

27 May 2022

Sarah Elliott

By email fyi-request-18826-xxxxxxxx@xxxxxxxx.xxx.xxx.xx
Ref H202203767

Tēnā koe Sarah

Response to your request for official information

Thank you for your request under the Official Information Act 1982 to the Ministry of Health (the Ministry) on 9 March 2022 for information regarding vaccine workplace mandates.

To assist you in understanding the process of creating the COVID-19 Public Health Response (Vaccinations) Order 2021 (Vaccinations Order) and the rationale for why they were made and amended, we provide you with the following information.

The Vaccinations Order sets out the requirements for certain workers to be vaccinated against COVID-19 to undertake certain work. The order is accessible here:

www.legislation.govt.nz/regulation/public/2021/0094/latest/LMS487853.html

Like other Public Health Response Orders, the Vaccinations Order is made by the Minister for COVID-19 Response under section 11 of the COVID-19 Public Health Response Act 2020 (the Act) in accordance with section 9 of that Act.

Section 11 of the Act sets out the purposes for Orders can be made under the Act (for example preventing, containing, reducing, controlling, managing, eliminating, or limiting the risk of the outbreak or spread of COVID-19), and section 9 of the Act specifies the requirements for making (or amending) COVID-19 Orders. This includes having regard to advice from the Director-General of Health and to have consulted with the Prime Minister, the Minister of Justice, and the Minister of Health before making (or amending) an Order.

Certain criteria need to be met so that any Vaccinations Orders meet the requirements under the Act before the Minister for COVID-19 Response is able to make or amend the Orders. The purpose of the COVID-19 Public Health Act Response is to support a public health response to COVID-19.

It is also important to note that scientific evidence and the requirements of the Vaccinations Order has evolved throughout the pandemic.

On 24 March 2022, you were contacted by the Ministry to clarify your request. You were advised that your initial request would require a substantial amount of time to collate and involve a manual search of information across several teams within the Ministry and may be refused under section 18(f) of the Official Information Act unless a refinement to the scope is made. On 28 March 2022, you responded with a clarification to your request.

I will respond to each part of your request in turn:

Re point one - Copies of the scientific research and evidence documents (including published papers) used by the government to justify their decisions on vaccine mandating workplaces.

To clarify: I want to see the scientific research and evidence documents that were presented to the Covid 19 Minister from the Ministry of Health for him to use to justify his decision on going ahead with any workplace mandates within the COVID-19 Public Health Response (Vaccinations) Order 2021.

In April 2021, the Minister for COVID-19 Response (the Minister) was provided with advice to enable the Vaccinations Order. This advice referenced a US Centers for Disease Control and Prevention (CDC) science brief webpage, summarising the limited scientific evidence in relation to vaccine effectiveness (at the time) on transmission: www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/fully-vaccinated-people.html (note that this webpage has been updated since April 2021).

The COVID-19 Vaccine Technical Advisory Group (CV TAG) advises the Director-General of Health and the COVID-19 Vaccination and National Immunisation Programme on scientific evidence and decision-to-use advice on COVID-19 vaccines. CV TAG's advice may inform advice for the Minister to make decisions on vaccines and any vaccination requirements. The following is scientific evidence provided or noted by CV TAG:

- In May 2021, CV TAG provided advice on COVID-19 vaccines and their effect on viral transmission. It includes links to relevant studies. CV TAG's advice informed the Minister's decisions on amendments to the Vaccinations Order to expand the scope to include all workers who undertook certain work at the border. This is refused as it is available the Ministry's website at www.health.govt.nz/system/files/documents/pages/science_updates_7_may_2021.pdf.
- An early draft of evidence summary, at Document 1, includes references to relevant studies on the vaccine. The draft summary was initially referred to, for the purpose of the Cabinet paper to amend the Vaccinations Order to include high risk work in the health and disability sector. The Cabinet paper was finalised without this draft summary as there was a clear public health rationale to support the Cabinet paper. As the draft summary was not required it was not finalised. The Cabinet paper is refused as it is available on the Ministry's website at www.health.govt.nz/about-ministry/information-releases/release-ministerial-decision-making-documents/requiring-high-risk-work-health-and-disability-sector-be-undertaken-vaccinated-workers.

2. All meeting minutes where vaccine workplace mandates were on the agenda, discussed and agreed. These are from any relevant government department.

To clarify: I want to see the minutes from the Ministry of Health and the Covid 19 Ministers response team where decisions were made to go ahead with workplace mandates.

The decision to create the Vaccinations Order, which initially applied to border workers, is provided as Document 2. Please note, 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.

The Cabinet material, including the Cabinet minutes, relating to requiring high risk work in the health and disability sector to be undertaken by vaccinated workers can be found on the

Ministry's website: www.health.govt.nz/about-ministry/information-releases/release-ministerial-decision-making-documents/requiring-high-risk-work-health-and-disability-sector-be-undertaken-vaccinated-workers

You may also be interested in the following publicly available Cabinet material:

- Information relating to the Education System Vaccination and testing requirements: www.assets.education.govt.nz/public/Documents/our-work/information-releases/Advice-Seen-by-our-Ministers/October-2021/Education-System-Vaccination-and-Testing-Requirements-Redacted.pdf
- Information to vaccination requirements for workers in prisons: www.covid19.govt.nz/assets/Proactive-Releases/Alert-levels-and-restrictions/26-November-2021/ALC11-18102021-COVID-19-Response-18-October-Review-of-Alert-Level-Settings.pdf

I trust this 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 Ministry of Health website at: www.health.govt.nz/about-ministry/information-releases.

Nāku noa, nā



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Appendix 1: List of documents for release

#	Date	Document details	Decision on release
1	N/A	Evidence summary - Draft appendix	Excerpts released in accordance with section 16(1)(e) of the Act
2	28 April 2021	Briefing: COVID-19 Public Health Response (Vaccinations) Order 2021 for signature (HR20210940)	Released with some information withheld under the following sections of the Act: <ul style="list-style-type: none">• Section 9(2)(a) – to protect the privacy of natural person• Section 9(2)(h) – to maintain legal professional privilege

Appendix 3

1. The Ministry of Health has previously advised that there is a public health rationale for requiring that specified high-risk work, such as work at the border, only be undertaken by vaccinated people in response to the current pandemic. This is because there is a risk that these individuals may be exposed to, and infected by, SARS-CoV-2 in the course of their work and may potentially transmit the virus to others.
2. In the era of the Delta variant, there is an increased risk of becoming infected with SARS-COV-2 and of subsequently transmitting the virus onward. This is because of the increased transmissibility of the Delta variant (see Table 1). The available data also suggest that infection with the Delta variant brings with it a higher risk of severe disease (hospitalisation).

