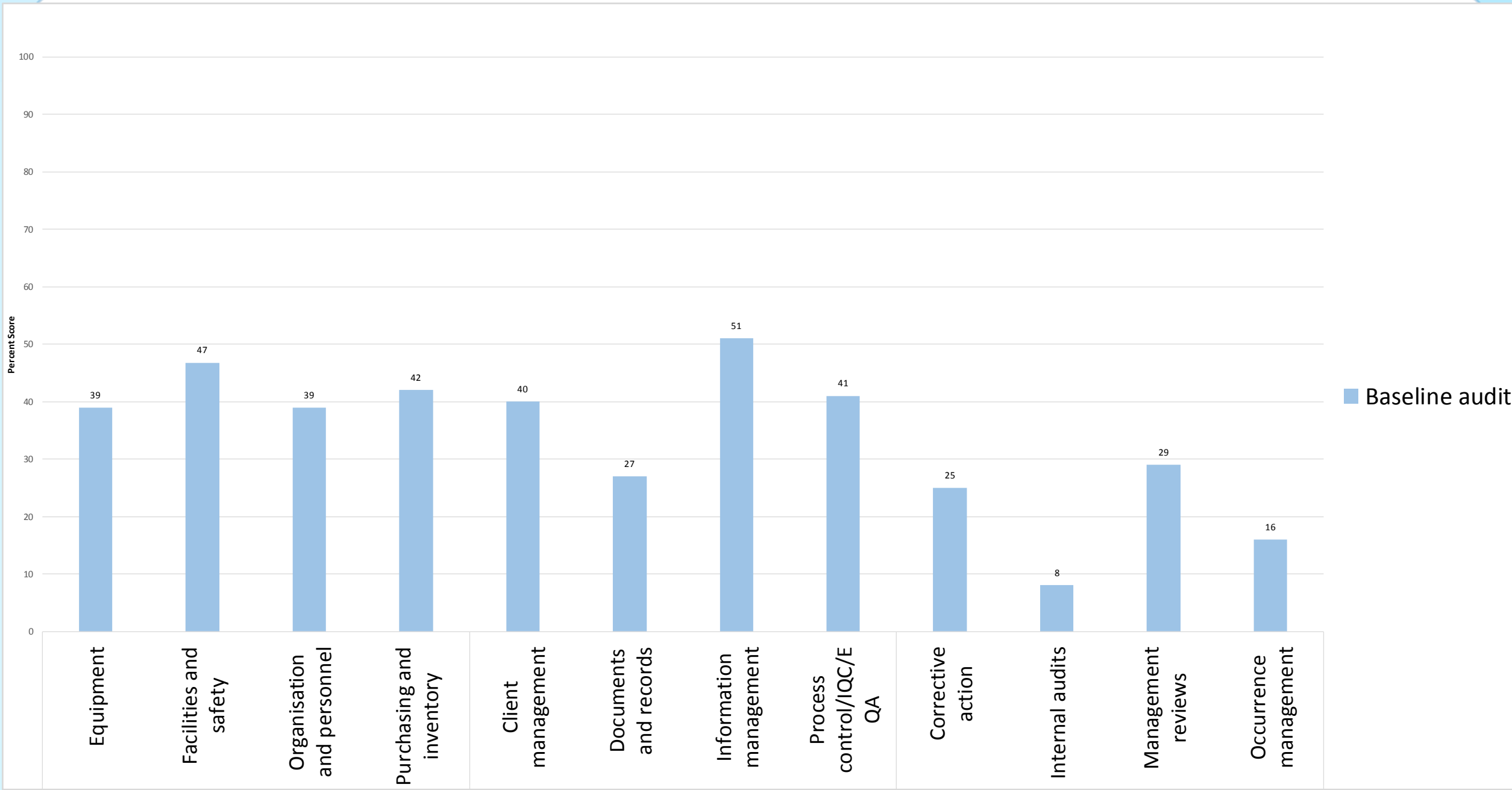
- 28 published or in-press manuscripts
 - Single laboratory or hospital (6)
 - Multiple laboratories within a country (14)
 - Multiple countries (2)
 - General/global (6)
- 211 laboratories in 18 countries (of 617 laboratories in 47 countries)

• Analysis

- Content
- Results

Content Analysis

- Previous experience with Quality Management Systems was limited
- Mentorship
 - Ranged from infrequent to embedded to “institutional”
 - Scientific studies lacking
 - no random assignment
 - no control groups
 - small sample sizes
 - Critical to success
- Partnership
 - Extensive use of partners (50+ identified in these publications)
 - International organizations, institutions and private companies, parastatal organizations and local non-governmental organizations



■ Baseline audit

Patient wait time in ER ↓ 83%

Service interruption due to QA results ↓ 85%

Staff punctuality ↑ 67% Infection rate ↓ 83%

Reagent wastage ↓ from \$18,000 to \$400
Specimen rejections ↓ 89%

Hospital revenue ↑ 25% Equipment repairs needed ↓ 63%

Turnaround time including nonconformities ↓ 50-66%

Patient satisfaction ↑ 30%

Limitations

- Long-term sustainability?
- Observational
 - Not randomized
 - No control groups
 - Small sample sizes
 - Some outcomes not systematically measured
- Auditor consistency

Future Directions

