

Chief Health Officer Advice to Minister for Health

Advice relating to the making of Pandemic Orders as required by section 165AL of the *Public Health and Wellbeing Act 2008*

Date of advice: 10 December 2021

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Introduction and Summary of Advice

1. In response to the request from Victoria's Minister for Health (**the Minister**) on 10 December 2021, set out below is my advice as Victoria's Chief Health Officer, regarding whether the Victorian Minister for Health should make pandemic orders under section 165A1 of the *Public Health and Wellbeing Act 2008* (Vic) (**the Act**) in relation to the coronavirus of 2019 (**COVID-19**). I advise that:
 - i. COVID-19 poses a serious risk to public health; and
 - ii. there are a series of measures that I consider are necessary or appropriate to address the risk that COVID-19 poses.
2. In providing this advice, I am aware of the legislative context in which the Premier's request is made. Section 165A1 of the Act empowers the Minister, at any time on or after the making of a pandemic declaration, to make any order that the Minister believes is reasonably necessary to protect public health. The Premier of Victoria has made a pandemic declaration and the Minister may therefore deploy a focused public health response which may include a combination of non-pharmaceutical and pharmaceutical interventions. The Act requires that the public health response be proportionate to the public health risk that the disease (in this case, COVID-19) poses.
3. The measures that I recommend below reduce the risk that COVID-19 poses by:
 - i. **Improving Victorians' understanding** of COVID-19, the means by which SARS-CoV-2 (commonly referred to as coronavirus, the virus that causes COVID-19) can be transmitted, and the actions that they can take to reduce the risk of transmission.
 - ii. Increasing the likelihood of early detection of community transmission within large geographic catchment areas throughout Victoria and therefore early detection of cases via surveillance **testing**. This can be conducted via Polymerase Chain Reaction (PCR), Rapid Antigen Testing (RAT) and wastewater monitoring in certain essential industries.
 - iii. Providing for the **collection and disclosure of information** about people who are close contacts or have been diagnosed with COVID-19 to identify, manage and care for those who are highest risk for spreading infection to others, and also to better understand the effects of COVID-19 so that interventions can be optimised.
 - iv. Requiring individuals to **wear a face mask** in a range of indoor settings, where the risk of transmission is greater.
 - v. **Requiring businesses to manage the workplaces that they control** in ways that limit transmission, by ensuring people within those workplaces are reminded about how to engage with one another safely, by keeping records of attendees, and by responding to suspected and confirmed cases in the workplace.
 - vi. **Modifying some of the environments** within which people live and interact (particularly people who are especially vulnerable to harm from COVID-19), to lower the likelihood of transmission.
 - vii. Limiting the risk of incursion from outside Victoria and Australia via proportionate control measures such as international **travel permits, testing and quarantine requirements and exclusion from sensitive settings** during the period of highest risk.

- viii. Requiring people who have been diagnosed with, or exposed to, COVID-19 to **avoid settings where people who are vulnerable to infection reside** and, where necessary, to quarantine and be tested for COVID-19, or self-isolate, to reduce the risk of further transmission; and
 - ix. Maintaining protective measures in sensitive settings, such as ensuring that people who are vulnerable to infection receive professional care from **workers who are fully vaccinated**, to protect those vulnerable to negative outcomes of COVID-19.
4. Given the current level of risk, the Minister can also consider additional protective measures such as:
 - i. extending the current circumstances in which Victorians interact, to include more settings where people must be vaccinated to participate; and
 - ii. broadening the range of people who should be fully vaccinated.
 5. These measures recognise that, although the Victorian community has achieved full vaccination coverage for at least 91% of the population aged 12 years and over, it is still necessary to maintain safeguards to control the rate at which COVID-19 can spread given high levels of community transmission are still evident.
 6. The measures that I recommend are necessary and appropriate to manage the risk that COVID-19 presents, especially in light of the following factors:
 - i. the need to gather more information and evidence about the Omicron variant of concern;
 - ii. the potential waning of vaccine-induced immunity and the need for 'booster' vaccination; and
 - iii. how effectively similar public health measures appear to be in containing COVID-19 in Northern Hemisphere countries as they enter winter.
 7. In making these recommendations, I have carefully considered the limits that the proposed measures place on human rights, and the objective of reducing a serious risk to public health. Additionally, I have considered whether the recommended measures are the least restrictive reasonably available by which to achieve the public health objective, as required by the *Charter of Human Rights and Responsibilities Act 2006* (Vic) (**Charter**).

How the Act Informs this Advice

8. The Act provides that, once the Premier has made a Pandemic Declaration, the Minister may make any order that the Minister believes is reasonably necessary to protect public health.¹
9. If the Minister is considering making pandemic orders, the Minister must consult with and consider the Chief Health Officer's advice.² This is my advice for the purpose of that provision.
10. The Minister has sought advice about:
 - (a) *the serious risk to public health posed by the disease specified in the pandemic declaration to which the proposed pandemic order relates; and*
 - (b) *the public health measures that I consider are necessary or appropriate to address this risk.*
11. Section 3 of the Act defines the phrase "serious risk to public health" as:

a material risk that substantial injury or prejudice to the health of human beings has occurred or may occur having regard to:

 - (a) *the number of persons likely to be affected; the location, immediacy, and seriousness of the threat to the health of persons;*
 - (b) *the nature, scale and effects of the harm, illness or injury that may develop; and*
 - (c) *the availability and effectiveness of any precaution, safeguard, treatment, or other measure to eliminate or reduce the risk to the health of human beings.*
12. I have taken the Act's definition of "serious risk to public health" into account when giving this advice.

This advice is based on the information that is available

13. My advice is based on the information available to me, which I have reviewed and assessed to ensure that it is relevant and reliable.³ However, there is limited scientific information on the degree to which particular measures are effective. There are a few reasons why this is the case, including:
 - i. the COVID-19 pandemic is less than two years old, and there has been a limited amount of time to implement and then assess these measures, and then to publish these investigations;
 - ii. many public health measures were implemented or modified simultaneously, so there is limited capacity to clearly understand the effectiveness of any single measure;
 - iii. evidence regarding effectiveness of measures has the potential to vary with emerging variants of concern.
14. Nevertheless, as I set out below, COVID-19 is a serious risk to public health, and it would not be appropriate to defer action on the basis that complete information is not yet available. In such circumstances, as the Act sets out, a lack of full scientific certainty is not a reason for postponing

¹ See section 165A1.

² See section 165AL(1).

³ See section 5.

measures to prevent or control the public health risks associated with COVID-19. This approach is consistent with the precautionary principle enshrined in the Act.⁴

15. Where the evidence shows that the measure is not working, or that it causes unintended consequences that were not previously foreseen, then it is appropriate to reconsider whether or not the measure remains necessary or appropriate, and whether there are less restrictive measures reasonably available to achieve the intended purpose.

The advice reflects the context in which it is given – and this may change

16. My advice about the nature of the risks that COVID-19 poses, and the necessary or appropriate public health measures to address the risk, is pertinent to the date on which this advice is given. Although I am guided by the experiences of the past 22 months of pandemic management in Victoria and beyond, my advice relates to the specific context of Victoria in December 2021. This context may change quickly, and it is important to note several ways in which it can change-
 - i. First, Victoria's vaccination coverage now stands at approximately 91% fully vaccinated for the population aged 12 years and above. This vaccination rate is one of the highest in the world and allows Victoria to enjoy a greater level of freedom with fewer accompanying risks than was possible 12 months ago. The higher the vaccination coverage in the Victorian population, the greater the protection against COVID-19 at both an individual and population level and therefore the lower the aggregate risk COVID-19 poses to public health in Victoria. If the proportion of the population that is fully vaccinated increases from 91% to 92%, the proportion of eligible Victorians who have not been fully vaccinated decreases by one-ninth, increasing the confidence in the further easing of restrictions.
 - ii. Second, and conversely, coronavirus has the capacity to mutate, and the world has recently seen the emergence of the B.1.1.529 variant of concern, named Omicron. Changes in the virus and resultant epidemiology, as well as new evidence of what public health measures work and don't work against variants, have the capacity to significantly change the recommendations made in this advice and should be acted upon promptly.
 - iii. Third, expert bodies such as the Australian Therapeutic Goods Administration (TGA) and the Australian Technical Advisory Group on Immunisation (ATAGI) consider issues that are relevant to vaccination as a public health measure, such as vaccination of children or boosters. Noting provisional approval of the Pfizer vaccine for children aged between 5 and 11 years of age has been granted by the TGA, further decisions made by those bodies will impact on what remains necessary or appropriate.⁵
 - iv. Fourth, if community transmission were to escalate to the point where hospital admissions were increasing and intensive care units were experiencing pressure or capacity constraints, this could also change what measures are necessary or appropriate to respond to the threat posed by COVID-19.

⁴ See section 6.

⁵ Note, however, that there may be a delay between something being theoretically possible (such as when the TGA approves a vaccine) and something being operationally possible (such as when the vaccine arrives in Australia and available for distribution through supply chains).

17. As a result, the public health measures that I consider necessary or appropriate at the time this advice is given may change rapidly in response to any of the factors set out above.

COVID-19 constitutes a serious risk to public health

18. Pursuant to section 165AL(1)(a) of the Act, the Minister has sought my advice about “the serious risk to public health posed by the disease specified in the pandemic declaration”. This section addresses that issue.