Table 1: Delta variant summary (Data to 24 Sept 2021)

Characteristic	Evidence
Viral dynamics and infectiousness	
R₀	<p>Summary: R₀ ~5.5-6.5, i.e, On average, each person transmits Delta to another 5-6 people.</p> <ul style="list-style-type: none"> • A summary of 5 papers using differing methods to calculate an R₀ for Delta reported a mean R₀ of 5.08 (range, 3.2-8.0).[1]
Transmission	<p>Summary: Epidemiological evidence from secondary attack rates, household transmission studies, and growth rate modelling all indicate more transmissible than wild-type virus or Alpha.[2]</p> <ul style="list-style-type: none"> • Public Health England reported that secondary attack rates (SAR) in household contacts of non-travel Delta cases was approximately 11.4% (95% CI: 11.2-11.6) in the week commencing 16 August 2021. However, PHE notes that this is likely an underestimate. SAR for non-household contacts remained steady at around 4.9% (95% CI: 4.6-5.2) in that week.[18] Household transmission study in UK found 64% increase in household transmission with Delta compared with Alpha (aOR 1.64; 95% CI: 1.26-2.13, p <0.001).[3] • One study reported that 73.9% of Delta transmissions to close contacts occurred before symptom onset (95% CI: 67.2-81.3%).[2]
Viral load	<p>Summary: Delta appears to have very high viral loads</p> <ul style="list-style-type: none"> • The magnitude of the increase is unclear. A 4 -fold increase in viral load compared to the Alpha variant has been reported,[4] but up to 1000-times increases have been reported compared to the less transmissible ancestral variant.[5] Higher viral load has also been observed in national surveillance data and other studies. [6, 7]
Latency period – from exposure to start of infectious period	<p>Summary: Evidence is limited. Delta may have the same or shorter latency period than other variants. Median 4-6 days.</p> <ul style="list-style-type: none"> • Latency (measured as exposure to first positive PCR) of 4 days (median); range 2-7 days.[5, 7]
Incubation period - from exposure to symptom onset	<p>Summary: Evidence is limited on whether Delta has a shorter incubation period.</p>

	<ul style="list-style-type: none"> One study reported a significantly shorter incubation period for Delta compared with the wild-type strain (4 versus 6 days).[8] Another study reported that the mean incubation period was 5.8 days.[7]
Duration of infectious period	<p>Summary: Evidence is limited on whether Delta has a longer infectious period.</p> <ul style="list-style-type: none"> Cycle threshold (Ct) values stay ≤ 30 (low Ct values reflect high viral load) for 18 days for severe/hospitalised cases.[9] However, some studies report similar values for non-Delta variants.[10] This is likely an upper limit of infectious period (since based on hospitalised cases and not all detected virus will be viable).
Severity	
Hospitalisation	<p>Summary: Data indicates increased risk of hospitalisation.</p> <ul style="list-style-type: none"> Public Health England found a significantly increased risk of hospitalisation for Delta – 2.3 times higher risk than Alpha.[11]
Mortality/Case fatality rate	<p>Summary: Mortality/case fatality rate for Delta ~0.2%.</p> <ul style="list-style-type: none"> Public Health England reported that among 229,218 cases of Delta with at least 28-day follow-up, 460 had died - a case fatality of 0.2%.[12] Note that mortality is a lagged indicator (i.e., a lengthy follow up period is required), and extensive analysis to control for other factors has not yet been completed.

- The effects of a number vaccines on individual protection outcomes (infection, symptomatic disease and hospitalisation) are summarised in Table 2. Personal protection is important for maintaining the health and well-being of HCW as well as reducing the impact of COVID-19 on staff availability.
- The only vaccine used to date in New Zealand is the Pfizer vaccine and this will be the vaccine that most HCWs in New Zealand will have received. Individual protection conferred by the Pfizer vaccine is high, particularly against severe outcomes. There is some evidence that waning of protection occurs against infection and symptomatic disease. However, protection against hospitalisation remains high over from first use of this vaccine, to date.
- HCWs might also receive other vaccines if, for example they arrive in New Zealand having been vaccinated elsewhere, or New Zealand chooses to use other vaccines it has access to. The effectiveness of vaccines (as well as the availability of data about their effects) varies by vaccine and outcome.
- HCWs are at risk of infection with SARS-CoV-2 when virus is present at their workplace (e.g., hospitals) or circulating in the community, and are also at risk of transmitting the virus on to their contacts. In one study in Scotland there were 4,343 (3%) cases of COVID-19 and 177 (0.1%) hospitalisations in 144,525 healthcare workers over 4 months.[13] Among their 194,362 household members in this time, there were 3,123 (1.6%) cases of COVID-19 and 175 (0.1%) hospitalisations (the authors estimate from previous research, [14] that half of the infections in household members originated from the healthcare workers). This is

a substantial body of evidence that HCWs are at high risk of becoming infected with SARS-CoV-2 once it is in the community or workplace.[15-22]

7. Measuring the effect of vaccination on transmission is more challenging than measuring the effect on infection or illness. This is because vaccination can reduce onwards transmission from a vaccinated person in two ways:
 - i. Preventing infection of the vaccinated person (if a person is not infected, they cannot transmit the virus). This is measured in vaccine efficacy/effectiveness against infection.
 - ii. Reducing the number of onward infections (if the vaccinated person does become infected). This is measured by assessing the reduction in the number of transmissions to contacts of infected individuals. It can also be observed by comparing the number of infections in the unvaccinated (for example, in children too young to be vaccinated) in regions of low and high vaccination coverage. Viral load (as measured by PCR cycle threshold (Ct) values) has also been used as a proxy of infectiousness of infected individuals. Furthermore, some individuals are more susceptible to becoming infected than others, adding another factor to the likelihood of transmission.

The effects of a vaccine on both of these mechanisms need to be considered together in order to capture the full effect of a vaccine on transmission.

8. Vaccine effectiveness of Pfizer against infection with Delta has been estimated at between 39% and 79% (see Table 2). There is some evidence that effectiveness against infection wanes over time (e.g. VE 93% (95%CI 85–97) in first month after 2nd dose and 53% (95%CI 39–65) at ≥4 months [23]). This likely explains some of the variation in the results.
9. Vaccine effectiveness of Pfizer on transmission from a person infected with Delta to their contacts is estimated at 65% (95%CI 52- 74%)[24]. There is some evidence of waning with transmission reductions declining over time since second vaccination[24]. There is also potential for the estimated effectiveness against transmission to be an underestimate (e.g. if contacts are actually infected by someone other than their index case) or an over estimate (e.g. if asymptomatic contacts are less likely to get tests and vaccine efficacy is lower in the asymptomatic).
10. There is no evidence for Pfizer about Delta infection rates in the unvaccinated in regions with varying vaccination coverage, i.e., that regions with high vaccination coverage are able to provide some degree of indirect protection to the regions with low vaccination coverage. For previous variants there was evidence of a substantial reduction in transmission to the unvaccinated in areas with high vaccine coverage.
11. Studies evaluating Delta infection and vaccination, have found that cycle threshold (Ct) values from PCR tests (often used as a proxy for total viral load) are similar for Delta in unvaccinated and vaccinated individuals. However, Ct values do decrease more quickly for vaccinated compared to unvaccinated individuals.[25-27] This could indicate no difference in infectiousness in

vaccinated and unvaccinated cases, at least for the first few days of an infection. However, one study that examined both viral load (Ct values) and transmission to contacts found that variation in viral load explained only a modest proportion of vaccine-associated transmission reductions and that factors other than PCR-measured viral load are important.[24] The authors hypothesise that vaccination might enable faster clearance of viable infectious virions, leaving damaged ineffective virions behind that still contain PCR-detectable RNA.

