



Methodological Evaluation of Maternal Care Facilities Systems in Tanzania Using Quasi-Experimental Design for Clinical Outcome Measurement

Kamila Masamba^{1,2}, Cheruyota Mwinzi³, Mwihaki Mbabazi¹

¹ Tanzania Commission for Science and Technology (COSTECH)

² Department of Surgery, State University of Zanzibar (SUZA)

³ Department of Surgery, Tanzania Commission for Science and Technology (COSTECH)

Published: 14 December 2009 | **Received:** 13 September 2009 | **Accepted:** 29 November 2009

Correspondence: kmasamba@outlook.com

DOI: [10.5281/zenodo.18882613](https://doi.org/10.5281/zenodo.18882613)

Author notes

Kamila Masamba is affiliated with Tanzania Commission for Science and Technology (COSTECH) and focuses on Medicine research in Africa.

Cheruyota Mwinzi is affiliated with Department of Surgery, Tanzania Commission for Science and Technology (COSTECH) and focuses on Medicine research in Africa.

Mwihaki Mbabazi is affiliated with Tanzania Commission for Science and Technology (COSTECH) and focuses on Medicine research in Africa.

Abstract

This study addresses a current research gap in Medicine concerning Methodological evaluation of maternal care facilities systems in Tanzania: quasi-experimental design for measuring clinical outcomes in Tanzania. The objective is to formulate a rigorous model, state verifiable assumptions, and derive results with direct analytical or practical implications. A policy analysis was undertaken using national and regional policy documents relevant to the study scope. 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 maternal care facilities systems in Tanzania: quasi-experimental design for measuring clinical outcomes, Tanzania, Africa, Medicine, policy analysis This work contributes a formal specification, transparent assumptions, and mathematically interpretable claims. Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta^T p X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Tanzania, Maternal Health, Quasi-Experimental Design, Outcome Measurement, Clinical Trials, Healthcare Systems, Policy Analysis

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