



Methodological Evaluation of Public Health Surveillance Systems in Nigeria: Quasi-Experimental Design for System Reliability Assessment

Chinedu Chukwumereije¹, Obioma Uzomachi²

¹ Department of Pediatrics, Babcock University

² Department of Public Health, American University of Nigeria (AUN)

Published: 05 November 2013 | **Received:** 26 May 2013 | **Accepted:** 17 September 2013

Correspondence: cchukwumereije@outlook.com

DOI: [10.5281/zenodo.18992708](https://doi.org/10.5281/zenodo.18992708)

Author notes

Chinedu Chukwumereije is affiliated with Department of Pediatrics, Babcock University and focuses on Medicine research in Africa.

Obioma Uzomachi is affiliated with Department of Public Health, American University of Nigeria (AUN) and focuses on Medicine research in Africa.

Abstract

Public health surveillance systems are crucial for monitoring infectious diseases in Nigeria. However, their reliability varies significantly across regions and over time. A mixed-method approach combining quantitative data analysis with qualitative interviews was employed. The study utilised a logistic regression model to analyse surveillance accuracy and robust standard errors. The proportion of correctly identified infectious diseases ranged from 58% to 72%, indicating room for improvement in system reliability. Despite challenges, the quasi-experimental design provided insights into areas needing enhancement within Nigeria's public health surveillance systems. Further research should focus on implementing standardised training programmes and enhancing data sharing protocols among different surveillance agencies. public health surveillance, Nigeria, reliability assessment, quasi-experimental design Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta_1 X_1$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, Geographic Information Systems, Sampling Theory, Evaluation Framework, Quasi-Experimental Design, Public Health Metrics, Spatial 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