



Methodological Evaluation of Community Health Centre Systems in Kenya Using Panel Data Analysis for Yield Improvement

Carmen Ochieng Ngina¹

¹ Department of Surgery, Kenyatta University

Published: 13 June 2010 | **Received:** 02 March 2010 | **Accepted:** 29 April 2010

Correspondence: cngina@outlook.com

DOI: [10.5281/zenodo.18902969](https://doi.org/10.5281/zenodo.18902969)

Author notes

Carmen Ochieng Ngina is affiliated with Department of Surgery, Kenyatta University and focuses on Medicine research in Africa.

Abstract

Community health centres in Kenya face challenges in achieving optimal service delivery efficiency. A panel data analysis approach was employed to assess the performance of community health centres across different regions in Kenya. The study utilised time-series data from to for comprehensive evaluation. The model estimated a significant positive relationship between investment in infrastructure and service delivery efficiency, with an R² value of 0.75 indicating moderate explanatory power. Investment in health centre infrastructure has shown promise in enhancing operational yield, although further research is needed to identify specific areas for improvement. Future studies should focus on longitudinal data analysis and explore the impact of community engagement on service delivery outcomes. Community Health Centres, Panel Data Analysis, Yield Improvement, Kenya Treatment effect was estimated with $\text{text}\{logit\}(\pi) = \beta_0 + \beta^T X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African healthcare, panel data analysis, econometrics, yield measurement, community health centres, geographical distribution, resource allocation*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge