COVID-19 vaccine third dose: key messages

Key messages – WHO, WHAT, WHERE, WHEN?
- COVID-19 third doses (boosters) are available to anyone aged 16 and over who had their second dose of a COVID-19 vaccine three or more months ago.
- Eligible people will receive the Pfizer or Moderna vaccine as their third dose regardless of which COVID-19 vaccine they received for their initial doses.
- For example, you can safely have two doses of AstraZeneca followed by a third dose of Pfizer, or two doses of Pfizer followed by a third dose of Moderna.
- You can also get a third dose if you have completed an initial vaccination course overseas with a COVID-19 vaccine recognised by the Therapeutic Goods Administration.
- Third doses are different from third primary doses, which are given to those who are severely immunosuppressed, so they can have the same level of protection as the general population.
- People who are severely immunosuppressed should receive their third primary dose two to six months after the second dose in order to be protected sooner.
- ATAGI also recommends people who are severely immunocompromised receive a fourth dose of vaccine three months after their third primary dose. This ensures people with suppressed immunity have the same level of protection against COVID-19 as the general population.
- Novavax (Nuvaxovid), the fourth COVID-19 vaccine approved for administration in Australia, will be available at state-run clinics, GPs and pharmacies from 21 February. However, it will only be available as a first and second dose and is not yet available as a third dose.
- If you have recently had COVID-19, it is safe and appropriate for you to get your third dose as soon as you have finished your isolation period and your symptoms have resolved.
- This means that for people who have recently had COVID-19, as soon as you have finished your isolation period and your symptoms have resolved and you are three months since your second dose, you should book in and get your third dose to get protected. Don't wait for a longer period – get protected as soon as you can.
- You can get a COVID-19 third dose from a Victorian vaccination centre, GP or pharmacy.
- Walk in to the West Metro COVID-19 Vaccination Program hubs at [Sunshine Hospital](), [Melton West](), [West Melbourne](), [Central City Drill Hall]() (Melbourne CBD), [Caroline Springs]() and [Dianella Community Centre]() (Tarneit); or make a booking via https://portal.cvms.vic.gov.au or 1800 675 398 hotline (please dial 0 to speak to an interpreter).

Key messages – WHY?
- A COVID-19 third dose is strongly recommended because it boosts your immunity to against COVID-19, helping to prevent the loss of protection that comes with slowly waning immunity over time.
- The protection you get from your third dose is much stronger than the level of natural immunity you get from Omicron infection, even if you have received two doses of vaccine.
- Natural immunity from Omicron infection in the absence of vaccination is unlikely to protect you if you're exposed to the Delta variant, which is still circulating in Australia. And natural immunity from Omicron infection may not protect you from future COVID-19 variants.

- It's important to remember that Omicron is not a mild variant. People are experiencing milder symptoms to previous variants in large part because over 93% of Australians aged 16 and over have had two doses of COVID-19 vaccine.
- When an unvaccinated person has an Omicron infection they are only 25% less likely to end up in hospital than if they were infected with the Delta variant.
- For some perspective, Omicron is more virulent (severe) than the original strain that originated in Wuhan in 2020.
- Children younger than five years are not yet eligible for COVID-19 vaccination. If you have children under 5, protect them against the virus by ensuring that all eligible people in their family and childcare have received a third dose of COVID-19 vaccine.
- Young people (aged less than 25 years) can reduce their risk of hospitalisation almost entirely by receiving their third dose of the COVID-19 vaccine.
- To give yourself the best chances of protection against COVID-19 variants, you want to have received your third dose before you encounter the virus.

Key messages – PRACTICALITIES
- When you come to get vaccinated, you should bring a face mask, photo identification if you have it (e.g. passport or driver's licence) and Medicare card or Individual Healthcare Identifier number (if you have one but it's OK if you don't).
- West Metro COVID-19 Vaccination Program hubs can organise an interpreter service for people who speak a language other than English.
- Your third dose will appear on your Australian immunisation history statement and your COVID-19 digital certificate. You can get your immunisation history statement from myGov or through Medicare online.

