

Editorial

Human Metapneumovirus (HMPV) Outbreaks in Focus: A call for Preparedness and Action

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The recent spike in human metapneumovirus (HMPV) cases in China, together with increased monitoring in neighboring countries such as Malaysia, India, Indonesia, Bangladesh, and Vietnam, has brought respiratory viruses that have long been in circulation but have frequently been eclipsed by new pandemics back into the spotlight. Although HMPV is not a novel pathogen—it was first identified in 2001 in Dutch children with bronchiolitis—its seasonal rise in China’s northern provinces has triggered public concerns and brought back memories of the early pandemic reactions. Analyzing this situation provides critical insights into how we may strike a balance between vigilance and appropriate public health responses. HMPV belongs to the Pneumoviridae family, sharing similarities with respiratory syncytial virus (RSV).⁽¹⁾ It is an important aetiologic agent of respiratory tract infection (RTI), which is typically causes mild upper respiratory symptoms such as cough, fever, and nasal congestion.⁽²⁾ However, it can lead to serious side effects including pneumonia in vulnerable groups, such as young children, the elderly, and people with weakened immune systems. Unlike influenza or COVID-19, HMPV does not have a specific antiviral medication or vaccination. Management largely involves supportive care, making early detection and preventive measures are essential during outbreaks.

Reports from China show an unusual increase of HMPV cases, particularly among children under the age of 14, amid the typical winter surge of respiratory diseases. In December 2024, the virus became one of the top three causes of outpatient flu-like illnesses and hospitalizations for severe respiratory infections in northern Chinese provinces.⁽³⁾ Despite increased vigilance, Beijing public health officials emphasize that this increase aligns with seasonal trends rather than an exceptional outbreak. Malaysia has also reported a significant rise in HMPV cases, with a 45% year-on-year increase from 225 cases in 2023 to 327 cases in 2024.⁽⁴⁾ The Malaysian Health Ministry’s prompt issuance of advisories recommending basic precautions—including washing hands with soap, using face masks, and covering one’s mouth and nose while coughing or sneezing—reflects proactive measures aimed at preventing further escalation.

An Indian newspaper reported at least seven cases in Gujarat state of India, primarily affecting infants and senior citizens.⁽⁵⁾ In response, officials from the state health department have begun analyzing data on influenza-like illness (ILI) and severe acute respiratory illness (SARI) from various districts. In addition, HMPV recently detected in Indonesia with cases reported among children.⁽⁶⁾ However, in Vietnam, HMPV was

identified in 2023-2024, with low detection rates in Ho Chi Minh City compared to other agents. Despite reports of a rapid spread of HMPV-related pneumonia abroad, the Ho Chi Minh City Department of Health has noted no unusual fluctuations or severe cases in local hospitals, even as respiratory illnesses generally increase during colder weather.⁽⁷⁾ On 12 January 2025, the first case of HMPV in Bangladesh has been confirmed in a woman from Kishoreganj, who is undergoing treatment for bacterial pneumonia alongside the virus, though experts note she is not severely affected by HMPV.⁽⁸⁾

The emergence of Human Metapneumovirus (HMPV) has evoked memories of the COVID-19 pandemic, with visuals of masked citizens and heightened surveillance in Chinese hospitals sparking concern. However, unlike COVID-19, HMPV is a known pathogen with established patterns, lacking the exponential spread and significant mortality of SARS-CoV-2. Public health experts emphasized that respiratory virus diagnoses should not cause undue alarm if standard precautions are observed. Across Asia, countries have enhanced monitoring systems, with China introducing a program to track pneumonia cases of unknown origin, while Taiwan, Cambodia, and others issue seasonal warnings. India's Directorate General of Health Services (DGHS) has further downplayed risks, classifying HMPV among mild respiratory viruses, reflecting a balanced approach rooted in lessons from past pandemics.

Effective prevention remains key to managing Human Metapneumovirus (HMPV), with measures like handwashing, mask use in crowded spaces, and isolation when sick reducing transmission via droplets, contact, and surfaces. Improving healthcare access, transparent communication, and adequate resource allocation are essential to support vulnerable populations and sustain public trust. Though HMPV may not require urgent vaccine development, its seasonal impact highlights the need for global collaboration to advance research on antiviral therapies and respiratory infections. Lessons from COVID-19, including rapid testing, data sharing, and public engagement, underscore the importance of adaptable health systems that balance public reassurance with caution, ensuring preparedness without unnecessary disruptions.

Human metapneumovirus, though not new, is a prime example of the ongoing challenges caused by

seasonal respiratory diseases. Its recent emergence in Asia highlights to an opportunity for focused public health initiatives, improved surveillance, and global collaboration. By leveraging prior experiences and reinforcing basic preventive measures, countries can navigate this wave cautiously and proportionally, ensuring the preservation of public trust and health.

Ethical Approval

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Competing Interests

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