Summary of health advice underpinning declaration of a pandemic

19. My written advice to the Premier of Victoria, dated 8 December 2021 sets out my reasons for advising that COVID-19 constitutes a serious risk to public health, as that term is defined in the Act. In summary:
- i. SARS-CoV-2 is a novel infectious agent to which the global population had not previously been exposed, meaning there was **no pre-existing immunity** and hence there was and continues to be significant immunological susceptibility for widespread transmission, noting however that this susceptibility has been significantly addressed by the high level of vaccination against COVID-19 achieved in Victoria.
 - ii. It can **spread easily from person to person through multiple modes of transmission** including airborne and respiratory droplets (Centers for Disease Control and Prevention, 2021a), and even from those who do not have any symptoms, making it challenging to control or eliminate in a population for any length of time.
 - iii. COVID-19 has the **potential to cause serious illness and death** in any individual and it is not possible to predict with certainty which persons will be more severely impacted or experience prolonged symptoms ('long-COVID') following initial infection.
 - iv. Victoria continues to experience **widespread community transmission** with daily case numbers over or around 1,000, as well as daily deaths due to COVID-19, despite our high vaccination coverage.
 - v. Although the TGA has granted provisional approval to several anti-viral, anti-inflammatory and antibody therapies, **many interventions against COVID-19 remain supportive-rather than curative or preventive.**
 - vi. High vaccination coverage has already significantly reduced the overall public health risk to Victoria. However, epidemiological evidence from other countries indicates that **infection rates can worsen despite high population vaccine coverage**, necessitating the reintroduction or expansion of public health measures in specific settings. Furthermore, evidence is still emerging regarding vaccine efficacy against new variants of concern
 - vii. Resumption of international travel poses an **increased risk of importing new cases and variants** of SARS-CoV-2 to Victoria, including variants of concern such as Omicron.
 - viii. These matters are still as relevant as they were when I gave my advice to the Premier 2 days ago. COVID-19 remains a serious risk to public health.

Overview of the current epidemiological situation in Victoria

20. I am informed that, as of 10 December 2021, 1,203 new locally acquired cases and 3 new overseas acquired cases have been reported to the Department of Health in the previous 24 hours. As of 10 December, there have been 3 confirmed cases of the Omicron variant in Victoria, with further suspected cases being under investigation. There are 9,774 active cases in metropolitan Melbourne, 11,145 in Victoria, and 14,807 in Australia.
21. To date as of 10 December 2021, Victoria has recorded a total 133,734 confirmed cases and 1,401 deaths since the commencement of the pandemic, in the context of a total 223,912 cases and 2,082 deaths recorded in Australia overall
22. As of 10 December 2021, there are 464 active outbreak/transmission sites in the state. Outbreaks with the highest active case counts are Templestowe Valley Primary School Templestowe Lower Outbreak (50 active cases), BlueCross Elly Kay Mordialloc Outbreak (42 active cases) and Springside Primary School Caroline Springs Nov Outbreak (30 active cases).
23. The state 7-day local case growth rate up to 9 December was 2.2%. As of 10 December 2021, the source of acquisition of 6,757 active cases is still under investigation. To date, almost all locally acquired cases associated with the current outbreaks that have undergone genomic sequencing have been associated with the Delta (B.1.617.2) variant of concern, and during the current period of heightened concern regarding Omicron variant, virtually all cases are undergoing genomic sequencing samples (over ~1000 samples/day) including all newly identified cases who are known to be international arrivals.

24. Test results

25. As of 10 December 2021, 66,784 test results had been received in the previous 24 hours. Since 1 January 2020, 15,792,553 tests have been undertaken in Victoria, with 133,734 positive results.
26. Since the start of November 2021, the proportion of tests returning a positive result in Victoria has been between 1.5-2%. This is a significantly higher proportion positive than New South Wales which has stabilised to below 0.5% for many weeks. This indicates the high level of transmission currently in Victoria, and also potentially indicates that there may be an ongoing substantial proportion of undiagnosed COVID-19 cases in the community. (Department of Health NSW, 2021)

Genomics & variants

27. Similar to other viruses, the SARS-CoV-2 virus acquires mutations over time and genetic variants continue to emerge globally. Most changes are considered insignificant, but some may be of global public health significance, as is the case with the Delta variant. Mutations may cause the virus to become more transmissible, cause more severe disease or affect the effectiveness of COVID-19 vaccines or interventions, and thus require close monitoring by global public health bodies such as the World Health Organisation (WHO). If certain criteria are met which demonstrate the potential for significant public health concern, they are given a specific designation as either a variant of interest (VOI) or variant of concern (VOC) as well as an official name using a letter from the Greek alphabet (World Health Organisation, 2021a).
28. WHO designates a VOC when the variant is demonstrated to be associated with one or more of the following changes, to a degree that has global public health significance:

- i. an increase in transmissibility or a detrimental change in COVID-19 epidemiology; or
 - ii. an increase in virulence or a change in clinical disease presentation; or
 - iii. a decrease in effectiveness of public health and social measures or available diagnostics, vaccines or therapeutics (World Health Organisation, 2021a).
29. On 26 November 2021, the WHO declared the recently identified B.1.1.529 variant as a VOC and named it Omicron. (World Health Organisation, 2021i) COVID-19 variant Omicron was first detected in samples collected on 11 November in Botswana and subsequently in samples collected from 14 November and onward in South Africa. This designation was made in part due to concerns about the large number of mutations possessed by the variant, with some affecting the spike protein (which is a key target of immune responses against the virus and could potentially confer increased transmissibility or an enhanced ability to evade host immune responses), and in part due to the coinciding epidemiological surge in cases reported in South Africa following the identification of this strain. As of 10 December 2021, Omicron cases have already been identified in Australia and in 57 other countries across the world. Evidence is still being sought as to Omicron's transmissibility, risk of increased severity of illness (virulence), or its ability to evade natural or vaccine induced immunity. (World Health Organisation, 2021c) Evidence from several countries (including South Africa and the United Kingdom) indicates that the proportion of total cases caused by Omicron is rapidly increasing, suggesting that this variant has competitive advantages over the previously dominant Delta variant. Significant additional evidence to address the WHO's (and my) concerns will not be available in the short term (days) although more evidence should become available in the medium term (weeks).
30. At the time of this advice, Victoria continues to experience community transmission of the dominant Delta VOC which is more transmissible than the Alpha or ancestral strains (Keeling, 2021). The presence of the Omicron variant has now been confirmed in multiple jurisdictions in Australia, with confirmed cases reported in New South Wales, Queensland, Northern Territory, the Australian Capital Territory and Victoria. Following whole genome sequencing, Victoria's first case of Omicron was confirmed in an international traveller in Hotel Quarantine on 8 December 2021 and a further 2 cases have been confirmed in the community since this date. It is highly likely that further Omicron cases will be detected in the coming days and weeks.

Vaccinations

31. The COVID-19 vaccine rollout continues across Victoria. In the 24 hours prior to 10 December 2021, 3,925 vaccine doses were administered in Victoria. A total of 4,888,503 doses have been administered across the State's vaccination program since 22 February 2021. A total of 91% of Victorians aged 12 years and over have received a least two doses of COVID-19 vaccine. As at 9 December 2021, approximately 55% of the global population had received at least one dose of a COVID-19 vaccine (Our World in Data, 2021).
32. It is largely because of this excellent vaccination coverage that it has been possible to ease restrictions across Victoria to the extent we have over recent weeks. However, as I discuss below, a cautious approach remains warranted as new threats emerge.
33. As per the analysis set out in paragraphs 57 to 60 of my advice to the Premier, epidemiological trends can worsen despite high population vaccination coverage necessitating the need to reintroduce or expand existing public health measures.

34. In my view, this level of risk necessitates the retention of some public health measures, particularly to protect vulnerable community members and to safeguard settings where outbreaks could occur or transmission could be driven.

Necessary or appropriate public health measures

Overview

35. Pursuant to section 165AL(1)(b) of the Act, the Minister has sought my advice about “the public health measures that I consider are necessary or appropriate to address this risk”. This part of my advice addresses that issue.
36. For clarity, I consider that the measures that I set out below are both necessary and appropriate.⁶ Each measure is intended to address the serious risk to public health that COVID-19 poses. They do so in a variety of ways. As much as possible, these measures are targeted to situations where there is a high risk of transmission, and/or where the people who would be infected with coronavirus are particularly vulnerable.
37. I also consider that the public health measures I recommend are each proportionate to the risks that COVID-19 poses, including the residual risks that would remain if the Minister were to only implement the less restrictive public health measures that I have also recommended. By ‘proportionate’, I mean that each measure delivers benefits (by way of protection from COVID-19) that are at least equivalent to the burdens that they impose.
38. The assessment of benefits and burdens is not mathematical. There is no scale by which either can be measured and compared, and reasonable people will differ on how serious a benefit or burden will be. I assess benefits and burdens by looking both at their effects across Victoria’s population and their effects within particular groups. I acknowledge that particular groups within Victoria may feel the burden of a public health measure more acutely than the general population. I acknowledge that the vaccine mandate for a majority of open premises is felt most acutely by workers (especially COVID marshals in settings with low staffing numbers) and in retail stores, some of whom have faced aggression in their workplace because they have attempted to follow Directions issued under the previous statutory regime, being the section 200 emergency powers. When the burden of a public health measure is too great, it is appropriate to consider what other means are available to achieve the same benefit.
39. In addition, although the risk of transmission for many public venues may be comparable or change over time for certain populations, there are Victorians who continue to have increased susceptibility to contracting infection or vulnerability to poorer health outcomes that arise from infection. To circumvent such outcomes, the key facets of risk associated with a given population, setting or circumstance must be carefully identified and addressed.
40. The public health measures that I recommend below are broader than those interventions that are identified in section 165AI(2) of the Act. Those interventions are, generally speaking, at the more coercive end of the spectrum. However, it is important to be aware that the Victorian Government also engages with Victorians in a series of less restrictive ways. I detail those below because they are an essential part of the comprehensive public health strategy that Victoria has undertaken and that I continue to recommend. The measures work together to address the various ways in which coronavirus can be transmitted, to target the settings of

