



Methodological Evaluation of Community Health Centre Systems in Kenya Using a Difference-in-Differences Approach

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Abstract

Community health centres (CHCs) in Kenya play a crucial role in providing healthcare services to underserved populations. However, their effectiveness and adoption rates vary across different regions. A difference-in-differences (DiD) econometric model was employed, incorporating control variables such as population density and economic indicators. The empirical analysis utilised data from to . The DiD model revealed a significant increase in CHC adoption rates by 15% over the study period, with substantial variation among regions. This study demonstrates the utility of DiD models for assessing healthcare system adoption in Kenya. The model's robustness and accuracy contribute to more informed policy decisions. Future research should explore potential barriers to CHC adoption and evaluate long-term sustainability strategies. Treatment effect was estimated with $\text{logit}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: African geography, intervention studies, health systems, difference-in-differences, geographical analysis, geographic information systems, public health measures

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