MANATŪ HAUORA
MINISTRY OF HEALTH

133 Molesworth Street
PO Box 5013
Wellington 6140 New
Zealand **T**+64 4 496
2000

22 June 2023

s 9(2)(a) [redacted]

Ref: H2023025868

Tēnā koe s 9(2)(a) [redacted]

Response to your request for official information

Thank you for your request under the Official Information Act 1982 (the Act) to Manatū Hauora (the Ministry of Health) on 24 May 2023 for information regarding public health risk assessment. You requested:

> *"Every Public Health Risk Assessment for Covid-19 produced since October 1, 2022 Where any document falls under the scope of this request, please release it in full, including sections which might otherwise be considered out of scope."*

Manatū Hauora has identified 6 documents within scope of your request. All documents are itemised in Appendix 1 and copies of the documents are enclosed. Where information is withheld, this is outlined in the Appendix and noted in the document itself.

Where information is withheld under section 9 of the Act, I have considered the countervailing public interest in release in making this decision and consider that it does not outweigh the need to withhold at this time.

I trust this information fulfils your request. Under section 28(3) of the Act, you have the right to ask the Ombudsman to review any decisions made under this request. The Ombudsman may be contacted by email at: info@ombudsman.parliament.nz or by calling 0800 802 602.

Please note that this response, with your personal details removed, may be published on the Manatū Hauora website at: www.health.govt.nz/about-ministry/information-releases/responses-official-information-act-requests.

Nāku noa, nā

Jane Chambers
Group Manager, Public Health Policy and Regulation
Public Health Agency | Te Pou Hauora Tūmatanui

Appendix 1: List of documents for release

#	Date	Document details	Decision on release
1	12 October 2022	'Public Health Risk Assessment of COVID-19 mandated response measures, 3 October 2022'	Some information withheld under the following sections of the Act: • section 9(2)(f)(iv) of the Act, to maintain the constitutional conventions that protect the confidentiality of advice tendered by Ministers and officials. • section 9(2)(g)(i) of the Act, to maintain the effective conduct of public affairs through the free and frank expression of opinions by or between or to Ministers and officers and employees of any public service agency and;some information deemed out of scope of your request.
2	11 November 2022	'COVID-19 Public Health Risk Assessment – 7 November 2022'	Released in full.
3	25 November 2022	'COVID-19 Public Health Risk Assessment – 22 November 2022'	Some information withheld under the following sections of the Act: • section 9(2)(f)(iv) • section 9(2)(g)(i) • section 9(2)(h) to maintain legal professional privilege
4	2 January 2023	'Public health risk assessment – 2 January 2023'	Some information withheld under the following sections of the Act: • section 9(2)(b)(ii) where its release would likely unreasonably prejudice the commercial position of the person who supplied the information

#	Date	Document details	Decision on release
			and;some information withheld under section 9(2)(ba)(i) to protect information that is subject to an obligation of confidence and making it available would likely prejudice the supply of similar information, or information from the same source.
5	31 January 2023	'Public Health Risk Assessment – 26 January 2023'	Some information withheld under section 9(2)(f)(iv) of the Act.
6	22 March 2023	'COVID-19 Public Health Risk Assessment – 16 March 2023'	Some information withheld under the following sections of the Act: • section 9(2)(f)(iv) some information withheld under section 9(2)(g)(i) some information withheld under section 9(2)(h)and; . some information withheld under section 9(2)(a) to protect the privacy of natural persons.

Document 1

Memo

Public Health Risk Assessment of COVID-19 mandated response measures, 3 October 2022

Date:	12 October 2022
To:	Dr Diana Sarfati, Director-General of Health
From:	Dr Nicholas Jones, Director of Public Health, Public Health Agency Dr Andrew Old, Deputy Director-General, Public Health Agency
For your:	Decision

Purpose of report

1. This memo provides you advice from the Director of Public Health following the 03 October 2022 Public Health Risk Assessment (PHRA). The PHRA considered whether the remaining mandated (and other) COVID-19 response measures are proportionate to the risk posed by the current outbreak.
2. This paper seeks your agreement to the recommendations arising from that meeting. The agreed recommendations will inform a paper on the future management of COVID-19 that the Minister for COVID-19 Response will take to Cabinet on 17 October 2022.

High level summary of key considerations

Previous PHRA recommendations

3. Advice provided to you following the 17 August 2022 PHRA recommended the removal of several mandatory measures based on public health advice that they were no longer proportionate and/or justified. Subsequently, requirements to wear masks in settings other than healthcare, and quarantine requirements for household contacts were removed, along with testing requirements for international arrivals.
4. Their removal was considered an appropriate response given New Zealand's COVID-19 outbreak at that time was waning, with reducing case numbers, hospitalisations, and deaths. The proportionality of many mandated response measures significantly reduced due to the changing context of the outbreak at that time.
5. It was agreed the remaining measures – the retention of case isolation, face masks in healthcare settings and electronic provision of contact details – would be kept under review and assessed again at the next PHRA. This stepped approach was considered a judicious way to manage the transition from mandatory measures. It also provided the opportunity to assess the impacts of these changes across key indicators to determine if it was appropriate to remove the mandates underpinning two of the four key pillars – masking, separation, vaccination and isolation – to our COVID-19 response.

Outcome of 3 October 2022 PHRA

6. Given the current domestic and international context, the PHRA recommendations represent a continuation of current measures, with some minor modifications. This assessment builds on evidence and recommendations from previous assessments (including the 17 August PHRA, and the CPF Assessments that preceded it).

7. Key to our ongoing precautionary approach is the need to protect vulnerable populations and reduce inequities.[1] COVID-19 morbidity and mortality data continue to highlight the disproportionate risks to Māori, Pacific, socio-economically disadvantaged and disabled communities.

8. Concerns were expressed that lifting mandates for case isolation and masking in healthcare facilities, could result in disproportionate impact on these groups. Requiring cases to isolate remains our most effective measure to reduce transmission of COVID-19, retaining case isolation will materially reduce transmission. Its retention also allows for the management of the response while removing or reducing other measures.

9. Modelling estimated that removal of case isolation, in addition to the changes made for face masking and household contact quarantine on the 12th of September would result in approximately 35-65,000 additional cases, 280-470 new hospitalisations and 35-60 additional deaths, in the short-term depending on 'optimistic' or 'pessimistic' modelling assumptions. The model did not account for the impact of new variants. These measures are therefore recommended to be retained.

10. Five days isolation with test to release is not recommended. Whilst less time in isolation is undeniably beneficial, this needs to be carefully balanced against the multi-faceted public messaging associated with introducing a negative test to release requirement, the potential increase in cases infectious at release, expectations around compliance and the recording of test to release results.

11. Further changes to border requirements: the removal of the requirement to provide contact details for contact tracing purposes[2]; and modifications to testing guidance for new arrivals were also considered.

    a. As contact tracing is not currently a feature of the COVID-19 response, the requirement to collect information for contact tracing purposes is no longer required. If the response changes, for example in response to a new variant, then contact tracing information may be sought again. The current requirement for collection via NZTD can be removed.

    b. The equest to test on arrival currently applies for all passengers. The recommendation is this is modified to apply specifically to passengers who either arrive with, or develop symptoms, during their stay.

Outbreak status

Domestically, at the time of the PHRA, the current outbreak appeared to have stabilised

[1] Ministry of Health. 2022. COVID-19 Mortality in Aotearoa New Zealand: Inequities in Risk. Retrieved from https://www.health.govt.nz/publication/covid-19-mortality-aotearoa-new-zealand-inequities-risk

[2] Currently via the New Zealand Traveller Declaration (NZTD).

12. The PHRA considered data to the week ending 25 September 2022, which showed all measures used to monitor the COVID-19 epidemic as stable or reducing.

13. However, as of the week ending 7 October 2022, case counts have started to increase slightly in the context of likely lower reporting/testing and overall lower case ascertainment (although other key measures, including hospitalisations and deaths, remain stable):

    a. there is currently an average of 1,598 new reported[1]cases per day nationally (7-day rolling average to 9 October 2022); this was a 12 percent increase on the previous week

    b. the 7-day rolling average of reported case rates was 32.2 per 100,000 population fo the week ending 9 October; this was 11 percent higher than the previous week, which was 28.6 per 100,000

    c. hospital occupancy trends from COVID-19 have stabilised in the week ending 09 October and levels of viral particles in wastewater have been relatively constant in the recent weeks to 02 October. The trend varied somewhat regionally, with some regions experiencing increases and some decreases.

14. Note that a Ministry of Health COVID-19 hospitalisation data review has identified a coding error which has resulted in potentially a significant number of COVID hospitalisations not being captured in the official count. The coding team are working through the issue. However, the technical issue appears to affect hospitalisations uniformly over time and appears not to impact trends in the data. Therefore, it is unlikely that the data error has impacted current recommendations, as the error is in miscounts distributed across the entire outbreak period from 2020 to present day and does not indicate a substantial change in the current risk profile. This error did not impact the daily/weekly reporting of number in hospital.

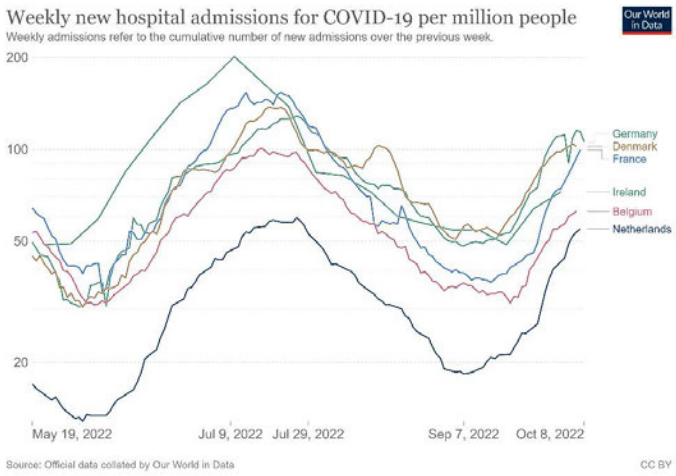
Following new data and intelligence over the past week, it is likely that New Zealand will experience a further wave by the end of 2022

15. Modelling developed for and discussed at the PHRA, showed a slow rise through the end of the year. However, this modelling was based on immune waning alone and not on the arrival of new variants

16. It is likely that New Zealand will experience an increase in cases by the end of 2022, either due to waning, new subvariants, and/or behaviour change. However, data is very preliminary and as such the impact on cases, hospitalisations and deaths is unknown.

17. As indicated by Figure 1 below, hospitalisations are rising in many counties in Europe.

Figure 1: Weekly new hospital admissions for COVID-19 per million people (log scale)



18. The data from the UK suggests that, at this time, this is due primarily to seasonality factors (eg, returns to indoor settings, school/office) and immune waning (eg, due to time since previous Omicron wave and boosting).[3] Subvariants are not currently thought to be the primary driver of the increase in hospitalisations and cases in Europe, due to the prevalence of these new variants being too low at this time.

19. However, the collection of new subvariants is expected to be associated with an increase in cases in the future. The impact of the new variants on hospitalisations is unknown. It would be expected that booster vaccinations against the new subvariants would still maintain substantial protection against severe disease and hospitalisation, but no vaccine effectiveness data is available that is specific to these new subvariants.

There are a number of subvariants circulating domestically and internationally that appear to have a growth advantage over our predominant variant - BA.5

20. The data on subvariants is very uncertain and preliminary. However, bodies such as UKHSA report with low confidence that new subvariants have a growth advantage and may cause an increase in cases. Subvariant BA.2.75 appears to show initial signs of increasing in prevalence across New Zealand in both WGS and wastewater, and we have detected our first case of BQ1.1 in the last few days. It is unknown what impact the new variants will have on cases, hospitalisations and deaths.

21. Several subvariants may have a growth advantage over the current predominant variant, BA.5. However, generally a growth advantage of approximately 10 percent or more per day is thought to be required to be associated with a variant-driven wave of cases. Data are very preliminary, but it is thought based on European data that the growth advantage of at least one of the new subvariants (BQ.1.1) is between 10-15 percent. If this is correct, we would expect to see a rapid increase in the case numbers, sufficient to cause a wave.

    a. BQ1.1 is a sub lineage of BA.5 with additional mutations that likely make it more immune evasive.

    b. Similarly, BA.2.75.2 is a sub lineage of BA.2 with immune evasion potential. It is likely that the immune evasion properties are responsible for the growth advantage.

[3] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1109820/Technical-Briefing-46.pdf

However, it is unknown if there will be an increase in hospitalisations or cases due to BQ.1.1 or any of the new variants, as this has not been observed in international data to date; only that the growth rate relative to other variants is elevated.

Subvariants such as BA.4.6 and BA.2.75 increased in the community in the most recent data from New Zealand samples that have undergone whole genome sequencing (WGS)

22. The most recent data from samples that have undergone WGS has found:

    a. BA.5. the dominant variant, accounts for ~75 percent of community individual WGS cases, in the week 17-30 September with BA.4.6 comprising an additional 15 percent.

    b. Therefore BA.4 and 5 account for about ~90 percent of cases.

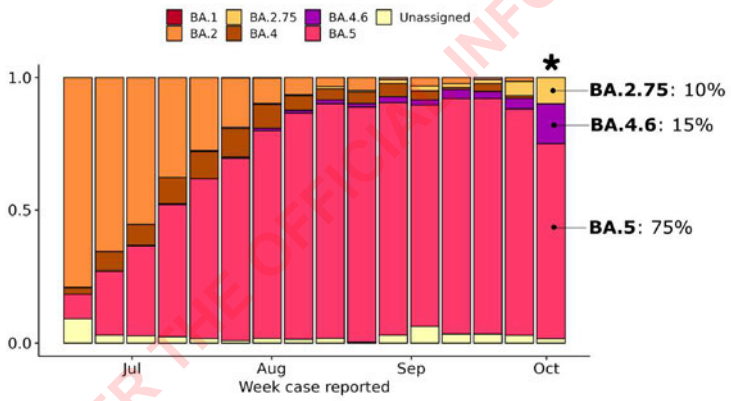
    c. BA.2.75 has increased and accounts for ~10 percent.

23. Of note since the PHRA, the Institute of Environmental Science and Research (ESR) have now reported the first detection of BQ1.1 in New Zealand.

New Zealand wastewater testing indicates an increasing proportion of samples are not BA.5

24. As indicated by Figure 2 below, there has been a recent increase in the proportion of wastewater samples that are (sub)variants other than BA.5.

Figure 2: Frequency of variants/lineages in the past 16 weeks[4]



25. In summary:

    a. Wastewater testing (WWT) estimates of the prevalence of BA.4/5 agrees with that of individual WGS; BA.4/5 accounts for 90 percent of viral material in the WW (as of 02 October), which gives more confidence that the combined underlying prevalence of BA 5 and BA.4 in the community is likely truly ~90 percent, and is decreasing.

    b. WWT is unable to distinguish between BA.4 and BA.5, and therefore cannot identify increases in prevalence of BA.4.6 specifically.

    c. WWT also agrees that there is an increase in BA.2.75; BA.2.75, accounting for ~7 percent of viral material in the WW, which aligns with the 10 percent from individual

[4] Frequencies >1% are annotated in the last week. Note, data for the most recent fortnight is preliminary as it will be updated as cases reported within these weeks are converted into genomes. Data from the week marked with an asterisk represents all sequenced cases, before this reporting week border-related cases are excluded. Cases classified as Omicron (Unassigned) are typically partial genomes where it is difficult to be definitive regarding variant/lineage. Source: COVID-19 Genomics Insights (CGI) Report #24, 6 October 2022. https://www.esr.cri.nz/our-expertise/covid-19-response/covid19-insights/genomics-insights/

WGS. This indicates that BA.2.75 may be increasing in prevalence in the community. Monitoring of BA.2.75 includes the monitoring of sublineage BA.2.75.2.

d. BQ.1 has now been detected in New Zealand and would be expected to have a growth advantage based on overseas experience.

26. WWT for variants is not influenced by the changes in the individual WGS testing patterns.

Recommendations

27. It is recommended that you agree to the following:

Air travel to New Zealand	1. **Remove** the requirement for air travellers to New Zealand to provide information for COVID-19 contact tracing purposes prior to departure.	Yes
	2. **Note** that the Customs (Arriving Passenger and Crew Declarations) Amendment Rules 2022 will come into force on 5 November 2022 requiring air travellers to provide digital contact and travel history information that can be shared with Health agencies for contact tracing purposes as necessary under the Health Act 1956.	Noted
Post-arrival testing	3. **Modify** the post-arrival testing guidance for all travellers to test if symptomatic only.	Yes
Isolation and quarantine	4. **Retain** the current requirement for all cases to isolate for 7 days	Yes
Household contacts	5. **Continue** with guidance for all household contacts to test daily for five days, and if symptomatic beyond those five days.	Yes
Face masks	6. **Retain** the current face mask requirements for visitors[1] on the premises of health services, including aged and disability-related residential care and disability support services.	Yes
Further work to improve equity outcomes	7. **Agree** that the variants of concern preparedness work programme include measures to improve equity outcomes for Māori, Pacific, and disabled communities.	Yes
Next PHRA	8. **Agree** any remaining requirements are reviewed at the next PHRA.	Yes

	9. **Agree** that a further PHRA will be held in the last week of November to again review remaining mandatory measures.	Yes
Next steps	10. **Agree** to forward this memo to the Department of the Prime Minister and Cabinet (DPMC) to contribute to the paper for Cabinet on 17 October 2022.	Yes
	11. **Note** that once you approve this memo, we will provide it to Te Whatu Ora, Te Aka Whai Ora, and Whaikaha and suggest they provide any feedback to DPMC to reflect in the Cabinet paper noted above.	Noted
	12. **Note** that the advice contained in this memo may inform work to change COVID-19 policy settings, such as the amendment or revocation of COVID-19 orders.	Noted

Detailed discussion of the recommendations

Case isolation and requirements for household conta ts

Current requirement	Mandatory 7-day self-isolation of COVID-19 cases
Director Public Health recommendation	**Retain** the current requirement for all cases to isolate for 7 days.
Public health rationale	*Requirements for case isolation and associated supports remain critical* Case isolation remains a cornerstone of our response to limiting transmission COVID-19 within the community. Isolation of cases can break the chain of transmission by preventing infectious people from having contact with, and infecting others within the community. Without required case isolation and associated supports, it is highly likely that adherence to guidance to isolate would be lower, leading to more infectious cases in the community, leading to increased community cases. *Removing case isolation and associated supports is likely to increase health inequities* It is likely that the increase in community cases would affect some communities and population groups more than others. Specifically: • There is an acknowledged differential exposure to COVID-19 risk related to socioeconomic status.[5] People in lower socioeconomic groups are more likely to work in jobs with greater risk of exposure, to live in larger

[5] Beale S, Braithwaite I, Navaratnam AM Virus Watch Collaborative, *et al*
Deprivation and exposure to public activities during the COVID-19 pandemic in England and Wales *J Epidemiol Community Health* 2022;**76:**319-326.

and typically more crowded houses, and to have underlying risk factors. If there are more infectious people circulating in a community with more baseline contacts, this increases the likelihood of onward transmission.