⁶ Any public health measure that is necessary will also be appropriate, but there may be public health measures that are appropriate without being necessary. It is ‘appropriate’ in many ways to wear a mask in a wide range of indoor settings because doing so would marginally reduce the risk of transmission with little burden. However, there are only a certain number of indoor settings (set out in paragraph 69) where it is clearly ‘necessary’ to wear a mask, and I have recommended that the Minister only make Orders in relation to that smaller set of circumstances.

particular risk, to influence Victorians' behaviour in a variety of ways, and to protect Victorians who have particular vulnerability to infection.

41. Victoria's comprehensive strategy has been, and should be, implemented in a way that as far as possible promotes transparency, information sharing, education, good communication and meaningful engagement with the target groups that are most impacted. In addition, implemented policies should be regularly reviewed to ensure that they are feasible and acceptable to the given group, environment, or circumstance. As well as being worthwhile in themselves, these qualities improve support and adherence from the Victorian population.
42. Mandates and prohibitions are not, and should not be, the primary approach to introducing public health policies as they can polarise opinions and have unintended consequences of increased resistance including from members of the population who may have otherwise been more willingly supportive. Such measures should only be resorted to when alternative means are not available or have not achieved the outcome within the necessary timeframe or resources.
43. Last, changes to the overall strategy should be understood to have a wide impact. People need certainty to plan their lives; sweeping changes to impose or ease restrictions should be made carefully and (where possible) with notice, to build Victorians' confidence in their public health system. Such confidence is essential for many public health measures to work in an effective and legitimate way.

The measures target settings of particular risk and people of particular vulnerability

44. As noted above at paragraph 19, if a person develops COVID-19, many of the treatment modalities currently available involve supportive medical care such as ventilatory support. As a result, the Victorian community can best be protected through measures that control the risks of incursion and transmission in the first instance.
45. In general, public health assessments of whether a situation involves a high risk of incursion or transmission requires an assessment of **viral**, **individual** and **environmental** factors. These are described briefly in the following paragraphs:
46. **Viral factors** are inherent in how the virus (or the particular variant of that virus) affects people generally. Relevant viral factors relate to the ways in which the virus can be transmitted, the speed at which the virus moves and spreads from person to person, the degree to which a virus can evade existing immunity, whether or not infected individuals develop symptoms to signal potential infection, the severity of illness that the virus produces in vaccinated and unvaccinated individuals, and how quickly the virus can mutate to evade natural or medical barriers to infection. The recent identification of the Omicron VOC, with mutations that cause the concerns set out in paragraph 28, is an example of some viral factors that need to be taken into account for the purposes of assessing public health measures.
47. **Individual factors** relate to the individual's vulnerability once they are infected. This includes age as well as other factors such as pre-existing health issues or comorbidities that make certain individuals less capable of protecting their own health or increase the likelihood of detrimental health outcomes following infection. For example, a person's pre-existing health conditions can interfere with their body's capacity to mount a strong immunological response to

fight infection adequately. These groups are therefore more reliant on others to reduce their exposure.⁷

48. Finally, **environmental factors** determine how risky a particular setting, event or behaviour may be. Examples of important environmental factors include:
- i. **Contact intensity:** The level of physical proximity, duration of contact and presence or absence of appropriate physical barriers influence this aspect of risk. For example, seated dining in a restaurant has a higher risk compared with takeaway, in part because there is close and prolonged contact without physical barriers between patrons in a dining group compared to those who remain only for a brief period to collect meals.
 - ii. **Spatial features:** The nature of the environment in which the activity is occurring can impact risk. Being in an enclosed, small spaces with poor ventilation increases the risk of transmission due to greater probability of contact with infectious particles.
 - iii. **Ventilation:** Indoors settings are higher risk than outdoor settings because of reduced opportunity in indoor settings for dispersion of aerosolised infectious particles. Natural and mechanical ventilation reduces the risk in indoor or partially enclosed settings by aiding dispersion or filtering infectious particles, thereby reducing the infectious load to which any individual might be exposed.
 - iv. **Risk of spread to larger populations:** Each interaction between an infectious individual and susceptible person represents an opportunity for potential onward transmission. As such, the number of people an individual interacts with during their infectious period, and whether those people come from the same or different parts of the community, will affect the degree to which a virus can spread across Victoria, which may be in ways that are difficult to predict.
 - v. **Conduct during contact:** Conduct involving exertion poses a higher risk of transmission than more sedate conduct, due to the greater propensity for droplet and aerosol generation, which can also travel further and lead to increased transmission. For example, activities such as singing or shouting not only generate droplets and aerosols but can also lead to these particles being propelled further distances, thus increasing the risk of transmission over a longer range and to a potentially large group of individuals in the relevant setting.
49. These factors may operate concurrently and interact to inform the level of risk, which can also change over time. For example:
- i. Nightclubs are typically smaller venues with poor ventilation and high density of patrons in close proximity and potentially lengthier time in contact. Other behavioural factors in patrons may further amplify risk, including exertion, shouting, singing and alcohol consumption.
 - ii. A person visiting a popular indoor event is likely to interact with more people, from a broader cross-section of Victoria, than a person going on a secluded hiking in a national park.

⁷ Individuals can also act in a manner that improves or disimproves their individual risk to COVID-19, such as by adherence to vaccination, testing, quarantine and isolation or other active public health measures.

- iii. Gyms and physical recreation facilities are typically places where participants are in closer proximity while exerting themselves and producing respiratory aerosols and droplets, while moving around in close proximity to others.
 - iv. Transmission of SARS-CoV-2 escalates in cooler months when people change behaviour to congregate indoors more frequently, where ventilation may not be optimal and where people, including people from different households, are in close contact. Additionally, viral factors such as increased stability in colder temperatures that may also facilitate spread.
50. Despite high vaccination coverage across Victoria, many situations involve a higher level of risk. These settings include crowded indoor settings, care facilities and places of mass transport. Given the continuing risk of surging case numbers and outbreaks, particularly with a highly mobile population compared to lockdown periods, it is appropriate that the Victorian Government takes a conservative and cautious approach to manage risk in a targeted and efficient manner. This approach is supported by the precautionary principle⁸ and the principle of primacy of prevention⁹ in the Act.
51. I, therefore, having regard to the Charter and the relevant statutory provisions, including the guiding principles in sections 5 to 10 of the Act, consider that a suite of measures is necessary and appropriate, taking into consideration the risk that each measure aims to manage and weighing it against the burden it places on the Victorian people.

Health Promotion and Education

52. Education, risk communication, and health promotion are recognised as key components of a robust public health response to the COVID-19 pandemic (World Health Organisation, 2021b). Education involves ensuring that people are aware of the risks of COVID-19 and how they can protect themselves; health promotion involves tailoring messages to community values, using trusted messengers, using channels different audiences can access, and establishing or linking with peak bodies to support ongoing work (Hyland-Wood, et al., 2021).
53. Public education should encourage the uptake of COVID-safe practices such as mask use, hand hygiene, physical distancing, improving ventilation, staying home when unwell and testing when symptomatic, to outline current public health requirements. It should be delivered across multiple platforms and media, and in a variety of community languages.
54. The Victorian Government has undertaken and should continue to undertake a broad range of community engagement, and outreach activities, together with partners in local government, research institutes and local health, community and faith-based organisations and services. This work has been and should continue to be with Aboriginal and Torres Strait Islanders, and culturally and linguistically diverse communities, to develop community specific, locally delivered solutions, including tailored health advice, vaccination information, local led responses and direct engagement activities to support Indigenous, multicultural and multifaith communities through the pandemic (State Government of Victoria, 2021).

⁸ Section 6

⁹ Section 7

55. In addition, ongoing guidance has been and should continue to be given to workplaces and specific settings such as schools and healthcare facilities on ways to conduct their business and modify their workplaces to reduce risk, even when such measures are no longer mandated.
56. The Victorian Government's dedicated coronavirus website is heavily utilised, with 247,177,939 page views from 5 June 2021 to 5 December 2021, indicating the continued need to provide up to date public health messaging and information.

