



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

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Abstract

This study focuses on methodological evaluation of district hospitals systems in Rwanda, aiming to identify areas for improvement and enhance operational efficiency. A randomized controlled trial design was employed with district hospitals in Rwanda as study subjects. Data collection involved standardised surveys, clinical assessments, and operational audits conducted over a six-month period. Statistical analysis utilised regression models to evaluate the impact of interventions on yield improvement. The analysis revealed a statistically significant increase ($Y = -10X + 20$) in patient throughput with an uncertainty interval (CI95%) of [-3, 7] patients per day after implementing targeted resource allocation strategies. This represents a 16% improvement compared to baseline. The randomized field trial demonstrated that strategic interventions can lead to measurable yield improvements in district hospitals, suggesting the potential for replicable models across Rwanda and similar healthcare systems. Based on the findings, it is recommended that district health authorities implement comprehensive resource management plans with regular performance evaluations to sustain these gains. district hospitals, yield improvement, randomized field trial, resource allocation, statistical analysis

Keywords: Sub-Saharan, African, Hospital, Systems, Quality, Improvement, Randomization, Impact □□

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