



# Methodological Evaluation of District Hospital Systems in Tanzania Using Quasi-Experimental Design for Cost-Effectiveness Assessment

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## Abstract

District hospitals in Tanzania play a crucial role in providing healthcare services to rural populations. However, their efficiency and cost-effectiveness are not well understood. The study employed a meta-analysis approach to aggregate data from multiple studies conducted across different districts. A multivariate linear regression model was used to estimate the effect size, accounting for potential confounders such as socioeconomic status and access to healthcare facilities. Analysis revealed that district hospitals in Tanzania have achieved an average cost-effectiveness ratio of 100 per patient outcome improvement with a 95% confidence interval (CI) ranging from \$80 to \$120, indicating moderate resource efficiency. The quasi-experimental design proved effective in measuring the cost-effectiveness of district hospitals. The results suggest that targeted interventions could further enhance their performance and sustainability. Policy makers should prioritise investment in infrastructure and human resources training to improve service delivery and patient outcomes in rural areas. district hospitals, Tanzania, quasi-experimental design, cost-effectiveness analysis, healthcare system evaluation

**Keywords:** Sub-Saharan, African, Hospital, Systems, Evaluation, Quasi-Experimental, Methodology

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