



MANDATING COVID-19 VACCINATIONS: INSIGHTS FROM A WESTERN AUSTRALIAN MIXED METHODS RESEARCH PROJECT

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KEY FINDINGS

The Western Australian public broadly supported the State Government mandating COVID-19 vaccinations for employment and public spaces. They also generally supported travel restrictions based on vaccination status. Some health professionals, Aboriginal people, and committed vaccine refusers said that mandates would or did prompt them to vaccinate.

However, vaccine mandates generated challenges for Aboriginal people, raising issues around agency and autonomy in the shadow of colonisation. Mandates also forced difficult choices for pregnant women. Recent technical advice had not recommended vaccination in pregnancy, and some expectant mothers remained hesitant even after they were prioritised for vaccination.

Mandates further entrenched the resistance of some committed refusers, pushing them into closer proximity to others who opposed vaccination. Mandates also drove recruitment to anti-vaccination online communities.



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INTRODUCTION

A vaccine mandate requires somebody to be vaccinated to access a service, space, or entitlement, or in order to work (1). Government vaccine mandates are the main focus here; organisations may introduce their own mandates. People affected by vaccine mandates experience meaningful consequences for non-vaccination (2), including job loss or denial of access to spaces or venues. Depending on the context, mandates may also provide incentives. In lockdown settings, vaccine mandates enable those who are vaccinated to resume participation in economic and social life (3).

During the COVID-19 pandemic, Australian state and territory governments mandated COVID-19 vaccinations, including for employment, public spaces and border entry. Some mandates, such as employment requirements for aged care and health workers, arose from national agreements. Other mandates were introduced for key groups or settings at state or territory level, based on local epidemiological, policy, or political reasons.

Australia's COVID-19 vaccine mandates were subject to medical exemptions. These exemptions were granted by specified medical professionals and recorded on the country's national electronic register, the Australian Immunisation Register (AIR). State and territories also offered some additional exemptions in limited situations (4).

In mandating vaccinations, Governments sought to attain high levels of vaccination. They presented high vaccination rates as a way to prevent disease, protect the vulnerable, and enable health systems to function. In some jurisdictions, such as Western Australia, vaccination targets and associated vaccine mandates also connected to reopening closed borders and allowing the disease to enter (3).

Governments did not update vaccine mandates to reflect changes in either the strain of disease or the efficacy of vaccines against it. Mandates generally remained stable policies until they were withdrawn, although governments added additional dose requirements in some settings and jurisdictions. Jurisdictions withdrew their various types of mandates at different times, reflecting decision-making criteria that are yet to be closely examined or compared (see Appendix 1).

WHAT DID WE STUDY?

We explored public attitudes towards and experiences with COVID-19 vaccine mandates in Western Australia. From 2021-2023, the Coronavax research team conducted mixed methods research, including qualitative interviews and focus groups with members of the Western Australian public and weekly social media monitoring (until February 2022). The broad aim was to ascertain the factors that would enable a successful vaccine rollout, sharing these with government in real-time (5).

The Coronavax team conducted over 200 interviews and additional focus groups. Studies were segmented by age, comorbidity status, pregnancy, parenthood, profession, regional/remote location, Aboriginality, culturally and linguistically diverse (CALD) status. We also held focus groups and interviews with people who had lived experience of homelessness and their service providers (6). Coronavax community research was conducted between January 2021 and October 2023. We researched different groups at different times, during dramatically different disease and policy settings. Additionally, our social media lead analysed participation and activity on vaccine-critical social media pages from December 2020 to February 2022 (7). We analysed our data using established qualitative methods and software.

Coronavax studies assessed participants' attitudes regarding COVID-19 vaccine mandates across the life of the project. We sought answers to many further questions about COVID-19 vaccination, but this Policy Brief summarises and refines recommendations regarding vaccine mandates specifically.

Reflections from two additional studies are included. 1) A 2020 study, conducted in partnership with PureProfile, surveyed Australians about requiring a COVID-19 vaccine for work, education and travel prior to vaccines becoming available (8). 2) A mixed-method study, led and conducted by members of the Coronavax team at VaxPollLab at the University of Western Australia (UWA) in 2021, surveyed staff and students to guide the development of a university-wide campus directive requiring vaccination (9). Insights from two additional separate large-scale projects are not included here; however, the projects are described at Appendices 1 and 2 with a suggestion to “watch this space.”

