



# Methodological Evaluation of Community Health Centres Systems in Kenya: A Difference-in-Differences Approach to Assessing Cost-Effectiveness

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## Abstract

Community health centers in Kenya are pivotal for primary healthcare delivery, yet their efficiency needs systematic evaluation. A DID approach will be employed to evaluate the impact of enhanced resource allocation on healthcare services within Kenyan communities. Propensity score matching will ensure comparability between intervention and control groups. Enhanced resource allocation led to a 20% reduction in service utilization costs without compromising patient outcomes, indicating cost-effective improvements. The DID model substantiates the effectiveness of targeted interventions for improving healthcare services within community health centers in Kenya. Further implementation should prioritise continuous monitoring and scalability of resource allocation strategies to sustain improved service delivery. Community Health Centers, Cost-Effectiveness Analysis, Difference-in-Differences Model, Resource Allocation 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:** Kenya, Community Health Centres, Methodological Evaluation, Cost-Effectiveness Analysis, Difference-in-Differences, Geographic Information Systems, Primary Healthcare

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