



Methodological Evaluation of District Hospitals Systems in Rwanda Using Multilevel Regression Analysis

Nkubuza Kimushiri¹, Mugenyi Hakainde^{2,3}, Kizito Rutaganda^{4,5}

¹ Department of Epidemiology, Rwanda Environment Management Authority (REMA)

² Department of Epidemiology, University of Rwanda

³ African Leadership University (ALU), Kigali

⁴ University of Rwanda

⁵ Department of Public Health, African Leadership University (ALU), Kigali

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Correspondence: nkimushiri@hotmail.com

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Author notes

Nkubuza Kimushiri is affiliated with Department of Epidemiology, Rwanda Environment Management Authority (REMA) and focuses on Medicine research in Africa.

Mugenyi Hakainde is affiliated with Department of Epidemiology, University of Rwanda and focuses on Medicine research in Africa.

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

Abstract

This study evaluates the systems of district hospitals in Rwanda to identify areas for improvement. Multilevel regression analysis was employed to evaluate data from district hospitals across Rwanda. Data indicated a need for enhanced coordination between primary care facilities and regional hospitals ($\beta = -0.75, p < 0.01$). District hospital systems require better integration to achieve higher yield in healthcare delivery. Implementing inter-hospital communication protocols is recommended to address identified issues. district hospitals, Rwanda, multilevel regression analysis, yield improvement Treatment effect was estimated with $\text{logit}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: Rwandan, Multilevel, Regression, Healthcare, Evaluation, District, Analysis

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