- People who are socioeconomically deprived are more likely to face challenges in being able to isolate compared to people with greater access to socioeconomic benefits. This includes differing access to sick leave, income loss, and potential pressure from employers to return to work. Earlier return to work comes at the cost of increasing transmission, which is likely a more significant effect on health outcomes and ability to work due to illness.
- As a result, people who experience higher levels of socioeconomic deprivation may be more likely to not test, not report results, or break isolation, potentially causing further cases and further inequities.
- These inequities would likely be exacerbated, rather than mitigated, if requirements for self-isolation and associated supports (such as Care in the Community and the Leave Support Scheme) – which are vital for enabling people in these communities to practically be able to isolate - were removed.

Feedback from sector stakeholders echoed many of the concerns above:

- s9(2)(g)(i) [redacted]
- Coercion to return to work particularly for the most vulnerable - Strong concern was expressed that if the isolation mandate was removed, employees may be pressured to return to work even if not fully recovered. Equity concerns were central to this feedback, particularly what this change might mean for Māori and Pacific communities.
- Increased transmission because of relaxed requirements - Removing the isolation mandate will almost certainly result in increased transmission, due in part to the message it sends regarding the importance of isolation and because of the inability of people to isolate due to the two factors above. Again, equity concerns were raised as any increase in cases will impact the priority populations most.

COVID-19 continues to pose a substantial public health risk, which is different from other respiratory and communicable diseases

- Disease burden: To date, 2,055 deaths have been attributed to COVID-19 (9 October) out of approximately 1.7 million reported cases. Most of this burden has fallen on the elderly. The disease burden also falls disproportionately on Māori and Pacific communities, and those with prior conditions including disabilities, and those in low socio-economic conditions, among other groups. With respect to hospitalisation, the overall population rate is 0.6 per 100,000 (18 September). Older people have substantially higher hospitalisation rates and, within each age group, Māori and Pacific communities also have higher hospitalisation rates.

- Post-infection sequelae: This includes long COVID, and increased risk factors for a range of other conditions (for example, cardiovascular disease,[6] neurologic and psychiatric disorders,[7] changes in brain structure,[8] and diabetes).[9] The data on long COVID is developing but there are still many unknowns and we need to continue to monitor the risk.
- The best way to reduce overall burden and protect vulnerable communities is via a combination of targeted measures (eg, additional precautions in Aged Residential Care facilities) and reduction of overall transmission in the community. Isolation and quarantine measures are among the most effective public health tools at reducing overal levels of community transmission.

A legal requirement to self-isolate is a cornerstone of the public health response

The best practice approach to managing infectious notifiable diseases transmitted through the droplet or airborne route is to require isolation of cases during their period of infectivity. This is the most effective tool for controlling disease transmission. The high transmissibility of COVID-19 reinforces the need for case isolation, which has been a cornerstone of the public health response throughout the pandemic.

s9(2)(g)(i) [redacted]

Other control tools, such as requiring masks or physical distancing are significantly less effective than isolation. Furthermore we note that to be effective these tools are most effective when utilized across the entire population. We note also that it is important to see these tools as a suite of protections that work together. Each tool can be dialled up or down. We have been able to recommend removing or reducing some of those other tools in part because isolation has remained in place. However, there is no combination of other mechanisms that would come close to producing the public health benefit that required self-isolation does.

s9(2)(g)(i) [redacted]

[6] Xie, Y., Xu, E., Bowe, B. *et al.* Long-term cardiovascular outcomes of COVID-19. *Nat Med* **28**, 583–590 (2022). https://doi.org/10.1038/s41591-022-01689-3

[7] Wise J. Covid-19: Increased risk of some neurological and psychiatric disorders remains two years after infection, study finds BMJ 2022; 378 :o2048 doi:10.1136/bmj.o2048

[8] Douaud, G., Lee, S., Alfaro-Almagro, F. *et al.* SARS-CoV-2 is associated with changes in brain structure in UK Biobank. *Nature* **604**, 697–707 (2022). https://doi.org/10.1038/s41586-022-04569-5

[9] Xie, Y. & Al-Aly, Z. *Lancet Diabetes Endocrinol.* https://doi.org/10.1016/S2213-8587(22)00044-4 (2022).

[10] The Research Agency (TRA). *July 2022 DPMC Behaviour & Sentiment Topline.*

s9(2)(g)(i) [redacted]

It is very clear that compliance will be significantly higher with a mandate than with a recommendation

Evidence from overseas suggests that a legal requirement to isolate will have significantly greater adherence than a recommendation to isolate. In the UK, there was a significant drop in compliance with isolation requirements after the legal requirement to self-isolate was dropped on 24 February 2022. Based on survey data of people who tested positive for COVID-19, 80 percent were fully compliant in February, dropping to 64 percent in early March, and 53 percent in late March.[11]

s9(2)(g)(i) [redacted]

Modelling results (CMA)

Modelling suggest that the current mandatory isolation policy is approximately preventing 450 hospitalisations and 50 deaths in the short term compared to guidance with a reduction to 5 days. Over a year, it is estimated to prevent 1000 hospitalisations and 300 deaths.

When current settings are compared to mandatory with test to release from 5 days, the model estimates that current settings are preventing 40 hospitalisations and 50 deaths in the short term. Over a year, it is estimated to prevent 250 hospitalisations and 30 deaths.

Accurate domestic data on the behavioural impact of shifting from mandatory isolation to guidance is lacking. However, data from the UK infection survey (based on adherence rates to guidance in the UK) suggests potentially larger increases in cases and hospitalisations from such a change.

Key limitations of the isolation model are that it assumes RAT sensitivity to be constant over the duration of illness and does not account for increased sensitivity at day 5. This means that the proportion of cases released who are infectious may be overestimated. Another limitation is that incomplete isolation under mandatory requirements is not fully accounted for. Both of these limitations would tend to overestimate the magnitude of increase associated with changes to the status quo. Furthermore the modelling does not account for a new variants which could substantially increase infections.

Modelling results are described in more detail in **Appendix 1**.

[11] https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthandwellbeing/bulletins/coronavirusandselfisolationaftertestingpositiveinengland/17to26march2022

	It was noted that further change, such as the introduction 5-day self-isolation plus test to release, is likely to create additional uncertainty and confusion. People are more likely to adhere if isolation is mandatory. However, we have no accurate estimate of the proportion of people following the mandatory required. Behavioural data indicate 88% of those surveyed (July 2022) would follow isolation rules if they tested positive. Operational providers have reported that they believe the most critical factor is not whether isolation is mandatory or recommended, but rather whether people are adequately supported to do so.
Other comments	s9(2)(g)(i) [redacted] *Regulation of point of care testing* Currently, the importation, manufacture, supply, sale, packaging or use of point of care tests is regulated under the COVID-19 Public Health Response (Point-of-care Tests) Order 2021. The purpose of this regulation is to ensure that point of care tests that are relied upon to establish whether a person is subject to mandatory self-isolation requirements are accurate and reliable. It is appropriate to maintain the regulation of point of care testing, so long as mandatory self-isolation requirements remain in place.

	Other countries that have retained some level of required isolation for cases • Legally mandated isolation for a subset of higher-risk workers: Australia (from 14 October 2022). • Legally mandated isolation with test to release from 5 days: Germany.[12]

Guidance for household contacts of COVID-19 cases

Current requirement	All household contacts of COVID-19 cases are recommended to test daily for five days.
Director Public Health recommendation	**Continue** with guidance for all household contacts to test daily for five days, and if symptomatic beyond those five days.
Public health rationale	The recent removal of quarantine requirements does not appear to have significantly altered case and hospitalisation numbers. Based on this experience and the current outbreak context, 5-day daily testing of household contacts continues to provide a sufficient risk mitigation.
Other comments	Members of the Committee noted the following concerns with the possibility of changing from the current approach: • change at this time may result in confusion and change fatigue for the public • data does not exist on adherence with the status quo. If most contacts are not following the 5-day testing recommendation a change to recommending testing on symptom onset may have little impact on risk.

Face masks

Current requirement	The requirements for masks are set out in the COVID-19 Public Health Response (Masks) Order 2022. The Order specifies that: • masks are legally required for visitors[13] in a wide range of health service settings including primary care, urgent care, pharmacies, hospitals, aged residential care (ARC), disability-related residential care, allied health, and other health service settings • there are exclusions for: patients and people receiving residential care, health service staff, and visitors to specific health services (psychotherapy, counselling, mental health and addiction services). Requirements for patients and workers of health services are determined locally, based on local assessments in line with Infection Prevention and Control Guidance.

[12] https://handbookgermany.de/en/coronavirus-general-info
[13] COVID-19 Public Health Response (Masks) Order 2022, section 5(1)(a): "A person must wear a mask when they are at the premises of a health service unless the person is a patient or worker of the health service".

Director Public Health recommendation	**Retain** the current requirement as described above.
Public health rationale	The evidence that mask wearing decreases the rate of transmission of COVID-19 (and other airborne respiratory viruses) is substantial. An earlier briefing (HR20221311) provides an overview of the evidence base in relation to mask use, and mask mandates. The effectiveness of mask mandates as a public health intervention will depend on several factors – including the level of community transmission at the point in time, the nature of the settings in which masking is required, cultural and geographical norms around masking, correct mask use, and the extent to which improvements to ventilation/filtration have been enacted as systemic primary prevention. Health service settings have a series of characteristics that elevate the risk of transmission and/or the risk of severe disease. These settings typically: • are more likely than other settings to have people present with undifferentiated viral illness, either because they are seeking help for symptoms or because they have a co-existing medical emergency • are also more likely to have people present who are vulnerable, either due to advanced age, underlying conditions, or to being unwell at the time - facility-level mask requirements lean against inequity, to ensure that people who are at higher risk can access health services without *avoidable* additional risk[14] • have variable ability to improve crowding, indoor ventilation and/or air filtration[15] • hospital-acquired COVID-19 infections are more likely to have poorer outcomes than community-acquired COVID-19 infections.[16] While adherence to mask requirements may be waning or patchy in some health service settings, **it is possible that adherence would drop further if the mandate was removed**. This is evidenced by the decrease in people masking on public transport in the past month (which has remained recommended by the Ministry of Health). Mask requirements lean against inequity, to **ensure that people who are at higher risk can access health services without *avoidable* additional risk**. A conservative estimate is that one in every six New Zealanders is at

[14] A conservative estimate is that one in every six New Zealanders is at higher risk of severe illness if they contract COVID-19 ('Options for improving respiratory protection against aerosolised viral particles for vulnerable and priority populations' (HR20220682), 29 April 2022). Mask mandates in health service settings have two benefits for people in this group: it means that they will (a) be less likely to actually be infected, and (b) be more likely to feel able to continue to safely access healthcare. In many cases people accessing health services are unable to choose not to do so.

[15] Many health service settings don't have good design or engineering so that the added value of masks to protect the vulnerable (patients, staff and visitors) become really important when there is frequent introduction of infection into those environments. This is especially true of healthcare settings in the community, but also remains a real issue in many hospitals. Many older wards are predominantly multibed rooms (often 4-6 bed), shared bathrooms and no doors on rooms. In this context, it is often hard to isolate and improve air filtration.

[16] In Victoria, Australia, 7.6 percent of hospital-acquired COVID-19 infections resulted in death, compared to 0.14 percent of reported cases in the general population in the same period. This demonstrates that infections in hospital settings are associated with significantly (over 50-fold) higher mortality. Victoria Department of Health. 2022. Chief Health Officer Advice to Premier, 29 August 2022. Retrieved from https://www.health.vic.gov.au/publications/chief-health-officer-advice-to-premier

	higher risk of severe illness if they contract COVID-19.[17] Mask mandates in health service settings have two benefits for people in this group: it means that they will (a) be less likely to actually be infected, and (b) be more likely to feel able to continue to safely participate in basic activities of daily life, such as accessing healthcare. In many cases people accessing health services are unable to choose not to do so. Removing mask mandates in health service settings may lead to an **increase in cases of hospital-acquired COVID-19**. Feedback from two districts has noted possible links between visitors and hospital-acquired cases of COVID-19.[18] There is still **value in trying to prevent infections, even for highly transmissible variants.** While it may not be possible to get R_e to below 1 with highly infectious variants/subvariants, there is still significant value in trying to prevent infections where possible, as each new infection (or reinfection) effectively 'rolls the dice' for one or more post-acute sequelae that are known to occur such as long COVID, and increased risk of long term (up to 1 year) cardiovascular complications compared to individuals without COVID-19.[19] Long COVID and other post-acute sequelae have personal costs, but also broader impacts on society, in terms of outcomes such as increased disability, increased welfare and health costs, and reduced workforce participation.[20]
Other comments	*Other options considered* If the mask mandate for visitors to health service settings was removed, it may create some operational challenges, which would need to be worked through at a facility level: • If health care facility is still requiring mask use on site (or in certain higher risk areas within their site) but this is not covered by a mandate, it may result in security/conflict resolution situation for staff to manage if members of public do not wish to follow facility rules. Currently, health services can use the Order to compel visitors. Without mandate, it may be more difficult to deal with a visitor who refuses to wear a mask, and this may become a more common event. Evidence that enforcement of mask policy would be more difficult than mask requirements under an order is limited.

[17] The Ministry of Health does not have precise figures for the number of New Zealanders who meet the definition of being at higher risk. However in April 2022, the number of 'clinically vulnerable' people (which is defined more narrowly than 'high risk') was estimated at 800,000. 'Options for improving respiratory protection against aerosolised viral particles for vulnerable and priority populations' (HR20220682), 29 April 2022.

[18] *"Anecdotally, visitors have featured in many in-hospital transmission events in many units, especially geriatrics/rehab wards which have a high proportion of vulnerable patients. This may have been due to lapses in mask compliance by visitors during the visit (eg, sharing a cup of tea, or kissing/hugging patient)." "We have had a number of clusters and outbreaks here and when COVID is everywhere, it is difficult to attribute outbreak sources with any degree of certainty. The relevant ward nurses felt that several of our events were likely caused by infectious visitors. At the time, mask wearing behaviour by visitors was frankly poor and some visitors became abusive when asked to wear masks."*

[19] See Ballering AV, van Zon SKR, olde Hartman TC, Rosmalen JGM. 'Persistence of somatic symptoms after COVID-19 in the Netherlands: an observational cohort study'. The Lancet. 2022;400(10350):452-61; and Xie Y, Xu E, Bowe B, Al-Aly Z. Long-term cardiovascular outcomes of COVID-19. Nature Medicine. 2022;28(3):583-90.

[20] For example an August 2022 report from the Office for National Statistics in the UK estimated that 1.8 million people living in private households were experiencing self-reported long COVID (symptoms continuing for more than four weeks after the first suspected COVID-19 infection that were not explained by something else) see https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/prevalenceofongoingsymptomsfollowingcoronaviruscovid19infectionintheuk/4august2022.

	• Health services would need to consider implications on patients/residents exposed to visitors, and the potential for an increase in patients developing hospital-acquired COVID-19 infections. • If the mask mandate for visitors is removed and most visitors are not wearing masks, one service reported that they may need to consider implications for staff mask requirements. They considered that it could be hard to defend mask use around patients if other (non-staff) people entering the clinical zone are not required to wear them. *Clear public communication is critical under all options* Key to success of any of the options is the clear communication of the strategy to the public and to healthcare workers. It is also important to signal that we may need more widespread use of masks again if community transmission increases. *Health services situated within other settings* The Committee reaffirmed that where a health service that is situated entirely within a non-health service (eg, a pharmacy within a supermarket, or a physio within a gym) the health service is expected to comply with the Order.

Provision of information using the New Zealand Traveller Declaration for contact tracing prior to departure

Current requirement	Air travellers coming to New Zealand are required to declare, before they arrive, their contact details and travel history through the NZTD for the sole purpose of COVID 19 contact tracing, should they need to be urgently contacted in response to a serious new variant of concern. This requirement is the only substantive remaining health requirement in the COVID 19 Public Health Response (Air Border) Order 2021.
Director Public Health recommendation	**Remove** the requirement under the Air Border Order, with effect from 05 November 2022, for air travellers to New Zealand to provide information using the NZTD for COVID-19 contact tracing purposes prior to departure.
Public health rationale	The mandatory requirement is not considered proportionate in the current context. The requirement relates to a potential future risk and not an immediate or likely variant requiring action shortly. However, having air traveller contact details and travel history electronically collected using the NZTD supports a more efficient and accurate dataset of passenger information should contact tracing be required. While the likelihood of needing to stand-up contact tracing of air passengers is considered low in the current context, the rate at which SARS-CoV-2 continues to mutate means that we need to ensure our systems remain prepared. Given the value of this measure, NZ Customs have indicated the requirement can be continued under the Customs and Excise Act 2018 should there no longer be a public health rationale to do so.

	Continuing the requirement under Air Border Order until the amended Customs (Arriving Passenger and Crew Declarations) Rules 2022 comes into force on 5 November means that there will be a seamless transition and the ability to contact passengers in the intervening period will be retained.
Other comments	The most likely scenario where contact tracing may be required would be a new variant that has high severity, high immune escape and low transmissibility. Contact tracing is likely to be of limited value in response to a serious new variant of concern in the absence of other restrictive measures (such as border closures, pre-departure testing, post-arrival isolation).

Testing of arrivals at the air border

Current requirement	Air arrivals are encouraged to do a RAT on the day of arrival (0 or 1) and on day 5 or 6 and to report a positive test result via phone or My Covid-Record. If positive, they are encouraged to get a free polymerase chain reaction (PCR) test from a community clinic or GP, so this can be available for whole genome sequencing.
PHRA recommendation	**Modify** the post-arrival testing guidance for all travellers to test if symptomatic only.
Director Public Health recommendation	Advising all international arrivals at the air border to test on day 0 or 1 and on day 5 or 6, when asymptomatic, is not proportionate given the lower prevalence of COVID-19 currently circulating globally, the relatively high impost on travellers, the cost of providing and distributing the RATs at the airport and the risk of false positives. *Relative effectiveness* Post-arrival testing provides additional (early) surveillance of new variants that may be entering the border. However, the 1-to-2-week lag time from the point of arrival to having a result from a positive PCR genomically sequenced means testing at the border is unlikely to detect new variants arriving in the country before community spread of these variants occurs. Moreover, based on the drop off in PCR testing numbers, it is assumed adherence to this guidance is low. *Equity* There are equity concerns around the testing performance of large groups of asymptomatic people because of the testing performance of RATS. For testing performance of RATS:[21] [22] • the false positivity rate is approximately 1%-2%

[21] Ministry of Health. 2022. *Approved RATs and how to use them (as at 26 May 2022*), viewed on 5 October 2022 https://www.health.govt.nz/covid-19-novel-coronavirus/covid-19-health-advice-public/covid-19-testing/rapid-antigen-testing-rat#regulatory.