Key messages – LATEST SCIENCE
Of particular interest to healthcare professionals and residential aged care facilities
- A third dose of the COVID-19 vaccine provides >95% protection against death, compared to being unvaccinated. A third dose provides >90% protection against hospitalisation compared to being unvaccinated.
- Vaccines protect against common and rare effects of COVID-19 e.g. COVID-19 vaccine reduced the risk of multisystem inflammatory syndrome in children (MIS-C) by over 90% in one major study.
- You are 20 times less likely to die with Omicron if you have had three doses compared to if you had been unvaccinated. You are 10 times less likely to be hospitalised with Omicron if you have had three doses compared to those who are unvaccinated.
- People who have had their third dose are nine times less likely to be hospitalised with COVID-19 than those who are unvaccinated. They are almost three times less likely to be hospitalised with COVID-19 than those who have received two doses of vaccine. *See Figure 1 in Appendix*
- A third dose provides specific benefits against the Omicron variant. A third dose increases protection against death to 95%, up from 60% at two doses. A third dose increases protection against hospitalisation by 90%, up from over 55% at two doses. A third dose doubles your protection against infection and transmission, with protection increased by 50% compared to 25% at two doses. *See Figure 2 in Appendix.*
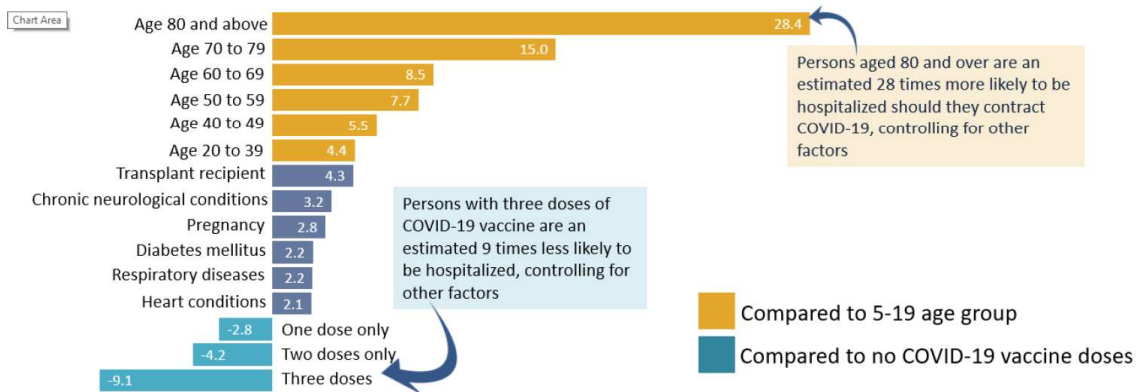
APPENDIX

Figure 1 -

What puts a person at greater risk for COVID-19 hospitalization?

