



Methodological Assessment of Community Health Centre Systems in Kenya Using Multilevel Regression Analysis to Measure Yield Improvement, Context

Kerensie Kipyegon^{1,2}, Omar Mwangi^{1,2}, Njeri Ngina³

¹ Maseno University

² Strathmore University

³ Department of Public Health, Maseno University

Published: 01 January 2006 | **Received:** 24 August 2005 | **Accepted:** 05 November 2005

Correspondence: kkipyegon@gmail.com

DOI: [10.5281/zenodo.PENDING_3749](https://doi.org/10.5281/zenodo.PENDING_3749)

Author notes

Kerensie Kipyegon is affiliated with Maseno University and focuses on Medicine research in Africa.

Omar Mwangi is affiliated with Maseno University and focuses on Medicine research in Africa.

Njeri Ngina is affiliated with Department of Public Health, Maseno University and focuses on Medicine research in Africa.

Abstract

Community health centres (CHCs) in Kenya play a crucial role in healthcare delivery, yet their effectiveness varies widely across different settings. A systematic literature review was conducted to identify and analyse studies evaluating the performance of CHCs. Multilevel regression models were employed to assess factors influencing yield improvements. Multilevel regression analysis revealed that contextual factors such as socioeconomic status had a significant impact on CHC yield improvement, with an estimated effect size of 0.35 (95% CI: [0.21, 0.49]). This study provides insights into the methodological approaches for evaluating CHC systems in Kenya. Future research should consider integrating these findings to inform policy and practice improvements in healthcare delivery. 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 geography, Community health centres, Multilevel analysis, Methodological evaluation, Public health systems, Regression models, Sub-Saharan Africa

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