12. To summarise, when the effects of Pfizer vaccine on infection and onward transmission are taken into account, it is likely that there is a substantial reduction in onward transmission of Delta by those vaccinated with Pfizer vaccine. However, this effect might begin to wane within a few months of vaccination.

Table 2: Vaccine effectiveness against Delta variant (Data to 29 Sept 2021)

Characteristic	Evidence
Vaccine effectiveness against Delta (for full primary vaccination course, unless otherwise stated)	
Infection	<p>Pfizer: 39% (95% CI 9-59%) to 79% (95%CI 75 – 82%) [23, 28-32] There is some evidence for waning protection against Delta infection e.g. VE 93% (95%CI 85–97) in first month after 2nd dose and 53% (95%CI 39–65) at ≥4 months. [23]</p> <p>AstraZeneca: 60% (95%CI: 53-66)[28]</p> <p>Janssen: 78% (95%CI: 73-82) [33]</p> <p>Novavax: No data for Delta</p> <p>Moderna: 51% (95% CI: 45–56) to 85% (95%CI: 76-91) [34-36]</p> <p>Sinovac: No data for Delta (non-Delta 54% to 66%[37, 38])</p> <p>Sinopharm: a higher rate of infection compared with Pfizer vaccine, but lower than unvaccinated.[39]</p> <p>Sputnik: a lower rate of infection compared to unvaccinated.[39]</p>
Symptomatic disease	<p>Pfizer: 41% (95%CI: 9-61) to 92% (95%CI: 92-93) [34, 40-43] There is some evidence for waning protection against Delta infection[23, 35, 36, 42, 43]</p> <p>AstraZeneca: 47% (95%CI: 45-50) to 67% (95%CI: 61.3-71.8)[40, 43]</p> <p>Janssen: No data for Delta (non-Delta moderate/severe symptomatic 53% 1 dose, 75% for 2 doses [44])</p> <p>Novavax: No data for Delta (non-Delta 60% to 90% [45-47])</p> <p>Moderna: 86% to 95% [34, 43]</p> <p>Sinovac and Sinopharm combined: 59% (95% CI: 16-82) [48]</p> <p>Sinopharm: No data for Delta (non-Delta 78%[49])</p>

	<p>Sinovac: No data for Delta (non-Delta 37% to 83% [50-52])</p> <p>Sputnik: No data for Delta (non-Delta 91% [53])</p>
Hospitalisation	<p>Pfizer:</p> <p><i>hospitalisation: 67% to 100%</i> [40, 43, 54-56] <i>ICU admission: 77% and 99%</i> [55, 56]</p> <p>There is evidence of limited waning of protection against hospitalisation e.g. Among fully vaccinated persons of all ages, protection against COVID-19-related hospitalisation did not wane over time, with overall adjusted VE estimates of 87% (82–91) at < 1 month after being fully vaccinated, and 88% (82–92) at ≥5 months after full vaccination. [23]</p> <p>AstraZeneca:</p> <p><i>hospitalisation: 77% to 94%</i> [43, 54, 56] <i>ICU admission: 96%</i> [56]</p> <p>Janssen:</p> <p><i>hospitalisation: 60 to 91%</i>[33, 55, 56] <i>ICU admission: 65% and 94%</i> [55, 56]</p> <p>Novavax: No data for Delta (non-Delta 100% for moderate to severe disease[46])</p> <p>Sinovac and Sinopharm combined: 100% against severe Delta infection (small sample size)[48]</p> <p>Sinovac: No data for Delta except combined with Sinopharm (Non-Delta hospitalisation 73% to 100% [37, 38, 57] ICU admission 74 and 90% [37, 38][2,3])</p> <p>Sinopharm: No data for Delta except combined with Sinovac (non-Delta 94% against death [58])</p> <p>Moderna:</p> <p><i>hospitalisation: 81% to 98%</i>[35, 43, 55, 56] <i>ICU admission: 86% and 92%</i> [55, 56]</p> <p>Sputnik: No data</p>
Transmission to contacts (note: this is conditional on infection of a vaccinated individual and is therefore <i>in addition</i> to vaccine effectiveness against infection)	<p>Pfizer: 65% (95%CI 52- 74%)[24] (non-Delta data: 30% [59] 41% [60], 50% [61], 70% [62] 81% [63], and 82% [24]). Variation in viral load (Ct values) explains only a modest proportion of vaccine-associated transmission reductions. [24]</p> <p>There is some evidence of waning. Transmission reductions declined over time since second vaccination, attenuating substantially for Delta [24]</p> <p>AstraZeneca: 36% (95%CI 28-43%) [24](non-Delta data 30% (AZ and Pfizer together)[64], 40-50%[65], 58% [62], 63% [24]) Variation in viral load (Ct values) explained only a modest proportion of vaccine-associated transmission reductions. [24]</p>

	<p>There is some evidence of waning. Transmission reductions declined over time since second vaccination, for Delta reaching similar levels to unvaccinated individuals by 12 weeks [24]</p> <p>Janssen: No data (Non-Delta data: 77%[62])</p> <p>Novavax: No data</p> <p>Moderna: No data (Non-Delta data: 88% (95%CI 50-97%) [62])</p> <p>Sinopharm: No data</p> <p>Sinovac: No data</p> <p>Sputnik: No data</p>
<p>Infection rates in the unvaccinated in regions with varying vaccination coverage</p>	<p>Pfizer: No data (non-Delta data: Studies have shown that high vaccination coverage is correlated with fewer infections[66-68] , e.g. with ~70% of adults fully vaccinated, a ~60% reduction in cases compared to other regions with similar restrictions with ~10% vaccination coverage [67])</p> <p>AstraZeneca: No data</p> <p>Janssen: No data</p> <p>Novavax: No data</p> <p>Moderna: No data</p> <p>Sinopharm: No data</p> <p>Sinovac: No data</p> <p>Sputnik: No data</p>
<p>PCR cycle threshold (Ct) values (high Ct a proxy for low viral load)</p>	<p>Pfizer: Vaccinated and unvaccinated Delta cases have similar Ct values[25, 27, 69-72] (Data combined with other vaccines: Moderna, Janssen, and AstraZeneca). Pre-Delta studies show viral load lower in vaccinated than unvaccinated (by measuring Ct values).[73-75] However, viral load appears to decrease more quickly in the vaccinated group.[25-27]</p> <p>AstraZeneca: Vaccinated and unvaccinated Delta cases have similar Ct values [27] (UK data combined with Pfizer). Pre-Delta trial (with weekly swabs) lower viral load with AstraZeneca than placebo. [76]</p> <p>Janssen: Vaccinated and unvaccinated Delta cases have similar Ct values (however only 33% vaccinated with Janssen, remainder mRNA). [26]</p> <p>Novavax: No data</p> <p>Moderna: Vaccinated and unvaccinated Delta cases have similar Ct values[25, 26, 69-72](data combined with other vaccines: Pfizer, Janssen)</p> <p>Sinopharm: No data</p> <p>Sinovac: No data</p> <p>Sputnik: No data</p>

