

How COVID-19 Shifted the seasonal flu in Korea

Seunghyun Kwon¹ and Bryan Kim¹

¹Korea Disease Control and Prevention Agency

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Abstract

As we approach the three-year anniversary of the pandemic, we are now facing a seasonal influenza epidemic after two years without one. In light of growing concerns over the potential risk of a “twindemic,” the Republic of Korea is currently experiencing the first peak of seasonal flu and the overall pattern is quite similar to that observed before the COVID-19 pandemic. Notably, no sudden or early increase in cases has been detected, which is unique compared to other countries.

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Authors: Seunghyun Lewis Kwon ^{a,c}, Bryan Inho Kim ^{b,*}

Affiliations:

^a Division of Immunization, Korea Disease Control and Prevention Agency, Cheongju, Republic of Korea

^b Division of Infectious Disease Control, Korea Disease Control and Prevention Agency, Cheongju, Republic of Korea

^c KDI School of Public Policy and Management, Sejong, Republic of Korea

*Corresponding author

Bryan Inho Kim

Division of Infectious Disease Control, Korea Disease Control and Prevention Agency

200 Osongsaengmyeong 2-ro, Osong-eup, Heungdeok-gu, Cheongju 28160, Republic of Korea

E-mail: globalepi@korea.kr

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Main text

Prior to 2021, Republic of Korea had experienced typical seasonal epidemics of influenza, with some seasons showing higher rates of influenza-like illness. Typically, seasonal flu epidemics in the country are reported between December and March [1]. In the 2019-2020 season, there was a relatively high number of ILI

rates. Notably, during the 2020-2021 and 2021-2022 seasons, the ILI rates had remained below the epidemic threshold, as Figure 1 illustrates. There had been continuous concern for the possible "twindemic" since the emergence of COVID-19. In the 2021-2022 season, this concern had grown with the ease of non-pharmaceutical interventions, including social distancing measures. "Twindemic" is a term used to describe the simultaneous occurrence of two different epidemics: COVID-19 and the seasonal influenza. It is used to stress the possible subsequent burden on healthcare systems and on the overall society.

The 2022-2023 flu season in the Republic of Korea has shown a similar pattern to seasons prior to the COVID-19 pandemic. Despite an increase in the ILI baseline since week 40, no early increase was observed. ILI rates increased above the seasonal threshold (4.9 ILI cases per 1,000 outpatients) in week 40, gradually increasing until week 49, and showing a typical exponential increase starting from week 50, similar to the pattern before the COVID-19 pandemic. The peak was observed in week 53 and has been decreasing since then. This reoccurrence of the typical flu epidemic in the Republic of Korea is not surprising, given the lifting of overall social distancing measures and reduced population immunity to seasonal influenza due to the absence of a flu epidemic in the 2020-2021 and 2021-2022 seasons [2]. Influenza vaccination rates have been stable during the COVID-19 pandemic [3]. Nevertheless, the indoor mask mandate has been maintained, which may have prevented an early surge of the seasonal flu epidemic, unlike in other countries, including Australia and the United States [4, 5, 6].

The impact of the resurgence of the seasonal flu in the midst of the Omicron variant-driven COVID-19 pandemic has not been as catastrophic as feared in the country. There is a chance for a spring season second peak since the indoor mask mandate is set to be lifted by the end of January 2023. Therefore, close monitoring of seasonal flu and COVID-19 trends, as well as continuous encouragement of vaccination for both highly transmissible pathogens, is needed. At present, the worst-case scenario appears to have been averted. Nevertheless, it is imperative that we continue to exercise caution, as it is currently too early to lower our guard.

CRedit authorship contribution statement

Seunghyun Lewis Kwon : Conceptualization, Methodology, Formal analysis, Writing - original draft, Writing - review & editing. **Bryan Inho Kim** : Supervision, Methodology, Validation, Writing - original draft, Writing - review & editing.

Conflict of interest statement

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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