



## Letter to the Editor

# Understanding the underlying causes of the recent surge in respiratory viruses

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### Dear Editor

The world experienced a surge in respiratory viruses, including SARS-CoV-2, respiratory syncytial virus (RSV), and influenza during the last winter. Some of these viruses can cause life-threatening infections, says Dr. Sylvie Briand, the World Health Organization's (WHO) Director of epidemics and pandemics. Respiratory illnesses typically increase during the winter due to more time spent indoors and ideal conditions for viral survival [1]. However, the spike was unusual compared to the previous two winters when COVID-19 rates were high, and people were practicing physical distancing and wearing masks, resulting in low rates of other respiratory viruses [1].

Despite the protective measures taken during the peak of the COVID-19 pandemic, several countries have observed significant seasonal variations in RSV, influenza, and parainfluenza. In

Europe, the influenza epidemic for 2022–2023 was already underway alongside ongoing COVID-19 concerns and rising RSV cases [1]. At a time when influenza viruses (A and B) were circulating in many areas, it was type B viruses that caused most hospitalizations, primarily affecting children under four years old [1]. Respiratory syncytial virus cases had also risen since October in nearly 20 countries and regions [1]. In the United States, hospital visits for respiratory diseases increased above the baseline, with the highest hospitalization rates for influenza in a decade [3]. The severity of respiratory illnesses is also growing globally, with Australia witnessing increased COVID-19 and influenza cases with high fatality rates [2].

The increase in respiratory illnesses is likely due to both immunity debt and reduced COVID-19 mitigation efforts [1,2]. Long periods without infection have affected people's immunological memory response, resulting in weakened immune systems [2]. Immunity debt refers to the phenomenon where, after a long period without exposure to certain viruses, people's immune systems become less capable of fighting illnesses [4]. During the COVID-19 pandemic, strict public health measures such as physical distancing, mask-wearing, and lockdowns limited the spread of not only SARS-CoV-2 but also other respiratory viruses [5]. As a result, many individuals, particularly children, have not been exposed to these viruses, leading to a weakened immune response when eventually confronted by them [5].

Understanding the changing dynamics of respiratory viral infections amid the COVID-19 pandemic is essential. Vaccination against flu and COVID-19 is crucial to reduce the risk of severe illness and protect vulnerable populations such as older adults, pregnant women, those with underlying medical conditions, and healthcare professionals [2]. People should continue taking precautions like washing hands frequently, wearing well-fitting masks in crowded, poorly ventilated spaces, and avoiding contact with others when unwell [2]. Countries should collect and share surveillance data to benefit from collective knowledge and better prepare for these uncertain times. Monitoring the spread and impact of influenza and RSV, along with SARS-CoV-2, is vital for improving prevention and control strategies.

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