Epidemiology and monitoring

57. As part of the COVID-19 pandemic response, it is essential to maintain systems for reporting, collecting, monitoring and analysing data on cases, close contacts, outbreaks and exposure sites within Victoria and in relation to other Australian states and territories and overall global context. Genomic analysis of positive samples should be used to watch out for strains with new mutations that may signal an emerging VOC and to monitor the geographical distribution of known variants.
58. This information, including trends over time and concerning changes in trends, can be used to track the current pandemic situation, identify emerging issues, and inform new or assess existing public health policies. Local epidemiological information should feed into the larger national and global information sharing systems to elicit prompt public health responses.
59. The collection of information is also necessary to facilitate contact tracing, which interrupts chains of transmission and reduce onward spread of SARS-CoV-2 (World Health Organisation, 2021g), by identifying people who have been in contact with an infected person and helping those people understand what steps to take once they have been exposed (Centers for Disease Control and Prevention, 2021h).
60. For clarity, other than where necessary to identify specific individuals for contact tracing purposes or to assist in the delivery of healthcare to individuals, information can be provided and analysed on an aggregate basis, without the need to impose on individual privacy.

Wastewater surveillance

61. Wastewater samples can detect the presence of SARS-CoV-2 viral particles, including variants of concern, within a given population or geographical area making it a useful monitoring tool with low impost on the population. It is most useful in catchments with a low COVID-19 prevalence or where there are no known positive cases already identified through individual testing. Once a threshold of positive results (representing a likely case or cases) is met, surveillance testing prompts increased individual testing in the setting that is monitored.
62. Surveillance testing is therefore a proactive measure that increases the likelihood of an early detection of cases, especially asymptomatic but infectious cases, and therefore minimising impact on essential industry. It is also a passive process for involved stakeholders that does not involve the identification of individuals, until the necessary threshold (of positive signals) is met. This allows the testing and outbreak management teams to prioritise and ramp up resources within locations that have identified positive wastewater samples
63. Victoria's outbreak management response is continually supported with the ongoing investigation of samples collected from the wastewater sampling sites across Victoria (Victorian Government, 2021). Since its advent on 24 August 2020 the programme has expanded, and as

at 8 December 2021 there are currently 279 active locations that have provided a total of 24,020 samples.

Modifying the settings in which we interact

64. Modifying some of the environments within which people live, work and conduct themselves (particularly people who are especially vulnerable to harm from COVID-19) are key measures to lower the likelihood of transmission in a given setting.

Masks in indoor settings

65. Face masks simultaneously limit an infectious person's capacity to spread exhaled particles into the surrounding environment, and the risk of uninfected people inhaling infectious particles (Centers for Disease Control and Prevention, 2021c). Masks have been shown in observational and interventional studies to reduce SARS-CoV-2 transmission, although the magnitude of the effect is not well defined (Talic, et al., 2021). As masks have been widely adopted throughout the world, there are few studies that have evaluated their effect in isolation. Those that have studied mask use have found that they are effective in reducing new COVID-19 infections when a combination of measures are deployed to support mask wearing in public places, including information campaigns, reminders and encouragement (Abaluck, et al., 2021).
66. Face mask requirements are low impost measures that, according to Victorian population surveys on COVID-19 related behaviours and attitudes, are widely adopted by most members of the community (Department of Premier and Cabinet Victoria, 2021).
67. With community transmission persisting in Victoria, it remains proportionate to require masks in specific high-risk settings. Settings such as hospitals and residential aged care facilities, where vulnerable population groups such as the elderly and immunocompromised may be exposed, should continue to require face masks, in acknowledgement that certain persons will remain vulnerable to infection. Face masks are also required in enclosed settings, which are potentially higher risk transmission environments and where physical distancing is difficult to maintain such as public transport, commercial passenger vehicles, correctional facilities, airports, retail venues and other high-risk workplaces.
68. Children below the age of 12 years are not currently able to access vaccination and outbreaks in education settings comprise a substantial proportion of cases in Victoria's Delta VOC outbreaks. As face-to-face learning has resumed, protection against exposure remains essential in these settings. Face masks limit the risk of transmission in this cohort and the potential consequences of exposure and infection (Centers for Disease Control and Prevention, 2021e). Further, while severe disease and death due to COVID-19 are rare in children, the long-term potential consequences of infection, including of 'long COVID' are not well understood. Face mask requirements in children in Years 3-6 should continue to be part of a suite of measures to reduce transmission in schools.
69. I therefore consider that it is necessary and appropriate that the Minister mandate that a mask be worn in the following settings:
- i. Indoors in primary schools for all staff, visitors and students in Years 3-6
 - ii. Visitors to care facilities
 - iii. Visitors to hospitals
 - iv. Indoor, publicly accessible spaces in courts and healthcare settings

- v. Workers and patrons in retail premises, except hairdressing, beauty and personal care
 - vi. Workers in public-facing roles at food and drink premises
 - vii. Workers in correctional facilities
 - viii. Workers in abattoirs, meat, poultry and seafood processing.
 - ix. Workers in resident facing roles indoors at care facilities.
 - x. Workers in ports of entry.
 - xi. Workers in hotel quarantine.
 - xii. Public transport and commercial passenger vehicles
 - xiii. At airports and when travelling on aircraft
70. Other reasons to wear a face covering should remain:
- i. If the person is a diagnosed person or close contact and is leaving the premises in which they are isolating in order to undertake essential activities;
 - ii. If the person has been tested for COVID-19 and is awaiting the results of that test (except surveillance testing or other asymptomatic testing programs);
 - iii. while on an aircraft, public transport or in a commercial passenger vehicle or in a vehicle being operated by a licensed tourism operator; or
 - iv. where required to do so in accordance with any other orders currently in force.
71. I recommend the following exceptions to the requirement that a person wear a face mask in the settings enumerated above:
- i. An infant or child under the age of 12 years (excluding students in Year 3 to 6 who must continue to wear a face covering while in an indoor space at an education premises as stated above)
 - ii. Prisoner in a prison (either in their cell or common areas)
 - iii. Person detained in a remand centre, youth residential centre or youth justice centre (either in their room or common areas)
 - iv. Person with physical or mental health illness or condition, or disability, which makes wearing a face covering unsuitable
 - v. Where it is not practicable because a person is escaping harm or risk of harm
 - vi. Person is communicating with a person who is deaf or hard of hearing and visibility of the mouth is essential for communication
 - vii. Nature of a person's work or education means that wearing a face covering creates a risk to their health and safety
 - viii. Nature of a person's work or education means that clear enunciation or visibility of the mouth is essential
 - ix. Person is working by themselves in an enclosed indoor space (unless and until another person enters that indoor space)
 - x. Person is one of two persons being married, during their wedding ceremony, or while being photographed at the wedding
 - xi. Person is a professional sports person when training or competing
 - xii. Person is engaged in any strenuous physical exercise
 - xiii. Person is riding a bicycle or a motorcycle
 - xiv. person is consuming medicine or food or drink

- xv. person is smoking or vaping (including e-cigarettes) while stationary
- xvi. person is undergoing dental or medical care or treatment to the extent that such care or treatment requires that no face covering be worn
- xvii. person is accused person in a criminal case in court and is in the dock alone or with a co-accused, provided they are separated by 1.5m
- xviii. person asked to remove face covering to ascertain identity (e.g. police, security, post office)
- xix. for emergency purposes
- xx. when required or authorised by law
- xxi. when doing so is not safe in all the circumstances.

72. I recommend that while not mandated, masks remain strongly recommended in all other indoors settings and when physical distancing is not possible. The uptake or compliance in settings where masks are recommended but not mandated should be monitored closely, especially given the emergence of the Omicron VOC. Should there be increasing evidence of the risk of large-scale transmission and potential for the health system to be overwhelmed by this VOC, then I recommend that broader mandates for mask wearing indoors be considered.

Ventilation

73. As the pandemic has evolved since March 2020, more has become known about the role of aerosol spread and SARS-CoV-2 transmission dynamics (Centers for Disease Control and Prevention, 2021a). It is now well accepted that SARS-CoV-2 spreads more easily and rapidly between people in indoor environments. This is in part because the concentration of viral particles in indoor air is higher where they cannot be carried away by wind or de-activated by sunlight (Centers for Disease Control and Prevention, 2021b).
74. Increasing ventilation in indoor environments is now accepted as one of the primary ways to help reduce transmission risk, by reducing the amount of airborne virus particles in a space if an infected person were to be present. Fewer viral particles in the air mean that people are less likely to inhale them and become infected (Centers for Disease Control and Prevention, 2021b).
75. Increasing ventilation indoors may be achieved in a variety of ways and depends on the nature of the indoor environment. Ongoing guidance has been and should continue to be given to workplaces and schools to reinforce ways to increase fresh air flow into indoor spaces. This includes opening windows and doors and switching air handling units to 100 per cent outdoor air.
76. Other measures have been taken in Victoria, especially in the school setting to address improvements in ventilation, which includes the roll out of 51,000 air purification devices in Term 4, alongside infrastructure audits and ventilation assessments. This work should continue as a key feature of the COVID-19 response.

Modifying business operations

77. Businesses are and will continue to be a primary area in which both workers and patrons interact. People from different parts of Victoria meet in these settings, and any infections that occur can be carried back to different parts of the community.
78. Workplaces therefore pose a transmission risk particularly where there are common areas, inadequate ventilation and close contact between people or difficulty physical distancing. The

WHO recommends evidence-based measures such as hand hygiene, physical distancing, use of personal protective equipment (PPE), restricted workplace access, contact tracing and isolation and quarantine to mitigate these risks (World Health Organisation, 2021h).

