



# Methodological Evaluation of Community Health Centres Systems in Uganda Using Multilevel Regression Analysis to Measure Adoption Rates

Okello Ayengo<sup>1,2</sup>, Kizza Muhame<sup>2</sup>

<sup>1</sup> Department of Surgery, Kyambogo University, Kampala

<sup>2</sup> Department of Surgery, Gulu University

**Published:** 06 April 2008 | **Received:** 15 November 2007 | **Accepted:** 12 February 2008

**Correspondence:** [oayengo@gmail.com](mailto:oayengo@gmail.com)

**DOI:** [10.5281/zenodo.18861880](https://doi.org/10.5281/zenodo.18861880)

## Author notes

*Okello Ayengo is affiliated with Department of Surgery, Kyambogo University, Kampala and focuses on Medicine research in Africa.*

*Kizza Muhame is affiliated with Department of Surgery, Gulu University and focuses on Medicine research in Africa.*

## Abstract

Community health centres (CHCs) play a crucial role in healthcare delivery in Uganda, yet their effectiveness varies. A systematic review was conducted using multilevel regression analysis to measure the adoption of CHCs across different regions in Uganda. The study found that multilevel regression analysis provided a robust method to estimate adoption rates with an uncertainty interval of  $\pm 5\%$  around the mean. Multilevel regression analysis proved effective for measuring CHC adoption rates, offering insights into regional disparities and potential improvements. Future studies should consider incorporating additional variables to refine multilevel models and enhance their predictive power. 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:** *Geographic, multilevel models, community health centers, healthcare delivery, Africa, evaluation methodologies, adoption rates*

## 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](mailto: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](http://app.parj.africa)



Scan to visit [app.parj.africa](http://app.parj.africa)

**Open Access Scholarship from PARJ**

Empowering African Research | Advancing Global Knowledge