Government of **Western Australia**
Department of **Health**

Our ref:
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Dear Premier

MANDATORY VACCINATION OF CRITICAL WORKERS – BOOSTER VACCINES

With the progression of the COVID-19 pandemic and the roll-out of the COVID-19 vaccines, I have recommended the mandating of COVID-19 vaccination for various different professional cohorts; these include hotel quarantine staff (28 April 2021), healthcare and health support workers (09 August 2021), mission critical police staff (25 August 2021), port workers (07 September 2021), freight and logistics workers (10 September 2021), resources workers (05 October 2021) and primary and community health workers (08 October 2021). The Australian Health Protection Principal Committee has also recommended the mandating of vaccination of residential aged care workers (29 June 2021), residential disability support workers (09 July 2021 and 05 November 2021) and all workers in health care settings (01 October 2021).

On 19 and 22 October 2021, I provided further advice regarding the need for mandatory vaccination to mitigate the risks of critical services being degraded in the event of a lockdown or major restrictions and in preparation for opening of interstate and/or international borders, with consequent outbreaks. Together, these mandates cover most workers who are more likely to be exposed to COVID-19, more likely to transmit it to vulnerable people or represent a workforce that is critical to the continued functioning of the essential services within our society. With the emergence of the Omicron (B.1.1.529) Variant of Concern (Omicron variant), I now write to recommend that these same workers be mandated for a vaccine booster dose.

The Omicron variant was first reported in South Africa in November 2021, although there is speculation that it had been in circulation for some time prior to the early reports. On 26 November 2021, the World Health Organisation declared the new B.1.1.529 (Omicron) variant to be a Variant of Concern. To date, there is evidence that the Omicron variant is

rapidly spreading across the world, with reporting of the Omicron genome from more than 77 countries to the global genome data sharing initiative, GISAID (https://www.gisaid.org/hcov19-variants/). The variant is increasing dramatically and is likely to take over as the dominant strain in the United Kingdom and Europe over the coming month. There is increasing evidence that Omicron is more transmissible than the Delta variant, as well as more likely to evade immunity from previous infection and/or vaccination. This is leading to an exponential increase in cases with an estimated growth of Omicron cases at 0.35 per day (UK Health Security Agency report), which equates to a case doubling time of approximately 2-3 days.

Data is still lacking regarding the severity of disease compared to the Delta variant, although early indications suggest that disease with Omicron is of similar severity. Even if disease caused by Omicron is less severe than that caused by Delta, the likelihood of infections increasing pressure on WA's hospital system is high, due to the increase in the number of people that will be infected.

The increase in COVID case numbers in NSW is believed to be due to a spread of the Omicron variant. Of note, there have been several 'super spreading' events associated with large gatherings in NSW that have been linked to the Omicron variant, including a nightclub in Newcastle, where at least 150 of the approximately 680 people who attended have now tested positive to COVID. On 20 December 2021, NSW reported a total of over 110 cases of the Omicron variant amongst their current active cases, although the actual number is anticipated to be much larger due to the rapid rise in case numbers and doubling time of cases. With the rapid rise in COVID cases observed in other jurisdictions, it is very likely that Omicron will soon be the dominant strain in Australia and almost certainly will be the dominant strain in Western Australia (WA) when WA opens its borders on 05 February 2022.

Evidence to date suggests that the current primary course of COVID-19 vaccination (two doses for the vaccines used in Australia) provides inadequate protection from the Omicron variant; however, a third or booster dose increases the protection substantially. An early analysis of predicted vaccine effectiveness, led by the Kirby Institute in New South Wales, shows that six months after a primary course of an mRNA vaccine, efficacy for the Omicron variant is estimated to have reduced to around 40% against symptomatic disease and 80% against severe disease[1]. The report also shows that a booster with an existing mRNA vaccine has the potential to raise efficacy for Omicron to 86.2% against symptomatic disease and 98.2% against severe infection. Laboratory research from the United States of America (USA) has shown that a booster of an mRNA vaccine is highly effective in blocking the Omicron variant, compared with the primary course of vaccine (two doses alone)[2].