[22] *Indelicato AM, Mohamed ZH, Dewan MJ, Morley CP. Rapid Antigen Test Sensitivity for Asymptomatic COVID-19 Screening. PRiMER. 2022 Jun 22;6:18. doi: 10.22454/PRiMER.2022.276354. PMID: 35812789; PMCID: PMC9258726. /*

	• only have a 50% sensitivity rate of detecting COVID-19 in an asymptomatic person • have an 80-90% sensitivity rate of detecting COVID-19 in symptomatic people. This will result in isolation of individuals who do not have COVID-19, while some people with an acute COVID-19 infection may not be identified in surveillance testing using RATs (even when compliance is high). *Cost* The cost of providing and distributing free RATs for asymptomatic testing of all arrivals is also a consideration. Weekly air traveller volumes for the last three weeks have been around 70,000 per week, so cost of the RATs alone is just over $2 million per week. Further, there is the cost per month of Health Care Logistics (HCL) to pack and distribute the packs, which was approximately $895,000 for September due to the reworking on the packs following the changes and will be $550,000 for October (school holiday increase) and $490,000 for November. Air traveller volumes are expected to reach 100,000 by the end of the year. If adherence is as low as assumed, this expense is uneconomic.
Other comments	*Support at airports* Te Whatu Ora have advised that as there is limited health presence at the border to provide screening and identification of symptomatic people, and RAT packs should no longer be provided at the border. Instead, symptomatic people should collect RAT packs at a community collection site (sites are available on healthpoint co.nz) and encouraged to test and if test positive, they should be encouraged to go for a PCR test. *Maritime border requirements* Arrivals from the maritime border are not advised to test if coming ashore. Instead, they are encouraged to follow community testing guidelines, that is, to test if symptomatic.

Other recommendations from the PHRA

28. There were other recommendations arising from the PHRA. They primarily related to actions or information that could support future PHRA discussions. These include:

    - The development of a pathway for transitioning away from our current position and the basis for that, particularly for case isolation. Work is currently underway on this as part of the variants of concern and preparedness plan.
    - A report back on further work undertaken by the Ministry of Health on allowable permitted movements of cases. Two scenarios were discussed at the PHRA, but further work was needed to identify how this matter could be addressed more generally to deal with a range of scenarios given that expanding the list of permitted movements could begin to undermine the rationale for self-isolation.
    - Explore options for any improvements for data and modelling related to reporting on vulnerable populations (Māori, Pacific, disabled, and high deprivation) to improve

decision making. It was requested this updated information be provided at the next PHRA.

- Related to the above, the impacts of long COVID need to be included in the data and modelling to provide a more comprehensive assessment of the risks and impacts of COVID-19.

Equity and Te Tiriti considerations

Impact of COVID-19 on vulnerable populations

29. Demonstrating a commitment to the achievement of health equity and Te Tiriti o Waitangi remains a critical priority in the COVID-19 public health response. COVID-19 has exacerbated pre-existing health inequities for many groups, particularly those underserved by the existing system. This is often due to overlapping social, clinical, and occupational risk determinants.

30. As shown in **Appendix 1**, older people are more likely to be hospitalised and this is reflected in the latest data. As the virus takes longer to move through this population due to this group having fewer social interactions it may lead to a higher hospitalisation burden over a longer period.

31. The *COVID-19 Mortality in Aotearoa New Zealand: Inequities in Risk* report, released 30 September 2022 highlights the disparity of the impacts of the pandemic. Overall mortality continues to decline. However, after adjusting for age, comorbidities and vaccination status, the report showed that the risk of COVID-19 mortality in Māori is 2.2 times higher than that of European and Other group, while for Pacific Peoples the risk was 2.8 times higher.[23]

The risk of COVID-19 mortality reflects adjustments for age, as opposed to comorbidities and vaccination status

32. Pacific Peoples continue to be disproportionately affected by COVID-19. Moreover, they continue to experience long-standing inequitable health outcomes and service use. Recent data shows Pacific Peoples are the demographic most hospitalised for COVID-19.[24]

33. Disabled people and those with underlying medical conditions are more likely to be hospitalised or require medical intervention/support if they test positive with COVID-19. While deprivation is a proxy, the Committee noted that there is no data and modelling of hospitalisation and mortality data for disabled communities.

34. While cases and hospitalisations continue to trend downwards overall, several Committee members expressed strong reluctance to removing self-isolation and mask requirements, without focused modelling on how this would impact Māori, tāngata whaikaha Māori and disabled people. Current modelling on potential policy changes forecasts impacts such as case numbers, hospitalisations and mortality for the general population, but it does not forecast impacts of policy changes for vulnerable groups. The Committee therefore made its recommendations using the precautionary approach. Development of modelling to specifically assess equity impacts will assist in addressing this issue.

35. Mandatory self-isolation requirements provide an important safeguard against workers with COVID-19 returning to work before they have recovered. The Māori Regional Coordination Hub has indicated that wider consultation should accompany any removal of the self-

[23] Ministry of Health. 2022. *COVID-19 Mortality in Aotearoa New Zealand: Inequities in Risk.* Wellington: Ministry of Health
[24] Ibid.

isolation requirements as it would disproportionately affect the Māori community. Recommending the retention of self-isolation requirements would help to ensure that those most vulnerable continue to be able to rest and recover while ill, and do not spread the virus further among their potentially vulnerable community. Retention of the Leave Support Scheme will help mitigate these risks.

36. Committee members highlighted that the more distant disproportionate impacts of long COVID on vulnerable groups must be considered when assessing the public health risk of stepping down measures. Māori, Pacific Peoples, disabled people and elderly are at greater risk of developing long COVID and suffering worse health outcomes than the general population. Māori, for instance, may suffer long COVID for longer than non-Māori. In one study, 75% of Māori participants had long COVID for more than three months, compared to only 65% of non-Māori.[25]

Stakeholder engagement and key issues and themes emerging

37. Across the board there was strong support for retaining the current mandated measures to protect vulnerable communities. The move away from the Elimination Strategy and removal of other mandatory requirements were considered to put these communities at greater risk.

38. The removal of border restrictions and the threat of new variants easily entering the community is a particular concern for groups with already compromised immunity, limited access to anti-viral medication and concerns about the relative effectiveness of vaccinations against new variants.

39. The changes have caused anxiety in these communities, especially amongst disabled people. People are choosing to make individual risk assessments that have resulted in ongoing isolation or limited interactions with others in their community. Assurances are also being sought from providers concerning the vaccination of their staff and the ability to require face masks for home visits.

40. More generally, there is a concern that the community at large may not take the risk of COVID-19 seriously and put vulnerable populations at greater risk. As noted previously, there is a strong preference among vulnerable communities for the elimination of COVID-19. Emerging from this is a desire to build "borders" around these vulnerable populations through either differentiated public health responses or the retention of current requirements to ensure that people exercise the behaviours necessary to limit the mortality and morbidity amongst these populations.

Addressing equity concerns

41. It is important that the measures are not viewed in isolation. The new approach to managing COVID ("prepared, protective, resilient, and stable") is predicated on using a suite of voluntary and enforceable measures to address both general and specific risks. A package of measures could be developed that provides for an effective and proportionate response to manage the risk of COVID-19 and improve equity outcomes for Māori, Pacific and disabled communities.

42. For example, based on the feedback received at both the PHRA and from stakeholder engagement, significant gains can be made through improved communications and

[25] Ministry of Health. 2022. *Long COVID Evidence Update - 11 August 2022*. Wellington: Ministry of Health. 16.

programmes targeted to those communities. Other system supports like the Leave Support Scheme could also prove crucial to encouraging the behaviours being sought.

43. Enforceable or mandatory measures can also be re-introduced if the COVID-19 situation significantly changes. This would be an effective and proportionate response to a worsening risk profile. While such rights limiting measures may be more controversial than they have been in the past regarding the social licence, the legal test remains the same.

44. s9(2)(f)(iv) [redacted]

New Zealand Bill of Rights Act 1990 (Crown Law Office advice)

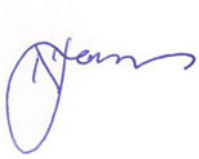
45. The paper proposes to maintain the current 7-day isolation period for positive cases (with guidance for household contacts to test daily for 5 days) and retain face mask requirements for visitors on the premises of health services.

s9(2)(h) [redacted]

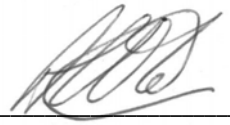
d. s9(2)(h) [redacted]

Next steps

52. Pending your approval, this memo will be provided to the Department of the Prime Minister and Cabinet to inform the overarching paper the Minister for COVID-19 Response will take to Cabinet on 17 October 2022.

Signature  Date: 12 October 2022

Dr Nicholas Jones
Director of Public Health
Public Health Agency
Manatū Hauora

Signature  Date: 12 October 2022

Dr Andrew Old
Deputy Director-General
Public Health Agency
Manatū Hauora

Signature  Date: 12 October 2022

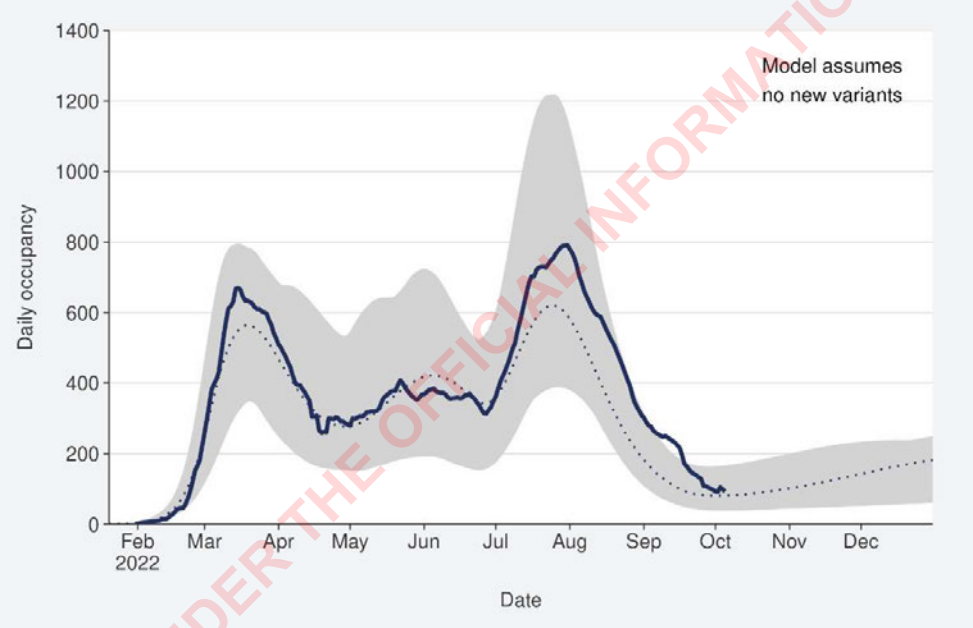
Dr Diana Sarfati
Director-General of Health
Manatū Hauora

Appendix 1: Current outbreak status and summary of modelling

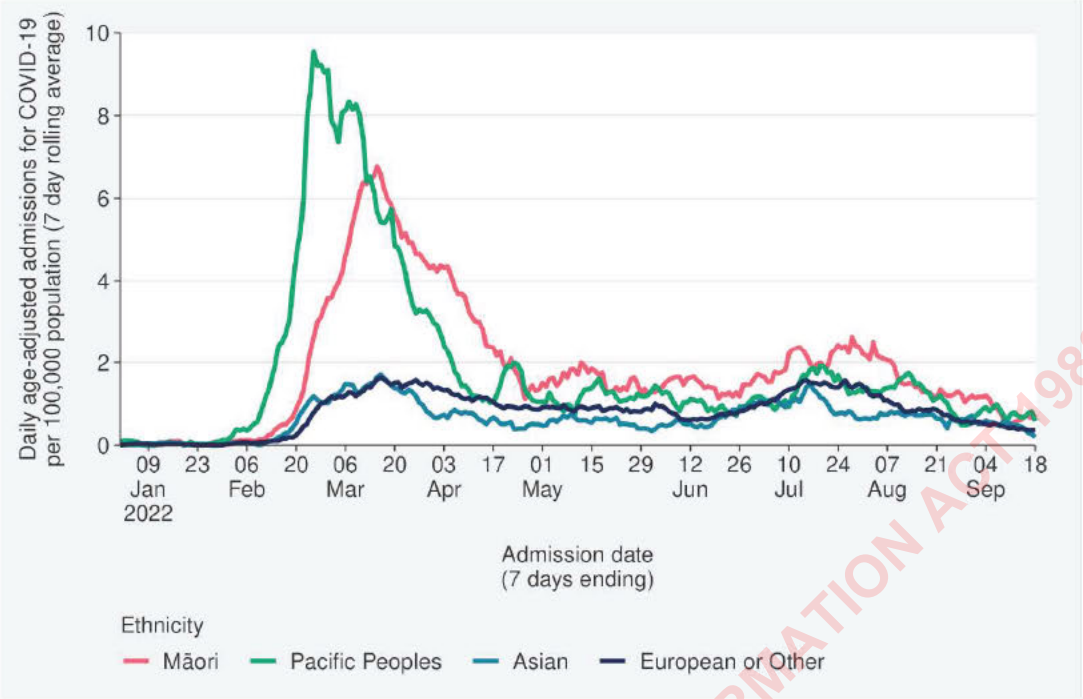
1. The 7-day rolling average of reported case rates was 32.2 per 100,000 population for the week ending 09 October. This was a 11% increase from the previous week, which was 28.6 per 100,000.

2. All evidence continues to support stabilisation in incidence in the community: reported case rates and levels of viral ribonucleic acid (RNA) in wastewater have been declining since 10 July but both measures have been relatively constant in the recent weeks to 02 October. The trend was similar for all regions.

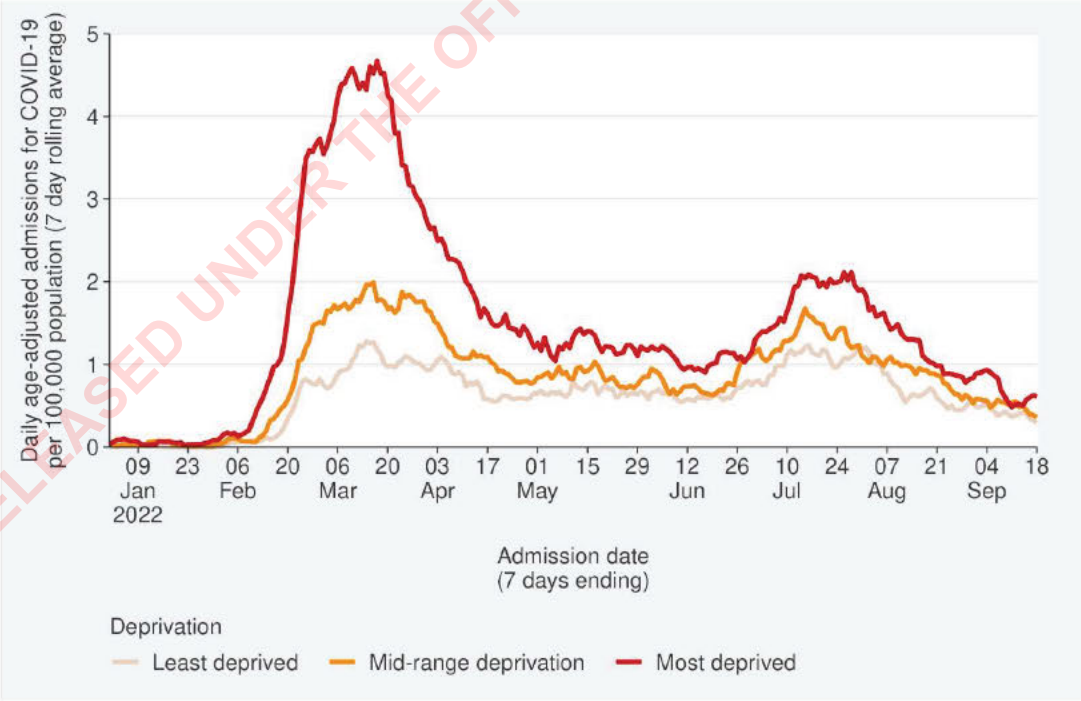
3. Modelling scenarios suggest that current hospital occupancy is tracking near the higher range of the prediction for the past two months. It is now tracking closer to the median projection and is expected to remain stable or slightly increase in the coming mon hs. Modelling scenarios account for changes in masking and contact quarantine on 12 September and assume no new variants.



4. The age-standardised Māori cumulative hospitalisation rate for COVID-19 is 2.1 times higher than European or Other. Pacific Peoples have the highest cumulative rate of hospitalisation with COVID-19 which is approximately 2.8 times higher than European or Other



5. Those most deprived communities have had, and continue to have, the highest rates of hospitalisation, both recently and cumulatively during 2022. Those most deprived communities have had 2.1 times the risk of hospitalisation compared with those who are least deprived.



6. As of 09 October, there were 2,055 deaths attributed to COVID-19. The weekly number of deaths attributed to COVID-19 has stabilised.

7. The modelling results have been produced rapidly to help inform policy advice. They should be considered as indicative as there are significant uncertainty around the impact of policy changes and the level of immunity in the population and population behaviour.

8. Modelling has considered a range of scenarios to reflect this uncertainty by estimating pessimistic, middle, and optimistic scenarios, reflecting different levels of compliance with **guidance on isolation,** specifically to estimate the effect of shift away from mandated isolation requirements, should the Epidemic Notice be lifted.

9. Within the first month, shifting isolation **requirements** to 5-days guidance **no** test to release (TTR) is modelled to **increase cumulative hospitalisations by roughly 450 to 1040 and increase deaths by 50 to 170**, relative to no change in policy. Over a year, these **increases are 7900 to 8900 for hospitalisations and 1860 to 2160 for deaths.**

10. Within the first month, **shifting to a requirement** to TTR after 5 days for a maximum of 7 days is modelled to **increase hospitalisations by roughly 45 to 640 and increase deaths by 6 to 120. Over a year, these increases are 7900 to 8050 for hospitalisations and 1870 to 1900 for deaths.**

11. Moving to 5-days TTR maximum 7-days guidance is modelled to **increase hospitalisations by roughly 300 to 890 and increase deaths by 40 to 150**, relative to no change in policy. Over a year, these **increases are 7900 to 8600 for hospitalisations and 1870 to 2080 for deaths**.

12. Across the scenarios**, for-covid hospital occupancy peaks at between 200 and 304 beds**, compared to a peak of 700 beds in the BA.5 wave. When looking at the high confidence limit of these estimates, for-covid hospital occupancy still peaks below the BA.5 wave peak at around 402 beds.

13. **Importantly,** the model assumes no new variants, therefore the long-term results do not reflect the likely path of the pandemic. If an immune escape variant should arise, the estimates for above will change and the modelled results will no longer be valid.

