

COVID-19 and Dengue Outbreaks in Bangladesh in 2025: Navigating a Dual Viral Threat

In 2025, Bangladesh finds itself navigating two overlapping viral threats: a mild resurgence of COVID-19 and a concurrent large-scale dengue outbreak. This simultaneous burden has placed significant stress on the healthcare infrastructure, posing both diagnostic and operational challenges. While COVID-19 had shown a sharp decline through 2023 and 2024, sporadic cases re-emerged in early 2025. By June, a total of 433 confirmed COVID-19 cases and 16 deaths were reported, marking a noticeable uptick compared to previous months.

Genomic surveillance identified the Omicron sub-variants XFG and XFC, both descendants of the JN.1 lineage, as the main culprits behind this resurgence. These variants, although highly transmissible, have so far caused mostly mild or asymptomatic infections. The rise in test positivity, especially noted at ICDDR B (reaching 7% in May), highlighted ongoing community transmission. In response, authorities have prepared specialized hospitals—in Dhaka and Chattogram—for potential surges. Despite the increased transmission, hospitalization rates are low, and the majority of patients recover at home. Reported fatalities have largely involved elderly or immunocompromised individuals and ICU occupancy for COVID-19 remains minimal.

Parallel to this, the 2025 dengue outbreak has reached alarming proportions. With over 7,758 confirmed cases and 32 deaths by late June, the outbreak not only started earlier than in previous years but is also more widespread. By May 25 alone, 3,972 cases and 23 deaths were recorded—an increase from the same period in 2024. Notably, multiple dengue virus serotypes are circulating simultaneously this year, contributing to the heightened risk of severe disease manifestations such as dengue hemorrhagic fever and shock syndrome.

The overlap in clinical presentation between COVID-19 and dengue further complicates diagnosis and treatment. Both diseases frequently present fever, headache, fatigue, and muscle aches, lymphopenia, thrombocytopenia, and elevated liver enzymes—can lead to diagnostic confusion. This misdiagnosis has direct implications for patient care: a dengue patient misidentified as COVID-19 might not receive vital fluid resuscitation, while COVID pneumonia might be missed in a dengue-positive patient. Though relatively uncommon, documented cases of co-infection have shown significantly worse clinical outcomes, including higher rates of ICU admission and mortality. In this context, clinicians are to maintain a high index of suspicion and test all febrile patients for both pathogens.

The dual outbreak has exposed critical vulnerabilities in the country's public health framework. One of the foremost challenges is public gratification. Years of exposure to health warnings might have led to diminished adherence to preventive measures. Furthermore, healthcare resources remain constantly stretched. Limited hospital beds, overworked staff, and irregular supply chains can hinder an effective response to simultaneous surges. Accurate surveillance is another area of concern, particularly due to the diagnostic overlap and under-reporting. Moreover, Bangladesh's monsoon-driven flooding and urban waterlogging create ideal breeding grounds for *Aedes* mosquitoes, exacerbating the dengue crisis as well as risk of chikungunya and Zika fever.

Managing mild cases at home is a cornerstone of both COVID-19 and dengue response. More than 80% of dengue infections are mild or asymptomatic and can be managed with rest, hydration, and paracetamol. COVID-19 patients with uncomplicated symptoms may also recover at home, provided oxygen saturation remains stable. However, caregivers must be educated to recognize warning signs such as persistent vomiting, bleeding, or drowsiness in dengue, and worsening breathlessness or confusion in COVID-19.

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At the community level, source reduction remains vital in preventing dengue. Efforts must focus on eliminating mosquito breeding sites through regular cleaning, removing stagnant water, and public clean-up drives. Personal protective practices such as use of repellents, long-sleeved clothing, and maintaining respiratory hygiene in public spaces continue to be necessary. Community networks should also support individuals in isolation, helping minimize transmission and offering care resources.

Hospital preparedness remains a cornerstone of the national COVID-19 response. As part of this coordinated effort, dedicated COVID-19 hospitals and treatment units have been placed on standby in major cities, with two specialized facilities already operational in Dhaka and one in Chattogram.

Evercare Hospital Dhaka is ready to respond as needed. While no active COVID-19 admissions are ongoing at present, the hospital has maintained the capacity to swiftly re-establish its dedicated COVID care units, based on national directives and real-time public health needs. The clinical and operational teams are trained and equipped to transition into pandemic-mode response if required, ensuring continuity of safe care for both COVID and non-COVID patients. As of now, Evercare Hospital Dhaka maintains a posture of “STAY ALERT, NOT ALARMED” —demonstrating vigilance without panic, and reinforcing its commitment to proactive preparedness, infection control, and public reassurance.

When considering the necessary measures, policy-level interventions should prioritize, robust vector control programs must be implemented, including larvicide, adult mosquito fogging, and integrated environmental management. Public awareness should be enhanced through comprehensive communication campaigns focused on symptom recognition, appropriate home care, and access to testing.

Ultimately, the 2025 dual epidemic in Bangladesh underscores the need for sustained, multi-sectoral collaboration. While hospital preparedness, improved diagnostics, and targeted public health campaigns have been initiated, lasting success will depend on systemic investments in healthcare infrastructure, inter-agency coordination, and resilience to environmental pressures. The ongoing crisis offers both a challenge and an opportunity—to strengthen public health capacity, refine outbreak response mechanisms, and prepare for an increasingly complex infectious disease landscape in the years ahead.

Sincerely
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