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## In preparation for a COVID-19-influenza double epidemic

WHO reports the worldwide circulation of influenza virus to be much lower than expected for this time of the year. With over 22 million cases and nearly 800 000 deaths due to COVID-19 reported globally at the time of writing and the northern hemisphere entering the influenza season, this low circulation of influenza virus could be matters of both reassurance and concern, warns WHO. The decreased circulation of the virus is likely largely attributable to the mandatory physical distancing and hygiene protocols implemented to curb the spread of the severe acute respiratory syndrome coronavirus 2. However, the potential impact of altered infection testing priorities, health-care personnel capacity, and health seeking behaviours during the pandemic should not be ignored.

"We need to bear in mind that the measures we're putting in place to control COVID-19 may have some benefits for the flu as well but with the resurgence of COVID-19 there may also be a double epidemic of flu and COVID-19 during the [northern hemisphere] winter," said Richard Pebody (WHO Regional Office for Europe, Copenhagen, Denmark). "All what we can do about it is to be ready and prepared with a range of measures we've got in our community ammunition box," he added.

In addition to continuing adherence to non-pharmaceutical interventions (NPIs), one way to prepare for a possible double epidemic is to ramp up the testing capacity for both COVID-19 and seasonal infections. For example, the WHO National Influenza Centre at the Westmead Hospital (Westmead, NSW, Australia) continued to test for other respiratory viruses throughout the COVID-19 pandemic. By June, it had done twice the number of tests it would have usually. "What was interesting was that we actually had negligible cases of influenza and respiratory syncytial virus compared

to previous seasons," said Jen Kok (Westmead Hospital). "We were doing a lot of testing, but we just weren't finding any cases whatsoever", he added. Detections of these infections have been the lowest since New South Wales started recording them, despite the increased number of tests.

Combination testing for both COVID-19 and influenza could also be beneficial, as a single sample could be used to distinguish the two infections in patients presenting with similar symptoms. The US Food and Drug Administration (FDA) issued the third emergency use authorisation in July for such a combination test, which is yet to be rolled out. A UK equivalent of the test is expected to be available in UK National Health Service hospitals from September. "It would be great if other countries and agencies would pursue developing more combination tests, because assessing for multiple diseases in a single swab can also help reduce the demand for testing supplies and reduce the risk of exposure to health-care workers collecting the sample," said Nidia Sequeira Trovão (US National Institute of Health, Washington, DC, USA).

Another strategy to reduce the likelihood of a double epidemic would be to strengthen existing influenza vaccination programmes. "We've got several questions in the air for what will happen in the next season but having [COVID-19 and influenza] circulate at the same time is really something that you want to avoid as much as possible," said Pasi Penttinen (European Centre for Disease Prevention and Control, Stockholm, Sweden). "But for influenza, we're lucky to have a vaccine and now the debate among public health authorities is how to broaden the flu shot target groups from the current consensus," Penttinen added.

Health-care workers are at the forefront of COVID-19 care and are likely to be mandated for influenza

shots. Vaccination of children is also under consideration. In the 2017–18 influenza season, only six countries in the EU recommended vaccination of children, but Penttinen thinks that "[to vaccinate children or not] is a question that countries should have right now because vaccinating children against influenza reduces their risk of transmission of flu to the elderly and thus protects them better than direct vaccination of the elderly".

However, expanding influenza shot programmes does not come without difficulties. Several countries would have placed an order for the vaccine before the pandemic, so increasing the demand now could lead to a vaccine shortage. Moreover, realigned resources to vaccination programmes during the pandemic might have a negative impact on the response to COVID-19. "So countries are faced with a very difficult dilemma here in terms of how much effort to put into the influenza vaccination program in this situation," Penttinen said.

Overall, experts bet on the documented benefits of NPIs and believe that increased preparedness could prevent a serious double epidemic. "I think the feared double epidemic will probably not happen [since] the continuing social distancing that we are likely to see well into next year should be sufficient to suppress any influenza epidemic," said Paul Hunter (University of East Anglia, Norwich, UK). However he added that when we get back to normal after COVID-19 with very low influenza activity we might have declined herd immunity to influenza. "It would be a shame if we get through COVID-19 only to be hit harder by influenza the following winter season," said Hunter.

Vijay Shankar Balakrishnan

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For WHO's influenza update see [https://www.who.int/influenza/surveillance\\_monitoring/updates/2020\\_08\\_17\\_surveillance\\_update\\_374.pdf?ua=1](https://www.who.int/influenza/surveillance_monitoring/updates/2020_08_17_surveillance_update_374.pdf?ua=1)

For more on the USFDA combination test see <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-additional-covid-19-combination-diagnostic-test-ahead-flu>

For more on the UK combination test see <https://www.bbc.co.uk/news/uk-53632043>

For recommendations for children vaccination in the EU see <https://www.ecdc.europa.eu/sites/default/files/documents/seasonal-influenza-antiviral-use-2018.pdf>