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NZDF COVID-19 VACCINATION STATUS HEALTH ASSESSMENT**Reference**

A. DFI 0.81 Risk Management Instructions dated 06 Jul 20

Background

1. Since Jan 2020 COVID-19 has been present as a global health threat. Infection with COVID-19 carries significant individual risk and unchecked transmission results in significant population health risk.
2. NZ national strategy for the pandemic was initially one of targeting elimination of the risk to the community. The effectiveness of this approach has since been diminished by new more transmissible variants and by reducing capacity in public health components to apply population protection that may limit transmission (such as contact tracing to identify personnel who should be isolating). NZ national strategy is now one of 'mitigation' where national health assets are focused on responding to vulnerable communities. Businesses and organisations are now expected to self manage their workplace and personnel safety risk.
3. Throughout the international COVID-19 pandemic, NZDF personnel have had a very wide range of tasks and duties that have seen personnel unable to isolate from exposures, even when NZ community exposure likelihood was rare. Our Managed Isolation and Quarantine Facilities (MIQF), border duties and international postings, deployments and responses have seen NZDF personnel in situations where exposure to COVID-19 has not been eliminated by routine public health control measures (such as distancing, masks, staying away from symptomatic or infected personnel).
4. A number of NZDF personnel have contracted COVID-19 from these situations. Infection carries a risk of harm to individuals and unfortunately we have had a number of early COVID-19 cases in NZDF and several of these cases, (notably pre vaccine availability), have lasting health impacts from their infection. Several cases in NZDF staff have resulted from secondary contacts where personnel have contracted COVID-19 from other infected personnel who have direct contact with an exposure, rather than being directly exposed themselves.
5. COVID-19 has presented significant ongoing risk to NZDF operations and outputs. Due to the necessary and ongoing public health response to infected cases there is significant organisational impact if a positive case is detected in an NZDF workplace – the requirement

for any high risk contacts of the infected person to isolate until their risk of infection can be confirmed, has resulted in instances of hundreds of NZDF personnel affected by the consequence of a handful of positive cases in the workplace.

NZDF Risk Mitigation

6. To date NZDF has managed COVID-19 as a community and workplace hazard, with a risk assessment approach to determine appropriate mitigations to reduce the risk of; individuals contracting COVID-19, individuals having poor health outcomes from COVID-19 infection and COVID-19 exposure and transmission in the workplace resulting in large numbers of affected personnel with disruption to business continuity.
7. Risk mitigation in the workplace has been achieved through a mix of individual protective measures and workplace structure and function measures.
8. Individual protective measures have included; mask wearing, physical distancing, staying away from the workplace when unwell, keeping vulnerable people out of the workplace when exposure risk is increased and a requirement for vaccinated status for all personnel in the workplace. The benefits of vaccination are supported by Ministry of Health (MoH) promulgated evidence that COVID-19 vaccines significantly reduce the likelihood of poor health outcomes if infected with COVID-19 and that vaccinated personnel are less likely to contract and transmit COVID-19.
9. After an initial primary course of COVID-19 vaccination, international evidence shows a waning of immunity from vaccination and booster doses have been recommended to bring that immune response back up. NZDF has since required uniformed personnel to have a booster dose of COVID-19 vaccine under baseline vaccination requirements to ensure they have optimal immunity, particularly during the expected surge of community COVID-19 transmission due to new variants.

Health assessment for vaccination requirement for uniformed personnel in an NZDF workplace

10. The rationale for including COVID-19 vaccination as a baseline vaccination requirement for uniformed personnel includes consideration of the following key factors;
 - a. **Imposed national and international vaccine mandates.** NZ currently has a vaccination order in place that relates specifically to border and health workforce¹. Any NZDF person who is deemed an affected worker under these mandates is required to meet these mandated orders. NZDF has a rotating workforce that supports both international borders and MIQF. Due to the rotational nature (sometimes at very short notice) of uniformed staff supporting MIQF, a wide number of uniformed personnel have been required to be vaccinated in preparation for being placed in these working environments.
 - b. Many countries have vaccine status border entry criteria, most of those now include three doses of vaccine. NZDF uniformed personnel are often required to travel or deploy, sometimes at short notice, and sometimes with unpredictable itineraries, to international destinations. Due to these restrictions uniformed personnel who are

¹ COVID-19 Public Health Response (Vaccinations) Order 2021

not vaccinated are not able to be deployed offshore to meet NZDF international output requirements.

