

COVID-19 Vaccination Requirement, Hazard and Risk Assessment - University of Waikato (January 2022)

1. Introduction

This paper is focused on the Health and Safety at Work Act 2015 and the University's obligations to all of our staff (employees¹), contractors and students and those affected by our undertakings. The focus of hazard and risk assessments are on the risks associated with the activities being undertaken. The risk assessment also considers risk that might arise from the introduction of controls to reduce the risk of transmitting COVID-19 to other persons or preventing infection.

The assessments consider the issues related to the nature of the activities undertaken at and by the University, specifically:

- activities that raise the risk of COVID-19 infection above the risk faced outside of work
- activities that raise the risk of COVID-19 transmission above the risk faced outside work.

2. Duty of Care

The University has a general duty of care in relation to hazards and risks associated with COVID-19 across all university activities and operations. This duty of care requires the University to:

- eliminate or minimise the health and safety risks arising from COVID-19, so far as reasonably practicable (SFAIRP), and;
- follow government/agency advice when deciding how to deal with the risks.

This duty of care applies to staff who are vaccinated, are not vaccinated (or assumed not to be) and at-risk persons who are medically unable to be vaccinated.

Staff at the University also have a duty of care and must:

- take reasonable care of their own health and safety and ensure that their actions don't cause harm to themselves or others, and;
- comply with any reasonable instructions, policies or procedures on how to work in a safe and healthy way, and;
- follow all COVID-19 government advice in their personal life to reduce the risk to their co-workers or others while at the University.

3. Vaccine Requirements

Requirements for vaccines in an occupational setting are often used to reduce risk of staff and others infecting others and including those who are at higher risk of COVID-19 and its severe effects.

¹ Worksafe refers to employees rather than workers because it affects employment arrangements; this is different from the Health and Safety at Work Act.

Vaccine requirements overseas are often implemented after several conditions relevant to the setting are satisfied².

- There is a legal mandate i.e. the vaccination requirement has legislative support.
- The heavier the disease burden, the more justifiable requirements may be to increase coverage. In a setting that poses a higher risk of transmission, particularly to people more likely to experience serious harm, imposition on requirements may be more justifiable, at least while the background disease rates are high and transmission thus more likely.
- The vaccine(s) should be safe.
- The vaccines should reduce transmission.
- Vaccine supply should be sufficient and access easy/equitable.
- Less restrictive and trust promoting measures should come first. Non-coercive measures targeting known causes of low vaccination should be exhausted, for example, on-site vaccination, reminders and incentives, in conjunction with efforts made to understand and address other context-specific barriers using available tools.

4. Worksafe New Zealand

General guidance from Worksafe New Zealand³ has been used to characterise the increased risk level of either being infected with COVID-19 or transmitting COVID-19 to others. This assessment applies to:

- University staff
- University students
- Contractors (physical works and service-based contracts), including sub-contractors
- Casual staff and persons holding honorary positions/volunteering at the University.

Table 1: Risk Assessment Criteria for increased risk of COVID-19 Infection or Transmission⁴

<ul style="list-style-type: none"> • How many people do employees carrying out activities come into contact with? (very few = lower risk; many = higher risk) 	High risk
<ul style="list-style-type: none"> • How easy is it to identify persons employees come into contact with? (easy to identify, such as co-workers = lower risk; difficult to identify, such as unknown members of public = higher risk) 	High risk
<ul style="list-style-type: none"> • How close are employees carrying out the tasks in proximity to other persons? (2 metres or more in an 	High risk

² Policy considerations for mandatory COVID-19 vaccination from the Collaboration on Social Science in Immunisation: The Medical Journal of Australia –_Accepted Article – 13 September 2021 (doi: 10.5694/mja2.51269)

³ <https://www.worksafe.govt.nz/managing-health-and-safety/novel-coronavirus-covid/how-to-decide-what-work-requires-a-vaccinated-employee/> (accessed 20/10/2021)