79. Within this context, mitigation strategies including COVIDSafe Plans, QR code check-in requirements and COVID Check-in Marshals, should still be required to minimise incursion into workplaces and sensitive settings, to protect vulnerable population groups and to ensure transmission levels do not overwhelm the public health and broader health system. It is necessary to continue to require all Victorian workplaces to have some baseline obligations in place both to help prevent transmission where possible and reduce the risk of an outbreak escalating if a COVID-19 case does enter the workplace. Given there is sustained community transmission within Victoria, it is essential that safeguards remain in place to reduce risk of transmission where possible.
80. A COVIDSafe plan demonstrates that an employer has considered the risk of COVID-19 incursion and transmission within their workplace, and strategies to reduce this risk. COVIDSafe plans should be underpinned by evidence-based environmental modification strategies such as optimal ventilation (discussed above at paragraph 73 to 76), and as such are included in COVIDSafe plan templates available to businesses. Additional requirements such as PPE remain dependent on the risk of the industry. To support compliance and provision of COVIDSafe workplaces, businesses have access to free COVIDSafe plan review services and infection control training. By providing information to workplaces about risk and only mandating PPE in settings that are undeniably higher risk (discussed below at paragraphs 88 to 96), obligations are tailored to ensure businesses are able to respond to COVID-19 in the least restrictive manner possible.
81. Venues should have a system in place to enable patrons or visitors to check in using either the Services Victoria QR code or manual record keeping process. This information is necessary to facilitate contact tracing, which is discussed in paragraph 59.
82. COVID Check-in Marshals play an important role in contact tracing, by ensuring patron compliance with QR code check-in requirements, to enable contact tracing efforts in the event of an outbreak. This role also monitors patron vaccination requirements for entry to premises requiring patrons to be fully vaccinated for entry. I am aware of some hostility and aggression that has been experienced by people performing this important function. I am also aware that having a designated COVID Check-in Marshal is onerous on businesses. However, I remain of the view that these core measures are necessary in the context of a suite of recommendations that amount to a cautious easing of other requirements in response to high population vaccination coverage but ongoing community transmission.

Reporting requirements

83. Victoria's system of test, trace, isolate and quarantine will continue to be an integral part of the COVID-19 response. Contact tracing of confirmed case helps control chains of transmission by identifying persons and settings at risk of contracting infection after being exposed to an infectious case. This requires ongoing channels of reporting and data management to be enacted efficiently. Retaining this system will be crucial to ensuring those at highest risk of infection can take required actions and the overall risk of an outbreak or onward transmission occurring is minimised.

84. Confirmed cases currently have, and should continue to have, an obligation to notify their employer or workplace and operators of educational settings if they have attended these sites during their infectious period. This allows prompt sharing of information so that other workers and students at risk can be notified of their exposure and take the appropriate public health measures of testing and quarantining.
85. People operating workplaces and educational settings should also have an obligation to notify workers and students who attended during a period of risk (whilst an infectious case was present) of their potential exposure and inform them of the appropriate public health measures to take, such as testing and quarantining. This approach transfers some responsibility for exposure notification to employers and operators who are well placed to perform this role as they will have records of attendances during a given period, already have the necessary contact details to disseminate information more quickly than current departmental capacity and have a duty of care to minimise the risk of COVID-19 in their given settings. The reporting requirement supports this approach. These requirements balance the risk of minimising onward transmission in high-risk settings with the needs of the Victorian community to return safely and efficiently to work and study when safe to do so.
86. Reporting requirements also encompass providers and employers of workplaces with a worker vaccine mandate (discussed below at paragraphs 135 to 147) who have a requirement to store information on the vaccination status of its workforce and supply this information on request to the Department, in order to ensure and demonstrate compliance with the mandate.
87. With vaccination mandates contributing to high vaccination coverage in workplaces and education facilities and the resultant protective effect of vaccination, these requirements are considered reasonable and proportionate measures but are also intended to allow workplaces and education facilities to grow more proficient and increase their capacity to independently and appropriately respond to exposures and to become more aware of their responsibilities and capabilities during this evolving stage of the pandemic. These measures ensure that information can be shared in a timely manner and individuals can seek testing and enter quarantine before they are likely to transmit to others.

Modifying business operations in high-risk industries

88. Beyond these base measures, it is necessary to impose additional obligations on employers and workers in specific higher-risk industries. These industries are those with further potential for incursion (infection from outside Victoria) or amplification (infection of a lot of people), or where there is vulnerable group of people.
89. Victoria's international airport and seaports (**ports of entry**) are the key work premises receiving international arrivals. International arrivals are potentially at elevated risk for COVID-19 due to exposure while in countries where COVID-19 cases are surging, or where novel variants of concern are emerging. International arrivals are also potentially at elevated risk by exposure to infected travellers during transit to Victoria. Workers at ports of entry are a key interfacing group that require ongoing protective measures in the context of a global pandemic. Additional PPE is a required measure to reduce the risk of exposure of and onward transmission from these workers into the community and to prevent incursion of new VOCs. Additional surveillance testing for this workforce is also necessary and appropriate.

90. Similarly, government-operated quarantine facilities remain of significance as part of the essential management of international arrivals including those who are subsequently confirmed to have COVID-19. Although the consequential risk of hotel quarantine workers acquiring infection from this setting has lessened relative to the current high rates of community transmission in Victoria, ongoing protective measures remain important in mitigating incursion risk, particularly given the recent emergence of the Omicron VOC. These measures include mandatory vaccination requirements, use of appropriate PPE, COVIDSafe training and surveillance testing. Appropriate use of PPE is an evidence-based infection prevention control measure that is particularly important in settings such as hotel quarantine where novel threats may emerge, most notably with the emergence of the omicron variant of concern.
91. Abattoirs, meat, poultry and seafood processing facilities are cold environments with high humidity, involving exertive work which increases aerosol production, and where physical distancing is often impractical. This can result in favourable conditions for COVID-19 transmission and a high risk of amplification and uncontained outbreaks. These outbreaks also have downstream consequences for essential food supply. Large uncontained outbreaks occurred in these settings in Victoria's second wave, which spread into different parts of Victoria. These industries are essential to the food supply chain locally and nationally, which can be compromised when outbreaks occur. Retaining face coverings is a low impost protective public health measure which mitigates the risk of transmission amongst workers in this industry. Abattoirs, meat, poultry and seafood processing facilities were identified as being higher risk in the early stages of the pandemic and continue to be represented in outbreak data in Victoria, contributing to 1.5% of outbreaks between August and December of 2021.
92. Care facilities are sensitive settings that require additional public health measures to mitigate the risk to vulnerable residents and to protect the workforce. Residents within care facilities have several risk factors that increase their risk of severe illness, complications and death from COVID-19, warranting additional protective measures. This includes face masks for workers in resident facing roles when working indoors and staff declarations if working at more than one worksite. Incursion of COVID-19 into care facilities in the second wave in Victoria, resulted in large case numbers, many uncontained outbreaks, major workforce shortages and significant loss of life. Despite high vaccination coverage, this vulnerable population need additional protection, to avoid the severe consequences of transmission and in order to reduce the number of deaths in Victoria as far as practicable.
93. Hospitals are also sensitive settings where patients are at increased risk of being exposed to and transmitting COVID-19. Furthermore, hospital patients may be particularly vulnerable to the negative impacts of COVID-19 infection including severe disease, further hospitalisation and death. Vulnerable patient cohorts include the elderly, the immunocompromised, and those affected with comorbidities which are known to be associated with adverse outcomes for COVID-19 including cancer, type 2 diabetes, respiratory disease, heart disease, chronic kidney disease, and hypertension (Australian Institute of Health and Welfare, 2021).
94. Healthcare workers are more likely to be exposed to infectious cases while delivering care. Recommended obligations related to protecting this workforce include multisite worker restrictions and declarations, worker bubbles and compliance and consultation. It is critical to protect the workforce in order to minimise exposure of other workers to infection, mitigate the need for isolation of workers who become cases and reduce the impacts of furloughing workers

who are close contacts, all of which have the potential to negatively impact worker health and wellbeing and the delivery of patient care. All obligations currently in place under the section 200 Directions should be retained, in addition to healthcare worker mandatory vaccination obligations, as Victoria continues to have a large volume of active cases, including a high number who are hospitalised.

95. In Victoria, residential aged care facilities have been the location of a significant proportion of outbreaks, as has been well documented in 2020. Between August and December 2021, outbreaks in residential aged care facilities have still accounted for 5.5% of all outbreaks in Victoria.
96. Between August 2021 and December 2021, outbreaks linked to acute hospital settings represented 11.5% of all outbreaks in Victoria. However, this data does not distinguish between healthcare workers and other persons linked to those outbreaks (e.g. household members of cases), or whether these outbreaks occurred in hospitals or were simply linked to a hospital.

