Epidemiology and Control Strategies for Dengue Fever in Port Harcourt Urban Centers,

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Abstract

Dengue fever is a significant public health concern in urban centers of Africa, particularly Port Harcourt. The disease's epidemiology and control strategies are crucial for mitigating its impact. A systematic search was conducted using multiple databases including PubMed, Web of Science, and Google Scholar. Studies published between and the present were included based on predefined inclusion criteria for quality assessment. The review identified a significant increase in dengue fever incidence from to , with peak prevalence observed during the rainy season. Control strategies such as larvicide application and community-based vector control programmes showed moderate effectiveness but varied in implementation fidelity. Effective control of dengue fever requires sustained efforts combining multiple interventions tailored to local conditions. Implementing consistent, comprehensive public health measures is recommended along with ongoing surveillance for early detection and response. Treatment effect was estimated with $text\{logit\}(\pi)=beta\,0+\beta^{\neg}\,p\,X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *Epidemiology, Control Strategies, Urban Health, Vector-Borne Diseases, Dengue Transmission, GIS Applications, Public Health Interventions*

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