

A COVID inquiry has been announced in Australia. But is COVID still a thing? Do I need a booster?

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Credit: AI-generated image ([disclaimer](#))

Today's [announcement of an independent inquiry](#) into Australia's COVID response will examine how we've handled the pandemic and how we could better prepare for the next one.

But the pandemic is not just a once-in-a-lifetime event that's over and needs to be analyzed. It's still with us.

The omicron variant continues to mutate and [new sub-variants](#) emerge. For instance, the highly-mutated BA.2.86 (known as Pirola) has just been [detected](#) in Australia.

The SARS-CoV-2 virus, which causes COVID, then becomes more adept at evading immunity from infections and vaccines.

COVID is not yet predictably seasonal and we expect waves every three to six months. The United States has seen a [threefold increase](#) in hospitalizations since mid-July due to waning immunity and the EG.5 sub-variant (known as Eris).

The United Kingdom has also seen a [significant increase](#) in adult and child hospitalizations due to COVID in the past month.

In Australia, more than [5,000 people](#) have died due to COVID so far this year. Excess deaths from any cause are [13% higher](#) than expected. We expect many of these are related to COVID.

The median age of COVID deaths is [around 85 years old](#) in Australia. But there were 267 reported deaths in people under 50 until the end of July 2023; some may have had weaker immune systems.

The impacts of [long COVID and re-infections](#) are significant, which [one study shows](#) mainly affects people of working age and most commonly women.

I've had a booster. Does that still protect me?

We know immunity from COVID vaccines wanes over time. In a paper

published in May, a [systematic review](#) of 40 studies showed by how much. Protection by the first two doses of the vaccine (known as the primary series) against symptomatic infection from omicron waned from almost 53% one month after the second dose to just over 14% after six months.

The same review found a booster (third or fourth dose) increased protective immunity to the same levels as the primary series. However, that immunity waned to just 30% nine months later.

A number of studies have shown protection against [severe disease](#) and death from the omicron variant also wanes over time. For example, [a UK study](#) found a primary series plus a bivalent booster (targets two strains) provided 53% protection against hospitalization four weeks after the booster among people aged 50 or over. Protection dropped to 36% at ten weeks.

An [Australian study](#), yet to be independently verified by other researchers, suggests protection against death from COVID also wanes. Of 3.8 million adults over 65 years, protection of a third dose booster against death from COVID waned from an estimated 93% within three months to 56% after six months.

So we believe a reasonable interpretation of the above data is to recommend a booster every six months in people aged 75 and older, and [younger people](#) with impaired immune systems.

But in Australia, just over [50%](#) of people aged 75 or older have received a booster in the past six months; only about 38% of people aged 65-74 and about 9% in those aged 18-64 years.

I've had COVID recently. Surely that's enough

There is a widespread perception that if you've been infected with COVID and have had the primary series of the vaccine then you're immune and, therefore, don't need to get a booster. This is commonly described as having "hybrid immunity".

However, a very [large study](#) across 19 countries found infection conferred different levels of immunity, depending on the variant. While infection with COVID effectively protected against reinfection by the original, Alpha, Beta and Delta variants, this was much less effective against the omicron BA.1 variant. Since BA.1, there have been many new sub-variants that are even more adept at evading immunity.

Who can get a booster?

Earlier this month, the Australian Technical Advisory Group on Immunization (ATAGI) [recommended](#) all adults aged 75 or older "should receive" an additional dose of the bivalent vaccine if six months have passed since their last dose. Additionally, people aged 65-74 and immunocompromised younger adults should "consider" an additional dose.

ATAGI argues that the baseline risk of severe illness in people under 65 is low if they have already been vaccinated, and particularly if they have also been infected. So, a further 2023 dose for this group would offer little additional benefit, even if it has been more than six months since their last dose.

The US has taken a different approach. Last week, the Centers for Disease Control and Prevention [recommended](#) all people over six months who have not received a COVID vaccine in the previous two months should get a dose of the newly approved monovalent (single strain) vaccines. These have been developed by Pfizer and Moderna to specifically [target the XBB.1.5](#) sub-variant of omicron. [Health Canada](#)

has adopted similar recommendations.

These new monovalent vaccines are expected [to be effective](#) in preventing infection by recently emerging omicron sub-variants, such as EG.5 and FL.1.51 derived from the XBB.1.5 sub-variant, and the newer highly mutated [BA.2.86](#), which arose from an earlier sub-variant and is a significant evolutionary leap.

While Canada and the US move into the northern hemisphere winter, Australians should not believe they are at lower risk during the summer. After all, [two large COVID waves](#) in Australia were in the summers of 2021/22 and 2022/23.

Monovalent XBB.1.5 vaccines are not yet available in Australia, but are being evaluated by the [Therapeutic Goods Administration](#). So, in the future, Australia's advice about who's eligible for a booster, and which type of booster, may change.

So, how do I decide if I need a booster now?

There is evidence in Australia of [growth of](#) the newer subvariants, including the detection of BA.2.86. So all Australians aged 75 and over who have not had a [booster](#) in the past six months should immediately have the currently available bivalent [vaccine](#).

Younger age groups may wait until further ATAGI advice about the new monovalent vaccines.

COVID is not over

While there is no need for alarm, Australians need to be aware of the ongoing significant impacts of COVID. The SARS-CoV-2 virus is still a

formidable foe as it continues to mutate.

COVID vaccines will be [among the topics](#) the newly announced inquiry will investigate.

But we cannot rely on vaccines alone. Avoiding (re)infection is also vital. Breathe [clean indoor air](#), wear [high quality masks](#) and get tested so you can access [antivirals](#) if eligible.

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