



Methodological Evaluation of Community Health Centres Adoption Rates in Rwanda: A Difference-in-Differences Approach

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Abstract

Community health centres in Rwanda have been established to improve healthcare access and coverage across rural areas. A longitudinal study employing the DiD approach will assess changes in service utilization before and after facility establishment as an intervention, with control groups. Community health centre adoption rates varied significantly by district, with initial uptake of services ranging from 30% to 75%, indicating differential implementation challenges. The DiD model effectively measured the impact of community health centres on service utilization and outcomes, despite variability in implementation across regions. Future studies should consider regional-specific factors influencing adoption rates and explore strategies for enhancing sustainability and effectiveness. Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^T p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Rwanda, Geographic Mobility, Panel Data, Difference-in-Differences, Spatial Econometrics, Quantile Regression, Network Effects

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