



# Methodological Evaluation of Community Health Centres Systems in Uganda: Panel Data Estimation for Risk Reduction Metrics

Muhumuza Musoke<sup>1,2</sup>, Lyagunde Namugenyi<sup>1,2</sup>

<sup>1</sup> Makerere University, Kampala

<sup>2</sup> Mbarara University of Science and Technology

**Published:** 15 July 2005 | **Received:** 05 April 2005 | **Accepted:** 12 June 2005

**Correspondence:** [mmusoke@hotmail.com](mailto:mmusoke@hotmail.com)

**DOI:** [10.5281/zenodo.18809755](https://doi.org/10.5281/zenodo.18809755)

## Author notes

*Muhumuza Musoke is affiliated with Makerere University, Kampala and focuses on Medicine research in Africa. Lyagunde Namugenyi is affiliated with Mbarara University of Science and Technology and focuses on Medicine research in Africa.*

## Abstract

This study addresses a current research gap in Medicine concerning Methodological evaluation of community health centres systems in Uganda: panel-data estimation for measuring risk reduction in Uganda. 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 community health centres systems in Uganda: panel-data estimation for measuring risk reduction, Uganda, Africa, Medicine, original research This work contributes a formal specification, transparent assumptions, and mathematically interpretable claims. Treatment effect was estimated with  $\text{text}\{logit\}(\pi) = \beta_0 + \beta^T p X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** *Uganda, Community Health Centres, Panel Data, Epidemiology, Risk Assessment, Quantitative Methods, Geographic Medicine*

## 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