



Methodological Evaluation of District Hospitals Systems in Tanzania Using Quasi-Experimental Design to Measure Efficiency Gains

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Abstract

District hospitals in Tanzania are crucial for healthcare delivery but often face challenges in operational efficiency. A mixed-method approach combining quantitative data analysis with qualitative case studies was employed to assess the performance of district hospitals. The study utilised a difference-in-differences (DID) regression model to estimate efficiency gains. District hospitals showed an average improvement in patient throughput by 15% after implementing process streamlining measures, though variability existed across different regions. The quasi-experimental design proved effective in identifying efficiency improvements but highlighted the importance of regional-specific interventions for sustainable outcomes. Further research should explore long-term impact and scalability of identified efficiencies, while policymakers should support standardised training programmes to enhance staff capabilities. District Hospitals, Efficiency Gains, Quasi-Experimental Design, Process Streamlining Treatment effect was estimated with $\text{text}\{\logit\}(\pi) = \beta_0 + \beta_1 p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *District hospitals, Tanzania, Efficiency gains, Quasi-experimental design, Health systems, Methodology, Evaluation*

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