13. There might be situations in which a HCW is offered vaccination with a dose of Pfizer, after a dose or doses with another vaccine. However, data around “mixed brand” schedules, where a dose of Pfizer is given after a dose of another brand of COVID-19 vaccine, are relatively scarce. The reactogenicity of such a combination (currently only AstraZeneca followed by Pfizer data available) may be similar to, or more pronounced than, with a Pfizer-Pfizer schedule, but there have not been reports of serious adverse events in studies to date [77-80]. The effectiveness against infection for an AstraZeneca-mRNA (Pfizer or Moderna) regimen was 88% against infection in a single study, where 88,050 of 136,551 recipients received Pfizer/BioNTech).[81] There were no COVID-19 related hospitalisations/deaths in the heterogenous group.[81] In the absence of other clinical effectiveness data for mixed brand schedules we also report immunogenicity data. In brief, these data are report that a schedule of AstraZeneca followed by Pfizer to be either “immunogenic” (without reporting specific results to allow assessment in comparison to other schedules),[82, 83] or to produce levels of neutralising antibody similar to, [84, 85] or higher than, [82, 83] a Pfizer-Pfizer schedule. Three studies also reported robust or superior T cell response with the mixed brand schedule. [84, 85].
14. The key public health consideration is that vaccines offer a high degree of protection for individuals who are vaccinated, alongside a range of other public health measures designed to protect those vaccinated and others they have contact with.
15. It is important to note that Infection Prevention and Control (IPC) practices (such as the use of personal protective equipment and physical distancing) provide further layers of protection. As a result, it is imperative that other public health measures remain in place presently.

References

1. Liu, Y. and J. Rocklöv, *The reproductive number of the Delta variant of SARS-CoV-2 is far higher compared to the ancestral SARS-CoV-2 virus*. Journal of Travel Medicine, 2021.
2. Public Health England (PHE), *23 July 2021 Risk Assessment for SARS-CoV-2 variant: Delta*. 2021.
3. Allen H, V.A., Flannagan J, et al., *Increased household transmission of COVID-19 cases associated with SARS-CoV-2 Variant of Concern B.1.617.2: a national case-control study*. Public Health England.
4. von Wintersdorff, C., et al. *Infections caused by the Delta variant (B.1.617.2) of SARS-CoV-2 are associated with increased viral loads compared to infections with the Alpha variant (B.1.1.7) or non-Variants of Concern*. 2021; Available from: <https://www.researchsquare.com/article/rs-777577/v1>.
5. Li, B., et al., *Viral infection and transmission in a large, well-traced outbreak caused by the SARS-CoV-2 Delta variant*. medRxiv, 2021: p. 2021.07.07.21260122.
6. Public Health England (PHE), *SARS-CoV-2 variants of concern and variants under investigation in England: Technical briefing 20*.
7. Kang, M., et al., *Transmission dynamics and epidemiological characteristics of Delta variant infections in China*. medRxiv, 2021: p. 2021.08.12.21261991.
8. Wang, Y., et al., *Transmission, viral kinetics and clinical characteristics of the emergent SARS-CoV-2 Delta VOC in Guangzhou, China*. EClinicalMedicine, 2021. **40**: p. 101129.

9. Ong, S.W.X., et al., *Clinical and Virological Features of SARS-CoV-2 Variants of Concern: A Retrospective Cohort Study Comparing B.1.1.7 (Alpha), B.1.315 (Beta), and B.1.617.2 (Delta)*. Lancet Pre-print., 2021.
10. Ong SWX, C., CJ, Ang LW, Mak T-M, Cui L, Toh MPHS, Lim YD, Lee PH, Lee TH, Chia PY, Maurer-Stroh S, Lin RTP, Leo Y-S, Lee VJ, Lye DC, Young BE, *Clinical and Virological Features of SARS-CoV-2 Variants of Concern: A Retrospective Cohort Study Comparing B.1.1.7 (Alpha), B.1.315 (Beta), and B.1.617.2 (Delta)*. . Lancet Preprint, 2021: p. 24.
11. Public Health England (PHE), *SARS-CoV-2 variants of concern and variants under investigation in England: Technical briefing 15*. 2021.
12. Public Health England (PHE), *SARS-CoV-2 variants of concern and variants under investigation in England: Technical briefing 19*. 2021.
13. V Shah, A., et al. *Effect of vaccination on transmission of COVID-19: an observational study in healthcare workers and their households*. 2021 2021; Available from: <http://europepmc.org/abstract/PPR/PPR300854https://doi.org/10.1101/2021.03.11.21253275https://europepmc.org/article/PPR/PPR300854https://europepmc.org/api/fulltextRepo?prid=PPR300854&type=FILE&fileName=EMS120471-pdf.pdf&imeType=application/pdf>.
14. Shah, A.S.V., et al., *Risk of hospital admission with coronavirus disease 2019 in healthcare workers and their households: nationwide linkage cohort study*. BMJ (Clinical research ed.), 2020. **371**: p. m3582.
15. Nguyen, L.H., et al., *Risk of COVID-19 among front-line health-care workers and the general community: a prospective cohort study*. Lancet Public Health, 2020. **5**(9): p. e475-e483.
16. Sahu, A.K., et al., *COVID-19 in health care workers - A systematic review and meta-analysis*. Am J Emerg Med, 2020. **38**(9): p. 1727-1731.
17. The, L., *COVID-19: protecting health-care workers*. Lancet, 2020. **395**(10228): p. 922.
18. Bielicki, J.A., et al., *Monitoring approaches for health-care workers during the COVID-19 pandemic*. Lancet Infect Dis, 2020. **20**(10): p. e261-e267.
19. Zhan, M., et al., *Death from Covid-19 of 23 Health Care Workers in China*. N Engl J Med, 2020. **382**(23): p. 2267-2268.
20. Ng, K., et al., *COVID-19 and the Risk to Health Care Workers: A Case Report*. Ann Intern Med, 2020. **172**(11): p. 766-767.
21. Koh, D., *Occupational risks for COVID-19 infection*. Occup Med (Lond), 2020. **70**(1): p. 3-5.
22. Sikkema, R.S., et al., *COVID-19 in health-care workers in three hospitals in the south of the Netherlands: a cross-sectional study*. Lancet Infect Dis, 2020. **20**(11): p. 1273-1280.
23. Tartof, S.Y., et al., *Six-Month Effectiveness of BNT162B2 mRNA COVID-19 Vaccine in a Large US Integrated Health System: A Retrospective Cohort Study*. 2021.
24. Eyre, D.W., et al. *The impact of SARS-CoV-2 vaccination on Alpha & Delta variant transmission*. 29 Sept 2021; Available from: <https://doi.org/10.1101/2021.09.28.21264260>.
25. Chia, P.Y., et al., *Virological and serological kinetics of SARS-CoV-2 Delta variant vaccine-breakthrough infections: a multi-center cohort study*. medRxiv, 2021: p. 2021.07.28.21261295.
26. Shamier, M.C., et al., *Virological characteristics of SARS-CoV-2 vaccine breakthrough infections in health care workers*. medRxiv, 2021: p. 2021.08.20.21262158.
27. Singanayagam, A., et al., *Community Transmission and Viral Load Kinetics of SARS-CoV-2 Delta (B.1.617.2) Variant in Vaccinated and Unvaccinated Individuals*. SSRN Electronic Journal, 2021.
28. Sheikh, A., et al., *SARS-CoV-2 Delta VOC in Scotland: demographics, risk of hospital admission, and vaccine effectiveness*. The Lancet, 2021. **397**(10293): p. 2461-2462.
29. Ministry of Health. *Data Compiled by the Vaccine Operation's Supervising Committee Published*. 23rd July 2021; Available from: <https://www.gov.il/en/departments/news/22072021-03>.