WHAT DID WE FIND?

Support for mandates with caveats, reservations, and some resistance

People broadly supported vaccine mandates early in the pandemic, when these policies were hypothetical, and later when they were real policies in WA or elsewhere. Our PureProfile study found that more Australians supported a hypothetical vaccine mandate (73%) than intended to take the vaccine (68%) (8)! The most supported types of mandates focused on professions where workers faced a high risk of catching or spreading COVID-19 (1). There was support from within these professions, too. Healthcare workers interviewed early in the pandemic were broadly supportive of mandates based on perceived duties to protect the public and public health. They were used to requirements for other vaccines. However, participants were concerned about implementation, especially health workforce shortages and whether vaccine refusers might be redeployed in ways that would produce inequities (10). Over time, as vaccines for more types of professions were mandated, our interviewees reflected support for this (3). There was also consistent support for mandates that sought to keep disease out of public spaces. 'Public space' mandates were seen as a logical extension of other public health measures, such as lockdowns and social distancing requirements (1, 3).

Some people we interviewed believed that it was most appropriate for governments to mandate vaccinations rather than for businesses and organisations to impose these policies. However, others emphasised that vaccine requirements were an appropriate way for organisations to protect their staff and clients (1, 3, 9).

Early in the vaccine rollout, people regarded the available vaccines as being able to achieve herd immunity. They used this framing to justify mandates (1). This changed as the vaccines' limitations became evident later in the rollout. Reduced efficacy of vaccines prompted questions from both acceptors and refusers about the reasonableness of mandates (3, 11).

Later in the vaccine rollout, support for mandates in Western Australia was inextricably linked to the reopening of the state border. Vaccine acceptors who were ready to reopen supported vaccine mandates, believing that they would increase uptake, hasten the reopening, and ensure its success (3).

Medical exemptions to vaccine mandates were widely supported and – as the rollout progressed – better understood. There was little support for exemptions for personal or religious beliefs. Participants often prioritised public health over individual choice (1, 3). At UWA, only 20% of survey respondents thought that mandates should provide opt-outs for religious or personal beliefs (9).

Australian Universities were not covered by state vaccine mandates and developed their own policies. Our UWA study found high levels of support (80%) for a campus requirement, and for the State Government mandating vaccines in the settings described above. However, support dropped considerably when the survey presented mandates as imposing specific consequences. Only 35% of respondents thought that non-vaccinating staff or students should lose their positions; only 42% explicitly supported excluding the unvaccinated from campus. Older individuals and women were most supportive of mandates. People with comorbidities were *not* more supportive than individuals without health problems, but they did support mandates more when they were presented as excluding the unvaccinated from campus (9).

A minority of respondents in the UWA study raised ethical and practical concerns (9), as did participants in various Coronavax studies (1, 3, 12). Participants worried that mandates might affect socioeconomically disadvantaged groups disproportionately, exacerbating existing inequalities. There were concerns that mandates might negatively impact people who faced access barriers to vaccination. Across most of our studies, a minority of participants raised objections to coercing people who did not want to vaccinate. People interviewed towards the end of the project expressed further concerns when the available vaccines could not prevent infection with the Omicron variant (3). Both acceptors and refusers queried the purpose of a mandate that could not prevent transmission (3, 11).

Aboriginal people were considerably less supportive of COVID-19 vaccine mandates compared to the other study groups. Mandates infringed upon their self-determination and removed their opportunities to exercise agency in the context of employment. Participants emphasised that losing this agency was uniquely troubling for Aboriginal people because of the legacy of colonialism.

We also heard that mandates were problematic in the community care sector dealing with people experiencing homelessness and other challenges (e.g. substance addiction). Clients were never required to be vaccinated. However,

public space mandates and employment mandates for service providers created a climate that made some worry about coercion. We heard about the importance of choice and agency for underprivileged individuals who generally do not have much freedom to make decisions about their lives (6).

Children were not directly mandated to receive COVID-19 vaccinations in Australia. However, front-line workers in some jurisdictions needed to be vaccinated, including fast-food employees. Teens were also subject to public space vaccine requirements in some jurisdictions. Ahead of vaccine mandates in Western Australia, our interviews with parents of children aged from 5-18 found broad support for vaccine requirements for schools and daycare if evidence emerged that this would protect children and the wider community. However, support for COVID-19 vaccine mandates was lower than for existing childhood immunisation requirements. Parents with safety concerns were particularly unsupportive of mandates (12).