14. In general, the short-term peak in cases and hospitalisations can be mitigated by phasing policy changes over a longer period of time.

15. **A note on Rt sensitivity and asymptomatic cases**: Given the sensitivity of RATs through time, a rule that says to only test on the first day of symptoms will miss a large number of cases. Additionally, 30-40% of infections are asymptomatic.

16. An important caveat is the equity impacts of these changes have not been modelled, in part due to limited available data, but also limitations of the models. However, observations of prior disease burdens for COVID-19 and based on general observations across public health moving some settings from mandates to guidance will **likely lead to inequitable outcomes**.

    a. Māori and Pacific peoples are more at risk of severe negative health outcomes than non-Māori non-Pacific Peoples of the same age, and are also more likely to experience greater disease exposure.

    b. Poorer people are at greater risk of severe negative health outcomes than affluent people of the same age, and are also more likely to experience greater disease exposure.

    c. Shifting to guidance is likely to disproportionately affect those who do not have the ability to choose to follow the guidance. This may include: people in precarious

employment, those unable to work from home, workers with limited sick leave and populations with other socioeconomic disadvantages.

17. Additional supports for people to isolate effectively (such as additional sick leave and maintaining the leave support scheme in some form) could help mitigate these inequitable outcomes and increase the ability for more people to follow guidance on isolation.

How do reductions in the share of cases choosing to isolate affect the reproductive number?

18. Modelling has considered how two factors affect the reproductive number (which drives the level and speed of transmission):

    a. A reduction in the share of infections taking any action to reduce transmission. This could be due to people ignoring their positive result or choosing not to test at all.

    b. A reduction in the average effectiveness of action to reduce transmission. This could be due to people isolating for a shorter period of time, or only avoiding high risk settings.

19. Furthermore with regards to mandatory isolation, the model assumes that 70% of symptomatic infected individuals will be detected and that they take action to reduces transmission outside the household by 90% (ie, a 'case leak rate' of 10%).

20. The table below shows the increase in the reproductive number for a range of different assumptions. It takes into account changes made to masking and contact quarantine settings on the 12 of September. Percentage increases beyond that vary significantly from 2.1% to 16.7%. In general, having a large share of cases taking some action is more effective than some cases taking significant action.

		Reduction effectiveness of actions				
		0%	**25%**	**50%**	**75%**	**100%**
Reduction in proportion of people taking action	**0%**	2.1%	5.6%	8.3%	10.4%	12.1%
	25%	6.3%	8.7%	10.4%	12.0%	13.3%
	50%	10.0%	11.5%	12.7%	13.7%	14.4%
	75%	13.7%	14.1%	14.7%	15.2%	15.7%
	100%	16.7%	16.7%	16.8%	16.9%	16.8%

Behavioural impact examples

21. Data from the UK suggests (based on surveys conducted by the UK Office of National Statistics) around a month after isolation requirements were relaxed to guidance, the proportion of people isolating **after testing positive** was just over 50%, while the proportion of people taking precautions **after testing positive** (eg, wearing masks in public, avoiding indoor settings) was just over 40%, both showing significant decreases in transmission mitigating behaviour.

22. If New Zealand follows a "UK-like" scenario, there may be an increase in transmission by around 12.7%.

23. If there was a 50% reduction in the proportion of symptomatic infected people taking action, (compared to September 2022), but no reduction in the effectiveness of the action

taken, then we estimate that the effective reproduction number would increase by 10% (relative to the effective reproduction number in September 2022).

Scenarios considered

24. Modelling has considered adjustments to current mandatory isolation settings as well as moving to guidance for isolation. For scenarios with mandatory isolation, two changes are considered: reducing minimum isolation to 5-days with one negative test required before release and a maximum of 7-days isolation; and reducing isolation to 5-days, with no test to release. Previous modelling suggests that these scenarios would increase the reproductive number by 1.4% and 4.2% respectively.

25. Modelling has also considered scenarios where guidance is used for isolation. Because of the significant uncertainty in how people respond to a removal of mandated case isolation, modelling has considered three scenarios:

    a. An optimistic scenario, with a 7.8% increase in the reproductive number

    b. A middle scenario, with a 11% increase in the reproductive number.

    c. An upper limit scenario, with a 17.5% increase in the reproductive number. This is slightly higher than the highest increase in the table above due to small differences in assumed symptomatic testing rates.

26. Finally, modelling has considered a scenario where no changes are made to case settings, but guidance for household contacts is changed to testing every 48 hours if symptomatic. Compared to the status quo of testing daily for five days, this results in a 3.3% increase in the reproductive number.

27. Factors that would shift New Zealand towards the optimistic scenario could include:

    a. achieving high levels of testing in he community

    b. maintaining strong norms that people should work from home if unwell

    c. high voluntary adherence to mask and case isolation guidance

    d. importance of clear communications and assistance (eg, leave support schemes) that would allow people to both understand the importance of these, and be able to do these

    e. advice to employers to encourage work from home where possible for unwell people.

Modelling results

28. Policy changes that increase transmission will tend to have two effects:

    a. In the short-term, a large increase in cases, hospitalisations and deaths. The absolute size of this change will be driven by the level of immunity in the population. This impact wanes over time as infection-induced immunity increases.

    b. In the long-term, a slightly higher steady state level of cases, hospitalisations and deaths. This impact is smaller in percentage terms but is persistent over time.

29. In general, the short-term peak in cases and hospitalisations can be mitigated by phasing policy changes over a longer. This smooths out the peak and allows decision makers to adjust their approach if the path of the outbreak differs from modelled projections.

30. The table below shows the increase in cases, hospitalisations and deaths under these scenarios. In the short-term, there is a large relative increase in cases, hospitalisations and deaths. Relative increases are smaller over the long-term, but larger in absolute terms.

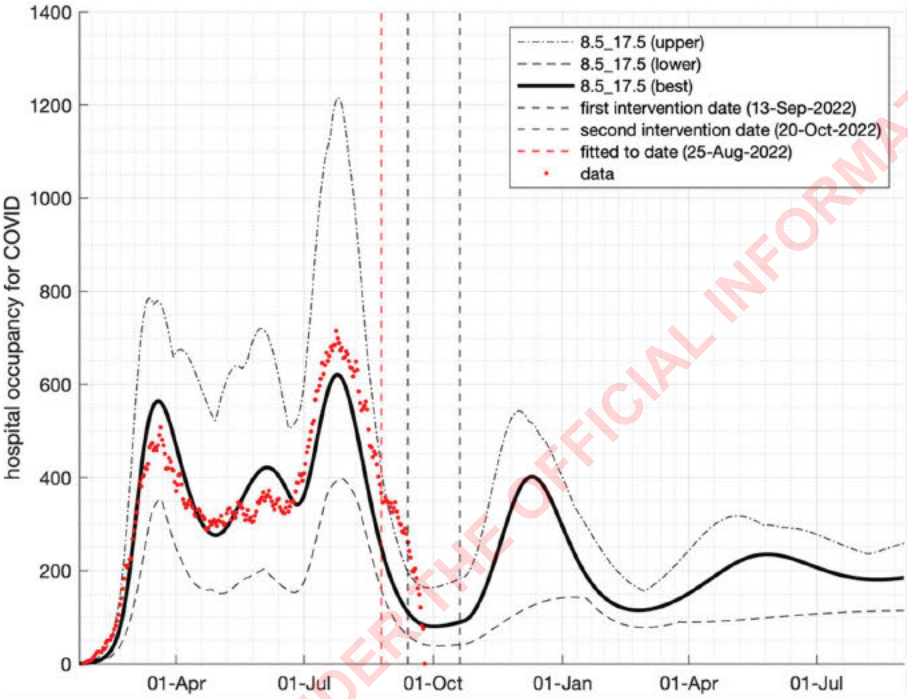
31. Compared to the table presented in the memo on isolation changes, short-term cases, hospitalisations and deaths tend to be higher across all scenarios, including the baseline. This partially reflects the changes are being made on top of policy changes already made in September. In addition, the policy change is occurring during a plateau in cases, compared to the downward trend during September.

	Short-term impact (cumulative from 15 days after implementation to 45 days after implementation)			**Long-term impact (cumulative for a year after implementation)**			**Peak for-covid hospital occupancy**
	Cumulative cases	*Cumulative hospital admissions*	*Cumulative deaths*	*Cumulative cases*	*Cumulative hospital admissions*	*Cumulative deaths*	
Status quo	63278	591	115	829516	7919	1864	191
Scenario 2 – Mandatory 5 days TTR (maximum 7 days)	68126 (+7.7%)	636 (+7.6%)	121 (+5.2%)	840854 (+1.4%)	8050 (+1.7%)	1904 (+2.1%)	199 (+4.2%)
Scenario 3 – Mandatory 5 days (no TTR)	78848 (+24.6%)	736 (+24.5%)	133 (+15.7%)	862653 (+4.0%)	8303 (+4.8%)	1981 (+6.3%)	222 (+16.2%
Scenario 4 – Guidance 5 days TTR (maximum 7 days)	94750 (+49.7%)	885 (+49.7%)	151 (31.3%)	889181 (+7.2%)	8615 (+8.8%)	2077 (+11.4%)	262 (+37.2%)
Scenario 5 – Guidance 5 Days (No TTR)	110966 (+75.4%)	1039 (+75.8%)	169 (47.0%)	911582 (+9.9%)	8881 (+12.1%)	2161 (+15.9%)	304 (+59.2%)
Scenario 6 – Guidance 5 Days (No TTR) upper limit Rt	149521 (+136.3%)	1412 (+138.9%)	213 (85.2%)	954540 (+15.1%)	9397 (+18.7%)	2324 (24.7%)	402 (+110.5%)
Scenario 7 – status quo and HH test only if symptomatic	75249 (+18.9%)	702 (+18.8%)	129 (12.2%)	855767 (+3.2%)	8223 (+3.8%)	1956 (4.9%)	214 (+12.0%)

32. The figure below shows for-covid hospital occupancy for the upper limit scenario (other scenarios shown further below). Note these figures may not align reported in the Ministry of Health press release, as those figures include with-covid hospitalisations.

33. The model projects hospital occupancy falling to around 100 occupied beds in early October. The policy change results in an increase in hospitalisations over the following months. The best fit of the model peaks at roughly 400 beds, however the uncertainty around this peak ranges from around 550 occupied beds on the high end, to under 150 beds on the low end. Despite the large increase in transmission, the modelling suggests that accumulated immunity would keep peak hospitalisations below the BA.5 wave peak.

Figure 1: Impact of upper limit scenario on for-covid hospital occupancy



34. The shape of the hospital occupancy curve is broadly similar for the optimistic and middle scenarios (shown further below), but with peak hospital occupancy being around 250 beds (optimistic) and 100 beds lower (middle) than the pessimistic scenario.

Assumptions

35. This modelling uses a large number of assumptions that are important to keep in mind:

    a. **Mask mandate assumptions**. Mask mandates are assumed to reduce mask usage that in turn causes a roughly 20% reduction in transmission outside the home.

    b. **Contact quarantine assumptions**. This modelling uses very similar assumptions to those used in the August monthly review of case isolation and contact quarantine.

    c. **Case isolation assumptions**. With mandated 7-day isolation, it is assumed that 90% of transmission for identified cases is prevented.

d. **Long-term trajectory assumptions**. The model assumes that BA.5 is the prevalence variant for the next 12 months and no changes to vaccination eligibility (eg, third boosters, second boosters for more groups) and no change in available therapeutics.

e. **The model assumes no new variants.** The simulations do not account for new variants of concern and the impact of circulation on case, hospitalisations and deaths.

f. **Peaks and troughs assumptions.** Because this is a single national model, it may not capture the different size, shape and timing of peaks at a district or regional level. Therefore, the model may overestimate peaks and underestimate troughs, if outbreaks in different population groups are not aligned.

g. **Uncertainty around modelled estimates.** The provides confidence intervals around estimates of cases, hospitalisations and deaths. This range reflects unknowns such as the share of infections detected and the speed of waning immunity. The model is fit to data up to 25 August, which reduces some of this uncertainty.

h. **Uncertainty around "guidance" vs "requirements".** It is difficult to say what model parameters to use to model the difference between mandates and guidance. Compliance and behaviours under a 'guidance' scenario will depend not only on what level people are inclined to follow guidance but also the level of communication around guidance. The table above which presents the effect of varying the proportion of symptomatic infections who take action, and the effectiveness of these actions, gives an idea of what moving between different levels of behaviour might look like for a range of assumptions. However, the actual effect of having guidance is between zero, and some unknown at this point.

Appendix

Figure 2: Impact of optimistic scenario on for-covid hospital occupancy

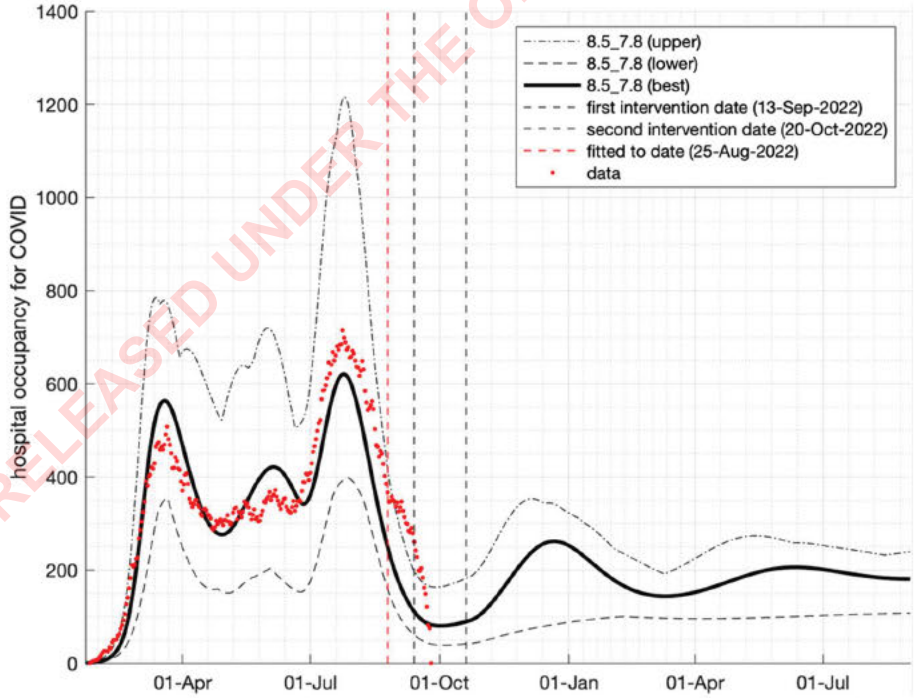
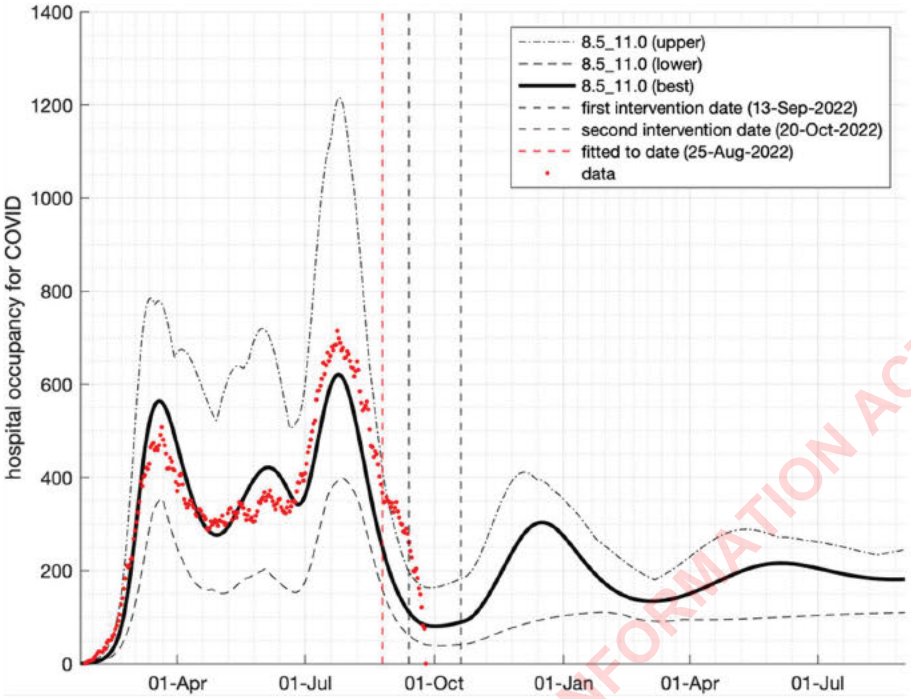
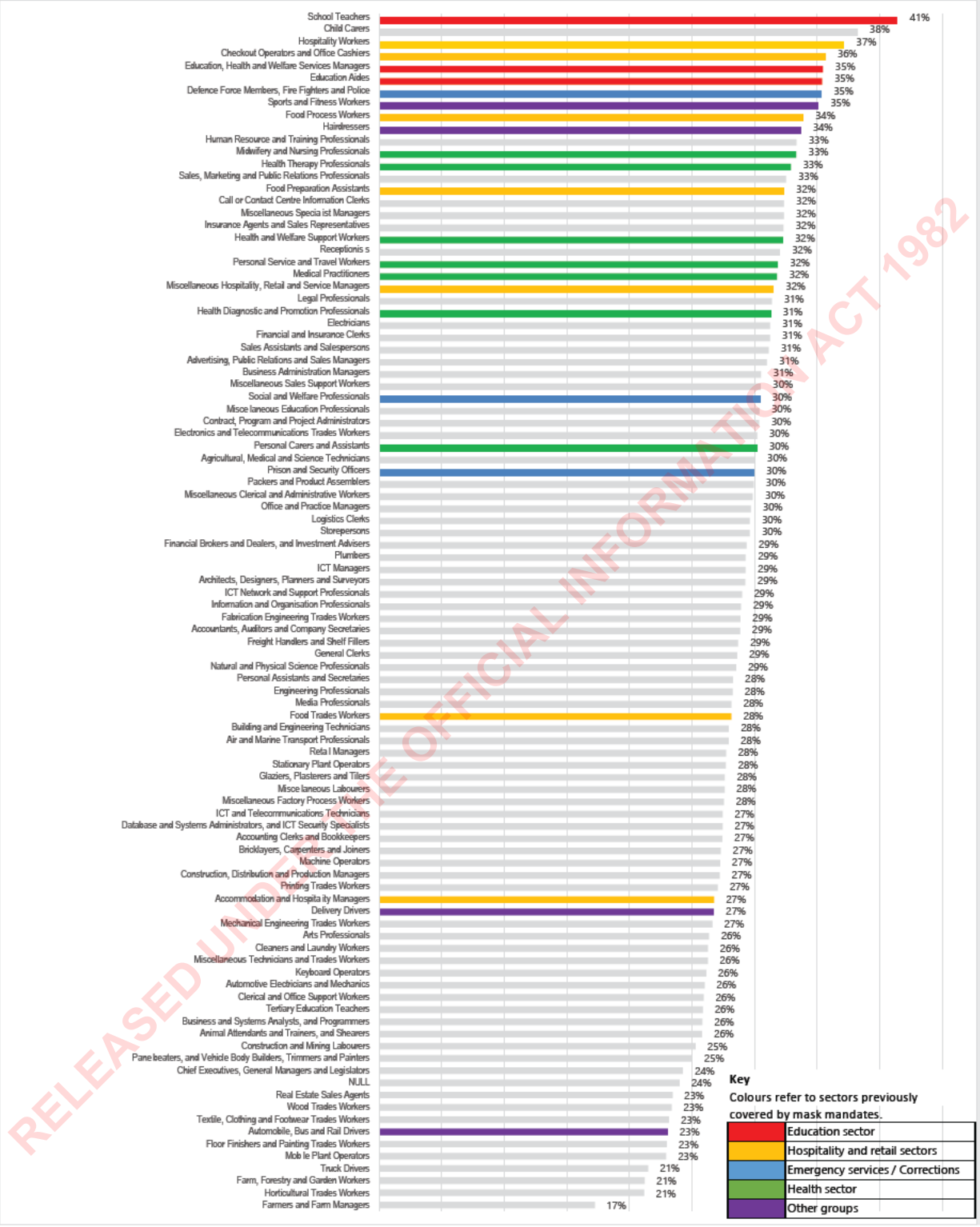


Figure 3: Impact of middle scenario on for-covid hospital occupancy



Appendix 2: COVID-19 case rates by ANZSCO L3 occupational group[26]



[26] Data comes from the Integrated Data Infrastructure (IDI) (StatsNZ). These are crude rates and are from self-reported community testing, which may or may not indicate an increased risk of transmission in that setting, but that could indicate an increased risk of workers being infectious in their workplace setting. Occupation relates to the person's primary job. Data includes all cases to 14 August 2022.