30. Puranik, A., et al., *Comparison of two highly-effective mRNA vaccines for COVID-19 during periods of Alpha and Delta variant prevalence*. 8th August 2021, Cold Spring Harbor Laboratory.
31. @CDCgov, *Effectiveness of COVID-19 Vaccines in Preventing SARS-CoV-2 Infection Among Frontline Workers Before and During B.1.617.2 (Delta) Variant Predominance — Eight U.S. Locations, December 2020–August 2021* | MMWR. 2021.
32. Barlow, R.S., K. Jian, and L. Larson, *Effectiveness of COVID-19 Vaccines Against SARS-CoV-2 Infection During a Delta Variant Epidemic Surge in Multnomah County, Oregon, July 2021*. 2021, Cold Spring Harbor Laboratory.
33. Polinski, J.M., et al., *Effectiveness of the Single-Dose Ad26.COVS COVID Vaccine*. medRxiv, 2021: p. 2021.09.10.21263385.
34. Tang, P., et al., *BNT162b2 and mRNA-1273 COVID-19 vaccine effectiveness against the Delta (B.1.617.2) variant in Qatar*. 2021.
35. Puranik, A., et al., *Comparison of two highly-effective mRNA vaccines for COVID-19 during periods of Alpha and Delta variant prevalence*. medRxiv, 2021: p. 2021.08.06.21261707.
36. Nanduri, S., et al., *Effectiveness of Pfizer-BioNTech and Moderna Vaccines in Preventing SARS-CoV-2 Infection Among Nursing Home Residents Before and During Widespread Circulation of the SARS-CoV-2 B.1.617.2 (Delta) Variant — National Healthcare Safety Network, March 1–August 1, 2021*. MMWR. Morbidity and Mortality Weekly Report, 2021. **70**(34): p. 1163-1166.
37. Cerqueira-Silva, T., et al. *The effectiveness of Vaxzevria and CoronaVac vaccines: A nationwide longitudinal retrospective study of 61 million Brazilians (VigiVac-COVID19)*. 25 August 2021; Available from: <https://doi.org/10.1101/2021.08.21.21261501>.
38. Jara, A., et al., *Effectiveness of an Inactivated SARS-CoV-2 Vaccine in Chile*. N Engl J Med, 2021. **385**(10): p. 875-884.
39. AlQahtani, M., et al., *Morbidity and mortality from COVID-19 post-vaccination breakthrough infections in association with vaccines and the emergence of variants in Bahrain*. Research Square, 2021.
40. Lopez Bernal, J., et al., *Effectiveness of Covid-19 Vaccines against the B.1.617.2 (Delta) Variant*. New England Journal of Medicine, 2021.
41. Nasreen, S., et al., *Effectiveness of COVID-19 vaccines against variants of concern, Canada*. medRxiv, 2021: p. 2021.06.28.21259420.
42. The Ministry of Health Israel. *Data Compiled by the Vaccine Operation's Supervising Committee Published*. July 22, 2021; Available from: <https://www.gov.il/en/departments/news/22072021-03>.
43. Andrews, N., et al., *Vaccine effectiveness and duration of protection of Comirnaty, Vaxzevria and Spikevax against mild and severe COVID-19 in the UK*. medRxiv, 2021: p. 2021.09.15.21263583.
44. Johnson & Johnson. *Johnson & Johnson Announces Real-World Evidence and Phase 3 Data Confirming Strong and Long-Lasting Protection of Single-Shot COVID-19 Vaccine in the U.S.* September 21, 2021; Available from: <https://www.jnj.com/johnson-johnson-announces-real-world-evidence-and-phase-3-data-confirming-strong-and-long-lasting-protection-of-single-shot-covid-19-vaccine-in-the-u-s?utm>.
45. Heath, P.T., et al., *Safety and Efficacy of NVX-CoV2373 Covid-19 Vaccine*. New England Journal of Medicine, 2021.
46. Novavax. *Novavax COVID-19 Vaccine Demonstrates 90% Overall Efficacy and 100% Protection Against Moderate and Severe Disease in PREVENT-19 Phase 3 Trial*. 2021; Available from: <https://ir.novavax.com/news-releases/news-release-details/novavax-covid-19-vaccine-demonstrates-90-overall-efficacy-and>.
47. Shinde, V., et al., *Efficacy of NVX-CoV2373 Covid-19 Vaccine against the B.1.351 Variant*. New England Journal of Medicine, 2021.