Age is the largest risk factor for COVID-19 hospitalization; each dose of vaccine provides added protection. Below are Times more likely (than a person under age 20) estimates.
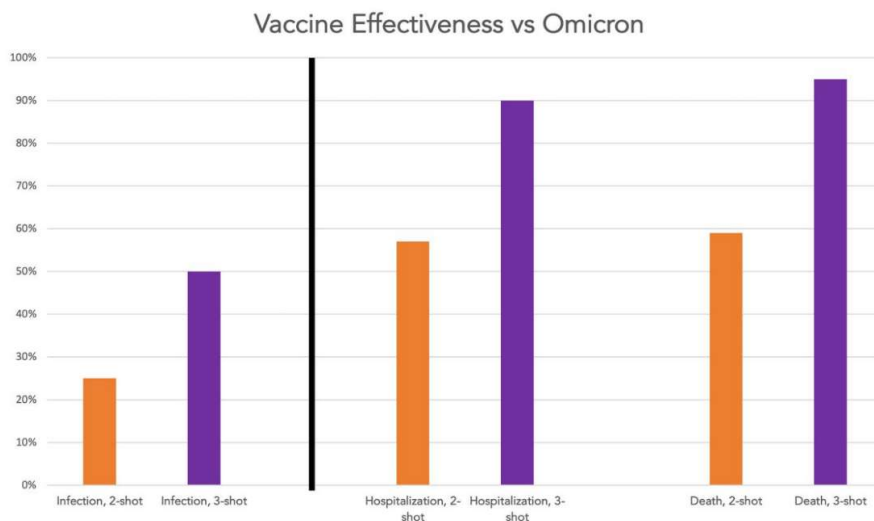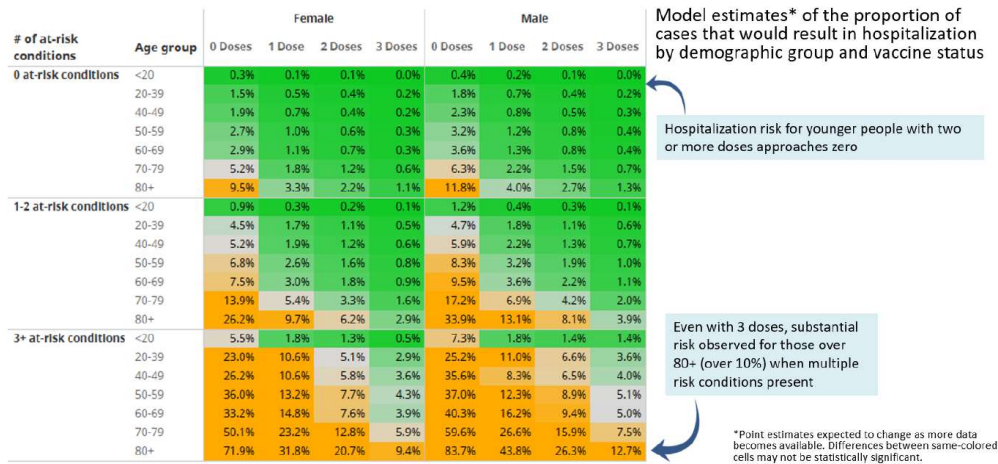

Source: www.gov.bc.ca/Covid-19

Figure 2 –

Figure 3 -

Risk of COVID-19 Hospitalization

Analysis from logistic regression on confirmed cases and hospitalizations Dec 14 – Jan 4.

# of at-risk conditions	Age group	Female				Male			
		0 Doses	1 Dose	2 Doses	3 Doses	0 Doses	1 Dose	2 Doses	3 Doses
0 at-risk conditions	<20	0.3%	0.1%	0.1%	0.0%	0.4%	0.2%	0.1%	0.0%
	20-39	1.5%	0.5%	0.4%	0.2%	1.8%	0.7%	0.4%	0.2%
	40-49	1.9%	0.7%	0.4%	0.2%	2.3%	0.8%	0.5%	0.3%
	50-59	2.7%	1.0%	0.6%	0.3%	3.2%	1.2%	0.8%	0.4%
	60-69	2.9%	1.1%	0.7%	0.3%	3.6%	1.3%	0.8%	0.4%
	70-79	5.2%	1.8%	1.2%	0.6%	6.3%	2.2%	1.5%	0.7%
	80+	9.5%	3.3%	2.2%	1.1%	11.8%	4.0%	2.7%	1.3%
1-2 at-risk conditions	<20	0.9%	0.3%	0.2%	0.1%	1.2%	0.4%	0.3%	0.1%
	20-39	4.5%	1.7%	1.1%	0.5%	4.7%	1.8%	1.1%	0.6%
	40-49	5.2%	1.9%	1.2%	0.6%	5.9%	2.2%	1.3%	0.7%
	50-59	6.8%	2.6%	1.6%	0.8%	8.3%	3.2%	1.9%	1.0%
	60-69	7.5%	3.0%	1.8%	0.9%	9.5%	3.6%	2.2%	1.1%
	70-79	13.9%	5.4%	3.3%	1.6%	17.2%	6.9%	4.2%	2.0%
	80+	26.2%	9.7%	6.2%	2.9%	33.9%	13.1%	8.1%	3.9%
3+ at-risk conditions	<20	5.5%	1.8%	1.3%	0.5%	7.3%	1.8%	1.4%	1.4%
	20-39	23.0%	10.6%	5.1%	2.9%	25.2%	11.0%	6.6%	3.6%
	40-49	26.2%	10.6%	5.8%	3.6%	35.6%	8.3%	6.5%	4.0%
	50-59	36.0%	13.2%	7.7%	4.3%	37.0%	12.3%	8.9%	5.1%
	60-69	33.2%	14.8%	7.6%	3.9%	40.3%	16.2%	9.4%	5.0%
	70-79	50.1%	23.2%	12.8%	5.9%	59.6%	26.6%	15.9%	7.5%
	80+	71.9%	31.8%	20.7%	9.4%	83.7%	43.8%	26.3%	12.7%

