



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

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Dear Premier

## **TRANSITION TO LEVEL 2 PUBLIC HEALTH AND SOCIAL MEASURES**

On 16 February 2022, I provided advice regarding transition to Level 1 Public Health and Social Measures (PHSMs), which aimed to reduce transmission, suppress community outbreak growth and minimise hospitalisation rates, given the rapid growth in case numbers in the State's outbreak. There is strong national and international evidence that supports the use of PHSMs to curb the growth in the number of COVID-19 cases. The Western Australia (WA) Department of Health modelling data also demonstrates a substantial benefit from the early implementation of PHSMs, which will reduce hospitalisations, morbidity and mortality. Given our current case numbers, I am now recommending a shift to Level 2 PHSMs and have outlined the restrictions that should be considered below.

### **Use of PHSMs**

In my advice of 4 November 2021, I discussed the rationale behind the need for PHSMs and the necessity for a graduated implementation from a baseline to a higher level in response to community transmission and pressure on the health system. The use of low to moderate PHSMs is recommended as a key response option in the Australian Health Protection Principal Committee (AHPPC) statement on 'Omicron public health implications and response options' of 22 December 2021<sup>1</sup>.

The international evidence in support of PHSMs, as a valuable lever in response to waves of COVID-19 infection, continues to grow. Zweig et al. undertook a descriptive analysis<sup>2</sup> of PHSMs across 11 countries and compared outcomes of COVID cases, hospitalisations and deaths. Implementation of a package of four PHSMs (quarantine and isolation, school closures, household confinement and the limiting of social gatherings) coincided with lower case counts and transmission across a diverse range

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<sup>1</sup> Australian Health Protection Principal Committee. Omicron public health implications and response options. 22 December 2021. <https://www.health.gov.au/news/ahppc-statement-on-the-omicron-public-health-implications-and-response-options>

<sup>2</sup> Impact of Public Health and Social Measures on the COVID-19 Pandemic in the United States and other Countries: Descriptive analysis. JMIR Public Health and Surveillance. 2 Jun 2021. <https://pubmed.ncbi.nlm.nih.gov/33975277/>

of countries. They found that ‘early implementation, consistent execution, adequate duration, and high adherence to PHSMs represent key factors in reducing the spread of COVID’.<sup>2</sup> Ayouni et al. undertook a systematic review<sup>3</sup> of the scientific literature up to March 2021 to evaluate the implemented public health interventions to control the spread of the COVID-19 outbreak. They found that a range of public health interventions and non-pharmaceutical measures were effective in decreasing the transmission of COVID-19, including restrictions on mass gatherings, isolation of confirmed cases and quarantine of contacts, social distancing measures, compulsory mask wearing, school closures and personal protective equipment (PPE) use among health workers. While these review articles provide a useful summary of the value of PHSMs, they were written largely based on findings from prior to vaccination for COVID, and when a suppression strategy was being implemented by many countries. PHSMs need to be tailored to meet the objectives of managing the outbreak, including with variants that may have different transmissibility and severity, and used in a way that is proportionate to the risk. In a new era of ‘living with COVID’, PHSMs need to be calibrated to the current risk and should encompass the lowest restrictions and shortest durations possible to meet the desired outcome.

In conjunction with opening their borders and transitioning to ‘living with COVID’, other Australian jurisdictions have implemented various PHSMs, with quite different outcomes. The implementation of these measures provides important lessons for WA. South Australia (SA) and Queensland reopened their domestic borders with high double vaccination coverage and low case numbers in the community. SA imposed more stringent PHSMs and reduced the total number of cases and consequent hospitalisations. In comparison, Queensland focused on proof of vaccination and saw rapid case growth and higher overall case numbers.

Analysis of the outbreaks in other jurisdictions also indicates that the timeframe to act is short, as PHSMs are most effective in reducing case numbers, and subsequent hospitalisations, when implemented in the rapid growth phase. Experience from other jurisdictions indicates that the time from 1,000 cases per day to the peak of the outbreak can be as short as 17 days (as in SA or Queensland) or slightly longer at 21 days (Victoria and New South Wales). Given WA reached a reported 1,140 cases in a 24-hour period on 27 February 2022, moving to Level 2 PHSMs soon would have the most benefit at the time of WA’s peak, which may be only three weeks away.

