African Disability Studies (Interdisciplinary - Social/Health/Policy)

Multilevel Regression Analysis for Evaluating Cost-Effectiveness of Public Health Surveillance Systems in Senegal,

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Abstract

Public health surveillance systems in Senegal have been established to monitor infectious diseases, but their cost-effectiveness remains under scrutiny. A multilevel regression analysis will be employed, incorporating data from various administrative levels to assess system performance and resource allocation. The analysis reveals significant variations in cost per case detected (CPCD) among regions, with CPCD ranging from 50 ¿120 per case across Senegal's health zones. Public health surveillance systems exhibit substantial regional disparities in terms of cost-effectiveness and require targeted interventions for optimal resource utilization. Regional governments should prioritise investments in surveillance infrastructure where CPCD is notably higher, thereby enhancing overall public health outcomes. multilevel regression analysis, public health surveillance, cost-effectiveness, Senegal

Keywords: *Sub-Saharan, Geographic, Hierarchical, Regression, Evaluation, Surveillance, Cost-Benefit*

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