Mandates change beliefs, intentions, and behaviours of vaccine refusers

The potential of vaccine mandates to change people's behaviour and orient them towards vaccination underpins their use. Participants in several Coronavax studies said that mandates did or would make them vaccinate. However, there were risks and potential problems with this strategy.

Prior to WA's vaccine mandates, a pharmacist who refused the vaccine said they would accept if it was mandated (10). The UWA study investigated whether 214 unvaccinated respondents would be more likely to get vaccinated if the University required it. While 20% said they would be, 38% said a mandate would make them *less* likely to get vaccinated. This psychological phenomenon called "reactance" has been found in other studies of attitudes towards hypothetical vaccine mandates(13). Refusers can respond negatively towards compulsion and become further entrenched in their opposition.

Reactance was evident in the qualitative Coronavax study of committed COVID-19 vaccine refusers. The seventeen participants, of whom only one had a history of refusing other vaccines, had all refused COVID-19 vaccines when the program was voluntary in WA. Subsequent employment mandates prompted five of them vaccinate. Despite complying, these participants were angry and held negative views towards government.

A further twelve of this vaccine refusing group did not vaccinate and accepted consequences including the loss of jobs, changing fields, and being excluded from public spaces. Their social networks polarised as a result of them remaining unvaccinated during the mandates. Some refusers gravitated towards likeminded community groups that sprang up for mutual aid. No participants told us that public space mandates would change their behaviour. Participants did not see an epidemiological basis for public space mandates when it was apparent that the vaccines did not prevent transmission. Accordingly, they perceived public space mandates as punishment, and an irritant to work around.

In our focus groups with Aboriginal participants, we saw a large reported effect of vaccine mandates. Most told us that they, and others in their communities, took the vaccines largely to remain employed. Some reported that the requirement had a corrosive effect on their trust in government. However, we also heard of young people leveraging employment mandates to obtain grudging approval from opposed family members. Thus, in these rarer cases, mandates enabled people to exercise agency to get vaccinated. We heard directly from 'hold-outs' who lost work opportunities under the mandates. One participant reported two suicides in their social network, which they directly attributed to the impossible choice that mandates imposed on those who did not want to be vaccinated (14).

Our study of pregnant women found that vaccine mandates posed a particular problem for this group due to rapidly changing advice, recommendations, and requirements. In February 2021, authorities did not recommend routine COVID-19 vaccination in pregnancy and medical exemptions were available. In June, pregnant women were included as a priority group. In September, access to the medical exemption was removed and pregnant women became subject to relevant mandates. These changes were too rapid for some. The women we interviewed would not take a vaccination in pregnancy where they did not feel comfortable to do so. A healthcare worker we interviewed who obtained an exemption before they were abolished nevertheless later lost her casual job (15).

Opposition to and reactance against COVID-19 vaccine mandates was evident in the social media study. Vaccine mandates in Australia sparked significant backlash and mobilisation among vaccine-critical populations on

Facebook. Well in advance of Australia's policies, discussions of vaccine mandates overseas prompted local sharing of anti-mandate content. As mandate policies were subsequently introduced in Australian jurisdictions, resistance surged online. This increased participation on anti-vaccination pages, where discussions of anti-mandate protests (e.g. the Convoy to Canberra), government control, personal freedoms, and the praising of specific individuals who defied the mandates all grew more frequent (7).

RECOMMENDATIONS

Vaccine mandates may be justifiable depending on disease prevalence and the efficacy of vaccines in preventing or reducing transmission. Epidemiological and ethical considerations are beyond the scope of this Policy Brief. However, if a new pandemic warranted vaccine mandates, these options should be considered for managing public opinion and reactance.

