Possible cross protection between Influenza and COVID-19: Evidence from a pilot review of national surveillance data

RES-248

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BACKGROUND

Influenza disappeared worldwide during the first two years of the COVID-19 pandemic. Although this was widely believed to be due to social distancing, mask use and other non-pharmaceutical interventions, other respiratory viruses were not similarly suppressed.(1) Recently, intriguing data from trials of combined influenza and COVID-19 mRNA vaccines have suggested a synergistic effect in terms of immune protection.(2) We investigated the relationship between incident COVID-19 and influenza infections based on publicly available surveillance data.

METHODS

We analysed monthly reported cases of influenza and COVID-19 from the Singapore Ministry of Health (MOH) sentinel surveillance and notification systems from March 2024 to June 2025. https://www.cda.gov.sg/resources/weekly-infectious-diseases-bulletin-2025

The data were plotted on graphs in EXCEL.

RESULTS

There was an average of 159.81 ± 80.73 cases of Influenza A, H3N2, pH1N1 and Influenza B and 153.31 ± 106.28 cases of COVID-19 infection each month detected by the MOH surveillance systems.

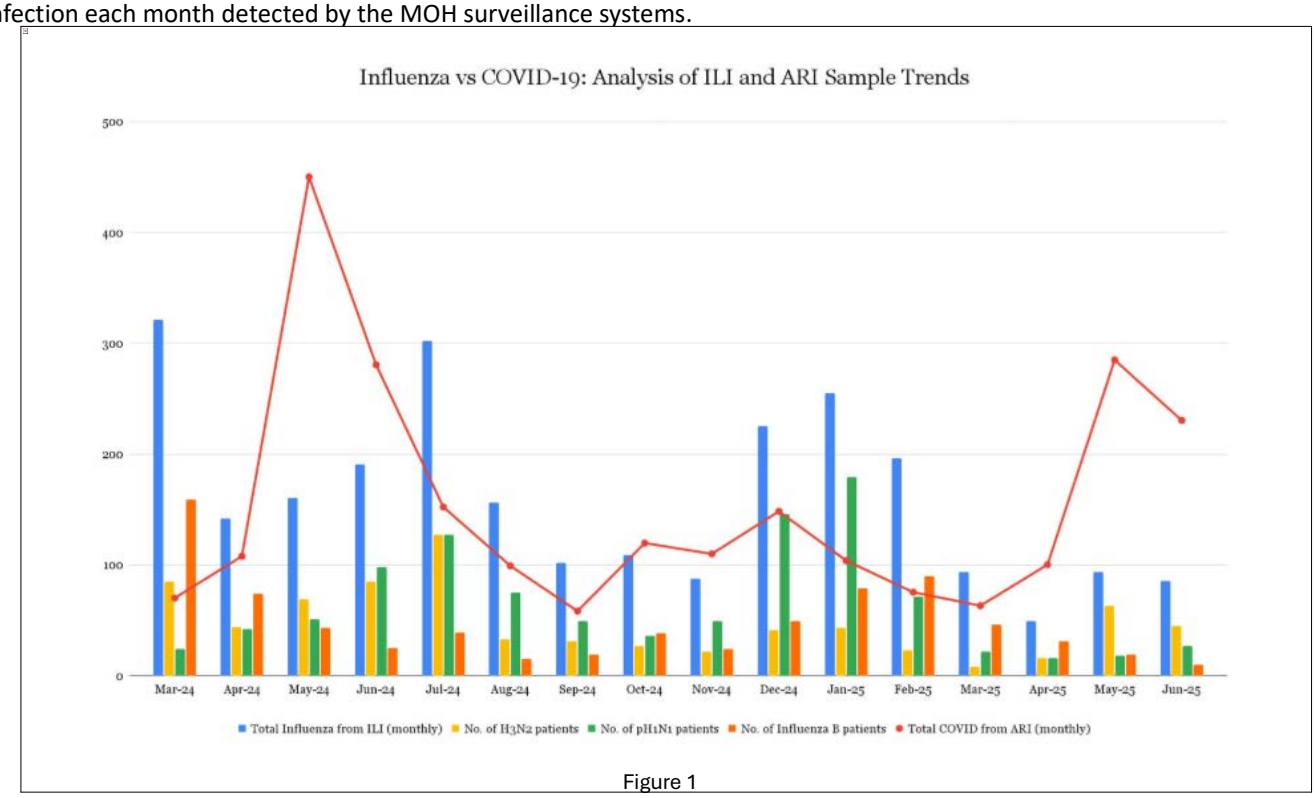

Figure 1

CONCLUSION

Our observation that reported influenza infection rates, appeared to rise as COVID-19 rates dropped is interesting and raises the possibility that infection and/or potentially even vaccination against one pathogen may provide some cross protection against the other. This would require large epidemiological as well as mechanistic studies to evaluate if this is real. If it is, it would have significant public health implications.

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