

As flu cases surge, vaccination may offer some bonus protection from COVID as well

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Credit: cottonbro studio from Pexels

After virtually disappearing for two years, influenza is back and rapidly sweeping across Australia—and the world.

So far this year, there have been more than 15,000 [flu cases in New South Wales](#) alone, of which more than 12,000 were diagnosed since the start of May.

The Queensland government has announced free flu vaccinations and NSW is considering doing the same. Australian Medical Association president Omar Khorshid has [urged](#) the incoming federal government to provide free flu shots for all Australians.

Meanwhile, [COVID cases continue to mount](#) as colder weather sets in.

The good news is, we know the [influenza vaccine](#) can protect against the flu—and a growing body of international research suggests the flu jab might also protect against COVID.

A recent study of 30,774 [health-care workers](#) in Qatar found [influenza vaccine could guard against COVID](#), particularly [severe illness](#).

These promising results have implications not only for COVID, but also for future pandemics caused by newly emergent germs. However, there are some reasons for caution.

Breaking: Hazzard announces NSW considering making flu vaccines free for this season with announcement to come in coming days following similar move in Queensland. [#flu](#)
<https://t.co/jfN80LqraL>

— Tamsin Rose (@tamsinroses) [May 24, 2022](#)

New flu findings

The Qatar [study](#), released online this month and yet to be independently verified, used data from more than 12,000 health-care workers who had

a COVID test during the 2020 flu season.

The researchers compared [influenza](#) vaccination rates between the 576 health-care workers who got COVID, and a similar group of 2,000 health-care workers who had tested negative to COVID in the last three months of 2020.

Those who had an influenza vaccination at least two weeks before COVID testing were 30% less likely to have a positive COVID test and almost 90% less likely to develop severe or critical COVID, compared with those who hadn't been recently vaccinated against flu.

This finding is consistent with similar retrospective studies from Brazil, Italy, Iran, the Netherlands and the United States, which have also shown protective effects of influenza vaccination against COVID.

Common to studies of people who work in the health field, there is the risk people in the study are health-conscious. It's likely they are more inclined to follow COVID protection advice such as adhering to lockdowns, physical isolation and mask wearing. They are also more likely to get their influenza vaccination. This potential bias is reduced in the Qatar study by focusing only on health-care workers, however it can't be ruled out as contributing to the findings.

There are two further considerations to the implications of this study. First, the health-care workers included in the study were young and not assessed to see if they had other health conditions. This means the effects seen in the study may not hold true for [older people](#) and those with other health issues—both of whom are at greater risk of severe COVID.

Second, the study used data collected before COVID vaccines and before COVID variants such as Omicron. This means the impact of the

findings in the current global circumstances are unclear.

In the study, the average time for COVID testing after flu vaccination was six weeks. With the study using data only during a three-month period, it is unclear whether this protective effect of the flu [vaccine](#) against COVID might last beyond a few months.

Beneficial 'off-target' effects of vaccines

In the early months of the pandemic—while COVID vaccines were still in development—researchers were intensely interested in the possibility existing vaccines might provide some protection against SARS-CoV-2 (the virus that causes COVID).

This is because of emerging evidence some vaccines can have additional beneficial effects, greater than just protecting against the infection they were originally designed for.

This bonus protection has mostly been linked to live-attenuated vaccines, made from a weakened forms of the germ or a related germ. For example, both the 100-year-old tuberculosis vaccine called Bacille Calmette-Guérin (BCG) and measles vaccines have been shown to reduce infant [deaths from any cause](#).

This protection is thought to be because these vaccines can kick-start the [immune system](#) so it protects the body more effectively from infectious diseases.

To understand more about the bonus protection of routine vaccines like these against COVID, multiple randomized controlled trials are under way.

One multinational clinical trial, called the [BRACE trial](#), has enrolled

almost 7,000 health-care workers to determine whether BCG vaccine reduces the incidence of symptomatic and severe COVID. So far, we have found [BCG vaccination changes the immune response to SARS-CoV-2](#) in a way that could reduce severe COVID illness.

However, this trial is ongoing and we need to wait for the final results to determine whether this [immune response](#) translates into real-world protection against COVID.

Decreasing COVID's inflammatory response?

For influenza vaccines, one plausible explanation for their protective effect against COVID is that influenza vaccination reduces the risk of having influenza and SARS-CoV-2 infection at the same time.

[Co-infection with flu and COVID](#) is associated with more severe disease. Prevention of this could reduce the severity of COVID. However, due to exceptionally low influenza rates in Qatar during the 2020 flu season, this is unlikely to explain the recent findings.

Like the BCG [vaccine](#), influenza vaccines might decrease potentially harmful [inflammatory immune responses to SARS-CoV-2](#) infection. Severe COVID has been linked to overactive inflammatory responses which can cause damage to tissues and result in severe symptoms. By reducing inflammation these routine vaccines might prevent related tissue damage.

Future protection

These promising results emerge as we grapple with growing COVID cases and the pandemic rolls on.

More research is needed to confirm what researchers are beginning to report. But the potential for existing vaccines, such as the flu jab and BCG, to provide protection against COVID gives rise to the possibility they could also help to protect against future pandemics.

However exciting these new results are, the best evidence remains that influenza vaccination protects us from the flu and COVID vaccination and boosters protect against COVID and severe illness.

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