Methodological Evaluation of Community Health Centre Systems in Uganda Using Difference-in-Differences Model for Efficiency Gains,

Kabigirwa Sserunkuma[1]**, Oluochi Okwenya**[2,3]**, Nakasujja Byaruhanga**[4]

[1] Department of Surgery, Makerere University Business School (MUBS)

[2] Makerere University Business School (MUBS)

[3] Uganda National Council for Science and Technology (UNCST)

[4] Mbarara University of Science and Technology

Author notes

Kabigirwa Sserunkuma is affiliated with Department of Surgery, Makerere University Business School (MUBS) and focuses on Medicine research in Africa.

Oluochi Okwenya is affiliated with Makerere University Business School (MUBS) and focuses on Medicine research in Africa.

Nakasujja Byaruhanga is affiliated with Mbarara University of Science and Technology and focuses on Medicine research in Africa.

Abstract

Community health centres in Uganda have been established to improve healthcare access and quality. However, their effectiveness varies significantly across different regions. A systematic review will be conducted to assess empirical studies that used DiD models for measuring efficiency gains. Studies published between and the present will be included if they meet specific criteria related to methodology, data quality, and geographical relevance. The analysis revealed that community health centres in rural areas generally showed higher efficiency gains compared to urban settings, with a proportion of at least 15% reduction in patient wait times. The DiD model proved effective for quantifying efficiency improvements but highlighted the need for further research to address regional disparities and improve facility management. Future studies should consider implementing targeted interventions based on the findings, particularly focusing on enhancing infrastructure and training for health workers in underserved regions. Treatment effect was estimated with $text\{logit\}(\pi) = beta\,0 + \beta^{\rightarrow} p\,X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Geographic, Sub-Saharan, Community Health Centers, Difference-in-Differences, Evaluation, Methodology, Healthcare Access*

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