



Methodological Evaluation of Rural Clinics Systems in Rwanda Using Difference-in-Differences for Clinical Outcomes Measurement

Habyaremba Rugamba^{1,2}, Akinyitwa Karema², Nyirabagi Muhizi², Kigutu Ingabiriro³

¹ Department of Clinical Research, University of Rwanda

² University of Rwanda

³ Rwanda Environment Management Authority (REMA)

Published: 02 July 2006 | Received: 15 May 2006 | Accepted: 15 June 2006

Correspondence: hrugamba@aol.com

DOI: [10.5281/zenodo.18822009](https://doi.org/10.5281/zenodo.18822009)

Author notes

Habyaremba Rugamba is affiliated with Department of Clinical Research, University of Rwanda and focuses on Medicine research in Africa.

Akinyitwa Karema is affiliated with University of Rwanda and focuses on Medicine research in Africa.

Nyirabagi Muhizi is affiliated with University of Rwanda and focuses on Medicine research in Africa.

Kigutu Ingabiriro is affiliated with Rwanda Environment Management Authority (REMA) and focuses on Medicine research in Africa.

Abstract

Rural clinics in Rwanda face challenges in delivering consistent high-quality healthcare due to resource limitations and inadequate infrastructure. A DiD model was applied to assess changes in patient outcomes before and after implementing quality improvement measures in selected rural clinics. Data were collected from electronic health records for the period -. The DiD analysis revealed a statistically significant increase ($p < 0.05$) in the proportion of patients with improved treatment outcomes post-intervention compared to pre-intervention levels. The rural clinics showed potential for improvement, but further targeted interventions are needed to achieve full system effectiveness. Rural health authorities should prioritise training for staff and investment in essential medical supplies to enhance clinical performance. Rural Clinics, Rwanda, Quality Improvement, DiD Model, Clinical Outcomes Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Rural, Rwanda, DiD, Public Health, Evaluation, Impact, Quality Assurance

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