## **WA Health modelling**

WA Health released modelling on the 22 February 2022, which outlined the anticipated case numbers and hospitalisations.<sup>4</sup> This modelling was based on the implementation of both Level 1 and Level 2 PHSMs. WA Health has also modelled the expected outcomes of scenarios involving different restriction measures, including no measures (no mask use), mask use only, Level 1 PHSMs only, and Level 1 and Level 2 PHSMs

<sup>3</sup> Ayouni et al. Effective public health measures to mitigate the spread of COVID-19: a systematic review. BMC Public Health (2021) 21: 1015. [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8164261/pdf/12889\\_2021\\_Article\\_11111.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8164261/pdf/12889_2021_Article_11111.pdf)

<sup>4</sup> WA Health. Omicron COVID-19 Modelling. 2022. [https://www.wa.gov.au/system/files/2022-02/20220223WA-Health-COVID-Modelling\\_0.pdf](https://www.wa.gov.au/system/files/2022-02/20220223WA-Health-COVID-Modelling_0.pdf)

restrictions. The modelling shows that there are statistically significant and demonstrable benefits in the reduction of the number of cases, general ward bed use and ICU beds, as the restrictions are applied. Level 1 and 2 PHSMs together are markedly more effective than Level 1 PHSMs alone, which are far more effective than the implementation of masks only or no restrictions. This is demonstrated in Figure 1.

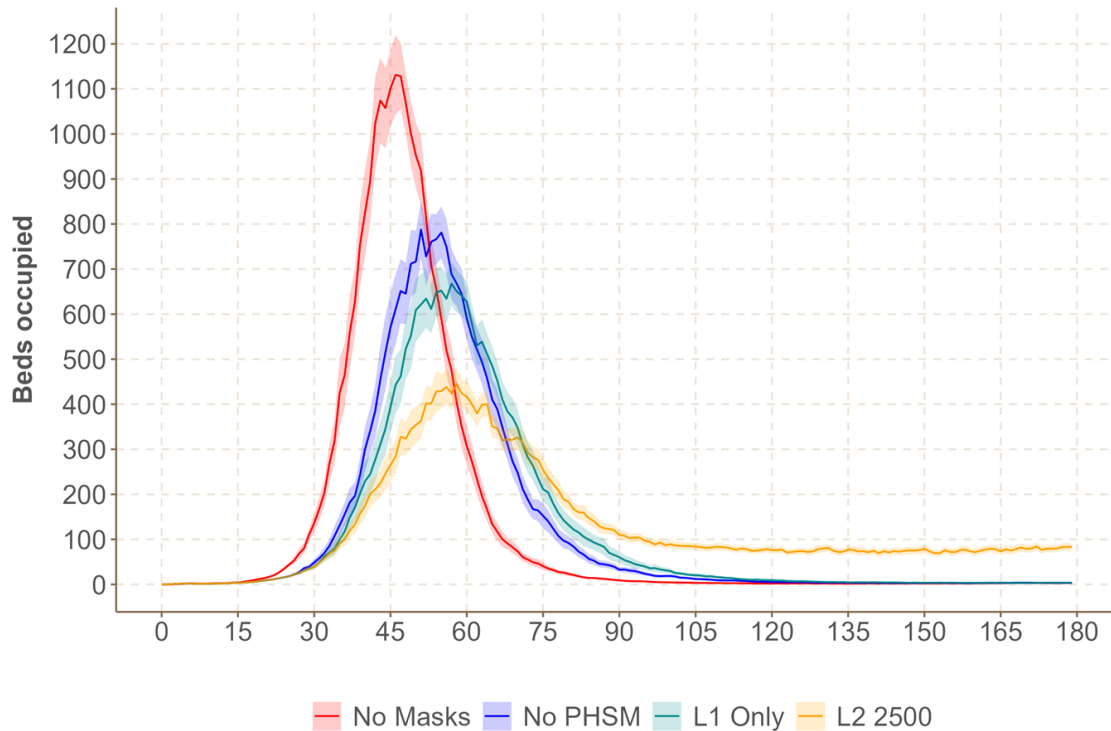


Figure 1: General ward beds occupied.

