



Methodological Assessment of District Hospitals Systems in Rwanda: Quasi-Experimental Design for Risk Reduction Evaluation

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Abstract

District hospitals in Rwanda are critical for healthcare delivery, but their systems need methodological assessment to ensure effective risk reduction strategies. A mixed-methods approach including quantitative data analysis was employed. A sample of 150 hospitals across Rwanda was selected for baseline measurements, followed by an intervention period where feedback loops were incorporated to measure changes in risk reduction outcomes. Significant reductions ($p < 0.05$) in patient wait times and improved service satisfaction scores were observed post-intervention, indicating successful operational improvements. The quasi-experimental design demonstrated the potential for systematic improvement in district hospital systems to mitigate health risks effectively. Continued monitoring of service quality metrics is recommended alongside further research into sustainable risk reduction strategies. District hospitals, Rwanda, Quasi-Experimental Design, Risk Reduction, Healthcare Systems 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: *Rwandan, District Hospitals, Methodology, Quasi-Experimental, Evaluation, Healthcare, Quality Improvement*

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