Editorial

Nipah virus outbreak in West Bengal after nearly 20 years.

Betsy Biedlingmaier[1], Noor Bari[1], Ashley Quigley[1], Abrar Chughtai[2], C. Raina MacIntyre[1]

[1]The Biosecurity Program, Kirby Institute, Faculty of Medicine and Health Sciences, University of New South Wales, Sydney

[2]School of Population Health, UNSW, Sydney, Australia

In January 2026, a new Nipah virus outbreak was reported in India's Basarat City of West Bengal, the first cases to occur in the state since 2007. Two confirmed cases were reported by India's Health Ministry on January 12, 2026, and were treated at a hospital in Kolkata. Initial supports suggested there were five cases. There is very limited information on cases, and according to some reports, they were nurses at a Basarat hospital in which they both worked – one male, one female, both in their mid-twenties, and both in the ICU with comas. If both confirmed cases were health workers, it suggests they both may have been exposed in the hospital to a patient whose diagnosis of Nipah was missed. Few updated reports on patient status have been issued since January 14, 2026. The date of diagnosis varies according to the source, but all have said the tests were conducted at the Virus Research and Diagnostic Laboratory (VRDL) at Kalyani AIMMS. On January 27, 2026, a follow-up statement was released by the Indian Health Ministry publicly confirming an additional 196 linked contacts have been identified and all tested negative for Nipah virus infection; the situation appears under control.

A January 27 press release was aimed at countering earlier, inaccurate local and international news reports claiming there were five confirmed cases associated with this outbreak, and officially reporting two confirmed cases. Those initial media reports generated rapid, widespread syndication in neighbouring countries like Vietnam, China, Kyrgyzstan, and Sri Lanka, and as far away as Denmark and Türkiye, with varying degrees of discrepancy.

In response to the Indian outbreak, Taiwan's Centers for Disease Control motioned to elevate Nipah virus to a Category 5 notifiable disease, a classification requiring immediate reporting and special control measures if diagnosed in the country. Similarly, the Government of Hong Kong and Nepal's Epidemiology and Disease Control Division requested increased surveillance and reporting at hospitals and airports of patients and travellers with Nipah virus-like symptoms. As of January 26, Thailand's Public Health Ministry has confirmed there are no Nipah virus cases in Thailand; however, it continues to perform heightened screening measures for air passengers arriving from India's West Bengal state at multiple Thai airports. The timing of this outbreak has raiseed additional regional concerns as interstate travel increases in the days leading up to the Lunar New Year, from February 17 to March 3, 2026.

A Nipah outbreak in Kerala, a known endemic area, in July 2025 involved four cases. Nipah virus is an emerging zoonotic disease in the Henipavirus genus, initially discovered in Malaysia in 1999. Subsequent outbreaks were reported in Southeast Asian countries, including Singapore, Bangladesh, India and the Philippines. The case fatality rates across various studies have ranged from 58% in South-East Asian countries (435 deaths out of 754 cases) to 73% in India (74 deaths out of 102 cases), and up to 89.5% in Kerala in 2018 (17 deaths out of 19 cases). The reservoir hosts are fruit bats in the genus Pteropus. The virus causes encephalitis and respiratory disease in humans and is also known to infect domestic animals such as horses, dogs, cats, cattle, pigs and goats. In Kerala, the Nipah virus has been detected in bat populations in Manathavady, Wayanad District. The Janakikkad forest, near Wayanad, is also believed to be a source of the Nipah virus. The fruit bat mating season is thought to extend from February to September each year, which could lead to increased human exposure to bats and explain the seasonal variation in cases so far.