ENDS.

Appendix Two: Regulatory Impact Statement

Regulatory Impact Statement: October review of remaining COVID-19 measures under the new approach

Coversheet

Purpose of Document	
Decision sought:	*Analysis produced for the purpose of informing: October review of remaining COVID-19 measures under the new approach*
Advising agencies:	*Manatū Hauora – Ministry of Health* *Department of the Prime Minister and Cabinet*
Proposing Ministers:	*The Minister for the COVID-19 Response*
Date finalised:	*14 October 2022*

Problem Definition

The COVID-19 context is currently changing, given the recent reduction in case numbers and hospitalisations, as well as moving to a new strategic approach to managing the pandemic.

Given this context, the Ministry of Health has reviewed policy settings to ensure the response remains effective, justifiable and proportionate under the Bill of Rights Act 1990. In particular, the measures that were considered are:

1. provision of information by air arrivals for COVID-19 contact tracing
2. 7-day case isolation requirement
3. point of care tests regulation
4. current masking requirements for visitors in health care settings.

Executive Summary

- *What stakeholders and the general public think – are there any significant divergences in their views that should be brought to Ministers' attention?*

This Regulatory Impact Assessment Statement provides details on the policy analysis and public health review to inform a number of changes to the legal framework for managing the ongoing COVID-19 Pandemic.

This review has focussed on the legal requirements or mandates currently prescribed in the Orders under the COVID-19 Public Health Response Act 2020. To ensure the proposals are effective, justifiable and proportionate under the Bill of Rights Act 1990 and consistent with the requirements in the COVID-19 Public Health Response Act 2020, we have drawn on analysis including:

- information from the Public Health Risk Assessment process
- detailed assessment of options against the criteria for the ongoing strategic approach
- Te Tiriti o Waitangi analysis, and Equity analysis.

Based on an overall assessment, the recommendations are to:

a. remove the requirement to provide information by air arrivals for COVID-19 contact tracing

b. maintain the current 7-day case isolation requirement

c. retain point of care tests regulation

d. remove and replace the current masking requirement in healthcare settings with guidance for health services to set mask policies.

Feedback from Regional Leadership Groups consisting of iwi, local government and community leaders, had mixed views on each of the proposals. These groups noted the positive health outcomes of restrictive measures but also discussed the human rights implications and questioned the feasibility of maintaining compliance with measures.

Feedback from population and vulnerable groups (as part of the stakeholder engagement informing Public Health Risk Assessment) expressed support for maintaining the status quo and for restrictive measures in general. These groups emphasised the potential risks of removing restrictive measures to vulnerable populations, but did not discuss the impacts on human rights or the context of reducing case numbers and hospitalisations.

Where changes are required, they are readily implementable through order changes and supporting public health initiatives. Consideration has been given to whether these changes can be re-instated if required for future variants of concern and this will be possible.

The public health measures will remain under regular monitoring and review, including through regular Public Health Risk Assessments

Limitations and Constraints on Analysis

This proposal is subject to a number of limitations:

- limited time to prepare this Regulatory Impact Statement
- data from modelling results is subject to significant uncertainty around the impact of policy changes and the level of immunity in the population and population behaviour
- limited time for detailed equity and Te Tiriti o Waitangi analysis, and due to timeframes and sensitivity, wider engagement has not been possible.
- limited stakeholder engagement.

While these limitations are present, the use of the Public Health Risk Assessment involving public health, policy, legal, operations and Māori health expertise and drawing on detailed data and evidence provides a robust process for consideration of public health changes at pace. This has been supported by further stakeholder engagement, primarily conducted by the Department of the Prime Minister and Cabinet (DPMC).

Responsible Manager(s) (completed by relevant manager)

Alice Hume

Head of Strategy and Policy

COVID-19 Group

Department of the Prime Minister and Cabinet

14 October 2022

Stephen Glover
Group Manager, COVID-19 Policy
Strategy, Policy and Legislation
Manatū Hauora

14 October 2022

Quality Assurance (completed by QA panel)	
Reviewing Agency:	Manatū Hauora and the Department of the Prime Minister and Cabinet
Panel Assessment & Comment:	A QA panel with members from DPMC and the Ministry of Health has reviewed the Regulatory Impact Statement and considers it partially meets the quality assurance criteria. The analysis of the options is good, and the criteria used are appropriate. However, as the authors note, there has been limited consultation, and equity considerations are only lightly covered. To some extent this is mitigated by the public health risk assessment referred to, but equity should be more closely monitored in implementation.

Section 1: Diagnosing the policy problem

What is the context behind the policy problem and how is the status quo expected to develop?

On 12 September 2022, the Government moved away from the COVID-19 Protection Framework (CPF) to a new approach to managing COVID-19 [CAB-22-MIN-0380]. This included the removal of several mandatory measures including:

- remove the post-arrival testing requirement for all arrivals to New Zealand and replace it with other targeted surveillance and information provision measures for travellers
- remove the COVID-19 vaccination requirement for all air and maritime arrivals to New Zealand (including for air crew)
- remove the requirement for household contacts to quarantine for 7 days, and replace it with guidance to test daily for five days, pending the outcome of wider consultation
- revoke the COVID-19 Public Health Response (Vaccinations) Order 2021 and remove the remaining vaccination mandates for health and disability sector workers.

This decision was based on reducing cases, wastewater surveillance detections, hospitalisations and deaths due to COVID-19, and in the context of high vaccination rates,

widened access to antivirals, and continued access to free rapid antigen tests (RATs) and masks.

As at the week ending 07 October 2022, COVID-19 case counts started to increase slightly, albeit from a low base, while hospitalisation trends and levels of viral particles in wastewater remain relatively stable. Modelling shows a slow rise sustained through the end of the year, based on waning immunity. Additionally, there are several subvariants circulating domestically and internationally that appear to have a growth advantage over our predominant BA.5 variant.

However, the actual trajectory and severity of future outbreaks remains uncertain due the inherent challenges of modelling based on imperfect information regarding immunity levels, the impact of policy changes and population behaviour. As the COVID-19 pandemic continues to evolve, the legal orders that give effect to the Government's COVID-19 response have been under active review to ensure they provide an effective public health response, and to ensure that the measures remain proportionate in terms of the Bill of Rights Act.

Following the repeal of the COVID-19 Protection Framework by Cabinet and the shift to a new strategy for managing COVID-19 [CAB-22-MIN-0380], the new approach provides increased flexibility that can respond to new variants of concern as they emerge, while also providing the flexibility to manage with lower case numbers if they continue to decrease. To give effect to the new strategy, Cabinet agreed that an approach of relying on baseline measures will be used, with more restrictive reserve measures used as guided by public health advice.

Baseline measures will cumulatively help to ensure the burden on the health system is minimised, our communities are strengthened, and those who feel vulnerable feel safe and are less at risk of infection or poor outcomes from COVID-19. These measures largely move away from mandatory requirements, and instead rely on voluntary uptake, increasing the overall stability of our response as they are not subject to ongoing changes to the legislative framework. Baseline measures can be in place at any time and be scaled as required. Examples include maximising population immunity through vaccination, investment in the healthcare system, anti-viral therapeutics, and surveillance testing. These measures may be here to stay as part of our long-term management of COVID-19.

Most reserve measures are rights limiting. They rely on powers triggered in particular circumstances (e.g., an epidemic notice) and involve a more acute trade-off between limiting transmission, economic impacts and impacts on people's rights. These measures would be used if proportionate to do so, guided by public health advice. These may include vaccination requirements, mask requirements, gathering limits, movement restrictions, and border measures.

The current use of reserve measures was considered as part of the Public Health Risk Assessment process, which has been the standard process for providing public health advice to manage the ongoing pandemic. The Public Health Risk Assessment is a formal discussion involving public health, clinical and scientific expertise that draws on detailed data, evidence and provides a robust process for consideration of public health changes at pace.

This Regulatory Impact Statement reviews the proposals from the Public Health Risk Assessment, particularly in terms of the proportionality under the Bill of Rights Act, equity and Te Tiriti o Waitangi implications, as well as the broader impact of the proposals.

What is the policy problem or opportunity?

What is the nature, scope, and scale of the problem?

The Ministry of Health has reviewed the legislative framework in the Orders that sit under the COVID-19 Public Health Response Act 2020 for the ongoing management of the public health response. This is to ensure the response remains effective, justifiable and proportionate under the Bill of Rights Act 1990.

In particular, the measures that were considered are:

1. the requirement to provide information by air arrivals for COVID-19 contact tracing
2. the 7-day case isolation requirement
3. point of care tests regulation
4. the current masking requirements in healthcare settings.

It is important to note that these measures do not operate in isolation. They a e supported by a number of "baseline" measures that do not require Orders (and by extension are not the directly in the scope of this document). Specifically:

- s9(2)(f)(iv) [redacted]
- Access to vaccination.
- Access to antiviral medications (for those at risk of serious illness).
- Availability of free masks and rapid antigen tests for the general public.
- Availability of free N95 type masks for people at high risk of severe outcomes.

The measures considered were reviewed in the context of the current and likely short term COVID-19 risk, therefore the scope of options considered:

- includes the status quo and stepping down alternatives, in light of the ongoing reduction in the COVID-19 risk
- implicitly, but not directly, assesses the consistency of the proposed changes to COVID-19 policy settings with the Variants of Concern Strategic Framework (published 23 June 2022).[1]

Who are he stakeholders in this issue, what is the nature of their interest, and how are they affected? Outline which stakeholders share your view of the problem, which do not, and why. Have their views changed your understanding of the problem?

The ongoing response to COVID-19 effects everyone in Aotearoa New Zealand, however certain groups are more at risk due to clinical or equity-based reasons (and this is explored below). The response also requires ongoing support from business and communities to ensure the public health response remains effective.

[1] https://www.health.govt.nz/covid-19-novel-coronavirus/covid-19-response-planning/variants-concern-framework-summary

In seeking to remain proportionate, we continue to balance public health risk against the need to minimise any compulsory measures and any associated impost.

DPMC has carried out engagement based on draft public health advice with the Strategic Public Health Advisory Group, representatives from nine disability groups, members of the National Iwi Chairs Forum (NICF) and the Regional Leadership Groups (RLGs).

The Strategic Public Health Advisory Group discussed the limitations of using personal experience to understand compliance or the effectiveness of public health measures, and emphasized the importance of social science to understand community attitudes. They also noted that their highest risk patients regularly visit pharmacies, in relation to mask requirements. Members also noted the value of considering COVID-19 in the context of other respiratory illnesses generally, rather than in isolation.

The NICF supports retaining self-isolation for cases, while expressing concerns with regards to the reach and communication of support surrounding self-isolation, with COVID-19 cases potentially questioning their eligibility.

Regional Leadership Groups (RLGs) are 12 regional groups across the country comprising community leaders such as iwi, local govt (Mayors and/or Council chief executives), other community leaders eg Chamber of Commerce chief executives. RLGs consist of iwi, local government and community leaders' who provide a regional voice on COVID-19 issues. Regional Public Service Commissioners and other regional public service leaders attend this group to collaborate and coordinate on regional priorities.

RLGs had mixed views on retaining or removing government mask mandates. While many supported a precautionary approach, particularly in healthcare settings where immunocompromised people attend, it was noted that businesses and services should make decisions on mask use that are appropriate to their circumstances. There was support for masks and mask guidance continuing to be made readily available

RLGs also had mixed views on retaining or reducing case isolation. A majority supported test-to-release case isolation or retaining seven days, as this was thought to protect the health system and the health and welfare of people, particularly elderly people who may not be recovering as quickly as the general population. Some RLGs pointed out that retaining some isolation would avoid needing to stand up isolation again in the near future. However, compliance with case isolation was questioned with some RLGs noting low compliance among cases that have important events to attend, pressure from employers, and financial concerns. A small proportion was supportive of treating COVID-19 like any other virus and therefore removing isolation requirements all together.

Public Health Risk Assessment consultation

In September 2022, feedback was sought from stakeholders representing groups at greater risk to the effects of COVID-19 (Pacific Peoples, Māori and Disabled Peoples). Stakeholder engagement was undertaken to inform the Public PHRA held 03 October 2022. Stakeholders included approximately 50 individuals representing the following sectors: NGOs, Tertiary Education Institutes, Health Professionals, Community Groups, Health Service Providers and subject matter experts within government agencies.

Across the board there was strong support for retaining the current mandated measures to protect vulnerable communities. The move away from the Elimination Strategy and removal of other mandatory requirements were considered to put Pacific, Māori and Disabled communities at greater risk.

Generally, these stakeholders expressed concern that if restrictions were removed, the community at large may not take the risk of COVID-19 seriously and put vulnerable populations at greater risk.

Does this problem disproportionately affect any population groups? eg, Māori (as individuals, iwi, hapū, and whānau), children, seniors, people with disabilities, women, people who are gender diverse, Pacific peoples, veterans, rural communities, ethnic communities, etc.

Across the health system, Māori and Pacific peoples are more at risk of negative health outcomes than non-Māori non-Pacific Peoples of the same age, and are also more likely to experience greater disease exposure. Similarly, those experiencing socio-economic disadvantage are at greater risk of severe negative health outcomes than affluent people of the same age, and are also more likely to experience greater disease exposure [2]

COVID-19 is no exception to these disparities. The burden of COVID-19 does not fall equally, and some people are at higher risk of adverse health outcomes from the virus.

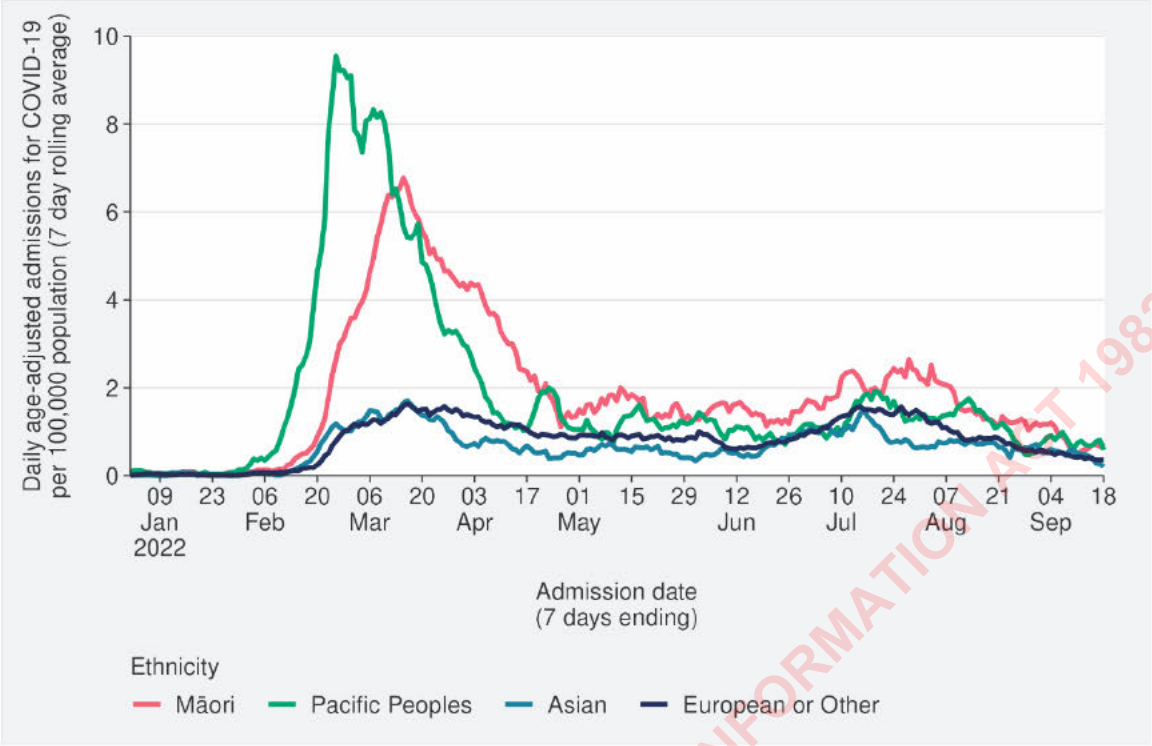
Hospitalisation rates

Analysis undertaken to assess hospitalisation risk from COVID 19 has found that disparities in hospitalisation risk by ethnicity, deprivation and vaccination are clearly observed after adjusting (age-standardising) for differences in age demographics

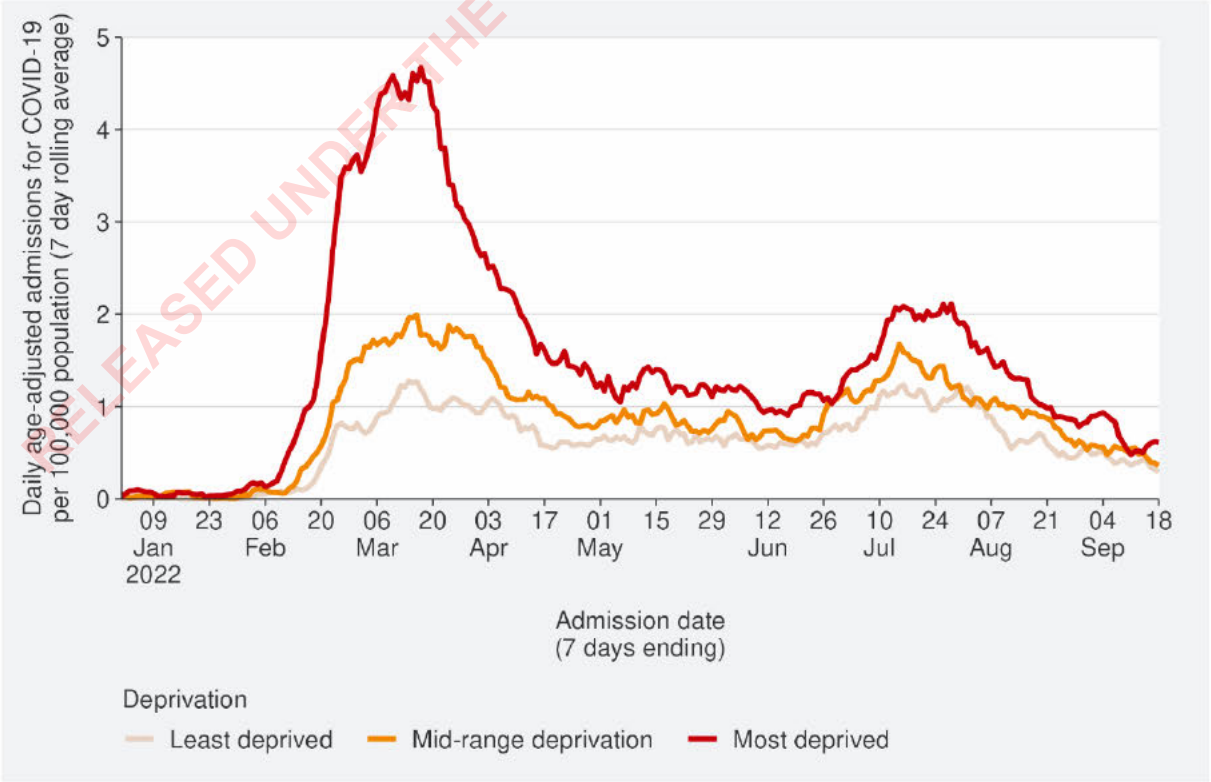
The age-standardised Māori cumulative hospitalisation rate for COVID-19 is 2.1 times higher than European or Other. Pacific Peoples had the highest cumulative incidence rate of hospitalisation with COVID-19, which was 2 8 European or Other ethnicity. (see Figure 3 below).