The model predicts, at WA's peak day, if no masks were used, WA would experience 28,137 cases per day and 1,131 general hospital admissions, and 140 ICU admissions. By comparison, under the Level 1 PHSMs scenario, WA would see 16,565 symptomatic cases/day, 668 general ward admissions and 84 ICU admissions. The implementation of Level 2 PHSMs would lead to approximately 10,300 symptomatic cases, 430 general admissions, and 53 ICU admissions. As Level 1 PHSMs are currently in place, the addition of Level 2 PHSMs will have a substantial impact on reducing symptomatic case numbers and consequent pressure on the health system, with a reduction of 238 ward beds and 31 ICU admissions at the peak day. Modelling has also looked at scenarios where PHSM Level 2 restrictions are implemented at different caseload settings from 400 new cases per day to 2,500 cases/day; the difference in cases, hospitalisations and ICU admissions with implementation at different caseloads, while increasing across this range, are not statistically significant. However, given the rapid acceleration in the number of cases in WA, I would recommend transitioning to Level 2 PHSMs before 2,500 cases per day is reached. On the current trajectory, WA is expected to reach 2,500 cases per day by 04 March 2022.

## Current Situation

WA transitioned to PHSM Level 1 in all regions except Kimberley, Midwest/Gascoyne and Goldfields on 21 February 2022. On 23 February 2022, I recommended that the remaining three regions be stepped up to Level 1 PHSMs. The Kimberley was moved to Level 1 PHSMs on 26 February and the Goldfields and Mid West/Gascoyne will move to Level 1 PHSMs on 28 February 2022. The Level 1 PHSMs include the following: 2 sqm rule density requirements for hospitality, fitness venues, entertainment venues, cultural venues, hairdressers and beauty services and places of worship; 75% capacity limit for entertainment venues that are seated and forward facing and for major stadiums; visitors to residential aged care, disability services and hospitals restricted to four visitors per patient/resident per day; home gatherings restricted to 30 people; private outdoor gatherings restricted to 200 people; nightclubs subject to 2sqm rule and capacity maximum of 500 people and Crown complex to be subject to 2 sqm and seated service on gaming floors.

At the time of my recommendation on transition to Level 1 PHSMs (16 February 2022), the Perth/Peel outbreak was already recording 67 new community cases per day (3 day rolling average) and at the time of implementation, this had risen to 200 cases per day (3 day rolling average on 20 February). The 3-day rolling average is currently greater than 1000 cases per day. It is estimated that the case count will rise to greater than 2,000 cases per day by 03 March 2022, although this may come sooner.

The State Health Incident Coordination Centre (SHICC), along with the Australian Government, continues to manage outbreaks in Residential Aged Care Facilities. SHICC is also managing outbreaks associated with high risk settings, such as nightclubs, pubs/bars and schools. More recently, an outbreak was declared in a remote Aboriginal Community in the Ngaanyatjarra Lands, which is being managed by use of a Community Lockdown order, and in Acacia Prison. Enhanced PHSMs significantly benefit the response by decreasing the numbers of non-household members interacting and reducing mixing between people, which may lead to increased transmission. The testing positivity rate is climbing and is currently between 8 and 10%, up from 2.4% one week ago, which indicates increasing disease in the community that is only partially being picked up by testing. While testing numbers have increased, with increasing use of PCR and Rapid Antigen Tests, there are still significant numbers of cases, particularly asymptomatic and mildly symptomatic cases, that are not being detected.

