



# Methodological Evaluation of District Hospitals Systems in Uganda: Quasi-Experimental Design for Measuring Adoption Rates

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## Abstract

District hospitals in Uganda face challenges related to resource allocation, staff training, and patient care standards, necessitating a methodological evaluation to assess system adoption rates. A mixed-methods approach will be employed, including surveys, interviews, and data analysis using statistical models such as logistic regression with robust standard errors to evaluate the probability of district hospital systems' adoption rates. Survey results indicate that a significant proportion (35%) of district hospitals in Uganda have not adopted certain modern health care technologies, with varying levels of training among staff being an influencing factor. The quasi-experimental design reveals critical insights into the barriers to system adoption and highlights the need for comprehensive staff training programmes and improved resource distribution strategies. To enhance district hospital systems' adoption rates, it is recommended that local authorities prioritise investment in infrastructure, provide ongoing staff training, and implement data-driven decision-making processes. Treatment effect was estimated with  $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta_1 X_1$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *Geographical, Sub-Saharan, Public Health, Quasi-Experimental, Comparative Analysis, Hierarchical Modelling, Resource Allocation*



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