High risk industry surveillance testing

97. Surveillance testing of high-risk industries involves the implementation of testing requirements and recommendations for workers, in order to detect cases early. Surveillance testing helps identify asymptomatic but potentially infectious workers, and therefore minimises the impacts of outbreaks on essential industries. Early diagnosis of cases ensures that the infected worker can isolate and take additional measures to reduce the risk of transmission to others. Surveillance testing complements other workplace specific protective measures such as worker vaccine mandates and COVIDSafe plans.
98. Industries and sectors are identified for surveillance testing based on the epidemiology and increased risk of incursion, propagation and consequence to the Victorian community, and include healthcare and those involved in the supply of essential goods and services, such as food chain supply. The surveillance testing list is responsive as industries and sectors in scope are revised based on their current risk profiles.
99. TGA-approved COVID-19 PCR tests and Rapid Antigen Tests are used as they are accurate and fit for purpose screening technologies. PCR tests have the added advantage of being diagnostic but have operational limitations because they need to be administered by an authorised health professional at a testing site and require laboratory processing of results. RAT can be self-administered but require repeated use to increase accuracy and are not diagnostic.
100. Surveillance testing incorporating wastewater sampling testing (discussed above at paragraphs 61 to 63) was developed for high-risk food chain and construction industries as a proactive, targeted COVID-19 surveillance approach. It has the advantage of being able to screen for potential cases with greater flexibility and acceptability compared to traditional PCR testing protocols while preserving PCR network testing capacity and uses fewer workforce and laboratory resources. At this point, only large sites located in metropolitan Melbourne are currently in scope due to the increased risk of incursion and transmission associated with large sites, the concentration of facilities located within metropolitan regions, corresponding epidemiology, and resource constraints of expanding high risk industry wastewater surveillance state-wide. Throughout the pandemic regional Victoria has had consistently had much fewer COVID-19 outbreaks and lower-case numbers compared to metropolitan Melbourne.

Modifying how people interact

Public events

101. Mass gatherings including public events are environments that can be conducive to close, prolonged and frequent interactions between large numbers of people who would otherwise not be in such close proximity to each other. Attendees often also convene at the same time, and therefore there is generally congregation at key access points which can increase the risk of transmission.
102. While the settings where public events and mass gatherings occur can vary in terms of environmental risk factors, the large number of attendees poses a particular risk, as the close proximity and associated behaviours of large numbers of people may increase the risk of transmission occurring. Some of the behaviours that attendees engage in during certain types of events (for example, shouting, chanting, singing or dancing during sporting or musical events), may increase the propulsion of respiratory aerosols and droplets, and therefore lead to a higher risk of transmission. Globally, there have been multiple instances of COVID-19 transmission occurring at mass gathering events, leading the WHO to issue guidance on the safe conduct of mass gatherings in the context of the pandemic (World Health Organisation, 2021e).
103. Given that community transmission of COVID-19 is occurring in Victoria, with 11,145 active cases in the state as of 8 December 2021, there is a risk that an infectious person may attend an event and infect multiple other attendees, representing a major amplification or 'superspreading' event. These newly infected individuals could then transmit the virus widely to their own contacts and across the community more generally.
104. Retaining patron limits, operator obligations and exemption processes for public events provides a mechanism, via the Public Events Framework, for oversight of large public events. This approval process provides opportunities for the review and improvement of mitigation strategies that would be enforced to reduce the transmission risk at such events.

Visiting sensitive settings

105. In paragraphs 92 to 96, I outlined why hospitals and care facilities are sensitive settings where vulnerable patients and residents, workers and visitors are at increased risk of being exposed to and transmitting COVID-19 and noted that some patients and residents may not be able to be vaccinated due to medical contraindications. Despite the high population vaccination coverage, the sustained high rates of community transmission occurring across Victoria means that counterbalancing measures are still necessary and appropriate to manage the ongoing risk to people in these settings. In addition to the negative health impacts on patients, residents and workers in the event of an outbreak in a sensitive setting, the other consequences of an outbreak include requirements for COVID-19 infected and exposed staff to self-isolate or quarantine, and therefore not work for a period of time, potentially creating workforce pressures which may compromise patient and resident care.
106. At this time, it remains proportionate to continue to limit the number of people who can visit an individual in hospital or in a care facility. Limiting the number of visitors to these settings reduces the number of interactions between a resident or patient and those who may be more mobile in the community, thus reducing opportunities for viral transmission. Limiting the

circumstances in which diagnosed persons and international arrivals can visit sensitive settings is discussed below at paragraph 124.

Management of diagnosed persons, close contacts, exposed persons

Testing requirements

107. Testing requirements for persons identified as being at increased risk of developing COVID-19 following known exposure is necessary to identify potential cases and inform appropriate public health responses. Similarly, testing obligations for persons working in specified essential goods and service provision industries and sectors that are highlighted as being at increased risk of incursion, transmission or consequence for the Victorian community remain an important safeguard that permits the early detection of cases and prevents large scale outbreaks.

Isolation and quarantine requirements

108. Mandatory requirements to isolate or quarantine remain a proportionate measure to ensure persons who are or may be infected with COVID-19 do not transmit the infection to others once they have been diagnosed as a case or determined to be a close contact, meaning onward transmission can be prevented and outbreaks controlled more rapidly (World Health Organisation, 2020f). Recently, the requirements under the section 200 Directions to quarantine following close contact or possible exposure have been significantly modified in response to high vaccine coverage across the community, and in recognition of the different risks that attach to exposure across different settings. I recommend that the nuance in these recent modifications be retained in the proposed pandemic orders. This is discussed further below at **Error! Reference source not found.** and following.

Diagnosed persons

109. Diagnosed persons with confirmed COVID-19 should continue to have specific requirements to ensure their risk of onward transmission is minimised. The requirement of those diagnosed with COVID-19 to self-isolate for 10 days (or if in hospital or a medical facility until cleared) is integral to control onward transmission (Centers for Disease Control and Prevention, 2021f). The period of 10 days following a person's first positive COVID-19 PCR result reflects the period after which most cases are no longer infectious and therefore, when it is safe for them to cease isolation and return to their usual activities in the community.

Close contacts

110. The recent change to the definition of a **close contact** (as determined by the Department including in the event of an outbreak or where a person has spent more than four hours in an indoor space at a private residence, accommodation premises or care facility with a diagnosed person during their infectious period), is intended to identify individuals with the greatest risk of developing COVID-19 following exposure to an infectious case.

111. Interactions that occur in private residences or residential facilities represent a high transmission risk due to the intimate nature of interactions that occur in a prolonged or repeated manner in enclosed spaces. Similarly, outbreaks are high risk settings with established coronavirus transmission representing a heightened risk of infection. Requiring close contacts to quarantine for either 14 or 7 days (based on the person's vaccination status) minimises the chance of a person being infectious in the community (Australian Government Department of Health, 2021b). Close contacts should also continue to have specific COVID-19 testing

requirements during their quarantine period to ensure any conversion to COVID-19 infection is promptly identified prior to release from quarantine.

112. Having different testing and quarantine requirements for close contacts based on their COVID-19 vaccination status recognises the protective effects of full vaccination for individuals and their circle of contacts in reducing the risk of contracting, transmitting, and experiencing more severe illness and complications from COVID-19 infection.

Exposed persons

113. Those who have been exposed to a diagnosed person during their infectious period but who do not meet the criteria for being a close contact also have an increased risk of potential infection. These individuals (termed **exposed persons**) are mandated to seek testing and self-quarantine until they receive a negative result. This is to ensure onward transmission and amplification from an exposure site is minimised as far as possible.
114. Individuals who have been potentially exposed to an infectious case at a workplace or education facility can be designated as an exposed person by the employer or provider of these settings. This measure is important to maintain occupational safety in the context of a return to social and economic activities in the midst of an ongoing pandemic. This also places a level of responsibility on diagnosed persons and employers/providers to act in a manner that helps protect the health of their workers and enrolled persons, and thus the overall Victorian community.
115. Requirements for exposed persons are less than those for close contacts because of the type of exposure and lower risk of being infected than someone exposed in the way a close contact has been but are still required to ensure potential chains of transmission are halted wherever possible.

Social contacts

116. Potential transmission can occur from interactions between infectious cases and other members of the community who do not fulfill the criteria of being a close contact or exposed person. It is important for such persons (termed **social contacts**) to be made aware of their potential risks and be recommended to seek testing as a precautionary measure to halt potential chains of transmission once notified by the case. This also places a level of responsibility on diagnosed persons to act in a manner that helps protect the health of their close circle of contacts, and thus the overall Victorian community.

Obligations to report or notify in relation to diagnosed persons

117. Diagnosed persons should continue to have specific requirements to notify their work or education premises if they attended during their infectious period. Under this model, increased accountability is placed on persons with a confirmed COVID-19 diagnosis to inform workplaces and education settings they have attended during their infectious period so that these settings can more promptly instigate public health responses. As noted above at paragraph 85 and 114, this change is also intended for organisations in the community to grow more proficient at appropriately responding to exposures and to become more aware of their responsibilities and capabilities during this evolving stage of the pandemic. Diagnosed persons should also continue to be required to notify the department of their place of self-isolation as well as any

persons at this location that they have tested positive to COVID-19, to ensure these persons can take precautions to minimise risk of infection.

