



Methodological Evaluation of Public Health Surveillance Systems in Ghana: Panel Data Estimation for Measuring System Reliability

Frimpong Agyei¹, Ameyaw Oforiama^{2,3}, Kwesi Amoako^{1,4}, Antwi Asaremma⁵

¹ Ashesi University

² Ghana Institute of Management and Public Administration (GIMPA)

³ University of Cape Coast

⁴ Department of Surgery, University for Development Studies (UDS)

⁵ Department of Internal Medicine, University of Cape Coast

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Correspondence: fagyei@aol.com

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Author notes

Frimpong Agyei is affiliated with Ashesi University and focuses on Medicine research in Africa.

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

Kwesi Amoako is affiliated with Ashesi University and focuses on Medicine research in Africa.

Antwi Asaremma is affiliated with Department of Internal Medicine, University of Cape Coast and focuses on Medicine research in Africa.

Abstract

Public health surveillance systems in Ghana play a crucial role in monitoring disease outbreaks and ensuring timely intervention. A mixed-method approach combining quantitative panel-data analysis with qualitative interviews to assess system functionality and identify areas for improvement. Panel-data analyses revealed a significant delay (mean = 5 days) in the detection of disease outbreaks compared to international standards, indicating room for improvement. The analysis highlights the need for enhanced training programmes for healthcare workers and improved IT infrastructure to improve public health surveillance system reliability. Implementing regular training sessions for surveillance staff and upgrading information technology systems are recommended steps towards enhancing system performance.

Keywords: Ghana, Public Health Surveillance, Panel Data, Epidemiology, Methodology, Evaluation, Reliability

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