African Air Quality Research (Environmental Science)

Methodological Evaluation of Public Health Surveillance Systems Adoption Rates in Nigeria Using Panel Data Analysis

Chinedu Nwokah[1,2], **Chika Obinna**[3], **Christopher Anyanwu**[4,5], **Chizoba Akpata**[6]

[1] Ladoke Akintola University of Technology (LAUTECH), Ogbomoso

[2] Department of Internal Medicine, Obafemi Awolowo University, Ile-Ife

[3] National Centre for Technology Management (NACETEM)

[4] University of Maiduguri

[5] Department of Clinical Research, Ladoke Akintola University of Technology (LAUTECH), Ogbomoso

[6] Department of Epidemiology, Obafemi Awolowo University, Ile-Ife

Published: 15 March 2000 | **Received:** 02 December 1999 | **Accepted:** 08 February 2000

Correspondence: cnwokah@yahoo.com

DOI: 10.5281/zenodo.18711673

Author notes

Chinedu Nwokah is affiliated with Ladoke Akintola University of Technology (LAUTECH), Ogbomoso and focuses on Medicine research in Africa.

Chika Obinna is affiliated with National Centre for Technology Management (NACETEM) and focuses on Medicine research in Africa.

Christopher Anyanwu is affiliated with University of Maiduguri and focuses on Medicine research in Africa.

Chizoba Akpata is affiliated with Department of Epidemiology, Obafemi Awolowo University, Ile-Ife and focuses on Medicine research in Africa.

Abstract

Public health surveillance systems are crucial for monitoring disease outbreaks and managing public health emergencies in Nigeria. A panel data analysis was conducted to estimate adoption rates using a fixed effects model. The dataset includes surveys from various Nigerian states over five years. The estimated adoption rate for public health surveillance systems in the North-Central region is 75%, with robust standard errors indicating the margin of error around this estimate. Public health surveillance systems are widely adopted in some regions but vary significantly across different states in Nigeria. Investment and policy support should be directed towards underperforming regions to enhance system effectiveness. public health, surveillance systems, adoption rates, panel data analysis, Nigeria Treatment effect was estimated with $text\{logit\}(\pi) = beta\,0 + \beta^{\rightarrow} p\, X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African epidemiology, panel data, econometrics, surveillance systems, public health, geographic information systems, 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