⁴ The University has continued to use its original hazard and risk assessment methodology following the guidance provided at <https://www.business.govt.nz/covid-19/vaccination-assessment-tool/>



outdoor space = lower risk; close physical contact in an indoor environment = higher risk)	
<ul style="list-style-type: none">How long does the work or activity require employees to be in proximity to other persons? (brief contact = lower risk; lengthy contact = higher risk)	Medium risk (<u>High Contact⁵ roles are considered to be High Risk</u>)
<ul style="list-style-type: none">Does the work involve regular interaction with persons considered at higher risk of severe illness from COVID-19, such as persons with underlying health conditions? (little to none = lower risk; whole time = higher risk)	Medium risk
<ul style="list-style-type: none">What is the risk of COVID-19 infection and transmission during University activities (general environment) when compared to the risk outside work? (equal to outside work = lower risk; higher than outside work = higher risk)	High risk
<ul style="list-style-type: none">Will University activities continue to involve regular interaction with unknown people if at high alert levels/traffic light levels? (no = lower risk; yes = higher risk).	Medium risk

Based on the assessment of risk criteria in Table 1 above, the University has a higher level of overall risk contracting or spreading Covid-19 due to the nature of the activities undertaken at the University.

Additional considerations in determining this risk level are:

- The actions/controls that are reasonably practicable for the University to implement as a publicly funded organisation.
- The open nature of the University campuses.
- The public health mandates for vaccinations in organisations that staff and students visit, undertake study and conduct field work/research.

When assessed on a role basis and using the same criteria as Table 1 above all Academic⁶, Pastoral Care, Close Contact and Mobile roles have a higher overall risk of transmitting or being infected by COVID – 19. The interconnected nature of the Universities operations shows that General Roles are also at a High/Medium risk of being infected by or transmitting COVID -19. This is represented in Table 2 below.

⁵ High Contact roles are those University staff whose primary role is to interact directly with others, examples include housekeeping staff, students and staff involved in the education, health and corrections sectors.

⁶ Includes research off-site or with vulnerable communities. Vulnerable communities are defined as per the Ministry of Health guidance on advice for higher risk people: <https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-information-specific-audiences/covid-19-advice-higher-risk-people> (accessed 16 November 2021).



Table 2: Risk Assessment Criteria for increased risk of COVID-19 Infection or Transmission by Role Category

Tasks	Academic	Pastoral Care	Close Contact	Mobile	General
How many people do employees carrying out activities come into contact with? (very few = lower risk; many = higher risk)	High	High	High	High	Medium
How easy is it to identify persons employees come into contact with? (easy to identify, such as co-workers = lower risk; difficult to identify, such as unknown members of public = higher risk)	High	High	High	High	High
How close are employees carrying out the tasks in proximity to other persons? (2 metres or more apart in an outdoor space = lower risk; close physical contact in an indoor environment = higher risk)	High	High	High	High	Medium
How long does the work or activity require employees to be in proximity to other persons? (brief contact = lower risk; lengthy contact = higher risk)	High	High	High	High	Medium
Does the work involve regular interaction with persons considered at higher risk of severe illness from COVID-19, such as persons with underlying health conditions? (little to none = lower risk; whole time = higher risk)	High	High	High	Medium	Medium
What is the risk of COVID-19 infection and transmission during University activities (general environment) when compared to the risk outside work? (equal to outside work = lower risk; higher than outside work = higher risk)	High	High	High	High	High
Will University activities continue to involve regular interaction with unknown people if at high alert levels/traffic light levels? (no = lower risk; yes = higher risk).	High	High	High	High	Medium



5. Hazard and Risk Assessments

This assessment of an inherently higher level of risk for the transmission or infection of COVID-19 is the basis for conducting the Hazard and Risk Assessments (attached).

