# The upcoming flu seasons: how worried should we be?

The simple answer to the title question is very. As the COVID-19 pandemic raged through 2020–21, little to no influenza activity was detected.[1] It was hypothesised that interventions imposed to curb COVID-19 had a positive effect on influenza transmission. This, coupled with the focus on producing and distributing SARS-CoV-2 vaccines might have reduced the levels of influenza immunity in the population that are raised through natural infection or vaccination. Consequently, this has prompted a gut-feeling among the influenza public health and research communities that the influenza seasons post-COVID-19 are going to be severe. This worry is exacerbated by the exhaustion of national public health systems that were relentlessly fighting COVID-19 and continue to be preoccupied by surges of patients with the emergence of new strains. National public health laboratories have been mainly focused on SARS-CoV-2 diagnostics, hence global influenza surveillance might be low.

As more SARS-CoV-2 vaccines were produced, distributed, and used, hospitalisation and fatality rates dropped. Several countries started reducing the measures put in place to counter SARS-CoV-2 transmission. Subsequently, seasonal influenza virus activity resumed. However, the important question of how severe will the impending seasons be, remained unanswered, until now.

In *The Lancet Global Health*, Sheikh Taslim Ali and colleagues report the findings from their study predicting upcoming influenza epidemics after the relaxation of COVID-19 public health and social measures (PHSMs).[2] The authors analysed seasonal influenza surveillance data from several regions in the world between 2017 and 2022 to assess the impact of PHSMs implemented against COVID-19 on influenza transmissibility and attack rates. They went further and modelled the burden of influenza in the upcoming seasons and assessed the potential impacts of increasing influenza vaccine uptake.

Ali and colleagues estimated that COVID-19 PHSMs reduced influenza transmission by 17·3% (95% CI 13·3–21·4) to 40·6% (35·2–45·9) and reduced attack rates by 5·1% (1·5–7·2) to 24·8% (20·8–27·5) in the 2019–20 influenza season. These findings show that COVID-19 interventions played a key role in decreasing influenza activity, as reflected by global surveillance.[1]

Next, the authors estimated that the decrease in influenza activity over the pandemic peak years led to an increase of up to 60% in population susceptibility to influenza. According to their prediction models, this immunity drop might lead to a maximum of 1–5 fold rise in peak magnitude and 1–4 fold rise in epidemic size for the upcoming 2022 influenza season. Incoming surveillance and burden of disease data appear to support what these models predict. A US CDC report showed that the burden of influenza for the 2021–22 season was significantly higher than the previous 2 years but remained lower than that of the pre-pandemic 2019–20 season.[3] Surveillance data from the southern hemisphere shows that the 2022 season is more severe than the pre-pandemic season. The season started earlier than normal and had multiple peaks occurring rather than the regular single peak.[1]

To decrease this expected higher burden, Ali and colleagues estimated that an additional 30% of the susceptible population would need to be vaccinated against influenza. This is a sound, data-driven, and evidence-based public health recommendation that all involved should heed and implement. Factors other than host susceptibility and viral characteristics are not likely to have any effect on the upcoming burden of influenza, and if they do, the effects are expected to be negative, especially with the currently exhausted health systems globally.

A negative outlook on influenza is impending, and Ali and colleagues provide scientific evidence to show this. But they also suggest a way to avoid that, by increasing vaccination. Influenza vaccination has gained ground over the past two decades. A 2020 WHO report noted that up to 63% of countries have developed influenza vaccination strategies or at least have specified high-risk groups to be prioritised for vaccination.[4] Data indicates that influenza vaccine distribution has increased by more than 85% between 2004 and 2013.[5] However, we remain far from the declared target of vaccinating more than 75% of high-risk populations.

Although the influenza season is right around the corner, proper interventions are still possible. It is time to activate the pandemic and epidemic influenza preparedness plans. Global surveillance for influenza must be brought back to its pre-pandemic levels and

perhaps more, ideally integrating surveillance for influenza, SARS-CoV-2, and other respiratory viruses. As we cannot afford the public health cost of building back population immunity through natural infections, vaccination is crucial.

I declare no competing interests.

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