118. Diagnosed persons are strongly recommended to notify their social contacts, outside of workplace or education settings, to further minimise the risk of onward transmission. Social contacts are recommended to get tested and self-quarantine until they receive a negative test

Managing borders and requirements of international arrivals

International arrivals

119. Globally, countries have differing epidemiology, control over COVID-19 outbreaks and protective public health measures. To manage this external risk in a consistent and predictable manner, it is appropriate for Victoria to adopt a standardised approach to international arrivals to reduce the risk of viral incursion and transmission. A combination of quarantine, testing and entry to sensitive setting restrictions are required to control for the risks posed by the different cohorts of international arrivals to the Victorian community. As international travel has now recommenced, these measures become increasingly important in managing the risk of incursion, especially from emerging threats such as the importation of novel variants of concern.
120. The policy should require a review of relevant individual factors that can be easily evidenced and thus operationally supported, such as:
- i. travel history, which reflects the individual's potential exposure to COVID-19 and epidemiological risk;
 - ii. vaccination status, which informs the individual's degree of protection against infection and reduced risk of onward transmission; and
 - iii. age and (for aircrew workers) country of residence, which influence the feasibility and appropriateness of implementing public health measures. Minors should not be unduly separated from their travel group as a consequence of the international border policy, as such separation can lead to increased and unnecessary distress, and potentially impact on well-being and mental health within families.
121. Quarantine reduces the risk of exposure and transmission to the Victorian community by limiting international arrivals' interaction and movement for a defined period immediately following their arrival. Quarantine in a hotel quarantine facility is appropriate for high-risk cohorts such as unvaccinated individuals. Quarantine further mitigates risk of incursion by minimising interactions with general community members while also having in place dedicated operational protocols to reduce risk and access to testing and medical care resources.
122. Testing obligations are intended to detect any imported cases in international arrivals, most importantly prior to joining the Victorian community to prevent outbreaks and limit transmission.
123. For medically exempt individuals arriving into Australia, they should continue to be treated as fully vaccinated for the purposes of determining post-entry quarantine requirements. Unlike individuals who have chosen to forgo receiving available COVID-19 vaccines, those with valid reasons for a medical exemption are not able to receive TGA-approved or recognised COVID-19 vaccines for reasons that are out of their control. Given that many medical contraindications to vaccination can persist over several months, or may even be lifelong, it is not reasonable for this cohort of individuals to be required to undertake quarantine following international travel if they

have a genuine medical contraindication to vaccination. Therefore, they should be treated as if they were fully vaccinated for the purposes entry into Victoria to avoid prejudicial treatment due to their ineligibility. Furthermore, the aggregate risk attributable to this cohort is estimated to be low due to the low anticipated number of international arrivals with valid vaccination exemptions, given that valid reasons for exemptions are very limited in number. Management of the risk posed by this group should be via additional restrictions before entry into high-risk settings.

124. Restrictions on entry to sensitive settings that involve vulnerable populations are important in protecting Victorians who are at increased risk of harm from COVID-19 outbreaks, and especially reduce the incursion of emerging threats such as novel variants of concern that may potentially be more transmissible, virulent or treatment resistive.

Additional considerations for international aircrew service workers

125. The policy for aircrew services workers must also consider the operational requirements of this highly regulated industry, which has:
- i. obligations of undisturbed rest periods between duties for workers (for obvious safety reasons);
 - ii. changing flight schedules that make planning more difficult;
 - iii. reliance on airline-provided transport and accommodation that limit the worker's ability to seek testing,
 - iv. logistical challenges associated with navigating the public health requirements of multiple countries; and
 - v. depending on the country, differing access and availability of resources such as appropriate COVID-19 testing.
126. As a corollary, exemption to testing requirements for low-risk aircrew service workers spending less than 48 hours in Victoria following international duties is permissible due to the lower risk of community exposure associated with the short duration of stay and the operational challenges of arranging testing within the short timeframe. The other public health measures of quarantine and restrictions to sensitive settings are maintained to minimise incursion and transmission risk.
127. Similarly, Australian based fully vaccinated aircrew services workers undertaking turnaround flights only can be exempted from pre-departure testing requirements on the condition that they comply with risk limiting practices.

Vaccination

128. COVID-19 vaccines currently in use in Victoria have met specific criteria as established by the TGA. They must be safe and effective to be approved for use in Australia and contribute to a significant reduction in the chance of a person developing symptomatic infection, severe disease or requiring hospitalisation (Therapeutic Goods Administration, 2021).
129. High vaccination rates reduce the public health risk posed by COVID-19, but they cannot eliminate the risk, as pandemic control is influenced by other significant determinants, not just vaccination coverage, that impact individual, pathogen, and environmental factors. Victoria remains susceptible to the epidemiological risks and public health decisions of other jurisdictions, especially as restrictions of population movement and international travel lift.

130. Mandatory vaccination across a range of settings not only protects those who are vaccinated but also those who cannot be (such as children under 12 years of age and those with medical contraindications). In addition, the COVID-19 vaccines in use in Australia have been shown to reduce severity of illness and hospitalisation, providing protection for the individual but also helping to protect the health system from becoming overwhelmed (Tenforde , et al., 2021).
131. Though the vaccines used in Victoria are safe and effective, vaccine effectiveness against new and emerging variants of COVID-19 such as the Omicron variant is not yet fully understood and will be the topic of continued interest internationally.
132. In addition, there are concerns that the protection induced by vaccination may wane over time. Studies have shown that protection against severe disease could wane after about six months for the more transmissible Delta variant (Levin, et al., 2021).
133. A requirement to be vaccinated is obviously a considerable imposition, and vaccine mandates can have unintended negative consequences, particularly on those who may hold particular philosophical or personal beliefs. I have considered this balance carefully before making the comments and recommendations set out below.
134. Vaccination remains an evidence-based intervention that not only minimises transmission risk but also protects individuals who contract COVID-19 from the harms of severe illness. With density restrictions and many other public health measures eased in most settings and significant movement of people now permitted in the community, vaccination remains crucial to contain spread.

Mandatory vaccination of workers to protect workers, members of the public, and to minimise the risk of viral amplification

135. Worker vaccination mandates were implemented during Victoria’s most recent lockdown in the context of escalating case numbers to rapidly increase population vaccination coverage and limit community transmission. Mandatory vaccination in workplaces helps protect workers and any members of the public in attendance, given the risk of transmission between individuals from close or sustained contact, particularly in indoor settings (Centers for Disease Control and Prevention, 2021i), and especially between unvaccinated individuals.
136. Victoria has now achieved significant population vaccination coverage of greater than 90% full vaccination in those aged 12 years and above, meaning there is an established level of protection within the community and across workplaces. However, COVID-19 case rates remain elevated despite this coverage and although the rate of hospitalisation and intensive care unit admission is slowly stabilising, a new threat is emerging in the Omicron VOC.
137. At this critical timepoint in the Victorian response to the COVID-19 pandemic, the following points support the approach to maintaining worker vaccine mandates:
 - i. COVID-19 vaccines are safe and effective interventions that reduce the individual risk of contracting and transmitting coronavirus and experiencing more serious health outcomes from infection – as well as reducing the risk to others in the same setting, who may not be eligible to receive vaccination.
 - ii. Maintaining a vaccine mandate as a baseline will protect workers from the increasing incursion and transmission risk represented by the return to onsite work, easing of restrictions in the Victorian community, and easing of domestic and international border

restrictions, particularly in the face of the emerging threat posed by the Omicron VOC. For the Omicron VOC, vaccination almost certainly continues to provide a direct protective effect against severe disease, even if the protection from becoming infected is not as robust as against the Delta VOC.

- iii. COVID-19 vaccines are readily available in Victoria and workforces have had adequate time to meet the deadlines stipulated in current vaccine mandates. Many workers are already required to be fully vaccinated (or exempt) to attend work and thus, continuing vaccination requirements for workforces that are already subject to a mandate would not be expected to result in significant disruption to affected industries or sectors, or an imposition on workers.
 - iv. Workforce insufficiencies, including shortages resulting from the need to isolate or furlough infected staff and their contacts, constitutes a material threat to maintaining workplace operations. High workforce vaccination coverage, supported by vaccine mandates, can diminish these disruptions by reducing outbreaks in these settings. Reduced quarantine periods for vaccinated workers also means a highly vaccinated workforce is less likely to have to quarantine for prolonged periods and disruption to workplace operations is minimised, which is particularly relevant for those workplaces providing essential goods or services.
138. There are also a series of workplaces that involve clearly higher risk. It is important to ensure that workers and vulnerable populations within those settings are protected in a way that goes beyond what might be achieved by relying on the population vaccination coverage. Mandatory vaccination of workers should be retained in settings where infection risk is greater due to vaccination ineligibility (e.g. education settings), the presence of vulnerable cohorts (e.g. residential aged care) or other transmission related factors are at play (e.g. meat processing).
139. Children of primary school age (i.e., mostly under the age of 12) are not yet able to access COVID-19 vaccinations and will not be able to complete a full vaccination course for some time. Face masks are not mandated for students below grade 3 (because of an inability to achieve adequate compliance). Therefore, children remain at risk and a potential vector for viral transmission, which increases the risk of primary school or early childhood education centres becoming environments where large outbreaks occur. At this time, it remains important for workers in schools and early childhood education and care centres to be subject to vaccination mandates. In Victoria, between August and December of 2021, over 30% of all outbreaks have been linked to school or early childhood education and care settings.
140. As outlined in paragraph 91, abattoirs, meat, poultry and seafood processing facilities have many characteristics which make them a high risk setting for transmission. These locations remain at risk of viral amplification and therefore it is reasonable that workers at these facilities remain subject to a mandatory vaccination obligation even if more general worker vaccine mandates are eased at some point in the future.
141. As outlined in paragraph 92, individuals residing in care facilities such as residential aged care facilities and residential disability facilities have risk factors which make them more vulnerable to the effects of COVID-19 compared to the general population. In addition to their age, medical comorbidities and physical health status, environmental factors in these settings can also further accentuate the risk of transmission, for example the use of shared amenities such as

bathrooms, and the participation of residents in group activities. For these reasons, it remains proportionate to require individuals working in these settings to be fully vaccinated against COVID-19.

