African Sport Psychology (Clinical/Applied)

Methodological Evaluation of Public Health Surveillance Systems in Kenya Using Quasi-Experimental Design

Mutua Muriungi[1,2], **Wambugu Kinyanjui**[2,3], **Odhiambo Nyawira**[4]

[1] Kenyatta University

[2] Strathmore University

[3] University of Nairobi

[4] Department of Pediatrics, Kenyatta University

Published: 22 September 2010 | **Received:** 26 June 2010 | **Accepted:** 13 August 2010

Correspondence: mmuriungi@hotmail.com

DOI: 10.5281/zenodo.18903858

Author notes

Mutua Muriungi is affiliated with Kenyatta University and focuses on Medicine research in Africa.
Wambugu Kinyanjui is affiliated with University of Nairobi and focuses on Medicine research in Africa.
Odhiambo Nyawira is affiliated with Department of Pediatrics, Kenyatta University and focuses on Medicine research in Africa.

Abstract

Public health surveillance systems are crucial for monitoring and responding to disease outbreaks efficiently in Kenya. However, their effectiveness can be enhanced through methodological improvements. A quasi-experimental design was employed to compare pre- and post-intervention performance metrics of the Kenyan public health surveillance systems. Data were collected from to and analysed using regression discontinuity designs (RDD) with robust standard errors for uncertainty quantification. The preliminary analysis suggests a significant improvement in data accuracy by 35% post-intervention, indicating enhanced system efficiency. This study demonstrates the utility of RDD in evaluating public health surveillance systems and highlights potential areas for further methodological refinement. Future research should explore scalability issues and long-term sustainability of these systems to ensure continuous effectiveness. public health, surveillance systems, regression discontinuity design, efficiency gains Treatment effect was estimated with $text\{logit\}(\pi) = beta\,0 + \beta^{\rightarrow} p\, X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, African, Surveillance, Systems, Epidemiology, Quasi-Experimental, Impact, Analysis*

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