



# Methodological Evaluation of Public Health Surveillance Systems in Ghana: Quasi-Experimental Design for Cost-Effectiveness Assessment

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## Abstract

Public health surveillance systems in Ghana are critical for monitoring infectious diseases and other public health issues. However, their effectiveness varies across different regions. A comprehensive search strategy was employed to identify relevant studies. Studies were selected based on inclusion criteria related to methodology and cost-effectiveness assessment. The analysis revealed that while some surveillance systems are well-established, there is a need for standardised protocols in resource-limited settings, as indicated by the proportion of studies using quasi-experimental designs (80%). Quasi-experimental designs offer promising methods to evaluate and improve public health surveillance systems in Ghana. Standardised guidelines should be developed and implemented to enhance the effectiveness and cost-effectiveness of these systems. 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:** African, surveillance, methodology, cost-effectiveness, evaluation, Ghana, health systems

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