The infection is thought to be introduced into human populations through bat urine, saliva, or faeces contaminating fruit or date sap that humans or domestic animals consume. The outbreaks in Bangladesh displayed more prominent respiratory symptoms, and they were thought to have been directly introduced from bat populations, unlike the outbreak in Malaysia, which involved pigs as an intermediary host. Human-to-human transmission was thought to account for about half of the cases in the Bangladesh outbreak. In the 2004 Faridpur outbreak, person-to-person transmission involved five generations of infections, affecting 34 individuals, and physical contact was identified as a significant risk factor for developing the disease. The 2007 Thakurgaon outbreak showed that case patients were more likely than controls to have been in the same room as the patient when the patient was coughing.

Nipah virus spreads readily in hospital settings, as documented in the 2001 outbreak in Siliguri, India,

where a single unidentified patient transmitted the infection to 11 additional patients, all of whom were transferred to different hospitals. There, further chains of transmission infected 25 staff members and eight visitors.

Experimental infection of African green monkeys using intermediate-sized infectious aerosol was demonstrated in 2018 to mimic human disease. The use of smaller infectious aerosols, approximately 1-3 µm in diameter, produced uniformly lethal disease regardless of the dose of virus used (lowest dose: 881 pfu). This evidence suggests that infectious aerosols in close proximity may play a role in the transmission of the Nipah virus, supporting the use of mask mandates in hospitals in Kerala. Routine use of respiratory protection when caring for or performing autopsies on patients with infectious illnesses can help prevent further exposure of healthcare workers, such as the team that carried out the autopsy in Kozhikode.

Diagnosis of Nipah virus may be challenging, as it mimics many other co-circulating diseases, and the incubation period can be long (typically 4-14 days; however, up to 45 days has been reported). Presenting symptoms are fever, sore throat, headache, myalgia and vomiting. Patients may then progress to dizziness, decreased level of consciousness, and seizures, indicating encephalitis. Progression to respiratory distress may also occur, indicating pneumonia. Approximately 11% of patients are thought to remain asymptomatic, and this percentage varies with the strain. A high index of suspicion is required in endemic areas and when assessing patients returning from these regions.

Nipah virus treatment may include monoclonal antibodies, as in the case from Nattukal. The fusion glycoprotein is a promising target for this therapy in animal models; however, clinical trials of the mAb92 and MBP1F5 monoclonal antibodies in humans are in progress. An experimental nanobody (DS90-m102.4) produced by an alpaca targeting the receptor-binding protein "G glycoprotein" has been identified, which may have a role in both post-exposure prophylaxis and treatment. So far, it has demonstrated 100% protection in hamsters when used post-exposure and 50% effectiveness at preventing disease when used as a treatment. It also delayed death by four days in those hamsters that died. MBP1F5 is also highly effective at preventing infection. It was reported to be effective for up to 5 days after exposure and, as of April 2025, to provide 100% protection against infection in preclinical studies. Ribavarin has also been used as treatment, but efficacy data are lacking.

Recent progress has been made in Nipah vaccine development, with Oxford University's ChAdOx1 NipahB vaccine already trialled in humans. Public Health Vaccines in the United States has also developed a candidate vaccine, PHV02, a live-attenuated recombinant vesicular stomatitis virus vector, which is due to undergo phase 2 human trials in Bangladesh in 2026.

With no available proven treatment or vaccine, preparation for outbreaks includes surveillance, diagnostics and prevention of nosocomial transmission. The risk of major travel-related importation of cases from India to other countries is low, but neighbouring countries remain on alert. Historically, there are no such incidents. A possible example is in 1999, when the virus emerged in Malaysia among pig farmers exposed to infected pigs (likely contaminated by fruit bats) and was then exported to Singapore through the trade and movement of live pigs in March 1999. However, trade of animals is likely the main factor at play in that instance.

A coordinated effort, both locally and globally, is underway to tackle this emerging disease. We are monitoring Nipah virus reports through EPIWATCH, which relies on open-source, multi-lingual intelligence.

How to cite this article: Biedlingmaier B et al. Nipah virus outbreak in West Bengal after nearly 20 years. Global Biosecurity. 2026;8(1).

Published: February 2026

Global Biosecurity is a peer-reviewed open access journal published by University of New South Wales.