Hazard and Risk assessments for a range of university settings have been prepared on the following assumptions:

- That COVID-19 cannot be eliminated.
- The risk assessments are prepared in advance of any specific alert level or traffic light indicator and apply appropriate public health measures in line with the current Tertiary Education Commission (TEC) guidance.
- The hazard and risk assessment is based on population level effects.
- Mitigating the risks relating to the transmission of COVID-19 or infection with COVID-19 must follow the hierarchy of controls as described by the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016⁷.
- The most reliable controls are those actions such as substitution, isolation (to prevent a person coming into contact with COVID-19) and engineered controls e.g. vaccines (for the purpose of this assessment vaccines are considered to be an engineered control for a biological hazard) and, if appropriate, increased ventilation and airflow.
- Isolation controls in relation to COVID-19 are less effective than normal due to the contagious nature of the Delta variant and the inability to totally isolate persons from exposure to COVID-19, particularly for indoor settings.
- The least reliable controls are those that rely on persons working with hazards and associated risks 'doing the right thing' over an extended period of time i.e. administrative and Personal Protective Equipment (PPE) controls. Over an extended period use of/compliance with such controls will decline.
- Indoor settings which are common across the university are more likely to spread a high viral load thus increase the risk of infections.

⁷ (S6) Hierarchy of control measures

(1) This regulation applies if it is not reasonably practicable for a PCBU to eliminate risks to health and safety in accordance with [section 30\(1\)\(a\)](#) of the Act.

(2) A PCBU must, to minimise risks to health and safety, implement control measures in accordance with this regulation.

(3) The PCBU must minimise risks to health and safety, so far as is reasonably practicable, by taking 1 or more of the following actions that is the most appropriate and effective taking into account the nature of the risk:

- (a) substituting (wholly or partly) the hazard giving rise to the risk with something that gives rise to a lesser risk;
- (b) isolating the hazard giving rise to the risk to prevent any person coming into contact with it;
- (c) implementing engineering controls.

(4) If a risk then remains, the PCBU must minimise the remaining risk, so far as is reasonably practicable, by implementing administrative controls.

(5) If a risk then remains, the PCBU must minimise the remaining risk by ensuring the provision and use of suitable personal protective equipment.



- International studies have shown that vaccination leads to a significant reduction in the rate of transmission of SARS-CoV-2 (COVID -19)⁸ but the impact is not the same as protecting against illness and hospitalisation.
- Vaccination (compared with no vaccination) is associated with reduced odds of hospitalisation or having more than five symptoms in the first week of illness following the first or second dose, and long-duration (≥ 28 days) symptoms following the second dose. Almost all symptoms were reported less frequently in infected vaccinated individuals than in infected unvaccinated individuals.
- COVID 19 vaccines generate higher immune responses than natural infection⁹
- Evidence currently shows the effectiveness of two doses of the Pfizer vaccine against illness due to Delta infection is about 88% and the protection against hospitalisation due to Delta infection about 96% (Ministry of Health 16 August 2021).
- A primary course of vaccine (2 doses Pfizer) is less effective against OMICRON
- Booster shots of vaccines are now recommended 4 months after the primary vaccination course¹⁰.
- For workers covered by the Mandatory Vaccinations Order, the Ministry of Health expect changes to be confirmed in January 2022 about mandatory boosters.
- Recently developed oral anti-viral treatments for COVID-19 are not considered in this assessment but this will be reassessed after Medsafe approves their use. This also includes the development of Long-Acting Monoclonal Antibodies for Pre-exposure Prevention of COVID-19 in immunocompromised persons or those who have a history of severe adverse reactions to a COVID-19 vaccine and therefore cannot receive one¹¹

6. Recommendation

The comparison of residual risk level following standard public health measures and the assessment of residual risk levels after allowing for vaccination (2 doses), still shows a significant decrease in both the risk of transmission and infection of COVID-19 for University undertakings against the Delta variant. Data is emerging that a booster dose of the Pfizer vaccine provides better protection than a two-dose course against the Omicron variant. While two doses provide some degree of protection against severe disease from Omicron, a booster is likely to offer greater protection against transmitting COVID-19 to others and reduce the chance of more serious infections.