48. Li, X.-N., et al., *Effectiveness of inactivated SARS-CoV-2 vaccines against the Delta variant infection in Guangzhou: a test-negative case-control real-world study*. *Emerging Microbes & Infections*, 2021. **10**(1): p. 1751-1759.
49. Al Kaabi, N., et al., *Effect of 2 Inactivated SARS-CoV-2 Vaccines on Symptomatic COVID-19 Infection in Adults: A Randomized Clinical Trial*. *JAMA*, 2021. **326**(1): p. 35-45.
50. Palacios, R., et al. *Efficacy and Safety of a COVID-19 Inactivated Vaccine in Healthcare Professionals in Brazil: The PROFISCOV Study*. 2021; Available from: <http://dx.doi.org/10.2139/ssrn.3822780>.
51. Tanriover, M.D., et al., *Efficacy and safety of an inactivated whole-virion SARS-CoV-2 vaccine (CoronaVac): interim results of a double-blind, randomised, placebo-controlled, phase 3 trial in Turkey*. *Lancet*, 2021. **398**(10296): p. 213-222.
52. Hitchings, M.D.T., et al. *Effectiveness of CoronaVac among healthcare workers in the setting of high SARS-CoV-2 Gamma variant transmission in Manaus, Brazil: A test-negative case-control study*. 2021; Available from: <https://doi.org/10.1101/2021.04.07.21255081>.
53. Logunov, D.Y., et al., *Safety and efficacy of an rAd26 and rAd5 vector-based heterologous prime-boost COVID-19 vaccine: an interim analysis of a randomised controlled phase 3 trial in Russia*. *Lancet*, 2021. **397**(10275): p. 671-681.
54. Stowe, J., et al. *Effectiveness of COVID-19 vaccines against hospital admission with the Delta (B.1.617.2) variant*. 2021; Available from: <https://khub.net/documents/135939561/479607266/Effectiveness+of+COVID-19+vaccines+against+hospital+admission+with+the+Delta+%28B.1.617.2%29+variant.pdf/1c213463-3997-ed16-2a6f-14e5deb0b997?t=1623689315431>.
55. Grannis, S.J., et al., *Interim Estimates of COVID-19 Vaccine Effectiveness Against COVID-19-Associated Emergency Department or Urgent Care Clinic Encounters and Hospitalizations Among Adults During SARS-CoV-2 B.1.617.2 (Delta) Variant Predominance — Nine States, June–August 2021*. *MMWR. Morbidity and Mortality Weekly Report*, 2021. **70**(37): p. 1291-1293.
56. de Gier, B., et al., *COVID-19 vaccine effectiveness against hospitalizations and ICU admissions in the Netherlands, April- August 2021*. medRxiv, 2021: p. 2021.09.15.21263613.
57. Tanriover, M.D., et al., *Efficacy and safety of an inactivated whole-virion SARS-CoV-2 vaccine (CoronaVac): interim results of a double-blind, randomised, placebo-controlled, phase 3 trial in Turkey*. *The Lancet*, 2021. **398**(10296): p. 213-222.
58. Silva-Valencia, J., Soto-Becerra, P., Escobar-Agreda, S., Fernandez-Navarro, M., Solari, L., Mayta-Tristan, P.,. *Efectividad de la vacuna BBIBP-CorV para prevenir Infeccion y muerte en personal de salud, Peru*. 2021; Available from: <https://repositorio.ins.gob.pe/xmlui/bitstream/handle/INS/1318/Efectividad%20de%20la.pdf?sequence=1&isAllowed=y>.
59. Shah, A.S.V., et al. *Effect of vaccination on transmission of COVID-19: an observational study in healthcare workers and their households*. 21 March 2021; Available from: <https://doi.org/10.1101/2021.03.11.21253275>.
60. Prunas, O., et al., *Vaccination with BNT162b2 reduces transmission of SARS-CoV-2 to household contacts in Israel*. 16th July 2021, Cold Spring Harbor Laboratory.
61. Harris, R.J., et al., *Effect of Vaccination on Household Transmission of SARS-CoV-2 in England*. *New England Journal of Medicine*, 2021.
62. De Gier, B., et al., *Vaccine effectiveness against SARS-CoV-2 transmission and infections among household and other close contacts of confirmed cases, the Netherlands, February to May 2021*. *Eurosurveillance*, 2021. **26**(31).
63. Monge, S., et al. *Direct and indirect effectiveness of mRNA vaccination against SARS-CoV-2 infection in long-term care facilities in Spain*. 15 April 2021; Available from: <https://www.medrxiv.org/content/10.1101/2021.04.08.21255055v2>.

64. V Shah, A.S., et al., *Effect of vaccination on transmission of COVID-19: an observational study in healthcare workers and their households*. 2021, Cold Spring Harbor Laboratory.
65. Harris, R.J., et al., *Impact of vaccination on household transmission of SARS-CoV-2 in England*. 2021.
66. Milman, O., et al. *SARS-CoV-2 infection risk among unvaccinated is negatively associated with community-level vaccination rates*. 31 March 2021; Available from: <https://doi.org/10.1101/2021.03.26.21254394>.
67. Paetzold, J., et al., *The effects of rapid mass vaccination against SARS-CoV-2 and its Variants-of-Concern: Evidence from an early VoCs hotspot*. 24th July 2021, Research Square Platform LLC.
68. Ross, C., et al. *BNT162b2 mRNA vaccinations in Israel: understanding the impact and improving the vaccination policies by redefining the immunized population*. 10 June 2021; Available from: <https://www.medrxiv.org/content/10.1101/2021.06.08.21258471v1>.
69. Brown CM, V.J., Johnson H, et al. , *Outbreak of SARS-CoV-2 Infections, Including COVID-19 Vaccine Breakthrough Infections, Associated with Large Public Gatherings — Barnstable County, Massachusetts, July 2021*. MMWR Morb Mortal Wkly Rep. ePub: 30 July 2021., 2021.
70. Griffin, J.B., et al., *SARS-CoV-2 Infections and Hospitalizations Among Persons Aged ≥16 Years, by Vaccination Status — Los Angeles County, California, May 1–July 25, 2021*. MMWR. Morbidity and Mortality Weekly Report, 2021. **70**(34): p. 1170-1176.
71. Riemersma, K.K., et al., *Shedding of Infectious SARS-CoV-2 Despite Vaccination*. medRxiv, 2021: p. 2021.07.31.21261387.
72. Christensen, P.A., et al., *Delta variants of SARS-CoV-2 cause significantly increased vaccine breakthrough COVID-19 cases in Houston, Texas*. medRxiv, 2021: p. 2021.07.19.21260808.
73. Levine-Tiefenbrun, M., et al., *Initial report of decreased SARS-CoV-2 viral load after inoculation with the BNT162b2 vaccine*. Nat Med, 2021.
74. Petter, E., et al. *Initial real world evidence for lower viral load of individuals who have been vaccinated by BNT162b2*. 8 February 2021; Available from: <https://www.medrxiv.org/content/10.1101/2021.02.08.21251329v1>.
75. Pritchard, E., et al., *Impact of vaccination on new SARS-CoV-2 infections in the United Kingdom*. Nature Medicine, 2021.
76. Emary, K.R.W., et al., *Efficacy of ChAdOx1 nCoV-19 (AZD1222) vaccine against SARS-CoV-2 variant of concern 202012/01 (B.1.1.7): an exploratory analysis of a randomised controlled trial*. The Lancet, 2021. **397**(10282): p. 1351-1362.
77. Shaw, R.H., et al., *Heterologous prime-boost COVID-19 vaccination: initial reactogenicity data*. Lancet, 2021.
78. *The combined use of AstraZeneca and Pfizer vaccines against SARS-CoV-2 offers a powerful immune response*. 18 May 2021; Available from: <https://www.isciii.es/Noticias/Noticias/Paginas/Noticias/Presentaci%3%b3n-resultados-preliminares-CombivacS.aspx>.
79. Groß, R., et al. *Heterologous ChAdOx1 nCoV-19 and BNT162b2 prime-boost vaccination elicits potent neutralizing antibody responses and T cell reactivity*. 01 June 2021.; Available from: <https://www.medrxiv.org/content/10.1101/2021.05.30.21257971v1>.
80. Hillus, D., et al. *Reactogenicity of homologous and heterologous prime-boost immunisation with BNT162b2 and ChAdOx1-nCoV19: a prospective cohort study*. 22 May 2021; Available from: <https://www.medrxiv.org/content/10.1101/2021.05.19.21257334v1>.
81. Gram, M.A., et al., *Vaccine effectiveness when combining the ChAdOx1 vaccine as the first dose with an mRNA COVID-19 vaccine as the second dose*. 28th July 2021, Cold Spring Harbor Laboratory.

