



# Methodological Assessment of District Hospital Systems in Tanzania Using Quasi-Experimental Design to Gauge System Reliability

Kamikazi Magogo<sup>1</sup>, Nkatha Masanja<sup>2,3</sup>

<sup>1</sup> Department of Surgery, University of Dar es Salaam

<sup>2</sup> University of Dar es Salaam

<sup>3</sup> Department of Internal Medicine, National Institute for Medical Research (NIMR)

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**Correspondence:** [kmagogo@yahoo.com](mailto:kmagogo@yahoo.com)

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## Author notes

*Kamikazi Magogo is affiliated with Department of Surgery, University of Dar es Salaam and focuses on Medicine research in Africa.*

*Nkatha Masanja is affiliated with University of Dar es Salaam and focuses on Medicine research in Africa.*

## Abstract

This study examines the reliability of district hospital systems in Tanzania by employing a quasi-experimental design. A quasi-experimental design was used to assess the robustness of district hospital systems in Tanzania. Data were collected from multiple hospitals across different regions using standardised survey instruments and clinical data records. The analysis revealed a significant variability ( $p < 0.05$ ) in system reliability, with some districts reporting higher efficiency levels compared to others. The quasi-experimental design demonstrated its effectiveness in gauging the reliability of district hospital systems in Tanzania, highlighting disparities that require targeted interventions. Specific recommendations include increasing staff training and upgrading infrastructure in underperforming hospitals, focusing on improving patient outcomes and service delivery. District Hospitals, Quasi-Experimental Design, System Reliability, Healthcare Systems, Tanzania 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:** *Sub-Saharan, African, Hospital, Systems, Evaluation, Quasi-Experimental, Methodology*

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