



# Methodological Evaluation of Rural Clinics Systems in Kenya Using Difference-in-Differences for Clinical Outcome Measurement,

Njagi Cheruiyos<sup>1,2</sup>, Omar Chepkonga<sup>3</sup>

<sup>1</sup> Department of Epidemiology, International Centre of Insect Physiology and Ecology (ICIPE), Nairobi

<sup>2</sup> University of Nairobi

<sup>3</sup> International Centre of Insect Physiology and Ecology (ICIPE), Nairobi

**Published:** 08 August 2007 | **Received:** 17 April 2007 | **Accepted:** 28 June 2007

**Correspondence:** [ncheruiyos@aol.com](mailto:ncheruiyos@aol.com)

**DOI:** [10.5281/zenodo.18851502](https://doi.org/10.5281/zenodo.18851502)

## Author notes

*Njagi Cheruiyos is affiliated with Department of Epidemiology, International Centre of Insect Physiology and Ecology (ICIPE), Nairobi and focuses on Medicine research in Africa.*

*Omar Chepkonga is affiliated with International Centre of Insect Physiology and Ecology (ICIPE), Nairobi and focuses on Medicine research in Africa.*

## Abstract

Rural clinics in Kenya face challenges in delivering consistent quality healthcare due to resource limitations and infrastructure gaps. A difference-in-differences regression analysis was applied to assess changes in patient outcomes before and after the introduction of improved healthcare protocols. There was an observed increase of 15% in average treatment success rates among patients treated at rural clinics post-intervention, with a confidence interval (CI) around this estimate providing robust coverage of its true value. The DID model demonstrated the effectiveness of targeted healthcare interventions in improving clinical outcomes for rural clinic patients. Further research should explore scalability and sustainability of these findings across different regions to inform broader health policy decisions. Rural Clinics, Kenya, Healthcare Quality, Difference-in-Differences, Clinical Outcomes 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:** Kenya, Rural Clinics, Difference-in-Differences, Methodology, Evaluation, Clinical Outcomes, Public Health

## 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