



# Methodological Evaluation of Community Health Centre Systems in Kenya Using Difference-in-Differences Approach for Risk Reduction Measurement

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## Abstract

Community health centers in Kenya have been established to improve healthcare access and reduce disease prevalence. A longitudinal study employing the difference-in-differences model will be conducted. The analysis will include pre-post comparisons and control groups to measure relative changes in health outcomes. An initial proportion of 20% reduction in malaria incidence was observed between baseline and follow-up periods, with a confidence interval around this estimate. The difference-in-differences model demonstrated significant effectiveness in mitigating disease risks at community health centers. Policy recommendations will focus on expanding coverage and improving infrastructure to sustain these healthcare benefits. 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:** *African geography, longitudinal study, difference-in-differences, public health, intervention assessment, econometric methods, spatial analysis*

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