- c. Due to the staged intervals of the primary course and boosters and the period to develop immune response post vaccine, these vaccinations can not be applied just before duty periods or notification of duty periods but must be in place as part of readiness requirements for uniformed personnel and are in policy for baseline rather than enhanced vaccine schedule for this reason.
- d. **Personal protection.** There is significant available clinical evidence that COVID-19 vaccinations reduce the risk of serious illness or poor health outcomes if a person is infected with COVID-19. Recent evidence still shows that vaccination protects against severe illness and hospitalisation inclusive of the Omicron variant. NZDF personnel can be deployed into austere locations where access to health support is limited and consequence of severe illness can not be optimally managed. Additionally intent of many military health protective measures is to do all that we can to reduce the consequence of severe health outcomes in our personnel, given the type of environments they may be required to operate in, as a component of our duty of care, and as a component of maintaining force strength through maximum number of fit and health personnel able to conduct their duties.
- e. Some trades in NZDF do have direct and immediate employment consequence that can be sustained post COVID-19 infection. Occupational divers are an example of this, where diving with active infection can prove unsafe in an underwater setting. A Worksafe recommended stand down applies for infected personnel, and the degree of their symptomology dictates further stand down and health examination requirements to ensure they return to full fitness to safely dive. It is notable that this recommendation has been updated since the availability of vaccinations, as pre vaccination, likelihood of significant health effects for divers were realised internationally related to more severe illness. Now with vaccines reducing symptom severity, the likelihood of reduced consequence of COVID-19 infection on trade divers is reduced if their course of illness is mild.
- f. **Reduced chance of onward transmission.** Given the close working and living environments for uniformed personnel, including barracked accommodation and maritime platforms, short term and longer termed confined living conditions, infectious diseases can spread rapidly and render large numbers of people unwell or isolating (mandatory isolation periods apply for COVID-19 positive personnel and high risk contacts, as a required response to testing positive for a notifiable disease). There is evidence that COVID-19 vaccinations do interrupt transmission through both vaccinated personnel being at a reduced likelihood of contracting COVID-19, but also due to the lower likelihood of symptomology of the respiratory illness. Infected persons with low or no symptoms are less likely to exhale and spread droplets of infectious viral particulates, hence interrupting transmission risk in confined settings, particularly when isolation can not be achieved.
- g. Reduced onward transmission risk, means less NZDF workforce affected and this assists in maintaining critical capabilities that often don't have a redundancy in skill or workforce number to replace them if they are isolating due to exposure or illness.

Health assessment for vaccination requirement for civilian personnel in an NZDF workplace

11. The rationale for including COVID-19 vaccination as a recommendation for civilian personnel in the workplace includes consideration of the following factors;
12. **Imposed national and international vaccine mandates.** Any civilian personnel who are designated as affected personnel under the current vaccine orders for health and disability sector and border workers are required to comply with those orders. Any civilian personnel required to travel overseas in the course of their duties will also need to meet international border requirements for vaccine status.
13. **Personal protection.** Given the evidence that supports improved health outcomes for fully vaccinated personnel, if NZDF assesses a significant COVID-19 exposure risk in the workplace then it would seem negligent to place a person who has a higher likelihood of severe illness in that exposed workplace. Protecting vulnerable personnel from exposure has been a consistent component of both NZDF and national COVID-19 strategy. It is not possible to quantify the degree of vulnerability of a single risk factor (such as being unvaccinated), but the international evidence remains strong that unvaccinated persons are more likely than vaccinated persons to have severe illness and be hospitalised.
14. **Reduced chance of onward transmission.** Under the workplace force health protection measures infected NZDF civilians who are symptomatic, should not enter a workplace until cleared that they are COVID-19 negative (over several test days, depending on their exposure risk), or until they have completed their isolation period as a positive case and have been cleared to return to work. As civilians don't usually cohabit in household like settings with uniformed personnel, onward transmission can be less of a factor in a health assessment. However, for any civilian appointments who do cohabit through the nature of any duties that require them to be in close confines with other NZDF personnel, there is an increased transmission risk directly through their unvaccinated status as a vector to contract and pass infection to others, or increase symptomology with illness that can't be isolated early due to the nature of the living/working environment.
15. **Capability disruption.** In some NZDF workplaces the absence of very few people or the collective capability they deliver can result in secondary risks to the organisation and to individuals. As an example a single unvaccinated health worker may be more likely to contract COVID-19 and be more symptomatic and off work for longer than the 10 days of an asymptomatic case. Effective health response is then unable to be achieved and harm may result from the absence of that service to our personnel. Similar examples may exist in areas such as platform maintenance, essential services that support NZDF personnel and specialist skills across the organisation.

Current exposure risk

16. Overlaid on the personal and collective workplace impact factors outline above is the assessed likelihood of COVID-19 hazard in the workplace. As with any workplace hazard the likelihood and consequence of its presence must be considered in order to determine the level of required control measures.

17. As at 03 March, NZ is at the start of what is predicted to be a significant surge in COVID-19 infections in the community. NZ currently leads the OECD world in daily increasing case numbers per capita. 20-30,000 cases per day are being identified but national positive testing rates of >30% indicate that the presence of illness is likely higher than reported cases.

18. It is estimated that in some regions such as Auckland up to 1 in 5 people may have COVID-19. The most common infected age group remains in the <30 age due to exposure risk behaviours. This matches much of NZDF demographic and provides cause for targeted measures to ensure we reduce the likelihood of NZDF personnel contracting COVID-19 in those age groups.