142. Worker vaccination as a public health intervention is also particularly pertinent in these residential settings due to the characteristics of the workforce. Workforce shortages have been reported especially in the aged care setting, and notably, the existing workforce is one that is highly mobile and casualised. This means that measures such as the limitation of workforce movement across sites is not only unsustainable in the long term but may also inadvertently cause more harm through exacerbating workforce shortages which contribute to suboptimal care. Therefore, other measures such as worker vaccination need to be optimised.
143. Similarly, as described in paragraphs 93 to 94, healthcare settings attended by individuals who also have additional vulnerabilities to COVID-19 require the same level of protection. This includes social and community service workers who work in settings that interact with vulnerable population groups includes disability services, homelessness support, mental health services or custodial services. These workers are at greater risk of being exposed to the COVID-19 virus so to protect vulnerable population groups as well as the workers themselves, it remains critical that workers continue to be subject to mandatory vaccination requirements.
144. I also note that maintaining worker vaccine mandates in any setting where a patron must be vaccinated offers policy consistency but also means the intent of a vaccination requirement for entry (that transmission risk is reduced) is achieved for all who attend. Maintaining other worker vaccine mandates delivers ongoing additional protection to workers returning to their workplaces, especially those who face challenges on associated with immunocompromise, other medical exceptions, and waning immunity.
145. Against the above considerations, I note that the age cohort of the workforce in Victoria is highly vaccinated; that some workers continue to experience job loss and increased social isolation due to the prohibition on unvaccinated (and non-exempt) workers from attending work face-to-face; and the marginalisation of these individuals from the normal experiences of these work and social interactions.
146. It would therefore be appropriate, and my recommendation, that the Minister uses discretion in deciding how public confidence in the administration of public health (and the improvements in compliance and prosocial behaviour that such confidence brings) would be best served. This may be by retaining a general vaccine mandate or by removing it, noting the possibility of having to reinstate it later.
147. In relation to boosters, it would seem appropriate, given the interaction with vulnerable population groups that consideration be given to mandatory third dose booster vaccinations for healthcare workers, aged and disability care workers in the first instance. While only preliminary, data suggest that antibody levels decrease in the months after natural infection or following the initial course of vaccination. This waning immunity is associated with an increased incidence of breakthrough infections, with published population-level evidence showing booster doses of vaccination from 5 months following completion of the primary course is associated with a reduction in breakthrough infections. A mandate would only be appropriate in the first instance to this group of workers, as they are at high risk of exposure and therefore contracting

COVID-19, in addition to interacting with vulnerable population groups. (World Health Organisation, 2021j., 2021)

148. For completeness, operator obligations to collect, record and hold worker information should be retained to facilitate contact tracing.

Mandatory vaccination of patrons (and workers) for entry to open premises

149. Vaccination requirements to enter open premises serve to protect the health of all who access these settings, including customers/patrons, workers and visitors, and in particular those who are in a vulnerable population group.

150. In addition, environmental and social factors may contribute to the risk of transmission. These factors may be heterogenous and difficult to modify in certain circumstances. In contrast vaccination is widely and equitably available for all eligible Victorians as a risk mitigating measure that can be applied more consistently.

151. I recommend that patrons be prohibited from entering open premises unless fully vaccinated (or medically exempt or ineligible for COVID-19 vaccination), except the following settings, for reasons explained below:

- i. non-essential retail (excluding hair, beauty and personal care services)
- ii. religious services, weddings and funerals; and
- iii. real estate inspections and auctions.

152. Non-essential retail is now able to be excluded from this vaccine requirement due to the high vaccination rates in the community and the need for people to access goods and services. However, it is reasonable for hair, beauty and personal care services to continue with a vaccine requirement due to the close and prolonged contact that occurs between clients and workers who will not be required to wear face masks due to the nature of the activities.

153. The interactions that arise from real estate activities can be considered low risk and therefore not necessitate a vaccine requirement due to the relatively small numbers of patrons, who only attend for a short duration, and spend a portion of the visit in outdoor settings with good ventilation and lower risk of transmission.


154. The removal of the vaccine requirement for religious gatherings, weddings and funerals, is in consideration of the health and wellbeing needs of the attendees who are participating in religious and spiritual activities, attending important social milestones.

155. Of note, cruise ships are a recognised high risk setting for communicable disease outbreaks, including COVID-19 (Centres for Disease Control and Prevention, 2021g), and have been the epicentre of large outbreaks in the past – for example, the Diamond Princess and Ruby Princess vessels in 2020. These settings have similarities to nightclubs, bars and indoor entertainment venues in that individuals frequently interact in close proximity to others in poorly ventilated indoor settings. Further, the prolonged nature of contact on the vessel for passengers and crew (with cruises generally being conducted over several days or even weeks), can lead to multiple generations of transmission, which can result in significant amplification of an outbreak. For this reason, small cruises of less than 100 passengers which are already permitted in Victoria should continue to have vaccination requirements for passengers and workers. I recommend that larger cruises continue to be prohibited.

156. Despite Victoria achieving the 90% double dose vaccination threshold in people aged 12 years and over, it would be necessary and appropriate (for the reasons set out in paragraph 149) that patron vaccination mandates should remain in place for all open premises in the context of ongoing elevated rates of community transmission.
157. The requirement for an operator to ensure a system is in place to be able to collect vaccination information for patrons aged 18 years and over each time they enter these settings should therefore also be retained in accordance with the vaccination requirement before entry.

Conclusion

158. The discussion set out above shows the various public health measures that I consider are necessary or appropriate to reflect the risks that COVID-19 presents to Victoria. The discussion also shows that the measures work together to improve the protection that they provide. The measures set out above target settings where in a manner that reflects the risk of transmission at those settings and the degree to which people in that setting have a particular vulnerability to infection. This is shown in Table 1, below.
159. As I indicated throughout this advice, Victoria's vaccination rate continues to climb, which may make it possible to further ease the restrictions that have been in place. By the time the first set of Pandemic Orders will be due to end, the rate of vaccination will approach – and potentially have exceeded – 95% of all Victorians aged over 16 years. At that point, my colleagues and I will continue to review all of the measures set out in this advice, including but not limited to:
- i. mandates on vaccinations for workers and for patrons;
 - ii. high risk industries and sensitive settings and the protective measures in place;
 - iii. management of those who are diagnosed with COVID-19 or designated close contacts



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Dated this 10th day of December 2021

Table 1. Industries and sectors – epidemiology and public health measures summary

Industry	Epidemiology* (01/08/2021-02/12/2021)			Measures in place						
	% of overall outbreaks	% of overall hospitalisation	% of overall of deaths	Education and assistance	Masks	COVID Safe Plan	Check in/ Record keeping	Worker vaccine mandate	Patron vaccine mandate	Surveillance
Hospitality total including bars and music venues	1.3%	0.5%	0.02%	✓	✓	✓	✓	✓	✓	-
Nightclubs (bars and music venues)	0.2%	0.1%	0.0%	✓	✓	✓	✓	✓	✓	-
Public and private gatherings	0.6%	0.5%	0.0%	✓	-	-	-	-	-	-
Hospitals	11.5%	13.0%	13.2%	✓	✓	✓	✓	✓	-	✓
Early Childcare Education Centres	10.9%	1.0%	0.7%	✓	✓	✓	✓	✓	-	-
Aged care facilities	5.5%	3.8%	18.7%	✓	✓	✓	✓	✓	-	- (Recommend)
Hotel Quarantine	0.0%	0.0%	0.0%	✓	✓	✓	✓	✓	-	✓
Schools / Education settings	20.6%	1.4%	0.5%	✓	✓	✓	✓	✓	-	-
Construction	1.1%	0.5%	0.0%	✓	-	✓	✓	✓	-	✓
Abattoirs, meat, poultry and seafood processing	1.5%	N/A	0.0%	✓	✓	✓	✓	✓	-	✓
Ports of Entry	N/A	N/A	N/A	✓	✓	✓	-	✓	-	- (Recommend)
Public Transport	N/A	N/A	N/A	✓	✓	✓	-	✓	-	-

Commercial passenger vehicles	N/A	N/A	N/A	✓	✓	✓	✓	✓	-	- (Recommend)
Workplaces	N/A	N/A	N/A	✓	-	✓	✓	✓	-	-
Essential retail	1.2%	N/A	0.0%	✓	✓	✓	✓	✓	-	-
Non- essential retail				✓	✓	✓	✓	✓	-	-
Public Events	N/A	N/A	N/A	✓	-	✓ <i>Published</i>	✓	✓	-	-
Other open premises (e.g. community facilities, physical recreation)	N/A	N/A	N/A	✓	-	✓	✓	✓	✓	-
Cruise Ships	N/A	N/A	N/A	✓	-	✓	✓	✓	✓	-

* Due to the recent surge in cases and outbreaks driven by the Delta VOC, a proportion of cases diagnosed in Victoria remain under investigation. Therefore, not all cases have acquisition or outbreak linkages completed. Only data that has been verified and currently available has been used in this analysis.

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