

# We shouldn't lift all COVID public health measures until kids are vaccinated

November 30 2021, by Zoë Hyde

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Credit: Gustavo Fring from Pexels

Australia's vaccination rollout got off to a slow start, but we've since become one of the most vaccinated countries in the world. More than [86% of Australians aged over 16](#) have received two doses, and 75% of

adolescents have had their first dose. This is a fantastic achievement, but younger children are missing from this picture.

The majority of parents [want to vaccinate their children](#). But kids aren't yet eligible for vaccination in Australia, despite vaccines being [approved for children](#) overseas.

It's therefore not surprising schools have become a major driver of community transmission, with unvaccinated children making up [about one-third of recent cases](#) in New South Wales.

Despite this, some state governments plan to further dismantle [public health measures](#) keeping the virus in check. In NSW, this will include [scrapping mandatory mask rules](#).

It's not the right time to do this while our children remain unprotected.

Additionally, the emergence of the [Omicron variant](#), which might be more transmissible and reduce the effectiveness of our vaccines, shows Australia needs to take a much more [cautious approach](#) to easing restrictions.

## **COVID is not always a mild illness for kids**

Adults are much more likely to experience serious illness than children, but kids are still at risk.

During the first year of the pandemic, it's estimated that approximately [one in every 400 children](#) in the United Kingdom who got infected became sick enough to need to go to hospital, and between [one in 20,000](#) and [one in 50,000](#) infections were fatal.

These figures represent the *infection hospitalization rate* and the *infection*

*fatality rate*, and they capture the full toll of the virus, because they are based on all infections, including the asymptomatic ones that don't get detected.

However, these estimates pre-date the emergence of the Delta variant, which [causes more severe illness](#). Preliminary evidence from Canada suggests the Delta variant is [2.5 times more likely](#) to lead to hospitalization in children.

This year in Australia, [2% of detected cases](#) in children aged 5-11 years resulted in hospitalization, although some of these were for social reasons. These include cases in which parents were hospitalized with COVID and were temporarily unable to care for their children.

Kids can also be left with persistent symptoms (long COVID) after infection. It's unclear how often this occurs, but in the UK, [an estimated 3,000 children](#) have been living with self-reported long COVID for at least one year.

## **How many children are at risk in Australia?**

Because the virus that causes COVID is so contagious, almost everyone will get infected eventually if they aren't vaccinated.

Even though only a small proportion of cases in children are severe, we can still expect a large number of children to get seriously unwell because there will be so many infections.

There are 3.8 million children in Australia. If we didn't offer them a chance to get vaccinated, based on the estimated severity of the original strain, we could eventually expect around 9,000 children to be hospitalized and 76 to 191 deaths. If we do these same calculations for the Delta variant, there could be approximately 22,000 hospitalisations

in children.

## Other vaccine preventable diseases: Deaths per year prior to recommended vaccines

	Hepatitis A <sup>1</sup>	Meningococcal (ACWY) <sup>2</sup>	Varicella <sup>3</sup>	Rubella <sup>4</sup>	Rotavirus <sup>5</sup>	COVID-19
Age	<20 years	11–18 years	5–9 years	All ages	<5 years	5–11 years
Time period	1990–1995	2000–2004	1990–1994	1966–1968	1985–1991	Oct 2020–Oct 2021
Average deaths per year	3	8	16	17	20	66

<sup>1</sup>Vogt TM, Wise ME, Bell BP, Finelli L. Declining hepatitis A mortality in the United States during the era of hepatitis A vaccination. *J Infect Dis* 2008; 197:1282–8.

<sup>2</sup>National Notifiable Diseases Surveillance System with additional serogroup and outcome data from Enhanced Meningococcal Disease Surveillance for 2015–2019.

<sup>3</sup>Meyer PA, Seward JF, Jumaan AO, Wharton M. Varicella mortality: trends before vaccine licensure in the United States, 1970–1994. *J Infect Dis*. 2000;182(2):383–390. doi:10.1086/315714

<sup>4</sup>Roush SW, Murphy TV; Historical comparisons of morbidity and mortality for vaccine-preventable diseases in the United States. *JAMA* 2007; 298:2155–63.

<sup>5</sup>Glass RI, Kilgore PE, Holman RC, et al. The epidemiology of rotavirus diarrhea in the United States: surveillance and estimates of disease burden. *J Infect Dis*. 1996 Sep;174 Suppl 1:S5–11.

COVID is more dangerous for children than some diseases we already vaccinate against. Credit: CDC

The period over which this occurred would depend on the number of public health measures kept in place. COVID spread rapidly through schools in England after restrictions were lifted. By mid-October, [8% of high school students and 4% of younger children](#) were testing positive.

This year in Australia, [13 children and 22 adolescents](#) have been admitted to an [intensive care unit](#) for COVID (and many more to a general hospital ward), and [one child](#) and [one teenager](#) died.

It's unclear how many children could develop long COVID, but

England's National Health Service has had to open [15 long COVID clinics for children](#).

## How does COVID compare to other diseases?

COVID is more risky for children than some other diseases that we already vaccinate against.

Today, children are routinely vaccinated against varicella (chickenpox) in Australia. Prior to the introduction of the vaccine, there were around [five to eight deaths per year](#) from this disease.

COVID also [poses a bigger risk to children than influenza](#). During the 2009 [H1N1 \(swine flu\) influenza pandemic](#), more than 1,000 children were hospitalized and 11 died.

It's statistics like these that were behind the United States' Centers for Disease Control and Prevention's decision to [recommend COVID vaccination for children](#).

## How can we keep children safe?

Australia should follow the lead of countries that have already started to vaccinate children against COVID, such as the United States and Canada. However this is unlikely to happen [until mid-to-late January next year](#).

This delay means public health measures will be vital to keep COVID under control in the community. As the experience of England has shown, [high adult vaccination levels](#) aren't sufficient to protect children and prevent the virus from spreading in schools.

States that have planned to [further ease restrictions](#) should pause those plans until children have had the chance to be vaccinated.

We also need to do more to protect our schools. COVID is an [airborne disease](#), meaning the virus drifts through the air like cigarette smoke. Masks and ventilation can help protect us, but ventilation involves much more than just opening a window.

As the OzSAGE independent scientific advisory group explains, we need a [comprehensive package of measures](#), including the use of HEPA air cleaners, to keep our schools safe.

Even after all of Australia's [children](#) have had the chance to be vaccinated, we'll need to keep some basic public health measures, such as improved ventilation, in place.

COVID vaccines are very effective at preventing severe disease, but they're not perfect and don't completely prevent transmission. Their effectiveness may also diminish in the face of new variants of the virus.

As the sudden emergence of the [Omicron variant](#) has shown, the pandemic won't end until global vaccination levels are much higher. Australia can do our bit by vaccinating as much of our population as possible, while also [donating vaccines and manufacturing technology](#) to developing countries in the region.

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