

Rising Israeli COVID cases don't mean Australia should give up and 'live with' the virus

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Israel has one of the highest COVID vaccination rates in the world, having fully vaccinated [78% of people](#) 12 years and over.

Many people are surprised at the country's resurgence of COVID cases since restrictions were lifted in June.

Israel's vaccination rate is similar to Australia's plan to start relaxing restrictions when 70% of over-16s are fully vaccinated.

So, why are cases surging in Israel? And what can Australia learn from it, particularly as Sydney charts its path out of the pandemic?

Let's break it down.

Herd immunity is much harder with Delta

Around [25% of Israel's population](#) is younger than 12, so the whole population vaccination rate is only about 60% (including a small proportion of children under 12 with high-risk medical conditions who've also been vaccinated).

Even with last year's virus and the use of the Pfizer [vaccine](#), that wouldn't be enough for herd immunity.

The Delta variant, which has swept the world since April, is [much more contagious](#). It has an R0 of 6.4, which means one infected person on average infects more than six others in the absence of restrictions and vaccinations. This is compared to the strain circulating in 2020, responsible for Melbourne's second wave, which had an R0 of 2.5.

In Israel, 60% of hospitalized cases are vaccinated. This is something called the "paradox of vaccination"—in highly vaccinated populations, [most cases will be in the vaccinated](#) because no vaccine is 100% protective.

However, the [rate of serious cases in Israel](#) is double for unvaccinated

under-60s and nine times higher for unvaccinated over-60s, so vaccines remain highly protective against severe outcomes.

NEW: Orange line shows COVID infections among unvaccinated 70+ citizens in Israel. Blue line shows COVID infections among vaccinated 70+ citizens. It couldn't be starker. Among the triple vaccinated, the pandemic comes to a virtual halt. Graph from [@GazitDoron](https://pic.twitter.com/tPt6UKupUH). pic.twitter.com/tPt6UKupUH

— Noga Tarnopolsky (@NTarnopolsky) [August 20, 2021](#)

Lifting restrictions too quickly

What's clear in Israel (and the United Kingdom and United States) is lifting all movement restrictions and mask mandates after Delta arrived resulted in surging cases. Current vaccines at about 60% uptake weren't enough.

In the US, Southern states with lower vaccination rates are seeing the worst surges, with the majority hospitalized being unvaccinated. Alabama, with 36% fully vaccinated (higher than Australia) is overwhelmed. Hospitals and ICUs are full and the [health workforce is in crisis](#) due to infected and quarantined health workers.

It provides a glimpse of what Sydney faces if we lift restrictions without the population being adequately vaccinated.

And that includes children. In Texas, [pediatric ICUs are full](#) and children cannot get beds. This is another warning that we must urgently vaccinate children, at least those 12 years and over, before lifting restrictions.

In Australia, the [70% vaccination rate](#) at which the federal government proposes to begin easing restrictions corresponds to about 56% of the

total population vaccinated.

It was modeled on 30 cases at the start of a new outbreak. With Sydney likely facing daily new cases in the 1000s (with no change in strategy), the outcomes could be much worse than anticipated.

Let's recap

So the situation in Israel is caused by several factors:

- the Delta variant has some ability to escape the protection offered by vaccines, and the protection [seems to wane a bit over time](#) after two doses
- premature lifting of restrictions
- the herd immunity threshold required for Delta is higher, likely over 80% of the whole population, not the 60% achieved in Israel
- [over 70% of infections with Delta](#) arise from asymptomatic transmission, which makes it harder to control
- cases of Delta breakthrough infection in vaccinated people [can be as infectious as in unvaccinated](#) people (though viral load [declines faster](#) in vaccinated people).

Reasons for optimism

There's a good news story in one of the most highly vaccinated cities in the US, San Francisco, where [over 70% of the whole population](#) has been vaccinated and [cases are starting to decline](#).

This is also likely due to the reintroduction of layered social measures such as mask mandates.

Israel has reintroduced a green-pass system of [proof of vaccination or a](#)

[negative test](#) for anyone three years or over accessing public indoor spaces. It has also [started vaccinating](#) over-50s with a third dose booster.

It seems a third dose [dramatically boosts immunity](#), even in people with weakened immune systems. The US will [soon start offering a third dose for everyone](#).

Many vaccines require three doses for full protection, and it's too early to know what the final primary immunization schedule will be. We may end up needing three doses plus regular boosters, or [more effective spacing of two doses](#).

There's reason to be optimistic because the vaccine pipeline isn't static. We'll have vaccines updated to tackle Delta and other variants in time, which will raise their efficacy and lower the herd immunity threshold.

What about children?

In addition to crippling outbreaks of Delta in schools, new data shows kids 0–3 years old [transmit to adults more than older children](#).

Ultimately, vaccination of children will be required to fully control SARS-CoV-2, or it will become a pandemic of the young, with unknown long-term, [generational health effects for our children](#).

COVID has mutated to become more contagious, more vaccine resistant and [more deadly](#). As a result, there's no safe "living with COVID" until at least 80% of the whole population is vaccinated, including boosters or vaccines updated to tackle the Delta variant.

We can live with COVID as we do with measles—occasional travel-imported outbreaks that never become sustained—with an ambitious vaccination strategy.

Lifting restrictions with only 60% of the population vaccinated in Australia will result in a resurgence of COVID like Israel, the UK or the US. The [health system will be endangered](#) and its workforce will be stricken.

To lift restrictions safely, we should also continue some social interventions such as wearing masks, vaccinating children, ventilating public venues including classrooms, and prioritizing front-line health workers for a third dose booster to protect them and the health system.

There's light at the end of the tunnel. But we need to keep using masks and other restrictions for now, learn from Israel and other countries, protect health workers and hospitals, vaccinate kids, use boosters, await vaccines updated for variants, implement smarter dosing schedules and aim for the most optimal vaccination strategy with equitable vaccine access, everywhere.

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