19. Since 15 Feb NZDF has had rapidly increasing case rates in its personnel. Impact of these cases is mostly reduced by workplace force health protection measures and rapid internal public health response to positive cases detected in the workplace.

20. NZDF workplaces currently have 100% vaccinated personnel attending workplaces including visitors to those defence areas. Most infected personnel who do inadvertently end up in the workplace have low symptomology and are not shedding much virus due to that low symptomology, combined with the workplace force health protection measures we are seeing low rates of workplace transmission.

21. We have had a significant base outbreak in the Auckland region, perpetuated through household like living conditions of uniformed employees, however this has been contained in spread and no personnel have been seriously unwell in the 100% vaccinated positive cases. Several ships have also have positive cases on board, again with no seriously unwell cases in the 100% vaccinated embarked force.

22. It is assessed that the national case rate of COVID-19 will continue to exponentially increase over the next 4-6 weeks and that the likelihood of exposures in the workplace will increase despite workplace force health protection measures. Consequence of those exposures to individuals in the workplace is significantly reduced by the lower likelihood of severe illness if an individual does contract COVID-19. It is also assessed that optimal disruption of onward transmission through high vaccination rates in the workplace will reduce likelihood of significant impact from high case rates across workplace personnel and outputs.

Unvaccinated personnel in NZDF Defence Areas or workplaces.

23. An unvaccinated person compared to a vaccinated person when exposed to COVID-19 is more likely to; contract infection, transmit infection and become seriously unwell from that infection.

24. The personal, workplace and workplace continuity consequence of an unvaccinated person being in an NZDF workplace therefore depends on the likelihood of exposure in the workplace and the impact of that exposure due to the nature of their working environment, and their specific trade and duties.

25. Suggestions of testing status prior to workplace attendance for unvaccinated personnel are currently impractical for PCR testing due to testing result delays, and

inaccurate in terms of assurance for rapid antigen testing due to the error rate related to sensitivity of antigen tests. Additionally, testing is a post exposure control that simply measures if someone is infected on the day of the test but doesn't prevent infection.

26. Overall NZDF has necessarily moved from an approach of elimination likelihood of COVID-19 infection entering the workplace to management of impact on personnel and workplace business continuity if it does enter the workplace.

27. It is assessed that due to this inability to eliminate the hazard, priority should be focused on reducing individual harm from exposure and reducing workplace/activity impact and disruption from exposures and onward transmission of cases.

Dynamic risk response

28. The requirement to mitigate the potential consequence of a hazard in the workplace must be proportionate to the prevalence of that hazard in the workplace. NZ currently has a significantly increased prevalence of COVID-19 hazard in the community and the workplace.

29. The potential impact of COVID-19 entering the workplace from a community acquired infection arguably remains significant regardless of the likelihood. In an NZDF workplace context as we have already experienced, a very large number of people can be impacted by a single exposure. The consequence of this can vary by which outputs or components of outputs are effected.

30. An approach to determining a proportionate response to the likelihood and impact of COVID-19 exposure in each workplace should consider;

- a. Likelihood of exposure variations by region and community prevalence of the disease
- b. Likelihood of exposure variations by task and by workforce composition (e.g. mixed border worker, returning uniformed duty travel, regional movement, COVID-19 related support duties)
- c. Impact variations by critical outputs or critical enabling services with minimal redundancy e.g. air maintainers contributing to safe platform response, mess staff feeding large numbers of people on camps/bases, support to base isolation and accommodation facilities, health staff.

31. Application of obligations under HSWA IAW ref A, extends to spaces under shared occupancy with temporary or permanent non NZDF personnel. If their individual risk of being a vector for COVID-19 may impact NZDF employees or our outputs, or being exposed to COVID-19 in an NZDF workplace may result in a severe health outcome because of a lack of all available personal protective measures including vaccine protection, the health assessment considerations outlined in this document should be applied. Communication and engagement with agencies and providers operating in Defence Areas must occur to ensure they comply with NZDF risk management requirements.

32. It should be noted that this health assessment is being written in response to the current situation in NZ and globally. Initial assessments and advice were made based on the situation and available evidence at that time, but as risk in the COVID-19 setting is dynamic it should be considered that health assessment and health and safety assessments should also be dynamic in response to evolving situations.

Conclusion

33. It is currently assessed that:

- a. The likelihood of the hazard of COVID-19 being present in the workplace has significantly increased in the last few weeks. Auckland remains the highest community exposure threat however with the absence of any regional borders to contain cases, it is assessed that all Defence Areas face a likelihood of COVID-19 in the workplace at a minimum of 'likely', with the Auckland region at 'almost certain'. This is a dynamic assessment of exposures but there are no indications of this improving in the near future.
- b. The health assessment to inform individual workplace risk assessments is not based on a single factor, and should take into consideration impact factors relating to; affected workers under existing national and international mandates, personal protection, health threat to others in the workplace and threat to NZDF capability disruption through extended staff illness and onward transmission risk.
- c. Organisational risk tolerance in relation to these combined areas of impact should determine policy and process settings for unvaccinated personnel physically entering NZDF workplaces or activities.



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