82. Borobia, A.M., et al., *Immunogenicity and reactogenicity of BNT162b2 booster in ChAdOx1-S-primed participants (CombiVacS): a multicentre, open-label, randomised, controlled, phase 2 trial*. The Lancet, 2021.
83. Barros-Martins, J., et al., *Immune responses against SARS-CoV-2 variants after heterologous and homologous ChAdOx1 nCoV-19/BNT162b2 vaccination*. Nature Medicine, 2021.
84. Liu, X., et al., *Safety and immunogenicity of heterologous versus homologous prime-boost schedules with an adenoviral vectored and mRNA COVID-19 vaccine (Com-COV): a single-blind, randomised, non-inferiority trial*. The Lancet, 2021.
85. Rose, R., et al., *Heterologous immunisation with vector vaccine as prime followed by mRNA vaccine as boost leads to humoral immune response against SARS-CoV-2, which is comparable to that according to a homologous mRNA vaccination scheme*. 2021, Cold Spring Harbor Laboratory.

RELEASED UNDER THE OFFICIAL INFORMATION ACT 1982

Briefing

COVID-19 Public Health Response (Vaccinations) Order 2021 for signature

Date due to MO: 28 April 2021

Action required by: 28 April 2021

Security level: IN CONFIDENCE

Health Report number: 20210940

To: Hon Chris Hipkins, Minister for COVID-19 Response

Contact for telephone discussion

Name	Position	Telephone
Dr Ashley Bloomfield	Director-General of Health	S9(2)(a)
Maree Roberts	Deputy Director-General, System Strategy and Policy	

Minister's office to complete:

Approved

Decline

Noted

Needs change

Seen

Overtaken by events

See Minister's Notes

Withdrawn

Comment:

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COVID-19 Public Health Response (Vaccinations) Order 2021 for signature

Security level: IN CONFIDENCE **Date:** 28 April 2021

To: Hon Chris Hipkins, Minister for COVID-19 Response

Purpose of report

1. This report recommends that you sign the attached COVID-19 Public Health Response (Vaccinations) Order 2021 (the Order). The Order requires that work at certain places be carried out by affected persons who are vaccinated. The Order requires that work undertaken in Managed Isolation and Quarantine Facilities (MIQFs), and by government officials at affected airports and affected ports, be performed only by workers who have been vaccinated.

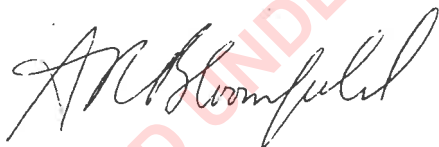
Summary

2. On 20 April 2021, you agreed to make the COVID-19 Public Health Response (Vaccination) Order 2021 (the Order) requiring that work at certain places be carried out by affected persons who are vaccinated. The Order requires that work undertaken in Managed Isolation and Quarantine Facilities (MIQFs), and by government officials at affected airports and affected ports, be performed only by workers who have been vaccinated [Ministry of Business, Innovation and Employment (MBIE) paper 2021-3276 refers].
3. You undertook Ministerial consultation, and this was completed on 27 April 2021, with no amendments requested.
4. The Ministry of Health (the Ministry) considers there is a public health rationale for requiring that specified high-risk roles only be undertaken by vaccinated people, in response to the current pandemic. This is due to the risk that these individuals may be exposed to, and infected by, COVID-19 during their work. Vaccines provide another layer of individual protection and, in doing so, may also be effective in preventing transmission in the community.
5. These measures engage rights protected by the New Zealand Bill of Rights Act (NZBORA). Limits on NZBORA rights can be justified if the measure serves an important and significant objective, and there is a rational and proportionate connection between that objective and the measure. s 9(2)(h)
s9(2)(h)
6. We recommend that you sign the attached Order on 28 April 2021 (today) so that it can be gazetted by 5:00pm. This will ensure that the Order enters into force at 11:59pm on 30 April 2021.

Recommendations

We recommend you:

- a) **Note** that officials advise the COVID-19 Public Health Response (Vaccinations) Order 2021 is in line with the purposes of the COVID-19 Public Health Response Act 2020, to prevent, and limit the risk of, the outbreak or spread of COVID-19. **Noted**
- b) **Note** that the Ministry considers there is a public health rationale for requiring specified high-risk roles be performed by vaccinated individuals only, in response to the current pandemic. This is because there is a risk that these individuals may be exposed to, and infected by, COVID-19 during their work. Vaccines provide another layer of individual protection and, in doing so, may also be effective in preventing transmission in the community. **Noted**
- c) **Note** that you must be satisfied that the Order does not limit, or is a justified limit, on the rights and freedoms in the New Zealand Bill of Rights Act 1990, as part of issuing the Order. **Noted**
- d) **Note** that these measures engage rights protected by the New Zealand Bill of Rights Act 1990 (NZBORA). **Noted**
- f) **Note** that further advice will be provided from the Border Executive Board agencies on the recommended approach to requiring high-risk work performed by other workforces at the border that can only be done by a vaccinated worker, including any proposed exemptions and other issues for Ministers to consider. **Noted**
- g) **Note** that following Ministerial consultation, the COVID-19 Public Health Response (Vaccinations) Order 2021 has been finalised for your approval. **Noted**
- h) **Agree** to sign the attached COVID-19 Public Health Response (Vaccinations) Order 2021 on 28 April 2021. **Yes/No**



Dr Ashley Bloomfield
Director-General of Health
Date: 28 April 2021



Hon Chris Hipkins
Minister for COVID-19 Response
Date:

AYESHA VERRILL
Assoc MIN OF HEALTH
28/4/21

COVID-19 Public Health Response (Vaccinations) Order 2021 for signature

Background

1. On 20 April 2021, you agreed to make the COVID-19 Public Health Response (Vaccination) Order 2021 that requires work at certain places to be carried out by affected persons who are vaccinated. The Order requires that work undertaken in Managed Isolation and Quarantine Facilities (MIQFs), and by government officials at affected airports and affected ports, be performed only by workers who have been vaccinated [MBIE paper 2021-3276 refers].

Contents of the Vaccinations Order

2. The Order makes it mandatory for work at certain places to be carried out by affected persons who are vaccinated. It includes provisions on:
 - a. timings for when border workers are required to be fully vaccinated in order to carry out specified work
 - b. duties of persons conducting a business or undertaking (PCBUs) and employees in relation to vaccinations, including that a breach of any obligations will be an infringement offence
 - c. limited exceptions to the vaccination requirement, including in the case of necessary, unanticipated, time-critical work, and in order to protect a person's life, health or safety in an emergency
 - d. information sharing aimed at supporting effective implementation of the draft Order and the COVID-19 Immunisation Programme, by providing the government and employers/PCBUs a mechanism allowing them to know who has and has not been vaccinated, by:
 - i. requiring the relevant PCBU to request information from the Ministry of Health on the vaccination status of individuals that the PCBU has determined must be vaccinated to perform high risk work at the border
 - ii. requiring the Ministry of Health to provide an individual's relevant COVID-19 vaccination records to PCBUs, as requested
 - iii. requiring individuals who wish to perform work covered by the Order to allow the relevant PCBU to access any records that the Ministry of Health has regarding their COVID-19 vaccination status.