[1] Report: Khoury, Steain, Triccas, Sigal, Davenport and Cromer. (14 Dec, 2021) Analysis: A meta-analysis of Early Results to predict Vaccine efficacy against Omicron Available: https://www.medrxiv.org/content/10.1101/2021.12.13.21267748v1.full.pdf

[2] Report: Doria-Rose et al (Dec 2021) Booster of mRNA-1273 Vaccine Reduces SARS-CoV-2 Omicron Escape from Neutralizing Antibodies. Available: https://www.medrxiv.org/content/10.1101/2021.12.15.21267805v1.full.pdf

This emerging risk from the Omicron variant has led to a re-assessment of my previous advice regarding the vaccination mandates and a further recommendation that a booster dose should now be mandated for those groups who have been recommended for mandatory vaccination under various *Public Health Act (2016)* Directions. The public health grounds for a further booster are as follows:

1. There is serious public health risk

The Omicron variant is highly transmissible and vaccine protection from infection is not sufficient for people who have had only two doses of vaccine. Although severity data is limited, the early research indicates that Omicron is of similar severity to the Delta variant. Even if Omicron infection is less severe than Delta, a rapid increase in cases, with minimal protection against infection from two doses, will result in extreme pressure on the health system, as the increased volume of cases will lead to increased hospitalisations and critical care requirements. In addition, it is anticipated that unvaccinated and partially vaccinated people, which forms 18% of the 12 years and over population in WA, and other vulnerable groups will be more susceptible to serious disease from this variant.

2. The vaccine is safe and effective

The mRNA vaccines and the AstraZeneca vaccine have all completed rigorous safety evaluation prior to registration by the Therapeutic Goods Administration (TGA) and have been delivered to hundreds of millions of people worldwide. While the results of the vaccine efficacy from a primary course of two doses of vaccine against the Omicron variant are disappointing, the predicted impact from a booster with an existing mRNA vaccine, which has the potential to raise efficacy for the Omicron variant to 86.2% against symptomatic disease and 98.2% against severe infection, is very important. The Australian Technical Advisory Group on Immunisation (ATAGI) has recommended that a booster dose be administered as early as five months following the second dose, with this advice currently under review and further reductions in the dosing interval likely.

Both the Comirnaty (Pfizer) and Spikevax (Moderna) vaccines are approved by the TGA and recommended by ATAGI as COVID-19 booster doses. The AstraZeneca vaccine can also be used as a booster dose if someone can not have Pfizer vaccine for medical reasons or if they have had two doses of the AstraZeneca vaccine previously. The ATAGI approved age groups for booster doses should be observed.

3. Mandatory vaccination is proportionate

When faced with a new variant that is clearly more transmissible and has a high degree of immune escape from a primary course of vaccination, the proportionate response to protect the workforce from both infection and serious disease is a booster dose where available. Once WA opens its borders, there will be transmission of COVID locally and this is likely to lead to a sudden increase in cases due to the Omicron variant. The workforces that have been deemed to be more likely to be exposed, including hotel quarantine and health workers, or are likely to transmit to vulnerable populations, such as

staff in residential aged care facilities, or are critical because of the essential services they provide to the community, need to be protected by a vaccine booster dose that is expected to markedly increase vaccine efficacy and protection against serious disease.

In summary, it is my recommendation, as Chief Health Officer, that a booster dose of COVID-19 vaccine be mandated for all eligible workers to which a vaccine mandate currently applies. This should occur as soon as practicable, with those currently eligible required to get a booster dose by 05 February 2022 and those who subsequently become eligible required to have the booster dose within one month of becoming eligible. These timeframes allow the workers sufficient time to get the booster dose and employers adequate time to check and record the booster dose.

Yours sincerely

Dr Andrew Robertson
CHIEF HEALTH OFFICER

21 December 2021