The hazard and risk assessment with the implementation of a requirement for all persons on campus or conducting off-site activities to be vaccinated shows the following risk reduction (with no known outbreak of OMICRON other than 1 worker in MIQ – 17 January 2022).

⁸ <https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-vaccines/covid-19-vaccine-effectiveness-and-protection> (accessed 4 November 2021).

⁹ <https://www.uk-cic.org/news/latest-data-immune-response-covid-19-reinforces-need-vaccination> (accessed 15 December 2021)

¹⁰ <https://www.health.govt.nz/our-work/diseases-and-conditions/covid-19-novel-coronavirus/covid-19-vaccines/covid-19-vaccine-boosters> (accessed 17 January 2021)

¹¹ <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-new-long-acting-monoclonal-antibodies-pre-exposure> (accessed 17 January 2021)



	Residual Risk without Vaccine	Residual Risk with Vaccine
Risk of COVID-19 Delta infection from other staff, students, visitors and contractors (based on Table 1 - Criteria for increased risk of COVID-19 Infection or Transmission).	Critical - 1000	High - 100
Risk of COVID-19 Delta transmission to other staff, students, visitors and contractors (based on Table 1 - Criteria for increased risk of COVID-19 Infection or Transmission).	Critical - 1000	High - 100

Reliance solely on PPE including mask wearing, administrative controls and appropriate social distancing does not reduce the risk of transmission or infection so far as is reasonably practicable. This particularly applies to indoor settings and close contact settings.

In some operational settings at the University such as the residential halls, additional controls have been applied to reduce the risk of transmission or infection. This is normal practice for reducing the risk associated with a hazard SFAIRP. The additional layers of control also provide additional assurance for preventing the transmission or infection of COVID-19.

The requirement for vaccinations at the University may exacerbate some existing safety and wellness risks. These risks are being considered and appropriate controls are being implemented. It is a reasonably foreseeable risk that requiring vaccines and/or vaccination certificates for access will lead to an increased level of risk principally to frontline staff. This will be influenced by the approach taken to verification of vaccination requirements.

On the basis of the hazard and risk assessment it is strongly recommended that vaccines along with appropriate public health measures are required for all University staff, students, visitors and contractors engaged in undertakings that the University manages or controls¹².

This combination of controls reduces the Health and Safety risks associated so far as is reasonably practicable given the current state of knowledge and guidance from the Tertiary Education Commission.

Due to the rapidly changing environment relating to COVID-19 the hazard and risk assessments should be reviewed:

¹² Duty of PCBU who manages or controls workplace

(1) A PCBU who manages or controls a workplace must ensure, so far as is reasonably practicable, that the workplace, the means of entering and exiting the workplace, and anything arising from the workplace are without risks to the health and safety of any person.

(2) Despite subsection (1), a PCBU who manages or controls a workplace does not owe a duty under that subsection to any person who is at the workplace for an unlawful purpose.



1. Every 30 days, or
2. If there is a confirmed case of COVID-19 on campus, or
3. In line with developments in vaccines or treatment protocols, or
4. If there is an outbreak of the OMICRON variant of COVID-19.



References:

Health and Safety at Work Act 2015

<https://www.legislation.govt.nz/act/public/2015/0070/latest/DLM5976660.html> (accessed 7th November)

Health and Safety at Work (General Risk and Workplace Management) Regulations 2016

<https://www.legislation.govt.nz/regulation/public/2016/0013/latest/DLM6727530.html> (accessed 7th November 2021)

<https://www.mja.com.au/journal/2021/policy-considerations-mandatory-covid-19-vaccination-collaboration-social-science> (accessed 7th November 2021)

<https://www.safeworkaustralia.gov.au/doc/key-considerations-undertaking-risk-assessment-covid-19> (accessed 28th October 2021)

https://www.safeworkaustralia.gov.au/sites/default/files/2021-02/210224%20COVID-19%20Indoor%20Ventilation%20Factsheet_24_feb.pdf

