4-10-2023

# Last Winter's Tripledemic: A Multi-Factorial Syndrome of Respiratory Illness

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*April 10, 2023*

Three years have passed since the start of the COVID-19 pandemic, and we are still learning about the successes and consequences of isolation and masking policies. The New York Times reported the cases of COVID-19, influenza, and RSV, which surged during this past winter. After the requirement to wear masks on public transportation was issued in January 2021, individuals who would typically have been exposed to common respiratory viral illnesses like influenza or RSV were shielded. Initially, this meant a drop in all viral illness cases commonly seen during winter months, allowing hospitals to focus on treating patients for COVID-19 in 2020 and 2021. However, after mask requirements were lifted across the country in the spring of 2022, and more people traveled for the winter holidays in numbers similar to before the pandemic, the conditions were ideal for a respiratory "tripledemic" composed of influenza, COVID-19, and RSV.

The first to surge was influenza. The "flu" surged in cases 6 weeks earlier than expected, rising and falling quickly and earlier in the winter season. Per the CDC, only 45.9% of eligible adults were vaccinated against the flu this past season.

COVID-19 showed a 28% increase in cases in November 2022 due to unmasked public travel, indoor gatherings, and waning immunity. Only 13% of the eligible US population has received their bivalent booster vaccine. An article written by the American Medical Association suggests that recent Omicron sub-variants, BQ.1 and BQ.1.1, accounted for 50% of COVID-19

cases last winter, allowing those who had already been exposed to earlier strains of COVID-19 to become reinfected.

Finally, per the CDC, RSV hospitalizations were ten times higher than in previous seasons. RSV, usually considered a pediatric respiratory virus, was increasingly prevalent in adult hospitalizations this past winter. The reasons for the surge are similar to Influenza and COVID-19 but could be caused by the reopening of childcare centers, thus introducing a new, vulnerable population to viral illnesses they may not have previously encountered.

The Department of Health and Human Services reported that 76% of pediatric hospital beds were full, preventing adequate treatment and possibly perpetuating the spread of viral illnesses. The consequences of this tripledemic were severe. In a recent Massachusetts Health and Hospital Association report, hospitals experienced huge nursing and bed shortages, leading to increased wait times. As a response to long wait times and bed shortages, parents opted to treat their children themselves with over-the-counter pain and fever medication. However, this caused shortages in antibiotics, ibuprofen, and Tylenol. Walmart and CVS, in response, put out announcements limiting the amount of pediatric pain medications people can buy to curb shortages, leaving parents scrambling to treat their children's fevers and symptoms at home, often turning to home remedies like cold compresses.

Though RSV and the flu are usually self-limiting in pediatric populations, viral respiratory illnesses can tire and deplete their host's immune responses. Consequently, Dr. Christopher Gill, professor of global health at Boston University, believed an increase in bacterial infections like ear infections might be related to falling ill to RSV. Interestingly, the CDC reported an increase in group A Streptococcus infections across the US and Europe, a disease that can frequently follow viral illnesses. Amid the tripledemic comprising COVID-19,

flu and RSV, experts are still hopeful that the steep rise in respiratory illnesses we have seen early this season will be met with a steep fall, and lessons learned this season can be used to prevent a tripledemic in the next.

*The author has no conflicts to report.*