



# Methodological Assessment of Community Health Centres in Uganda: Estimating Risk Reduction Using Panel Data Techniques

Samuel Mukasa<sup>1</sup>, James Nkata<sup>2,3</sup>, Grace Amony<sup>4,5</sup>

<sup>1</sup> Department of Public Health, Kyambogo University, Kampala

<sup>2</sup> Department of Pediatrics, Kyambogo University, Kampala

<sup>3</sup> Department of Internal Medicine, Uganda Christian University, Mukono

<sup>4</sup> Department of Epidemiology, Kyambogo University, Kampala

<sup>5</sup> Uganda Christian University, Mukono

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**Correspondence:** [smukasa@gmail.com](mailto:smukasa@gmail.com)

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## Author notes

*Samuel Mukasa is affiliated with Department of Public Health, Kyambogo University, Kampala and focuses on Medicine research in Africa.*

*James Nkata is affiliated with Department of Pediatrics, Kyambogo University, Kampala and focuses on Medicine research in Africa.*

*Grace Amony is affiliated with Department of Epidemiology, Kyambogo University, Kampala and focuses on Medicine research in Africa.*

## Abstract

Community health centres (CHCs) play a crucial role in healthcare delivery in Uganda. Panel data analysis was employed, accounting for temporal and spatial dependencies within the Ugandan context. CHCs showed a significant  $R^2=0.75$  in explaining health outcomes across five districts, with an uncertainty of  $\pm 0.03$  (95% CI). Panel data techniques provided robust insights into risk reduction strategies within CHCs. Further longitudinal studies are recommended to validate these findings and inform policy. CHC methodologies, panel data analysis, risk reduction, Uganda healthcare systems

**Keywords:** *African geography, panel data, spatial econometrics, health systems evaluation, risk analysis, longitudinal studies, community healthcare effectiveness*

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