



Quasi-Experimental Evaluation of Community Health Centre Systems in South Africa: Methodological Assessment and Efficiency Gains Analysis

Sifiso Nkabinde^{1,2}, Mamokete Ngubane^{3,4}

¹ Department of Pediatrics, National Institute for Communicable Diseases (NICD)

² Department of Public Health, Nelson Mandela University

³ Nelson Mandela University

⁴ Department of Surgery, National Institute for Communicable Diseases (NICD)

Published: 22 September 2007 | **Received:** 18 April 2007 | **Accepted:** 01 August 2007

Correspondence: snkabinde@yahoo.com

DOI: [10.5281/zenodo.18848117](https://doi.org/10.5281/zenodo.18848117)

Author notes

Sifiso Nkabinde is affiliated with Department of Pediatrics, National Institute for Communicable Diseases (NICD) and focuses on Medicine research in Africa.

Mamokete Ngubane is affiliated with Nelson Mandela University 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 South Africa: quasi-experimental design for measuring efficiency gains in South Africa. 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 South Africa: quasi-experimental design for measuring efficiency gains, South Africa, Africa, Medicine, original research This work contributes a formal specification, transparent assumptions, and mathematically interpretable claims. Treatment effect was estimated with $\text{logit}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, Quasi-experimental, Evaluation, Community Health Centres, Efficiency, Methodology, Performance Measurement*

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