HEALTHCARTOGRAPHER: A HOLISTIC EXPLORATION OF CABANATUAN CITY'S DENGUE OUTBREAK PREVENTION AND MAPPING

ABSTRACT

This study focuses on HealthCartographer, a GIS-based health monitoring system designed to support dengue prevention in Cabanatuan City. Developed to aid City Health Officers (CHO) and Healthcare Workers (HWs), the system integrates spatial mapping and real-time analytics to track dengue cases and pinpoint high-risk areas. The system's design and development follow a developmental research approach, ensuring functionality tailored to local health needs. To evaluate its impact, structured surveys were conducted with health personnel citywide, gathering data on usability, functionality, and its effectiveness in outbreak management. Analysis included weighted means for usability and functionality ratings and thematic evaluation of user feedback on system efficacy. Results indicate that HealthCartographer enhances response times and improves resource allocation, reinforcing proactive dengue prevention. The study proposes an implementation guide for local health departments, with recommendations for system rollout, enhancements, and continuous training to optimize public health outcomes.

Keywords: *HealthCartographer*, dengue prevention, GIS, public health monitoring, data-driven decision-making.