[2] These statements are supported by the *Health System Indicators framework: Measuring how well the health and disability system serves New Zealanders* last updated 15/06/2022,

Figure 3 - Age-standardised cumulative incidence of hospitalisation with COVID-19 by ethnicity, January 2022 to 18 September 2022



Similarly, those most deprived communities have had, and continue to have, the highest rates of hospitalisation, both recently and cumulatively during 2022. Those most deprived communities have had 2.1 times the risk of hospitalisation compared with those who are least deprived.



Mortality rates

As at 9 October, there were 2,055 deaths attributed to COVID-19 in 2022. The weekly number of deaths attributed to COVID-19 has continued to decrease.

The age-standardised cumulative mortality rate for Māori is 2.0 times higher than European or Other. Pacific Peoples have the highest age-standardised cumulative mortality risk of any ethnicity, 2.5 times that of European or other ethnicities.

Targeted protections to address disparities

That is why the baseline measures include targeted protections for the most vulnerable. For example, in the winter package there was expanded access to antivirals, particularly for people at significant risk of adverse health outcomes from COVID-19. These measures included increased availability of medical masks, including to Pacific churches, marae, kaumatua facilities, aged residential care (ARC), and Māori and Pacific vaccination providers.

Increases in the risk of health impacts of COVID-19 could disproportionately affect populations groups such as older people, disabled people, Māori, Pacific peoples, and some ethnic communities.

We have provided more detailed equity analysis in the 'analysing the proposals' section.

Are there any special factors involved in the problem? e.g, obligations in relation to Te Tiriti o Waitangi, human rights issues, constitutional issues, etc.

Given the broad implications of COVID-19 requirements and consistent with the requirements in the COVID-19 Public Health Response Act 2020, we need to consider Public Health Implications, Bill of Rights Act Implications and Te Tiriti o Waitangi and Equity Implications.

Public Health advice:

These proposals are informed by the Public Health Risk Assessment process, and the summary findings from the PHRA are noted in the analysis. The intention in this RIS is not to review the public health analysis, but to consider the other factors that inform the regulatory process.

Bill of Rights Act and other legal implications:

s9(2)(h)

[redacted]

Te Tiriti o Waitangi, and ensuring proposals uphold the following principles:

- Tino rangatiratanga
- Equity
- Active protection
- Options
- Partnership.

Te Tiriti o Waitangi implications and equity implications have been assessed in the 'analysing the proposals' section.

Outline the key assumptions underlying your understanding of the problem.

The overarching issues that have prompted this problem are:

- Changing public health context, where the risk from COVID-19 has reduced at the current time (although we need to remain prepared for future variants of concern).
- Bill of Rights Implications, noting that with the changing public health context and the length of time the measures have been in place, proportionality continues to evolve.
- Following the repeal of the COVID-19 Protection Framework, the current strategic approach is more flexible and better suited to the current context.

What objectives are sought in relation to the policy problem?

We are seeking a response that is consistent with the overall objectives of the strategic approach, and fulfils key health objectives.

The overall objectives are:

- **Prepared** means we are prepared to respond to new variants with appropriate measures when required. This includes having the measures in place, including surveillance, to know when and how we might need to respond.
- **Protective and resilient** means we continue to build resilience into the system, and continue both population and targeted protective measures. We take measures as part of our baseline that reduce the impact on individuals, families, whānau, communities, businesses, and the healthcare system that will make us more resilient to further waves of COVID-19.
- **Stable** means our default approach is to use as few rights and economy limiting measures as possible. As part of our baseline there are no broad-based legal restrictions on people or business, and no fluctuating levels of response to adapt to.

Section 2: Deciding upon an option to address the policy problem

What criteria will be used to compare options to the status quo?

Consistent with the requirements in the COVID-19 Public Health Response Act 2020, and other related requirements, we have identified the following criteria.

Proportionality as required in the COVID-19 Act- the extent that the public health rationale (including protection from severe outcomes and hospitalisations) upholds Bill of Rights Act 1990 (BORA) considerations (thereby informing the legal basis for the measures considered).

Economic and social impact- evidence of the effects of the measures on the economy and society more broadly

Equity- Evidence of the impacts of the measures for at risk populations

Compliance- expected public compliance with measures (noting that this would only be used where compliance is relevant- e.g not where there is a mandated requirement to fulfil e.g vaccination for health care workers, or information provision from new arrivals).

These criteria are the aligned to the criteria for the new strategic approach. We note that implementation considerations are being considered separately, in Section 3 below.

What scope will options be considered within?

This is focussed on the reviewing the public health responses to COVID-19 that require COVID-19 specific Orders, as listed in the problem statement.

Analysing the proposals

You will find the proposals for different options for each of the measures considered below. This is then supported by analysis, including public health advice and multi-criteria assessment.

The key for the multi-criteria assessment is as follows:

Key for qualitative judgements:	
+	better than doing nothing/the status quo/counterfactual
+/-	about the same as doing nothing/the status quo/counterfactual
-	worse than doing nothing/the status quo/counterfactual

1. Provision of information by air arrivals for COVID-19 contact tracing

Options

Option 1: Status-quo – mandatory collection through NZTD	Option 2: No mandatory collection through NZTD
Retain the current mandatory requirement, under the COVID-19 Public Health Response (Air Border) Order 2021, for arrivals to New Zealand to provide contact details and travel history information to assist potential future contact tracing.	Remove the requirement and, if and when necessary, stand-up digital collection through NZTD and in the interim use scanned paper information.

Public Health Risk Assessment recommendation

PHRA recommendation	Remove the requirement on the basis that it is no longer proportionate in the current phase of the pandemic: • it is unlikely that contact tracing will be effective in responding to the most likely next serious variant of concern (high transmissibility and low severity) • if contact tracing were required, digital collection through NZTD could be stood up again if and when necessary.

Multi-criteria assessment

Criteria	Option 1: Status quo – mandatory collection through NZTD	Option 2: No mandatory collection through NZTD

Proportionality as required in the COVID-19 Act- the extent that the public health rationale (including protection from severe outcomes and hospitalisations) upholds BORA considerations	+/- • This mandatory measure was seen as proportionate earlier in the pandemic on the basis that it involved a minor imposition on people returning to New Zealand, relative to the benefit of enabling more timely contact tracing in the event of a new variant of concern.	+ In the current situation: • Contact tracing is likely to be of limited value in response to a serious new variant of concern given the absence of other restrictive measures. • Scenario planning has determined that contact tracing will not be effective in the context of a new variant of concern.
Economic and social impact- evidence of the effects of the measures on the economy and society more broadly	+/- Costs include: • for travellers, the time and inconvenience cost for them (pre-flight, or post-arrival) in providing some information twice (on the arrival card and through NZTD). • for border staff, the costs include the impacts of delays in processing flights when the paper form of NZTD must be completed by passengers on arrival.	+ While difficult to estimate, the reduced costs are estimated at: • for travellers the reduction in costs might be of the order of $2.8 million per month (on the basis of 12,000 travellers per day, 20 minutes to complete declaration, and an opportunity cost of traveller time at $25/hour). • reduced government expenditure on this measure.
Equity- Evidence of the impacts of the measures for at risk populations	+/- The equity impact of the measure can be considered in relation to: • immediate impacts of collecting the information - depending on relative disadvantage in respect of internet access or language challenges, they may be inequitably affected by this measure (time	+/- • If the measure were removed, the equity impact on at-risk populations could be neutral or very slightly positive. To the extent that at-risk populations have a relative disadvantage in respect of internet access or language challenges, they may be inequitably affected by this measure (time completing NZTD; need to do paper NZTD on arrival).

	completing NZTD; need to do paper NZTD on arrival). • potential future benefits from the use of the information – contact tracing is likely to only have limited effectiveness in the context of a new variant of concern.	
Compliance- expected public compliance with measures	+/- • Under this option to date a high level of overall compliance (digital or paper completion) with NZTD has been achieved (at least 90% digital).	+ • Under this option, there is no NZTD requirement travellers must comply with. Not imposing additional or unnecessary compliance costs on travellers now may help to maintain social licence that is likely important if future restrictions or requirements need to be imposed at the border.
Overall	+/-	+ • The mandatory collection of information through NZTD is no longer proportionate from a public health perspective. Contact tracing in isolation is unlikely to be an effective measure in responding to the most likely serious new variants. • However, there are non-health related reasons for maintain the NZTD. As such, the NZTD will (from 5 November) be enabled by rules under section 421(1) of the Customs and Excise Act 2018 for wider border purposes. If contact tracing of air passengers arrivals for COVID-19 is desired in future, passenger information could be

		accessed from the NZ Customs Service under provisions in the Health Act 1956

The 7-day case isolation requirement

Counter-factual and proposal

Option 1	Option 2
Status quo: the 7-day case isolation requirement remains in place to support the ongoing effective isolation of cases, to prevent spreading COVID-19 outside the household.	Remove mandatory 7-day self-isolation for cases and replace with guidance

Public Health Risk Assessment

PHRA recommendation	Maintain the current 7-day COVID-19 case isolation requirement, at this time. Isolation of infectious cases to reduce community transmission remains an important way to suppress transmission of COVID-19 and subsequently higher numbers of cases, hospitalisations, and deaths. It is likely that the increase in community cases would affect some communities and population groups more than others. Strong concern was expressed that if the isolation mandate was removed, it would have disproportionate impacts for Māori and Pacific communities.

Multi-criteria assessment

Criteria	Option 1: (Status quo) retain 7-day self-isolation requirements for cases	Option 2: removing mandatory self-isolation for cases
Proportionality as required in the COVID-19 Act- the extent that the public health rationale (including protection from severe outcomes and hospitalisations) upholds BORA considerations	+/- • Isolation of infectious cases to reduce community transmission remains an important way to suppress transmission of COVID-19, and prevent prolonging the current outbreak. • s9(2)(h) [redacted]	- • This approach for cases is likely to lead to subsequently higher numbers of cases, hospitalisations, and deaths and potentially a more pro-longed outbreak. • s9(2)(h) [redacted]

	s9(2)(h) [redacted]	s9(2)(h) [redacted]
Economic and social impact- evidence of the effects of the measures on the economy and society more broadly	+/- • The ongoing use of self-isolation is likely to maintain current levels of self-isolation days, however if this is removed it would need to be traded off against the negative health impacts. • The economic impact of CPF Orange was estimated at 1%-2% of GDP in aggregate, $105m per week, with the most significant impact being from self-isolation. • There are wider impacts that are felt across education, health, and other critical services, and on wider society. It's important to note that these impacts will decrease as overall case numbers decrease.	
Equity- Evidence of the impacts of the measures for at risk populations	+/- • Maintaining these requirements reduces potential cases, hospitalisations and deaths, particularly for communities who are at greater risk.	- • s9(2)(g)(i) [redacted] . s9(2)(f)(iv) [redacted] • Coercion to return to work particularly for the most vulnerable. Strong concern was expressed that if the isolation mandate was removed, employees may be pressured to return to work even if not fully recovered.
Compliance- expected public compliance with measures	+/- • While it remains a requirement, compliance is likely to be higher.	- • Moving away from a compulsory requirement is likely to decrease the level of compliance. • Accurate domestic data on the behavioural impact of shifting from mandatory isolation to

		guidance is lacking. However, data from the UK infection survey (based on adherence rates to guidance in the UK) suggests potentially larger increases in cases and hospitalisations from such a change.
Overall	+/- • Given the potential public health impacts, this remains effective, justifiable and proportionate at this time. It will be critical that this remains under regular review.	- • Moving away from this approach at this time is likely to increase the public health risk and resulting impacts.

Point of care testing

Counter-factual and proposal

Option 1	Option 2
Status quo: retain the current framework (regulating the importation, manufacture, supply, sale, packaging or use of point of care tests by Order)	Remove the current framework but rely on baseline (non-COVID-19 specific) regulation, guidance and government procurement

Public Health Risk Assessment

PHRA recommendation	It is appropriate to maintain the regulation of point of care testing, so long as mandatory self-isolation requirements remain in place.

Multi-criteria assessment

Criteria	Option 1: (Status quo) retain the current framework	Option 2: removing the current framework
Proportionality as required in the COVID-19 Act- the extent that the public health rationale (including protection from severe outcomes and hospitalisations) upholds BORA considerations	+/- • The results obtained from POCTs inform COVID-19 policy and response measures. Ensuring devices can detect the virus, especially as variants evolve, helps to ensure that our system-wide response to COVID-19 is appropriate	- • Under this option, there would be no prohibition on the dealing, importation, manufacture, or use of point of care tests. Only government-distributed and procured devices would undergo a formal approvals process. • This could result in less-reliable and less-accurate devices being available on the market
Economic and social impact- evidence of the effects of the measures on the economy and society more broadly	+/- • As with the removal of any regulatory process, some commercial parties may perceive inequities of having borne compliance costs in seeking approvals where that is no longer required for new market entrants. There may also be a perception from the public that the previously strict approvals process was a burden that was ultimately not required	
Equity- Evidence of the impacts of the measures for at risk populations	+/- • The purpose of this Order is to ensure that point of care tests that are relied upon to establish whether a person is subject to mandatory self-isolation requirements are accurate and reliable.	- • Removing this Order could result in more false-positive cases and more false-negatives. The net impact would be increased risk to at risk populations (due to false negatives) and more people being forced to isolate without justification (false positives)
Compliance- expected public compliance with measures	+/-	-

	• People are more likely to use point of care tests if they are perceived as being reliable and accurate.	• Removing this Order could result in less-accurate and less-reliable point of care test being on the market. People are therefore less likely to be compliant.
Overall	+/- • Point of care tests remain the dominant form of COVID-19 testing in New Zealand by a substantial margin. Most people who need to test for COVID-19 will do so first through a point of care test. It is therefore desirable that the Government has a proactive involvement in ensuring these devices are safe and reliable.	- • Moving away from this approach at this time is likely to increase the public health risk and resulting impacts.

Mask settings

Options

Option 1 (PHRA Proposal)	Option 2
Retain current mask requirements in healthcare settings (including aged residential care)	Remove the mask requirement and provide guidance to health services to set masks policies

Public Health Risk Assessment

PHRA recommendation	Retain the current requirement mask requirements. While adherence to mask requirements may be waning or patchy in some health service settings, it is possible that adherence would drop further if the mandate was removed. Mask requirements lean against inequity, to ensure that people who are at higher risk can access health services without avoidable additional risk. Removing mask mandates in health service settings may lead to an increase in cases of hospital-acquired COVID-19.

Multi-criteria analysis

Criteria	Option 1 (status quo): Mask requirements in healthcare settings	Option 2: Remove the mask requirement and provide guidance to health services
Proportionality as required in the COVID-19 Act- the extent that the public health rationale (including protection from severe outcomes and hospitalisations) upholds BORA considerations	o • s9(2)(h) [redacted]	+ • s9(2)(h) [redacted]
Economic and social impact- evidence of the effects of the measures on the economy and society more broadly	+/- • Aggregate economic impact of stepping down mask mandates relative to the status quo is relatively small, particularly as guidance will be communicated and some level of compliance is retained.	
Equity- Evidence of the impacts of the measures for at risk populations	o • Current mask use provides effective protection for vulnerable populations.	+/- • Relative to the status quo, notwithstanding the uncertainty around compliance, the intent is for masks to be mandated in relatively similar

		settings, with the objective of protecting at risk populations.
Compliance- expected public compliance with measures	o • While there were challenges with the introduction of the masks requirement, the principle of "stability" suggests retaining the current approach now it is established. • Changes would require communications to health services in implementing masks policies.	+/- • Challenges have been experienced – both in terms of communications and operationally – to implement the status quo through a single mechanism for requiring masks for staff and patients, and another mechanism for visitors. • A key success criterion for this option will be communicating the policy clearly.
Overall	o	+

Equity analysis

The burden of COVID-19 does not fall equally, and some people are at higher risk of adverse health outcomes from the virus. Priority populations such as Māori, Pacific peoples, older people, disabled people and tāngata whaikaha Māori, and some ethnic communities experience disproportionate impacts of COVID-19 by way of:

- the effects of the virus, for example for those with co-morbidities
- the impact of public health measures on the ability to exercise choice, for example, about carers
- the impact of public health measures on economic stability, for example being unable to afford to take the necessary time of work to isolate or quarantine, or the risk time off creates regarding job security
- the impacts of existing systems relied upon to implement some of the measures in place to manage COVID-19, such as the use of penalties non-compliance with certain COVID-19 Orders and the inability to pay these forging a pathway into the criminal justice system.

