



Methodological Evaluation of Emergency Care Systems in Kenya Using Difference-in-Differences for Clinical Outcome Assessment

Martin Ouko^{1,2}, Oscar Kibuge³

¹ Department of Clinical Research, African Population and Health Research Center (APHRC)

² Kenya Agricultural and Livestock Research Organization (KALRO)

³ African Population and Health Research Center (APHRC)

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Correspondence: mouko@gmail.com

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Author notes

Martin Ouko is affiliated with Department of Clinical Research, African Population and Health Research Center (APHRC) and focuses on Medicine research in Africa.

Oscar Kibuge is affiliated with African Population and Health Research Center (APHRC) and focuses on Medicine research in Africa.

Abstract

This study addresses a current research gap in Medicine concerning Methodological evaluation of emergency care units systems in Kenya: difference-in-differences model for measuring clinical outcomes in Kenya. The objective is to formulate a rigorous model, state verifiable assumptions, and derive results with direct analytical or practical implications. A mixed-methods design was used, combining survey and interview data collected over the study period. The results establish bounded error under perturbation, a convergent estimation process under stated assumptions, and a stable link between the proposed metric and observed outcomes. The findings provide a reproducible analytical basis for subsequent theoretical and applied extensions. Stakeholders should prioritise inclusive, locally grounded strategies and improve data transparency. Methodological evaluation of emergency care units systems in Kenya: difference-in-differences model for measuring clinical outcomes, Kenya, Africa, Medicine, intervention study This work contributes a formal specification, transparent assumptions, and mathematically interpretable claims. Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^T X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Kenya, Emergency Care, Methodology, Difference-in-Differences, Clinical Outcomes, Public Health, Randomized Control Trials

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