Model estimates* of the proportion of cases that would result in hospitalization by demographic group and vaccine status

Hospitalization risk for younger people with two or more doses approaches zero

Even with 3 doses, substantial risk observed for those over 80+ (over 10%) when multiple risk conditions present

*Point estimates expected to change as more data becomes available. Differences between same-colored cells may not be statistically significant.
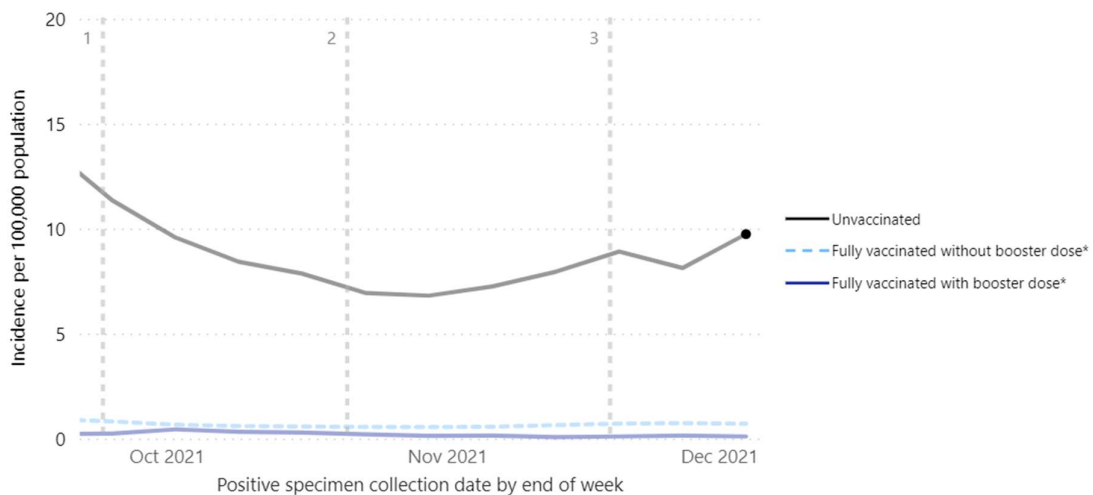
Source: www.gov.bc.ca/Covid-19

Figure 4 -

elect Outcome
) Cases
) Deaths

Rates of COVID-19 Deaths by Vaccination Status and Booster Dose**

November 28 - December 04, 2021 (24 U.S. jurisdictions)

— Unvaccinated
--- Fully vaccinated without booster dose*
— Fully vaccinated with booster dose*

Source: CDC COVID-19 Response, Epidemiology Task Force, Surveillance & Analytics Team, Vaccine Breakthrough Unit https://covid.cdc.gov/covid-data-tracker/#rates-by-vaccine-status Jan 2022.

