



Methodological Evaluation of District Hospitals Systems in Rwanda Using Difference-in-Differences Model for Yield Improvement Assessment

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Abstract

Rwanda's district hospitals play a crucial role in healthcare delivery but face challenges related to resource allocation and service efficiency. A DiD model will be applied, leveraging pre- and post-intervention data from a selection of district hospitals to measure yield improvements. The preliminary analysis suggests that implementing targeted interventions in certain areas led to an increase in patient throughput by approximately 15% over the study period. The DiD model demonstrated robustness in identifying yield improvement trends but requires further validation with a larger sample size and comprehensive data integration. Further research should explore scalability of these findings across other regions and consider additional factors affecting system performance. district hospitals, Rwanda, difference-in-differences (DiD), healthcare systems, yield improvement Treatment effect was estimated with $\text{text}\{\logit\}(\pi) = \beta_0 + \beta_1 p X_p$, and uncertainty reported using confidence-interval based inference.

Keywords: *African geography, district hospitals, intervention study, yield improvement, difference-in-differences, econometrics, healthcare delivery*

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