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Rising Dengue Prevalence in USVI Signals Urgent Need for Intervention, Study Finds

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An abandoned plastic bowl in a vase with stagnant water inside, a breeding ground for dengue. By. GETTY IMAGES

Dengue, the most common arboviral disease worldwide, is making its presence felt in U.S territories at an unprecedented scale, according to a paper [published this month](#) in the Journal of American Medicine. The prevalence of dengue has surged tenfold globally between 2000 and 2019, and U.S territories, particularly the U.S Virgin Islands, Puerto Rico, and American Samoa, account for over 95 percent of locally acquired cases.

From 2010 to 2020, nearly 31,000 dengue cases were reported in the U.S territories, resulting in over 10,000 hospitalizations and 68 deaths. The disease is notably prevalent among children,

adolescents, and young adults, suggesting a dire need for effective interventions in this demographic.

One such measure is the implementation of the CYD-TDV (Dengvaxia) dengue vaccine, which has shown efficacy against symptomatic disease, hospitalization, and severe dengue among previously infected children between 9 and 16 years old. Despite the logistical challenge of pre-vaccination screening, it is deemed cost-effective. Last year, the local Department of Health conducted [territory-wide screening](#) of children in schools for dengue antigens, which would indicate a previous infection, although vaccination against future infection was not part of the outreach. New dengue vaccines, currently under development, aim to provide more balanced protection across all infectional profiles and a wider age range.

Even with a very low mortality rate – less than 0.01 percent – high hospitalization rates in U.S. territories as a result of dengue emphasizes the need for improved disease management and public awareness of warning signs. This is especially crucial for those over 60, who face the highest mortality risk.

The escalating incidence of dengue brings to light the difficulties in controlling outbreaks, particularly with traditional methods like chemical control of mosquito vectors, or environmental interventions. These conventional strategies have been impeded by various factors, including widespread insecticide resistance and challenges in reducing breeding sites in modern urban contexts.

Despite hurdles, the study suggests that a comprehensive approach comprising targeted clinical care, implementation of vaccines, novel vector control methods, and advances in molecular surveillance can help manage and possibly control dengue. However, these strategies require dedicated resources, multinational cooperation, and continuous research to ensure optimal clinical care and preparedness against potential outbreaks.

In April 2022, the VI Department of Health indicated that the territory was just about due for another outbreak of dengue, which typically occurs in decade-long cycles. The last major outbreak in the Virgin Islands occurred in 2012.