



## Reliability Assessment of District Hospital Systems in Uganda Through Randomized Field Trials

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### Abstract

Ugandan district hospitals play a crucial role in healthcare delivery, but their reliability varies significantly. A mixed-methods approach including quantitative data collection and qualitative interviews was employed to evaluate system performance. The analysis revealed that only 60% of scheduled surgeries were completed within the stipulated timeframe, indicating systemic inefficiencies. Despite challenges, there is potential for enhancing reliability by implementing targeted interventions in areas such as scheduling and resource allocation. District hospital managers should prioritise training on efficient management practices and coordination with higher health facilities. district hospitals, reliability assessment, randomized trials, Uganda Treatment effect was estimated with  $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta_1 X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *District Hospitals, African Healthcare Systems, Randomized Trials, Reliability Analysis, Quality Assessment, Diagnostic Accuracy, Health System Evaluation*

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