The beneficial effects of the introduction of enhanced PHSMs take time to be demonstrated due to the incubation period of COVID-19, the known lag between infection and hospitalisation, and the delay in introduction and compliance. While the incubation period is approximately 3 days for the Omicron variant, the infected person may be infectious for up to 7 days; any change in PHSMs will take greater than 7 days to be manifest, which takes account of those already infected. In addition, more serious illness from COVID-19 generally commences late in the first week of a person's illness, so waiting for hospitalisations to increase will lead to further delays. WA Health modelling, and experience from other jurisdictions, indicates that the peak demand on hospitals and ICUs will be 7-9 days after the peak of cases. Given the

impact of the new requirements on business, a 2 to 3 day period between announcing a change to density and capacity limits and their implementation is recommended, which enables the community and businesses to pivot and adjust accordingly. Combined, these factors mean that the impacts of the Level 2 PHSMs on transmission will not be seen fully for at least one week and the effect on serious disease and hospitalisations will not be manifest for at least 2 weeks. Given the rapid growth expected, as outlined above, it is important that WA implements the Level 2 PHSMs early, based on case numbers, the observed growth rate and modelling data, rather than waiting to respond to an increase in hospitalisation, which lags by 2 to 3 weeks.

## **Transition to Level 2 PHSMs**

Having considered the current model, the experiences from other jurisdiction, WA's current caseload and the growth of the outbreak, I recommend, as the Chief Health Officer, that WA moves to Level 2 PHSMs on or after 03 March 2022, when case numbers are expected to be between 1,500 and 2,500 cases per day. These PHSMs will have the maximal benefit in the lead up to the peak of cases and hospitalisations and can be reduced back to Level 1 PHSMs once WA is demonstrably over the peak, which is, on average, 2 weeks after the peak. Given the rapid growth of the outbreak, it is anticipated that these requirements will only be required until 31 March 2022; however, these requirements will need to be reviewed during this period and possibly extended if the outbreak does not abate and/or hospitalisations are higher than expected.

As part of Level 2 PHSM restrictions, the focus needs to be on decreasing numbers and mixing in high risk venues, where masks and other physical distancing measures are more difficult to apply, or compliance is less likely. While the 4 square metre (sqm) rule was considered, this will disproportionately impact smaller low risk facilities, such as cafes and restaurants. Capacity limits will have a similar overall impact, but will reduce the numbers and mixing in higher risk facilities.

The following Level 2 PHSM restrictions are recommended:

- 2 sqm requirements for hospitality, fitness venues (e.g. gyms, pilates, yoga, dance), entertainment venues, cultural venues and places of worship; seated service only for food and beverages; capacity limit of 150 patrons applies.
- 2 sqm rule for beauty/hairdresser/massage parlour/nail salon/tattoo parlour/spa continues.
- 2 sqm rule applies to outdoor venues and events; capacity limit of 500 patrons applies. Masks would be required.
- 2 sqm rule for public venues, such as swimming pools and recreation centres.
- Mask wearing required for those aged 8 years and over indoors, other than in the home and unless an exemption applies.
- 50% capacity for entertainment venues that are seated and forward facing (i.e. theatres and cinemas) and for major stadiums including Optus, HBF etc. Masks would be required.
- Aged care and disability services – restricted to two visitors per resident per day.

- Hospitals – no visitors, except for parents/carers of children, birth partners and for compassionate reasons.
- Higher education (including TAFE, pathway colleges, English language schools) – 2 sqm rule indoors or outdoors. Capacity limit of 150 people.
- Home gatherings – maximum of 10 people at indoor private gatherings in homes.
- Outdoor private gatherings in public spaces - 50 people.
- Weddings and funerals – as per venue, indoors or outdoors, 2 sqm rule with capacity limit of 150 attendees.
- Community sports – as per indoor venue, 2 sqm rule with capacity limit of 150 patrons. Outdoors, no spectators, except for family/guardians.
- Crown complex – 4 sqm rule and seated service only for casino gaming floor.
- Nightclubs – 150 capacity limit, 2 sqm rule and seated service only.

As the current outbreak is expected to impact in all regions, including those with particularly vulnerable groups, the level 2 PHSM restrictions should be applied across the whole State, in all regions, on or after 0001 on 03 March 2022.

I will continue to monitor the situation and the latest evidence and changing advice, and am happy to re-consider the above advice should there be significant changes in the public health situation.

Yours sincerely



Dr Andrew Robertson  
**CHIEF HEALTH OFFICER**

28 February 2022