Figure 5 -

Age-Adjusted Rates of COVID-19-Associated Hospitalizations by
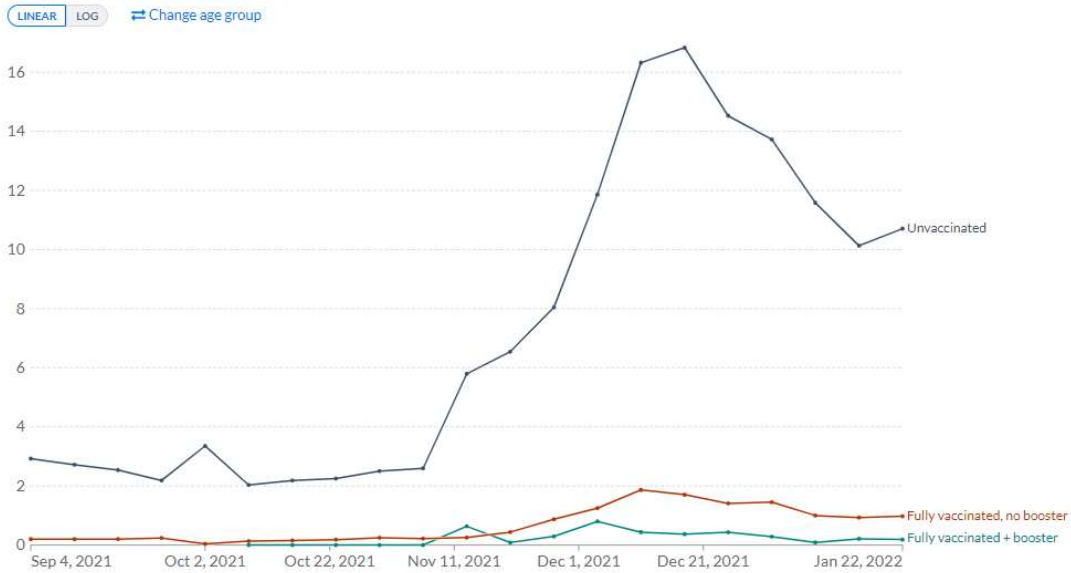Vaccination Status in Adults Ages ≥18 Years, January–December 2021
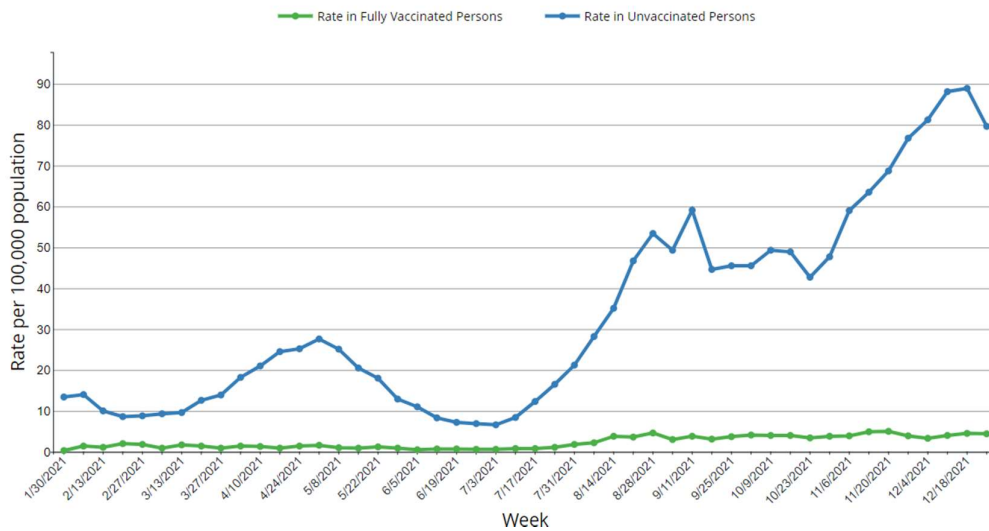
*Source: CDC COVID-19 Response, Epidemiology Task Force, Surveillance & Analytics Team, Vaccine
Breakthrough Unit https://covid.cdc.gov/covid-data-tracker/#covidnet-hospitalizations-vaccination Feb
2022.*

Figure 6 -

Switzerland: COVID-19 weekly death rate by vaccination status, All ages

Source: Federal Office of Public Health, Switzerland.
https://ourworldindata.org/grapher/switzerland-covid-19-weekly-death-rate-by-vaccination-status?time=2021-09-04..latest&country=~All+ages Jan 2022.