



# Methodological Evaluation of Community Health Centre Systems in Kenya Using Difference-in-Differences Models

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## Abstract

Community health centers in Kenya are pivotal for delivering healthcare services to underserved populations. However, their performance and efficiency have not been systematically evaluated. The analysis employs DID models to measure changes in service quality and efficiency before and after the establishment or expansion of community health centers. Uncertainty is quantified through robust standard errors. Community health centers showed a significant improvement in healthcare delivery, with an estimated 20% reduction in patient waiting times post-establishment, indicating enhanced operational efficiency. The DID model provided valuable insights into the impact of community health centre systems on healthcare service provision and patient outcomes. Further studies should explore long-term impacts and potential scalability of these models across different geographical areas in Kenya. Treatment effect was estimated with  $\text{text}\{ \text{logit} \}(\pi) = \beta_0 + \beta_1 X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *Sub-Saharan, African, Affirmative-Action, Econometrics, Differential-Difference, Impact-Assessment, Public-Health*

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