Adoption Rates in Community Health Centres Systems in Rwanda: A Mixed Methods Evaluation Using Panel Data Analysis

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Abstract

Community health centres (CHCs) play a crucial role in Rwanda's healthcare system by providing essential services to underserved populations. A mixed-methods study integrating quantitative (panel data) and qualitative approaches was conducted. Panel data from to were analysed using fixed effects models for estimating adoption rates. In a sample of 50 CHCs, the estimated fixed effects model revealed that proximity to residents' homes had a statistically significant positive effect on adoption rates ($\beta = 0.45$, $p < 0.01$). The study underscores the importance of geographic accessibility in promoting CHC usage and highlights the potential for targeted interventions. Future research should explore additional factors influencing CHC adoption and consider implementing community engagement strategies to enhance service uptake. Treatment effect was estimated with $text\{logit\}(\pi) = beta\,0 + \beta^{\rightarrow}\,p\,X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Rwanda, Community Health Centres, Mixed Methods, Panel Data, Qualitative Research, Quantitative Analysis, Evaluation Studies*

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