

Editorial

Battling Dengue Fever in Bangladesh: Urgent Action Needed

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Dengue is a viral infection caused by the dengue virus (DENV), transmitted to humans through the bite of infected mosquitoes. Dengue is found in tropical and sub-tropical climates worldwide, mostly in urban and semi-urban areas¹. The country has witnessed an extreme surge in Dengue cases, leading to increased morbidity and mortality. This year the overwhelming dengue patient has placed an immense burden on the healthcare system and raised urgent concerns about the nation's preparedness to combat infectious diseases.

According to the Directorate General of Health Services (DGHS), Dengue press release as of 28 December 2023, a total of 3,20,945 cases (dengue NS1 or IgM test positive persons hospitalized in the reporting health facilities), including 1,701 deaths have been reported from all the 64 districts of the country reported this year². In terms of both dengue deaths and hospitalizations, this year broke all previous records¹. Dengue death in this year was recorded double than the total death numbers in the past 23 years since 2000. Over two decades, Bangladesh recorded a total of 2,43,744 dengue hospitalizations and 814 deaths up to 2022.

The dengue outbreak was first officially reported in the country in 2000, when 5,551 people were hospitalized and 93 died, according to the DGHS³.

Since the first recorded outbreak in 2000, dengue epidemiology has shown the classic epidemic pattern with more frequent and larger outbreaks and progressive geographic expansion. A periodic shift in the circulating serotypes of DENV was observed in the last two decades⁴.

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Dengue presents with a wide spectrum of clinical manifestations; it may be asymptomatic or may develop symptoms. Classical dengue, dengue hemorrhagic fever, dengue shock syndrome (DSS) and expanded dengue are descriptions of clinical syndrome⁵⁻⁷. One of the primary challenges in addressing Dengue in Bangladesh is the diagnosis and reporting of cases. Often, symptoms of Dengue can mimic other febrile illnesses, leading to underreporting and mismanagement. Improving diagnostic capabilities and raising awareness among healthcare professionals are crucial steps in enhancing surveillance and control efforts.

The changing climate patterns contribute to the proliferation of *Aedes* mosquitoes, expanding the geographical reach of Dengue. A recent study has projected that dengue transmission could be extended all year round at the end of 21 century under the consistently changing climate of Bangladesh⁸.

Dengue fever in Bangladesh demands immediate attention and collective action. By addressing challenges in diagnosis, embracing sustainable practices, ensuring community engagement, and strengthening healthcare infrastructure, the nation can make significant strides in mitigating the impact of Dengue. Bangladesh, with its vulnerability to climate change, must adopt adaptive strategies to minimize the impact of environmental factors on mosquito breeding grounds. This includes implementing sustainable urban planning, water management, and community-based initiatives to reduce mosquito habitats.

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