Reducing mandated public health measures may lessen the impact of public health measures on choice, economic stability and experience of inequity due to enforcement systems. However, it has the potential to increase the inequity associated with co-morbidities or other health conditions that exacerbate the effect of contracting the virus, for example leading to self-imposed isolation, or an increased chance of hospitalisation or needing medical intervention. Removing measures such as border measures that are not expected to affect the burden on the health system overall may result in the burden being transferred to and disproportionately experienced by priority populations.

An initial assessment of impacts and opportunities of the new strategy for priority populations is set out below.

Due to time constraints, further comprehensive consultation has not been completed with Māori and Pacific Peoples to inform the equity analysis. The new strategy will allow us to be more adaptable and target measures to the most vulnerable communities (e.g., strengthened guidance on testing in highly vulnerable places). It is important that consultation on the proposed changes is carried out to identify the potential impacts on these groups and mitigations. Given that, any stepping down of mandatory measures will need to be accompanied by close monitoring of how the changes impact vulnerable populations.

Equity analysis for Māori

The COVID 19 outbreak has worsened already inequitable health outcomes experienced by Māori. The mandatory measures in place have sought to minimise and protect priority populations from COVID-19. As measures are stepped down, the Manatū Hauora Māori Protection Plan is critical. The plan, due to expire in December 2022, focuses on:

- protecting whānau, hapū, iwi and hapori Māori from the virus by increasing vaccination coverage
- building the resilience of Māori health and disability service providers and Māori whānau, hapū, iwi and hapori Māori to respond to the new environment of the Delta variant, the COVID-19 Protection Framework and the long tail of the impact of COVID-19 on the health and wellbeing of Māori.

For Māori, 86.8 percent of people are at least partially vaccinated and 56.3 percent of Māori eligible for first boosters have received them. While there are high vaccination rates for at least one dose, booster vaccination uptake could be improved among Māori. Particular

consideration of accessibility to tools that prevent risks of transmission or severe disease will be considered for iwi; an example of this is the increased availability of medical masks to marae, kaumatua facilities, and Māori vaccination providers.

Equity analysis for Pacific peoples

Pacific Peoples continue to be disproportionately affected by COVID-19 in addition to long-standing inequitable health outcomes and service use. Recent data shows Pacific Peoples are the demographic most hospitalised for COVID-19 and their COVID-19 mortality rate is four times greater than European or other ethnicities.

91.7 percent of Pacific peoples are at least partially vaccinated (compared to 91.5 percent across all ethnicities) and 61.2 percent of eligible Pacific peoples have received at least one booster dose (compared to 73.1 percent across all ethnicities). There is more work to be done in encouraging booster vaccination uptake among Pacific peoples to mitigate the impact of removing mandatory measures.

Equity analysis for older people

Older people are more likely to be hospitalised and this is reflected in the latest data. As the virus takes longer to move through this population due to this group having fewer social interactions, it may lead to a higher hospitalisation burden over a longer period beyond winter. Removing mask requirements will have an impact amongst this group.

Equity analysis for disabled people and tāngata whaikaha Māori

The Human Rights Commission's report Inquiry into the Support of Disabled People and Whanau during Omicron found that lessening restrictions led some disabled people to choose to isolate themselves, leading to feelings of isolation and stress and a restriction on their own freedoms for the benefits of others. The continuation of measures, particularly face masks when accessing essential services, creates reassurance. Changes to these requirements in the future are likely to cause greater anxiety and risk for disabled people, particularly those with underlying co-morbidities.

Without data disaggregated by disability, determining impacts of variants of concern or public health measures on disabled people and tāngata whaikaha Māori would be difficult.

Equity analysis for other groups

Those who live in crowded housing, especially Māori, Pacific peoples, and some ethnic communities for example, living in an intergenerational arrangement, or those who work in particular roles such as hospitality or retail, are also likely to be more at risk of transmission.

Removing the requirement for household contacts to self-isolate would reduce disruption in the education sector for children, young people, and education workers, and enable tertiary education providers to continue delivering services which have been challenged by staff shortages. More learners will be able to access in-person learning.

Te Tiriti analysis

Demonstrating a commitment to and embedding the Te Tiriti and achieving Māori health equity remain a key COVID-19 health response priority. The COVID-19 outbreak has worsened the already inequitable health outcomes for Māori.

In December 2021, the Waitangi Tribunal's Haumaru: COVID-19 Priority Report found that the Government's rapid transition into the CPF breached Te Tiriti principles of active protection, equity, tino rangatiratanga, partnership and options. The Crown would remain in active breach

until the Waitangi Tribunal recommendations were addressed or if a similar rapid shift from the CPF's mandated measures occur.

Following the revocation of the CPF and the changes proposed following the latest PHRA, the Māori Protection Plan's two key drivers are critical. Related response initiatives should continue to have a positive impact for Māori, including the ongoing Winter Package measures. This includes as free medical and N95 masks, greater access to antivirals for those that are eligible by prioritising equitable access for Māori alongside other eligibility criteria, and COVID-19 and flu vaccinations. However, a future PHRA may need to further consider measures to assist Māori if infection rates and hospitalisations do not improve in the interim.

In DPMC's discussions with NICF members about stepping down mandatory measures, they were concerned about tino rangatiratanga, particularly over marae – i.e., marae should be empowered to manage the welfare of their people rather than having requirements externally mandated. The suggestion was to replace it with accessible guidance on best practice and continued communications to address the complacency and misinformation some NICF members are observing. NICF members have also observed the hardship that requiring household contacts to isolate placed on many whānau, and that there will be some support for the removal of this requirement.

Measures targeted at Māori continue to be necessary but have not been sufficient alone to create equitable health outcomes for Māori. We need to identify targeted measures and public health levers that will enable the Crown to meet its obligations under Te Tiriti o Waitangi and help reduce inequities in COVID-19 effects. The work of Te Aka Whai Ora with Kaupapa Māori providers is particularly key to realising this duty. NICF members and disability sector representatives reinforced the value of Kaupapa Māori providers in reducing inequities as they provided holistic support for whānau and had deeper reach than other providers.

What option is likely to best address the problem, meet the policy objectives, and deliver the highest net benefits?

Based on an overall assessment, the recommendations are to

a. remove the requirement to provide information by air arrivals for COVID-19 contact tracing
b. retain mandatory self-isolation of cases
c. retain point of care tests regulation
d. remove and replace masks requirements in healthcare settings (including aged residential care) with guidance for health services to set masks policies.

Section 3: Delivering an option

How will the new arrangements be implemented?

The proposals in this paper require amendments to Orders made under the Act. Specifically:

- Revoking the Air Border Order – as the mandatory collection of traveller information through NZTD is the last remaining substantive health requirement in the COVID-19 Public Health Response (Air Border) Order 2021, the Order should now be revoked. The timing of revocation should allow for any operational implementation considerations.
- If the Government decides to move to guidance for health services to set masks policies, then the COVID-19 Public Health Response (Masks) Order 2022 can also be revoked.

There are no changes proposed to the remaining Orders under the Act, being the COVID-19 Public Health Response (Self-isolation Requirements) Order 2022; and the COVID-19 Public Health Response (Point-of-care Tests) Order 2021.

Further consultation will be completed on the self-isolation proposals, particularly with priority population groups to understand their perspectives.

For the most part, where further measures are required to support ongoing adherence to public health advice or where additional surveillance is required, this is already in place. Work is progressing on the development of communications for new arrivals, and the additional surveillance required is already in place.

Clear communications on these changes will be supported, including through the use of the Unite Against COVID-19 channels, targeted information campaigns, and by supporting announcements on these changes.

Planning for new variants of concern has been prepared through the COVID-19 Variants of Concern Strategic Framework. Work is currently well advanced with DPMC and other agencies to ensure that we have the legal framework, and we are operationally prepared to respond as needed in the future. Any future changes would be subject to further Public Health Risk Assessments.

How will the new arrangements be monitored, evaluated, and reviewed?

The public health measures will remain under regular monitoring and review, this includes monitoring of case numbers, hospitalisations, international trends to identify variants of concern, along with wastewater and other surveillance activities. Trends in case numbers, hospitalisations and mortalities are compared by ethnicity and deprivation. The results of this monitoring and surveillance is compiled into a weekly insights report (as well as other ad hoc reporting) to help inform decision making.

s9(2)(f)(iv) [redacted]

Development is underway of both a COVID-19 infection prevalence survey and a COVID-19 seroprevalence survey. The surveys provide an opportunity to establish a national active surveillance initiative within New Zealand, gathering useful evidence to support short- and medium-term pandemic management and planning, and with potential to be adapted for other public health surveillance requirements in the future.

Document 2

Memo

COVID-19 Public Health Risk Assessment - 7 November 2022

Date:	11 November 2022
To:	Dr Diana Sarfati, Director-General of Health
From:	Dr Nicholas Jones, Director of Public Health, Public Health Agency, Manatū Hauora
Copy to:	Dr Andrew Old, Deputy Director-General, Public Health Agency, Manatū Hauora
For your:	Information and decision

Purpose of report

1. This memo provides advice from the Director of Public Health following the 7 November 2022 COVID-19 public health risk assessment (PHRA). That PHRA considered whether any changes are required to COVID-19 settings and other matters based on the current outbreak context and modelling.

Summary of PHRA recommendations

2. On the basis of the available data, evidence and the PHRA, in order to manage the current wave of COVID-19, as the Director of Public Health I recommend the following:

s 9(2)(f)(iv) [redacted]	[redacted]
B) Face masks	**Retain** the current face mask mandate in health service settings. s 9(2)(f)(iv) [redacted]
C) Case isolation	**Retain** the 7-day case isolation requirement, with further review in two weeks' time noting further data will be available.

D) Public health messaging	**Encourage** summer messaging that supports public health behaviours and adherence to measures over the holiday period.

3. These recommendations are consistent with previous PHRA advice on face masks but provide suggested modifications to permitted movements. This aims to ensure the overall approach remains a cohesive and pragmatic package to encourage and support public health behaviours needed to reduce transmission and the impact of COVID-19.

Background and context

High-level summary of the outbreak status and epi-context

4. Key measures of infection used to monitor the COVID-19 (levels of viral ribonucleic acid (RNA) in wastewater and reported cases) have been increasing during October 2022. This indicates we have entered a further wave, the magnitude or timing of which is unclear. As of 2 November 2022, the effective reproduction rate (R_{eff}) was 1.2.

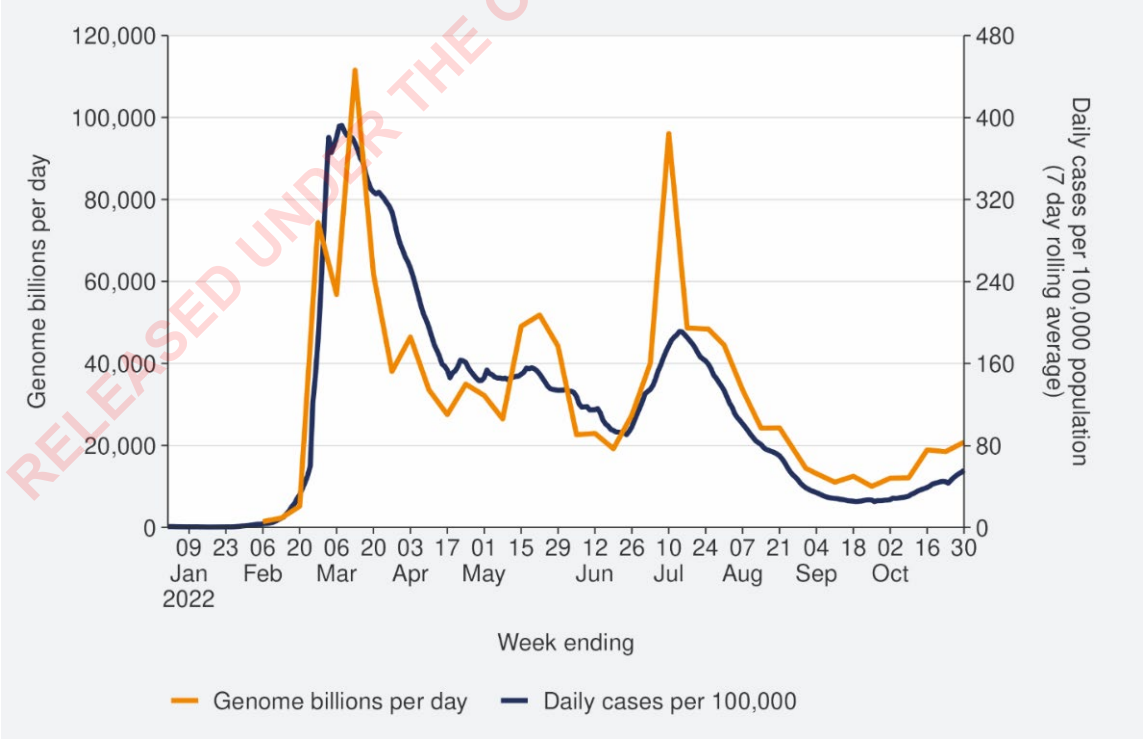
5. Hospital admission rates increased over October 2022, while mortality counts have remained stable. Experience to-date shows that these measures tend to lag changes in infection rates. The current trends are likely to be influenced by a combination of:

   a. waning immunity (vaccination and infection-induced immunity)

   b. behavioural changes associated with the relaxation of previous requirements, greater social interactions, and lower adherence with public health guidance

   c. the impact of new sub-variants.

Figure 1 - COVID-19 wastewater detection levels and daily case rates 2022 through 30 November 2022



6. It is possible that over the next few weeks cases, hospitalisations and mortality will continue to increase to a new peak of the next wave. However, the size, timing, and

duration of the wave, and new baseline trends of cases, hospitalisations and mortality, is currently uncertain.

7. A summary of the latest data is provided below, with outbreak and epidemiological-context detail in Appendix 1, and updated modelling in Appendix 2. COVID-19 data on priority populations is summarised from paragraph 28 and in Appendix 1.

Reported cases and wastewater detections have been ticking up since early October

8. As of 10 November 2022, the 7-day rolling average of new cases is 3,012 per day, with 21,080 reported cases in the past week. For the week ending 6 November 2022, the general population reported case rate was 56.7 per 100,000, 1.4% higher than the previous week (55.9 per 100,000). Reinfections made up 14.9% of reported cases.[1]

Whole genome sequencing and expected impacts of new subvariants

9. BA.5 remains the dominant subvariant accounting for an estimated 78% of cases. The proportion of BA.5 has been declining slowly over the previous weeks, as detections of BA.2.75 and BQ.1.1 are trending upward, both in whole genome sequencing (WGS) and wastewater. ESR reporting shows that both XBB and BA.2.75 variants are over-represented in reinfections, albeit with very small sample sizes. Although the impact of these variants on the New Zealand population is not yet known, international experience suggests the emergence of these variants will contribute to a further increase in cases and result in a significant wave over the balance of 2022.

10. The emergence of BQ.1.1 also increases the likelihood of a further wave should it replace the previous predominant variant (BA.5). BQ.1.1 is increasing in frequency overseas and appears to be more transmissible and immune evasive. The XBB recombinant variant has evidence of a growth advantage compared to BA.5. There is no evidence of a change in severity compared to BA.5 for either variant. BA.2.75 subvariants have also seen growth in recent weeks to 9% of all sequenced samples.

11. From international experience BA.2.75 variants have a high growth advantage compared to BA.5 with an estimated growth advantage of 37.32% per week. It is currently unclear what the impact on hospitalisations will be based on international data on these emerging variants. However, it is not anticipated that there will be any substantial changes in severity compared previous Omicron variants.

Hospitalisations

12. The national COVID-19 hospital admissions rate 'for' COVID-19 decreased substantially from mid-July to mid-September 2022 but has been increasing again since then. However, the rate slightly decreased by 5% with a 7-day rolling average of 1.1 per 100,000 for the week ending 30 October 2022. Modelling scenarios suggest current hospital admissions are tracking above the higher range of the prediction and it is too early to tell if the decrease is a temporary plateau.

[1] Reported case numbers are an underestimate of actual number of cases, due to people either not reporting, not testing or not being aware they have COVID-19 (including being asymptomatic). Wastewater provides a valuable adjunct to reported case data. Levels of viral RNA in wastewater have also indicated an increase in transmission in the past week.

Mortality

13. Deaths have been declining since peaking in the last week of July 2022, though the decline has slowed in the past few weeks. From the first week of January to 6 November 2022, there were 3,166 deaths among people who died within 28 days of being reported as a case and/or with the cause being attributable to COVID-19 (that is an underlying or contributory cause).

The last COVID-19 PHRA was held six weeks ago

14. The previous COVID-19 PHRA was completed on 3 October 2022 and recommended to:

    a. retain the current requirement for all cases to isolate for 7-days

    b. retain the current face mask requirements health services, including aged and disability residential care and disability support services

    c. remove the requirement for air travellers to New Zealand to provide information prior to departure for COVID-19 contact tracing purposes

    d. modify the post-arrival testing guidance for travellers to test if symptomatic only.

Our current strategy and approach to managing COVID-19

15. The new approach to managing COVID-19 by being 'prepared, protective, resilient, and stable' is based on using a suite of measures to address general and specific risks. It is important that measures are not viewed in isolation but rather when taken as a whole, help to minimise the harm of COVID-19 on individuals, whānau, communities, businesses and the wider health system [2]

16. Response measures can be dialled up or down according to the current or projected risk. The 'Mixing Desk', attached at Appendix 3 provides a simplified model of our current response for the purpose of the PHRA (rather than a communications tool).

17. Our approach for managing COVID-19 is also guided by the Strategic Framework for COVID-19 Variants of Concern which uses five scenarios, based on the characteristics of the dominant variant(s).[3] The current scenario is one with low severity and high transmission. The PHRA committee noted that we may be entering a mixed variants scenario where multiple variants persist throughout the wave.

Legal mechanism to support the COVID-19 response

18. Authorisation by the Prime Minister under section 8(c) of the COVID-19 Public Health Response Act provides the legal basis for case isolation and the face mask mandate in health care services. The current Notice is due to expire on 20 January 2023.

19. Any new or modified requirements will require the authorisation of the Prime Minister, including to extend the duration of that authorisation, based on relevant public health advice. Manatū Hauora will prepare such advice following the next PHRA in the week of

[2] As shown with the 'Winter Package' announced in July 2022, a package of targeted measures can be developed where needed to provide an effective and proportionate response to manage the specific COVID-19 risk. In doing so it also seeks to improve equity outcomes for Māori, Pacific and disabled communities.

[3] The Strategic Framework for COVID-19 Variants of Concern will be updated over the next few months to reflect scientific developments and shifts in our management response. Scenarios are outlined in Appendix 4 of that document.

21 November 2022. This will be coordinated with the DPMC-led Cabinet paper on summer settings to be considered by Cabinet's Social Wellbeing Committee on 7 December 2022, and then Cabinet on 12 December 2022.

