



Methodological Evaluation of District Hospitals Systems in Kenya: A Randomized Field Trial for Yield Improvement Assessment

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Abstract

District hospitals in Kenya often face challenges related to resource allocation and operational efficiency, which can impact patient outcomes. A mixed-methods approach combining quantitative data from resource utilization analysis and qualitative feedback sessions with hospital staff was employed. Data were collected over a six-month period to ensure robust evaluation of system yield improvements. The randomized field trial demonstrated an average reduction in service delivery time by 15% across participating hospitals, indicating significant potential for operational efficiency gains. This study underscores the importance of systematic intervention strategies in improving hospital systems' performance and patient care quality. Based on findings, district health authorities are recommended to implement continuous process improvements and staff training programmes focusing on resource allocation and workflow optimization. District Hospitals, Resource Allocation, Operational Efficiency, Randomized Field Trial Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^{-1} p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African geography, district hospitals, mixed methods, resource allocation, yield improvement, randomized trials, operational efficiency*

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