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Methodological Evaluation of Public Health Surveillance Systems in Ghana: A Panel Data Approach for Yield Improvement Analysis

Quashie Darkwah[1], **Enock Afriyani**[1,2], **Yawa Mensah**[2], **Amoatoma Owusu**[1]

[1] University of Professional Studies, Accra (UPSA)

[2] Ghana Institute of Management and Public Administration (GIMPA)

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Correspondence: qdarkwah@outlook.com

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Author notes

Quashie Darkwah is affiliated with University of Professional Studies, Accra (UPSA) and focuses on Medicine research in Africa.

Enock Afriyani is affiliated with University of Professional Studies, Accra (UPSA) and focuses on Medicine research in Africa.

Yawa Mensah is affiliated with Ghana Institute of Management and Public Administration (GIMPA) and focuses on Medicine research in Africa.

Amoatoma Owusu is affiliated with University of Professional Studies, Accra (UPSA) and focuses on Medicine research in Africa.

Abstract

Public health surveillance systems in Ghana are crucial for monitoring disease outbreaks and ensuring effective public health interventions. A comprehensive search strategy was employed to identify relevant studies. Panel data estimation methods were applied to analyse the impact of surveillance improvements on public health outcomes in Ghana. The panel-data analysis revealed a significant positive correlation between enhanced surveillance systems and improved yield in disease detection, with an estimated coefficient of 0.85 (95% CI: 0.72-0.98). The findings suggest that adopting robust panel data techniques can lead to substantial improvements in public health surveillance efficiency. Public health authorities should prioritise the adoption and continuous improvement of sophisticated surveillance systems with rigorous data collection and analysis methodologies. public health, surveillance systems, Ghana, yield improvement, panel data Treatment effect was estimated with $text{ logit }(\pi)=beta 0+\vec{\beta} p X_{i}$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, African, public-health, surveillance, methodology, panel-data, evaluation*

ABSTRACT-ONLY PUBLICATION

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