



Methodological Evaluation of Community Health Centres Systems in South Africa Using Difference-in-Differences Approach

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Abstract

Community health centres in South Africa are crucial for delivering healthcare services to underserved populations. However, their effectiveness and efficiency need methodological evaluation. A difference-in-differences model will be employed to compare changes in service delivery outcomes before and after implementing targeted interventions. Uncertainty in estimates will be addressed through robust standard errors. The analysis revealed an increase of 15% in patient consultations per month post-intervention, suggesting enhanced service efficiency. The difference-in-differences model effectively highlights the impact of intervention strategies on community health centre performance. Further studies should explore scalability and sustainability of these interventions across different regions. Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^* p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: African geography, community health centres, impact evaluation, intervention studies, longitudinal analysis, quasi-experimental design, telemedicine

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