Detailed recommendations and rationale

20. The purpose of COVID-19 PHRA is to assess the current and medium-term COVID-19 risk and to consider whether there needs to be any changes to the suite of public health measures to manage the risk. This can include recommendations to relax or escalate risk mitigation measures. In addition, the PHRA fulfils the legal requirement to keep mandatory measures (made via Orders) under regular review to ensure that they remain necessary and proportionate.

21. When combined, individual measures form a pragmatic approach to managing COVID-19. There are interdependencies between each, and we must remain aware of how it forms a coherent package for the public to encourage and support public health behaviours necessary to reduce transmission and limit the impact of COVID-19.

22. The principle of proportionality is a key consideration. There is a preference for the least restrictive measures for no longer than is necessary to achieve the objective of preventing, minimising or managing the COVID-19 public health risk.

s 9(2)(f)(iv) [redacted]

s 9(2)(f)(iv) [redacted]	[redacted]
[redacted]	[redacted]

	s 9(2)(f)(iv) [redacted]
[redacted]	[redacted]

s 9(2)(f)(iv)

[redacted]

	s 9(2)(f)(iv) [redacted]
[redacted]	[redacted]

	s 9(2)(f)(iv) [redacted]

B) Face masks

Current requirement	The COVID-19 Public Health Response (Masks) Order 2022 specifies that: a. face masks are mandatory for visitors in health service settings including primary and urgent care, pharmacies, hospitals, aged residential care (ARC), disability-related residential care, allied health, and other health service settings) b. there are exclusions for: patients and people receiving residential care, health service staff, and visitors to specific health services (psychotherapy, counselling, mental health and addiction services). Requirements for patients and workers of health services are determined locally, based on local assessments in line with Infection Prevention and Control Guidance.
Director of Public Health recommendation	**Retain** the current face mask mandate in health service settings. s 9(2)(f)(iv) [redacted]
Public health rationale	1. Evidence that wearing a face mask decreases the rate of COVID-19 community transmission (and other airborne respiratory viruses) is substantial (HR20221311 outlined the evidence base of their use and mandates). 2. Face mask mandates are an effective way to limit community transmission. Overseas evidence suggests it increases adherence[4], are associated with reductions in COVID-19 case and mortality growth rates[5 6 7 8], and the that the timing of when face mask mandates are applied matters eg. early application is associated with a reduction in cases and mortality rates.[9] 3. Effectiveness of face mask mandates as a public health intervention depends on several factors. This includes the current level of community transmission, the nature of the settings in which masking is required, cultural and geographical

[4] Adjodah D, Dinakar K, Chinazzi M, Fraiberger SP, Pentland A, Bates S, et al. (2021) Association between COVID-19 outcomes and mask mandates, adherence, and attitudes. PLoS ONE 16(6): e0252315. https://doi.org/10.1371/journal.pone.0252315

[5] Guy GP Jr., Lee FC, Sunshine G, et al. Association of State-Issued Mask Mandates and Allowing On-Premises Restaurant Dining with County-Level COVID-19 Case and Death Growth Rates — United States, March 1–December 31, 2020. MMWR Morb Mortal Wkly Rep 2021;70:350–354.

[6] Adjodah D, Dinakar K, Chinazzi M, Fraiberger SP, Pentland A, Bates S, et al. (2021) Association between COVID-19 outcomes and mask mandates, adherence, and attitudes. PLoS ONE 16(6): e0252315. https://doi.org/10.1371/journal.pone.0252315

[7] Mitze, T., Kosfeld, R., Rode, J., & Wälde, K. (2020). Face masks considerably reduce COVID-19 cases in Germany. *Proceedings of the National Academy of Sciences of the United States of America, 117*(51), 32293–32301. https://doi.org/10.1073/pnas.2015954117

[8] oo, H., Miller, G. F., Sunshine, G., Gakh, M., Pike, J., Havers, F. P., Kim, L., Weber, R., Dugmeoglu, S., Watson, C., & Coronado, F. (2021). Decline in COVID-19 Hospitalization Growth Rates Associated with Statewide Mask Mandates, March-October 2020. *Morbidity and mortality weekly report, 70*(6), 212–216.

[9] Wong, Angus K.; Balzer, Laura B.. State-Level Masking Mandates and COVID-19 Outcomes in the United States: A Demonstration of the Causal Roadmap. Epidemiology: March 2022 - Volume 33 - Issue 2 - p 228-236 doi: 10.1097/EDE.0000000000001453

norms around masking, correct use, and the extent to which improvements to ventilation/filtration have been enacted as systemic primary prevention.

4. Face mask mandates lean against inequity, to ensure that people who are at higher risk can access basic services without avoidable additional risk. A conservative estimate is that one in every six New Zealanders is at higher risk of severe illness if they contract COVID-19.[10] Mandates have two benefits those people it means that they will be less likely to be infected and be more likely to feel able to continue to safely participate in basic activities of life, eg. accessing healthcare, catching the bus, or visiting people over the summer.

Health service settings

5. Health service settings have a series of characteristics that elevate the risk of transmission and/or the risk of severe disease. These settings typically:
   a. are more likely than other settings to have people present with undifferentiated viral illness, either because they are seeking help for symptoms or because they have a co-existing medical emergency
   b. are more likely to have vulnerable people present, either due to advanced age, underlying conditions, or to being unwell at the time - facility-level face mask requirements lean against inequity, to ensure that people who are at higher risk can access health services without *avoidable* additional risk
   c. have variable ability to improve crowding, indoor ventilation and/or air filtration[11]
   d. hospital-acquired COVID-19 infections are more likely to have poorer outcomes than community-acquired infections[12] - feedback from two districts has noted possible links between visitors and hospital-acquired cases of COVID-19
   e. people often do not have a choice in whether they access a health service.
6. While adherence to face mask requirements may be waning or patchy in some health service settings, adherence could drop further if the mandate was removed, as evidenced by the decreased use on public transport in the past month (but has remained recommended by Manatū Hauora).

s 9(2)(f)(iv) [redacted]

[10] The Ministry of Health does not have precise figures for the number of New Zealanders who meet the definition of being at higher risk. However in April 2022, the number of 'clinically vulnerable' people (which is defined more narrowly than 'high risk') was estimated at 800,000. 'Options for improving respiratory protection against aerosolised viral particles for vulnerable and priority populations' (HR20220682), 29 April 2022.

[11] Many health service settings do not have good design or engineering. Therefore the value of face masks to protect those more vulnerable increases when there is frequent introduction of infection into those environments. This is true of community healthcare settings, but also is an issue in many hospitals as older wards are mostly multibed rooms (eg. 4-6), have shared bathrooms and no doors on rooms, making it hard to isolate and improve air filtration.

[12] In Victoria, Australia, 7.6% of hospital-acquired infections resulted in death, compared to 0.14% of reported cases in the general population in the same period. This shows that infections in hospital settings are associated with significantly (over 50-fold) higher mortality. Victoria Department of Health. 2022. Chief Health Officer Advice to Premier, 29 August 2022.

	s 9(2)(f)(iv) [redacted]

[13] X. Querol, A. Alastuey, N. Moreno, M.C. Minguillón, T. Moreno, A. Karanasiou, J.M. Felisi. How can ventilation be improved on public transportation buses? Insights from CO2 measurements. Environ. Res., 205 (2022), Article 112451, **10.1016/j.envres.2021.112451**

[14] N.J. Edwards, R. Widrick, J. Wilmes, B. Breisch, M. Gerschefske, J. Sullivan, ..., A. Espinoza-Calvio. Reducing COVID-19 airborne transmission risks on public transportation buses: an empirical study on aerosol dispersion and control medRxiv (2021), **10.1101/2021.02.25.21252220**

[15] Haq MF, Cadnum JL, Carlisle M, Hecker MT, Donskey CJ. SARS in Cars: Carbon Dioxide Levels Provide a Simple Means to Assess Ventilation in Motor Vehicles. Pathog Immun. 2022 Feb 2;7(1):19-30. doi: 10.20411/pai.v7i1.493. PMID: 35178491; PMCID: PMC8843085

[16] Ministry of Health. (2022, July 28). *COVID-19: Infection prevention and control guidance for the air border*

	s 9(2)(f)(iv) [redacted]
Other comments	Some operational consideration may need to be explored with Te Whatu Ora who supply PPE to publicly funded healthcare services, equity groups, testing centres, laboratories, and vaccination clinics. Funding for the provision of face masks for the public was covered under the Winter Package ended on 30 September 2022.

C) Case isolation

Current requirement	Mandatory 7-day self-isolation of COVID-19 cases.
Director of Public Health recommendation	**Retain** the 7-day case isolation requirement, with further review in two weeks' time noting further data will be available.
Public health rationale	1. Based on the current outbreak status and epidemiological context, the requirement should remain with further review at the next PHRA. 2. By then, further evidence to inform the PHRA is likely to be available, including more trend data and behavioural insights regarding adherence to mandates and other public health measures. 3. The rationale for continuing to require self-isolation is as follows: a. Isolation of cases remains the cornerstone of New Zealand's public health response COVID-19 response. This measure significantly limits transmission of COVID-19 as it helps to break the chain of transmission by reducing the proportion of infectious people having contact with and infecting others in the community, many of whom may be at high risk of poor outcomes. b. Without mandated case isolation and the support that it triggers, it is highly likely adherence to guidance would be lower, resulting in more infectious cases seeding community transmission and increasing overall case rates. c. Overseas evidence suggests that a legal requirement to isolate results in significantly greater adherence than a recommendation to isolate. Experience when other mandates have been removed in New Zealand reinforces the fact that adherence to guidance is typically much lower than to mandates. d. While there has been a reduction in isolation requirements over the course of the outbreak, we have reached what is probably the minimum threshold for self-isolation of cases to remain an effective intervention. e. Other infection control tools, such as requiring face masks or physical distancing are significantly less effective than isolation. We have been able to

	recommend removing or reducing some of those other tools in part because case isolation has remained in place. However, there is no combination of other mechanisms that would come close to producing the public health benefit that required case self-isolation does. 4. Advice from the 3 October 2022 PHRA continues relevant and has been updated in Appendix 4 to ensure that this measure continues to be reviewed and monitored. This ensures that it remains a proportionate and effective at limiting the impact of COVID-19.
s 9(2)(f)(iv) [redacted]	[redacted]

D) Consideration of COVID-19 public health messaging

23. The Committee noted the importance of maintaining effective COVID-19 public health messaging, particularly following the shift from mandatory measures to guidance, the current risk posed, and the coming summer period. Key points discussed included:

    a. COVID-19 vaccination messaging needs to be more prominent (especially for boosters as more people are now eligible) as it is a key protective measure against severe disease.

    b. While continuing to push messaging may help adherence with public health behaviours in the near term, there is a wariness that constant messaging may dilute the impact of future communications when we need them most (eg. in response to a significant surge).

    c. Research is indicating the public is experiencing fatigue from COVID-19 messaging. We need to consider how to frame messages in this context so that our population remains motivated to maintain adherence to the public health behaviours that reduce transmission during a period of higher COVID-19 risk.

    d. Leverage the summer weather to reduce risk. This recognised that people attend various types of gatherings and simple ways to reduce their risks without inconveniencing people can be provided (eg. taking events outside or opening windows to allow more air flow).

24. Several initiatives are planned over the coming weeks, including:

A) Summer public health messaging	Planned summer messaging developed with Te Whatu Ora will have a focus on: a. Advising the public that NZ Aotearoa is experiencing a new wave of illness and that the risk of being infected or reinfected has increased. b. People should be advised that having previously had COVID-19 earlier this year does not mean they will not be reinfected over the next few weeks and that avoiding reinfection is likely to be advantageous to long term health. c. Planning for summer, including making sure you have a plan in case you catch COVID-19 and get stuck where you are holidaying, and making sure you stock up on tests and face masks before you go away in case your rural/providers are closed over holiday season (if cases are allowed to travel to their homes to self-isolate, this will be integrated into the messaging)

	d. continuing with public health promoting behaviours, including staying at home if you are unwell, regardless of test result e. the importance of isolating if positive for COVID-19 f. keeping away from those who are more at risk if you feel ill, even over the holiday period when you would normally be spending time with whānau or visiting aged residential care and hospitals g. the use of and access to antivirals, including finding out if you're eligible for free COVID-19 antiviral medicines.
B) Media	A media stand-up is scheduled for the week of 14 November to cover the current COVID-19 situation. This may include information on current modelling and key messaging for the public.
C) Ministerial	Minister Verrall's office has also requested messaging on preparedness for a surge, which is expected to be delivered to her team this week.

Need for public-facing risk communication tool

25. There will need to be more strategic consideration around our public communications going forward as they will have a more direct impact on the effectiveness of our COVID-19 response. Clear messaging and communication with the public has been a key enabler throughout our response to ensure measures were understood and followed. As we continue to transition from mandated to voluntary measures, and there are fewer levers available to influence behaviour change (including enforcement), the effectiveness of public health messaging to influence and support adherence will be a direct contributor to the effectiveness of our response.

26. We need to be mindful of that balance between continuing to push messaging about COVID-19, which becomes so 'everyday' that people ignore them, with the need to still maintain a level of reserve if we need to reintroduce strong messaging in more emergency situations (i.e. when we need behaviours to change quickly).

27. We also need to consider how to best communicate risk with the public, so they are empowered to make better decisions about their own behaviours to protect themselves and others. Further advice on a public-facing risk tool is being developed. In addition to supporting compliance with existing measures, it will also aim to ensure that the public health promoting behaviours learned since 2019 will endure, to protect against both COVID-19 and other infectious diseases and pandemics. Opportunities can be explored to understand how nuancing the ongoing risk of COVID-19 can be used to support the public taking proactive actions to protect themselves and those around them.

Equity and Te Tiriti o Waitangi

Impact of COVID-19 on vulnerable populations

28. Pacific peoples and Māori continue to have the highest hospitalisation rate compared to other ethnicities, after standardising by age (refer Appendix One). In the week ending 23 October 2022, age-standardised rates for hospitalisation for COVID-19 decreased for all ethnicities except Pacific peoples. COVID-19 attributed mortality rates are also higher among Pasifika (2.4x) and Māori (1.9x), compared to European and other ethnicities.

29. The most deprived populations continue to have the highest rates of hospitalisation, and have twice the risk of hospitalisation, compared with those who are least deprived.

30. Disabled people who receive the Disability Support Services Payment also have a hospitalisation risk that is approximately four times higher than the general population. Further, rates of COVID-19 attributed mortality are approximately 1.5 times higher among this group compared to the rest of the population.

New modelling

31. Since the 3 October 2022 PHRA, there has been increased data collection and analysis of the COVID-19 impacts on vulnerable populations. This has included modelling case rates and hospital admissions among Māori and Pacific Peoples, and hospital admission rates and COVID-19 attributed mortality rates among those receiving Disability Support Services Payment.

32. Modelling predicts that the mid-December 2022 peak will see 1800 daily new cases among Māori and 800-900 daily new cases among Pacific Peoples. It also indicates there may be 30 Māori and 15 Pacific Peoples hospital admissions per day during the peak.

Addressing equity concerns

33. Whaikaha representatives on the committee note that the reduction in measures over time has caused anxiety amongst vulnerable communities. For example, amongst disabled people, many are opting for ongoing isolation or limiting interactions with others in their community due to the perceived or actual risk. There is also an ongoing concern that the public may not take the risk of COVID-19 seriously, and adhere to public health measures, putting vulnerable populations further at risk.

34. In a Manatū Hauora survey conducted between 29 September and 9 October 2022, Māori health providers indicated that targeted Māori holistic immunisation programs and addressing the impacts of Long COVID were the areas of highest importance for them and their communities.

35. There is a strong preference to build 'borders' around vulnerable populations, through either differentiated public health responses or the retention of current requirements.

Equity considerations in these recommendations

36. With a new wave of cases expected to peak in mid-December, it is important that public health measures improve health equity and uphold Te Tiriti o Waitangi principles by protecting groups who are most vulnerable to COVID-19.

37. There was support among Committee members for retaining existing mandated measures to continue to protect vulnerable communities. The removal of other measures in recent months were considered to have already put these communities at greater risk.

38. While recommendations to expand the essential permitted movements may increase the transmission risk to vulnerable populations, these movements have tight bounds placed around them and defined IPC measures to mitigate some of the risk this poses. There are limits on the modes of transport that can be used for these movements, to protect the public where the public health risk cannot be managed through IPC measures.

39. Committee members noted that the restrictions on the modes of transport for the new permitted movements may disproportionately impact Māori and people with high

deprivation as they may be more regionally appropriate or financially accessible. Given the low-quality ventilation in turboprop aircraft and intercity coaches that Māori and those living in high deprivation are more likely to use when returning from their holiday to their place of isolation, this restriction is proportionate considering the health risk.

40. Further, the committee highlighted that their recommendations should be taken as an interrelated suite of measures. As the Committee recommends expanding permitted movements on some forms of public transport, they also recommend reintroducing mandatory face mask use on public transport to protect the vulnerable people that are likely to be using it.

41. If the COVID-19 situation significantly changes, enforceable or mandatory measures may be re-introduced to protect our vulnerable populations. This would be an effective and proportionate response to a worsening risk profile.

s 9(2)(h) [redacted]

Next steps

46. Pending your agreement, we will share this memo with DPMC, the Minister for COVID-19 Response's Office, and the Parliamentary Counsel Office.

47. In the week of 14 November 2022, you will provide advice to the Minister for COVID-19 that draws on the outcome of this PHRA and any additional analysis. A further PHRA will then be held in the week of 21 November 2022 to confirm the suite of recommended mandated and other measures in place over the summer period.

48. That PHRA and your subsequent advice to Minister for COVID-19 Response will then inform a DPMC-led Cabinet paper on that topic to be considered by Cabinet's Social Wellbeing Committee on 7 December 2022, and then Cabinet on 12 December 2022.

Recommendations

It is recommended that you:

1.	**Note** that on 7 November 2022, a public health risk assessment (PHRA) considered the current and medium term COVID-19 risk, reviewed existing mandated measures whether any changes were needed to current settings.	Noted
2.	**Note** that key measures of infection (levels of viral RNA in wastewater and reported cases) used to monitor the COVID-19 have been increasing during October 2022, indicating we may have entered a further wave.	Noted
3.	**Note** that over the next few weeks it is possible that hospitalisations and mortality may continue to increase to a new peak of the third wave. However, the magnitude, timing, and duration of the peak and new baseline trends of cases, hospitalisations and mortality, is currently uncertain.	Noted
4.	**Note** that: i. Māori and Pacific Peoples continue to have higher age-adjusted hospitalisation and mortality rates than other ethnicities ii. the most deprived groups have twice the risk of hospitalisation compared with least deprived groups iii. disabled people who receive the Disability Support Services Payment have a hospitalisation risk that is approximately four times higher than the general population as well as having COVID-19 attributed mortality rates approximately 1.5 times higher than the rest of the population.	Noted
5.	**Note** that possible causes for this increase are waning immunity, new variants, or changes in behaviour (or a combination of these factors).	Noted