

Demystifying HMPV

An unknown respiratory threat

sanofi

What is Human Metapneumovirus (HMPV)?

- HMPV is a respiratory virus that can cause both **upper and lower respiratory tract infections**. It presents symptoms similar to other respiratory infections, such as respiratory syncytial virus (RSV).¹
- Potential complications include pneumonia and acute asthma exacerbations.^{1,2}

Associated symptoms:³



Cough



Fever,
headaches



Runny
nose

Symptoms of more severe disease:³



Wheezing,
difficulty
breathing,
chest pain



HMPV remains an elusive, leading cause of respiratory disease in adults aged 60+.^{4,5}



HMPV is a **seasonal virus** that **co-circulates** with influenza viruses and RSV.⁴



In temperate climates, annual HMPV circulation **begins in winter and can last through spring**.

HMPV prevention

Unlike many other respiratory viruses, there are currently no immunizations or vaccines available for HMPV, reinforcing the need for the following preventative measures.³



Avoid close contact with people who are **sick**.⁸



Wash your hands often with soap and water for at least 20 seconds.⁸



Avoid touching your eyes, nose or mouth with **unwashed** hands.⁸



Clean possible contaminated surfaces, such as doorknobs.⁸



A significant health burden in the aging population

HMPV is a major cause of respiratory infections in adults aged 60+. Together with RSV, they contribute to a **substantial hospitalization burden**.⁶

Figure 1: Estimates of RSV and HMPV-associated hospitalizations globally



RSV-hospitalizations* 759,000 (95% CI) (620,000 – 1,357,000)⁶

HMPV-hospitalizations* 473,000 (95% CI) (396,000 – 777,000)⁶



HMPV infection could lead to severe outcomes or complications that may require hospitalization and result in mid-to-long term consequences (e.g. hospital readmission, frailty, reduced independence).⁷

*Systematic estimation of the global burden of HMPV-associated disease in older adults, in 2019. ⁶

The urgent need for HMPV protection



- No anti-viral treatments or vaccines exist for HMPV.³ Addressing this gap is critical to protecting adults and reducing the burden of HMPV.
- Treatment currently focuses on managing symptoms and preventing complications, for example, through over-the-counter fever reducers, hydration and rest. Or hospital care for more severe cases.³

Sanofi is committed to chasing the miracles of science to help improve people's lives and ensure that they remain healthy and thrive at every age.

1. Kodama F, et al. Infect Dis Clin North Am. 2017;31(4):767-790.
2. Falsey AR, et al. Open Forum Infect Dis. 2021;8(11):ofab491.
3. World Health Organization (WHO). Human Metapneumovirus (hMPV) Infection. [https://www.who.int/news-room/questions-and-answers/item/human-metapneumovirus-\(hmpv\)-infection](https://www.who.int/news-room/questions-and-answers/item/human-metapneumovirus-(hmpv)-infection) (Accessed 7 August 2025).
4. Haas LEM, et al. Human Metapneumovirus in Adults. Viruses. 2013;5(1):87-110.
5. Falsey AR, et al. Human Metapneumovirus Infections in Young and Elderly and High-Risk Adults. N Engl J Med. 2005;352(17):1749-1759.
6. Kulkarni, et al. The global burden of human metapneumovirus-associated acute respiratory infections in older adults: a systematic review and meta-analysis, The Lancet Healthy Longevity, Volume 6, Issue 2, 2025.
7. Pott H, et al. Human Metapneumovirus Epidemiology Among Middle-aged and Older Adults Hospitalized With Acute Respiratory Infection. J Infect Dis. 2025 Jul 16;232(Supplement_1):S69-S77. doi: 10.1093/infdis/jiaf083.
8. Centers for Disease Control and Prevention (CDC). Human Metapneumovirus (HMPV) - About. <https://www.cdc.gov/human-metapneumovirus/about/index.html>. (Accessed 7 August 2025).

sanofi