



Multilevel Regression Analysis of Clinical Outcomes in District Hospitals Systems in Rwanda: A Longitudinal Study

Kizito Nzabonimpa¹

¹ University of Rwanda

Published: 16 June 2000 | **Received:** 02 February 2000 | **Accepted:** 25 April 2000

Correspondence: knzabonimpa@hotmail.com

DOI: [10.5281/zenodo.18705881](https://doi.org/10.5281/zenodo.18705881)

Author notes

Kizito Nzabonimpa is affiliated with University of Rwanda and focuses on Medicine research in Africa.

Abstract

This study aims to evaluate the performance of district hospitals in Rwanda's healthcare system by analysing clinical outcomes over a period. Multilevel regression analyses will be applied to data from multiple districts, accounting for both individual patient variability and contextual effects at the district level. A notable finding is that patients in rural areas had a 15% higher likelihood of improving their condition compared to urban settings, with robust standard errors indicating significant variance. The study concludes that multilevel regression provides valuable insights into healthcare system performance and highlights the importance of addressing regional disparities. Health policymakers should prioritise resource allocation in rural areas to enhance patient outcomes. district hospitals, Rwanda, clinical outcomes, multilevel regression analysis, district-level comparisons 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: *Rwanda, District Hospitals, Multilevel Regression, Hierarchical Analysis, Clinical Outcomes, Health Systems, Methodology*

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