[https://www.thelancet.com/journals/laninf/article/PIIS1473-3099\(21\)00460-6/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(21)00460-6/fulltext) (accessed 7th November 2021)

<https://www.worksafe.govt.nz/managing-health-and-safety/novel-coronavirus-covid/how-to-decide-what-work-requires-a-vaccinated-employee/> (accessed 20/10/2021)

HSW-101 Hazard and Risk Register COVID-19 - General Public Health
Measures - Risks associated with COVID-19 control measures

Area / Faculty / Division	University of Waikato - General Public Health Measures - Risks associated with COVID-19 control measures	Assessment date	16-Nov-2021
Assessor/s	University of Waikato Vaccination Consultation Group	Last review date	17-Dec-21
Register sign off*	Neil Quigley (Vice-Chancellor)	Formal review scheduled for:	17-Jan-22

Hazard	Risk Description	Consequence	Likelihood	Inherent risk rating	Preventative Controls	Recovery Controls	Consequence2	likelihood	Residual risk rating	Review date	Additional Controls to be implemented	Person/s responsible	Implementation Date	Notes / Comments	Status (i.e. completed / uncompleted)
Mandatory vaccination requirements for access to campus.	Aggressive interactions with people that do not agree with mandatory vaccination requirements (staff, students, contractors and visitors).	Moderate	Almost certain	High 100	<p>ISOLATION CONTROLS</p> <ol style="list-style-type: none"> Screens at public desks as required. Social distancing indoors one metre. Escape route to safe area established. <p>PPE/ADMINISTRATIVE</p> <ol style="list-style-type: none"> De-escalation training for all front line staff/staff in call centres. Alarm buttons. 	<ol style="list-style-type: none"> Signing in with QR code. Specialised employee assistance programme for staff and family members after aggressive interactions. 	Moderate	Likely	Medium 10						Completed
Workload demands under vaccine certificates.	Increased workload on staff delivering both online and face to face, as required under vaccine certificate requirements.	Major	Likely	High 100	<p>ADMINISTRATIVE</p> <ol style="list-style-type: none"> Consult with staff when setting performance targets set realistic and achievable targets that take into account existing workloads when setting targets. Regularly review workloads to ensure employees have sufficient resources in terms of time, administrative support and equipment to cope, help employees develop personal work plans to help them prioritise their tasks. Encourage staff to speak up at an early stage if they feel their task demands are excessive and to seek management guidance about priorities if there are insufficient resources to effectively complete the tasks. Review workloads during team meetings, through an informal check-in with the supervisor or workite assessments. 		Major	Possible	Medium 10						Completed
Immunisation	Adverse events following immunisation with COVID-19 vaccines. An AEFI is an unwanted medical event which follows immunisation and does not necessarily have a causal relationship with the administration of the vaccine. The adverse event may be an unfavourable or unintended sign, abnormal laboratory finding, symptom or disease.	Extreme	Unlikely	Medium 10	<ol style="list-style-type: none"> Consult with GP regarding any health conditions that may prevent the use of the Pfizer Vaccine (as of 16/11/21). Use of other vaccines approved for use in NZ. 	<ol style="list-style-type: none"> ACC coverage for physical injury caused by the vaccination, which's not a necessary part or ordinary consequence of the treatment. Leave provisions for persons experiencing adverse events following vaccination. 	Extreme	Unlikely	Medium 10						Completed

		Potential consequences					
		Negligible 1	Minor 10	Moderate 100	Major 1000	Extreme 10000	
POTENTIAL LIKELIHOOD	Almost certain	1	Medium 1	Medium 10	High 100	Critical 1000	Critical 10000
	Likely	0.1	Low	Medium 1	Medium 10	High 100	Critical 1000
	Possible	0.01	Low	Low	Medium 1	Medium 10	High 100
	Unlikely	0.001	Low	Low	Low	Medium 1	Medium 10
	Rare	0.0001	Low	Low	Low	Low	Medium 1

