

COVID-19 control measures caused an unprecedented global drop in influenza cases



decrease in influenza cases in the **northern hemisphere** (Feb 2020 – May 2020)¹



influenza positive cases per week in the **southern hemisphere** (May 2020 – July 2021)¹

The COVID-19 pandemic has also led to a reduction in influenza virus diversity

Influenza virus clades that were not circulating in 2021:



A(H3N2) subclades (April 2020 – mid-2021)¹



B/Victoria clades (April 2020 – mid-2021)¹

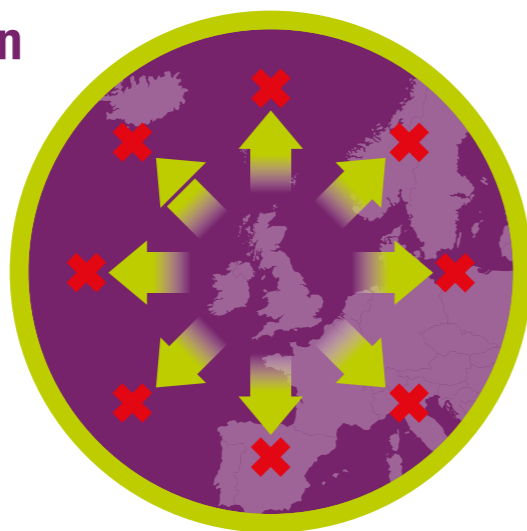


(March 2020 – Feb 2022)
Potential elimination?¹

Impact of potential B/Yamagata elimination:¹

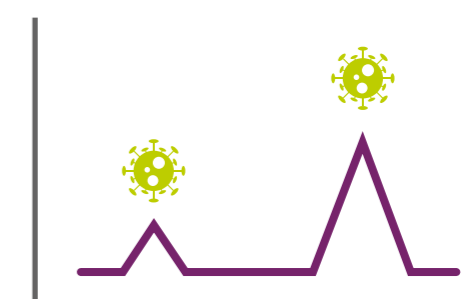
- increased susceptibility to influenza B viruses
- faster B/Victoria antigenic evolution
- possible future re-emergence

Global dissemination of influenza viruses was prevented during the pandemic¹

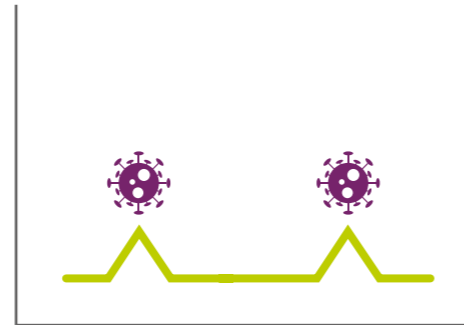


Once influenza begins to circulate again:¹

Divergent influenza lineages + waning immunity may lead to more severe influenza seasons



A small study from the Netherlands (n=165) suggests that antibody waning has been negligible so that future influenza epidemics will be similar to those before COVID-19:³



Global influenza activity rose steeply in February and March of 2022,⁴ which may alter the course of influenza activity described by Dhanasekaran V, *et al.* and lead to an increase in genetic diversity⁵



"This further highlights the need for ongoing vigilance around influenza, as well as SARS-CoV-2" GII

Published May 2022. For further information on this topic see the April 2022 edition of InFluNews which can be found on the new GII LinkedIn page

References. 1. Dhanasekaran V, *et al.* Human seasonal influenza under COVID-19 and the potential consequences of influenza lineage elimination. *Nat Commun* 2022;13(1):1721. doi: 10.1038/s41467-022-29402-5. 2. WHO. Recommended composition of influenza virus vaccines for use in the 2022-2023 northern hemisphere influenza season. 25 February 2022. Meeting Report. Available at: <https://www.who.int/publications/m/item/recommended-composition-of-influenza-virus-vaccines-for-use-in-the-2022-2023-northern-hemisphere-influenza-season>. 3. Garza, Z.C.F *et al.* Impacts of the COVID-19 pandemic on future seasonal influenza epidemics. Preprint. doi: 10.1101/2022.02.05.22270494. Available at: <https://www.medrxiv.org/content/10.1101/2022.02.05.22270494v1>. 4. WHO. FluNet. Global circulation of influenza viruses. Available at: <https://apps.who.int/flu/mart/Default?ReportNo=6>. 5. Nivel/GII. FluCov Epi-Bulletin March 2022. Available at: <https://www.nivel.nl/en/flu/cov>.