Changes to the draft Order

3. Since Ministerial consultation, there have been amendments made to the draft Order based on further agency consultation. This includes:
 - a. In relation to Clause 11 "Duties regarding vaccination status", clarifying the roles and responsibilities of different stakeholders, including:

- i. that it is the PCBU, not the Ministry of Health, who determines who needs to be vaccinated in order to perform work at an MIQF, affected port, or affected airport
 - ii. that the Ministry of Health is responsible for checking the vaccination status of the individual, and reporting it back to the requesting PCBU
 - iii. adding a requirement that PCBUs must advise the Ministry of Health if an individual is no longer subject to the Order
4. These amendments do not change the substantive policy intent of the Order previously agreed [MBIE paper 2021-3276 refers].

Process for making a section 11 Order

5. Under the COVID-19 Act, an Order may be made if either:
 - a. a state of emergency has been declared (under the Civil Defence Emergency Management Act 2002);
 - b. an Epidemic Notice is in force (under the Epidemic Preparedness Act 2006); or
 - c. it has been authorised by the Prime Minister.
6. There is currently an Epidemic Notice in place, which allows Orders to be made under section 11 of the COVID-19 Act.
7. As the Minister for COVID-19 Response, you may make Orders under section 11 of the COVID-19 Public Health Response Act 2020 (the Act).
8. To make an Order under section 11 you must:
 - a. have received advice from the Director-General about:
 - i. the risks of the outbreak or spread of COVID-19; and
 - ii. the nature and extent of measures that are appropriate to address those risks; and
 - b. be satisfied that the proposed Order does not limit or is a justified limit on the rights and freedoms in the New Zealand Bill of Rights Act 1990 (NZBORA); and
 - c. consult with the Prime Minister, the Minister of Justice, Minister of Health, and any other Ministers you think necessary; and
 - d. be satisfied that this Order is appropriate to achieve the purposes of the Act.
9. My advice about the risks of the outbreak or spread of COVID-19 and the nature and extent of measures that are appropriate to manage those risks is set out below.

Public health rationale

10. You have previously been provided with detailed public health rationale for the proposed draft Order [MBIE paper 2021-3276 refers].
11. The Ministry advises that there is a public health rationale for requiring specified high-risk roles only be undertaken by vaccinated individuals, in response to the current pandemic. This is due to the risk that these individuals may be exposed to, and infected by, COVID-19 during their work.

12. Evidence of the efficacy of vaccines in preventing person-to-person transmission is still evolving. However, current evidence suggests that the vaccine is likely to be effective in preventing transmission. Real-world evidence suggests that people vaccinated with the Pfizer-BioNTech COVID-19 vaccine who develop COVID-19 have a four-fold lower viral load than unvaccinated people. This observation may indicate reduced transmissibility, as viral load and symptomatic infection has been identified as a key driver of transmission.¹
13. Vaccines offer a high degree of protection for individuals who are vaccinated, alongside a range of other public health measures. A worker who has been vaccinated will have a very high likelihood that they will be protected from serious illness or death and are more likely to be asymptomatic if infected.
14. Therefore, while vaccination does not prevent all possible episodes of transmission, vaccination has a clinically relevant impact on reducing the risk of transmission. The risk of COVID-19 infection in New Zealand is currently highest amongst those in high-risk roles at the border. Ensuring that such workers are vaccinated will therefore substantially protect the wider community.

s 9(2)(h)



s 9(2)(h)

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23. A summary of the Crown Law Office's advice is attached as **Appendix 2**.

Equity

24. As discussed above, there is potential for the Order to discriminate against workers on the grounds of sex, disability or religion. We are also aware that many of the affected workers are in low paying jobs and are carried out by ethnic minorities and women, who would potentially be more greatly impacted.
25. However, we also know from historical examples that Māori and Pacific peoples are likely to be disproportionately affected by a widespread epidemic. Therefore, there is also an equity imperative to do everything possible, within the requirement that that Minister must be satisfied that there is no limitations on rights or that any limitation on rights is justified, to minimise the potential risk to the community from COVID-19.
26. Given that the vaccination is available to all groups, we do not consider the equity concerns above to be sufficient to prohibit taking this action.

Implementation

27. The Border Worker Testing Register (BWTR), which became mandatory on 27 April 2021, is the most comprehensive database of the border and MIQF workforce. The Order will allow the Ministry to pre-populate data from the BWTR with the COVID-19 Immunisation Register to proactively identify who should be vaccinated.
28. The Order will also authorise the sharing of the vaccination status of workers (subject to the Order) with their PCUBs/employers. This will provide PCUBs/employers with an accurate record of the vaccination status of their workforce and assist them to manage their obligations under the draft Order in a more efficient way.
29. The implementation of the Order is dependent on PCBU's being able to access information on the COVID-19 vaccination status of their employees, as appropriate. The Ministry is developing an IT solution that will support the automated generation of this information,

on request. We anticipate this being operational from 11 May 2021. In the interim, the Ministry will support the implementation of the Order through a manual process. This means that there is likely to be a transition period, during which some PCBUs will not have immediate access to information on the vaccination status of their affected employees. While this may technically be in breach of the Order, there would need to be evidence of a breach for that to be enforced.

30. We will work with PCBUs to try and manage these requests for information so that information flows can work as effectively as possible in the circumstances. The key difficulty during this time is that we are still transitioning some PCBUs onto the BWTR. Until that is complete, it is not possible to automate the information sharing about vaccination status.
31. While consideration was given to making provision for this transition period in the Order, on the advice of the Ministry's legal team, we have determined that it is more effective to work alongside PCBUs to ensure that they operate in a manner consistent with the intent of the Order, and we support and enable PCBUs to meet their obligations under the Order, as soon as possible, to meet the Government's objectives.
32. MBIE will lead work on the development of the operational guidance to support the Order when it comes into effect. This will include updating guidance on employment.govt.nz; and working with the Public Service Commission and the Border Executive Board Chief Executives to ensure that appropriate guidance is provided to public sector employers.
33. We will update operational guidance (including the immunisation sequencing framework) to ensure that relevant provision is made for people required to be vaccinated under the Order.

Next steps

34. Further advice will be provided from the Border Executive Board agencies on the recommended approach to requiring specified high-risk work performed by other workforces operating at the border that can only be done by a vaccinated worker, including any proposed exemptions and other issues for Ministers to consider, such as the scope of work and workers impacted at affected airports and affected ports.
35. Following this further advice, an Amendment to the Order could be made to bring additional groups into the Order.
36. We recommend that you sign the attached Order on 28 April 2021 (today) so that it can be gazetted by 5:00pm. This will ensure that the Order enters into force at 11:59pm on 30 April 2021.

ENDS.

s 9(2)(h)



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