Potential Likelihood

Rare
Unlikely
Possible
Likely
Almost certain

Potential Consequences

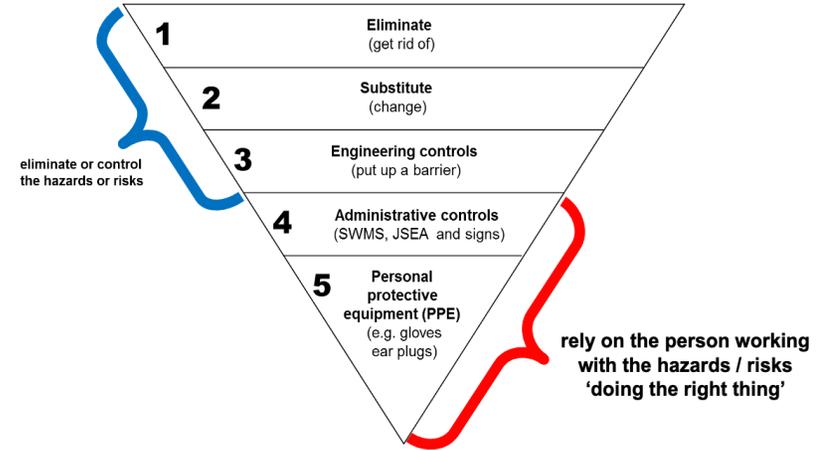
Negligible
Minor
Moderate
Major
Extreme

Potential Consequence

Ranking	Injury, illness or disease	Plant equipment and materials
Extreme	Fatality/fatalities or permanent disability. Unable to work. COVID 19 Related Fatality	Destroyed or cannot be reused
Major	Requiring extensive medical treatment, admitted to hospital, lost time injury (LTI) > 1 week, ICU Admitted to hospital COVID 19, Long Covid	Damage requiring repairs/rebuild and possible recertification prior to reuse, lost use for one or more
Moderate	Hospital outpatient, LTI < 1 week and can return to normal duties. Self-isolating at home – COVID 19 confirmed	Damage requiring a repair/service by a trade/technician within the
Minor	Medical treatment from a healthcare professional for COVID 19 symptoms	Equipment able to be reset or gotten back into operation by the operator
Negligible	Report only, no injury or first aid (e.g., band-aid), short-term discomfort. asymptomatic	Report only, no damage

Ranking	Probability/frequency of event occurring	Probability / frequency of event occurring	Probability/frequency of event occurring
Almost certain	The hazard is expected to occur in most circumstances at the University	1 in 10 Event occurs once in every 10 operations or activities	A daily to monthly occurrence
Likely	The hazard could occur in most circumstances at the University	1 in 10-100 Event occurs once in every 10-100 operations or activities	Between monthly to yearly occurrence
Possible	The hazard has occurred at some time at the University	1 in 100-1,000 Event occurs once in every 100-1,000 operations or activities	Occurs once between 1 to 5 years
Unlikely	The hazard could occur at some time	1 in 1,000-10,000 Event occurs once in every 1,000-10,000 operations or activities	Occurs once between 5 to 20 years
Rare	The hazard may only occur in exceptional circumstances	1 in 10,000-100,000 Event occurs once in every > 100,000 operations or activities	Occurs once 20+ years

Hierarchy of Controls



Vaccination Consultation Group

Senior DVC	Alister Jones
DVC Research	Bryony James
DVC Māori	Sarah-Jane Tiakiwai
DVC Academic	Robyn Longhurst
COO	Jim Mercer
Director, Student Services	Mike Calvert
Director, HR & ER	Hanlie du Plessis
Director, OD & Wellness	Nikki Thomas
Director, OVC	Brandon McGibbon
HSW Manager	Mark Wagstaffe
Head of Corporate Comms	Jess Tiley
Associate Director, Student Accommodation	Brett McEwan
In-House Solicitor	Keely Smith