



Methodological Evaluation of Public Health Surveillance Systems in Ghana Using Quasi-Experimental Design for Clinical Outcome Assessment

Yaw Boateng^{1,2}, Sakya Boachie^{3,4}, Esi Gyamfi^{3,4}, Kofi Asare^{3,5}

¹ Department of Pediatrics, Accra Technical University

² Water Research Institute (WRI)

³ University for Development Studies (UDS)

⁴ Accra Technical University

⁵ Council for Scientific and Industrial Research (CSIR-Ghana)

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Correspondence: yboateng@outlook.com

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Author notes

Yaw Boateng is affiliated with Department of Pediatrics, Accra Technical University and focuses on Medicine research in Africa.

Sakya Boachie is affiliated with University for Development Studies (UDS) and focuses on Medicine research in Africa.

Esi Gyamfi is affiliated with University for Development Studies (UDS) and focuses on Medicine research in Africa.

Kofi Asare is affiliated with Council for Scientific and Industrial Research (CSIR-Ghana) and focuses on Medicine research in Africa.

Abstract

Public health surveillance systems are essential for monitoring infectious diseases in Ghana. However, their effectiveness and reliability remain uncertain. Quasi-experimental design was employed with multivariable regression analysis for outcome assessment. A significant positive correlation ($p < 0.05$) was found between timely reporting of surveillance data and improved patient recovery rates in Ghanaian hospitals. The quasi-experimental approach effectively identified key strengths and areas needing improvement in the public health surveillance system. Enhancements to training programmes for healthcare workers and investment in infrastructure will improve data accuracy and clinical outcomes. Public Health Surveillance, Quasi-Experimental Design, Clinical Outcomes, Ghanaian Hospitals Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Sub-Saharan, Ghanaian, Public Health Surveillance, Quasi-Experimental Design, Outcome Assessment, Methodology, Evaluation*

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