



An urgent call for action: addressing the unprecedented rise in dengue cases in the Americas

Ayush Anand, MBBS^{a,*}, Amogh Verma, MBBS^b, Mahaliqua N. Khatib, MD, PhD^c, Quazi S. Zahiruddin, MD, PhD^d, Shilpa Gaidhane, PhD^e, Rakesh K. Sharma, PhD^{f,g}, Divya Sharma, PhD^j, Mithhil Arora, PhDⁱ, Sarvesh Rustagi, PhD^h, Prakasini Satapathy, PhD^{k,l}

The resurgence of dengue, a viral infection transmitted by *Aedes* mosquitoes, in the Americas has emerged as a pressing concern^[1,2]. The Pan American Health Organization (PAHO)/World Health Organization (WHO), in their latest epidemiological update dated 29 March 2024, provides a stark revelation of the escalating dengue crisis across the continent, underscoring a situation that demands immediate and concerted action from all stakeholders involved in public health and disease prevention^[3].

The year 2023 marked an ominous milestone for the Americas, reporting the highest number of dengue cases ever recorded, with a staggering total of 4 569 464 cases^[3]. This includes 7665 severe cases and 2363 fatalities, reflecting a case fatality rate (CFR) of 0.052%^[3]. The trajectory of the outbreak in 2024 has shown no signs of abating, with 3 578 414 cases reported up to the epidemiological week (EW) 12, including 2888 severe cases and 1039 deaths^[3]. This marks a significant increase over the previous year and signifies an urgent need for heightened vigilance and

intervention. Particularly concerning is the widespread circulation of all four dengue virus serotypes in several countries, which complicates the clinical management of the disease and increases the risk of severe outcomes. The simultaneous circulation of DENV-1, DENV-2, DENV-3, and DENV-4 serotypes in countries such as Brazil, Costa Rica, Guatemala, Honduras, Mexico, and Panama increases the risk of more severe forms of the disease, given the potential for secondary infections with different serotypes, leading to more severe manifestations of dengue^[4]. The data highlight the grim reality that no country is immune from the reach of this vector-borne disease, with the Southern Cone sub-region reporting over three million suspected cases in the first 12 weeks of 2024, a 254% increase compared with the same period in 2023^[3]. Countries such as Colombia, Ecuador, and Peru have reported increases of up to 471% compared with the averages of the last 5 years, reflecting a deeply concerning trend that necessitates a robust response^[3].

The resurgence of dengue in the Americas serves as a clarion call for action, reminding us of the interconnectedness of our health systems and the shared responsibility in addressing public health threats. This unprecedented increase in dengue cases underscores the critical need for integrated surveillance, vector control, and community engagement strategies to prevent and control the spread of the disease. The PAHO/WHO guidelines for national authorities emphasize the importance of continued epidemiological surveillance and reporting, targeted vector control efforts in hotspot areas, and provision of adequate clinical management to prevent severe cases and deaths^[1,3]. Importantly, the guidance calls for the involvement of individuals, families, and communities in preventive measures, recognizing the crucial role of public participation in combating the spread of dengue. This can be accomplished through health education awareness campaigns, particularly in the affected areas. In addition, a proactive, multi-sectoral approach addresses the root causes of dengue proliferation, including environmental management, climate change, urban planning, and social determinants of health^[1]. The reorganization of healthcare services for prompt detection, adequacy of laboratory diagnostic modalities through rapid diagnostic tests, and deployment of innovative integrated vector control strategies are imperative to turn the tide against dengue. Furthermore, there is a need for increased research and development in dengue prevention, including vaccine development and novel diagnostic tools, to bolster our defense against this disease.

^aB.P. Koirala Institute of Health Sciences, Dharan, Nepal, ^bDepartment of Internal Medicine, Rama Medical College Hospital and Research Centre, Hapur, ^cDivision of Evidence Synthesis, Global Consortium of Public Health and Research, Datta Meghe Institute of Higher Education, ^dSouth Asia Infant Feeding Research Network (SAIFRN), Division of Evidence Synthesis, Global Consortium of Public Health and Research, Datta Meghe Institute of Higher Education, ^eOne Health Centre (COHERD), Jawaharlal Nehru Medical College, and Global Health Academy, School of Epidemiology and Public Health, Datta Meghe Institute of Higher Education, Wardha, ^fGraphic Era Hill University, ^gGraphic Era (Deemed to be University), ^hSchool of Applied and Life Sciences, Uttarakhand University, Dehradun, Uttarakhand, ⁱChitkara Centre for Research and Development, Chitkara University, Himachal Pradesh, ^jCentre of Research Impact and Outcome, Chitkara University, Rajpura, ^kCenter for Global Health Research, Saveetha Medical College and Hospital, Saveetha Institute of Medical and Technical Sciences, Saveetha University, Chennai, India and ^lMedical Laboratories Techniques Department, Al-Mustaqbal University, Hillah, Babil, Iraq

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*Corresponding author. Address: B.P. Koirala Institute of Health Sciences, Dharan 56700, Nepal. Tel.: +977 9824381743. E-mail: dr.ayushanand.research@gmail.com (A. Anand).

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In conclusion, the dengue epidemic in the Americas is a stark reminder of the ongoing battle against infectious diseases and the need for sustained vigilance, preparedness, and cooperation across borders. By leveraging the collective expertise and resources of countries within the region, enhancing surveillance and response systems, and prioritizing public health interventions, we can mitigate the impact of dengue and move toward a future where outbreaks of such magnitude are a thing of the past.

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