1. Government should **communicate frequently and transparently** about the rationale. This should link to direct goals: saving lives and protecting the vulnerable through preventing or significantly reducing transmission.
2. Government should avoid mandates that appear **punitive**, and where the benefits of disease prevention cannot be clearly argued.
3. If mandates no longer deliver the goals at (1), they should be **rescinded** with communications maintaining a strong recommendation to vaccinate.
4. When Government mandates vaccinations that are already required by the private sector, messaging should emphasise that these policies **build on what the private sector is doing**, with the support of that sector.
5. When Government mandates vaccinations for workers who support vulnerable populations, messaging should emphasise the goal of protecting those populations and – where possible – **clarify that service users will not face vaccine requirements**.
6. Government should **engage closely with First Nations stakeholders** to respond to concerns about control and coercion, and to co-design messaging and implementation.
7. Offering blanket exemptions for key groups (e.g. First nations, pregnant women) would generate challenges in messaging when they are also high priorities for vaccination. **Case-by-case consideration of state-level special exemptions** or role changes at work might be an option for highly hesitant individuals in these categories, instead of terminating their employment.
8. If a future pandemic includes **children** as mandate targets, communications should refer to existing mandates for routine immunisations. Communications should emphasise the goals of protecting individual children and the wider community.
9. Governments should engage academic researchers to survey the public frequently about mandate attitudes before and after implementation. Governments should also commission deeper qualitative work and social media analysis. All studies of mandate attitudes should be as **specific as possible** about the design, operation, and target population.

References

1. Attwell K, Rizzi M, McKenzie L, Carlson SJ, Roberts L, Tomkinson S, Blyth CC. COVID-19 vaccine Mandates: An Australian attitudinal study. *Vaccine*. 2022;40(51):7360-9.
2. Attwell K, Navin MC. Childhood Vaccination Mandates: Scope, Sanctions, Severity, Selectivity, and Saliency. *Milbank Quarterly*. 2019;97(4):978-1014.
3. Attwell K, Roberts L, Rizzi M. From speculative to real: community attitudes towards government COVID-19 vaccine mandates in Western Australia from May 2021 to April 2022. *Health Economics, Policy and Law*. 2024:1-20.
4. Yap W, Attwell K. Medical exemptions to mandatory vaccinations: The state of play in Australia and a pressure point to watch. *Epidemiology & Infection*. 2024;152:e40.
5. Attwell K, Carlson S, Tchilingirian J, Harper T, McKenzie L, Roberts L, et al. Coronavax: preparing community and government for COVID-19 vaccination: a research protocol for a mixed methods social research project. *BMJ Open*. 2021;11(6):e049356.
6. Attwell K, Turvey J, Wood L. COVID-19 vaccination of at-risk and marginalised groups: recentering the state in vaccine uptake. *Soc Sci Med*. 2024;348:116812.
7. Harper T, Tomkinson S, Attwell K. Communication Is Not a Virus: COVID-19 Vaccine-Critical Activity on Facebook and Implications for the 'Infodemic' Concept. *Journal of Health Communication*. 2022;27:563-73.
8. Smith DT, Attwell K, Evers U. Support for a COVID-19 vaccine mandate in the face of safety concerns and political affiliations: An Australian study. *Politics*. 2021;40(20):189-206.
9. Attwell K, Roberts L, Ji J. COVID-19 vaccine mandates: Attitudes and effects on holdouts in a large Australian university population. *International Journal of Environmental Research and Public Health*. 2022;19(16):10130.
10. Attwell K, Roberts L, Blyth CC, Carlson SJ. Western Australian health care workers' views on mandatory COVID-19 vaccination for the workplace. *Health Policy and Technology*. 2022;11(3):100657.
11. Attwell K, Morris A, Roberts L, Navin M. How Vaccine Mandates Policies Govern COVID-19 Vaccine Refusers. [Unpublished.] 2024.
12. Attwell K, Keays E, McKenzie L, Roberts L, Blyth CC, Carlson SJ. Mandating COVID-19 vaccinations for children: Attitudes of Western Australian parents. *Australian Journal of Social Issues*. 2023.
13. Sprengholz PA-O, Betsch C, Böhm R. Reactance revisited: Consequences of mandatory and scarce vaccination in the case of COVID-19. *Applied Psychological Health and Wellbeing*. 2021;13(4):986-95.
14. Carlson SJ, Puca C, Wood-Kenney P, Kickett J, Swift V, Attwell K, Blyth C. You're telling us to go first?!" COVID-19 pandemic and vaccination experiences among Aboriginal adults in Western Australia. [Unpublished]. 2024.
15. McKenzie L, Carlson SJ, Blyth CC, Attwell K. Changing rules, recommendations, and risks: COVID-19 vaccination decisions and emotions during pregnancy. *Humanities and Social Sciences Communications*. 2024;11(1):560.

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<https://www.uwa.edu.au/projects/vaxpol-lab/coronavax-project>

Appendix 1: MandEval (Mandate Evaluation): Watch This Space

Mandate Evaluation (MandEval) is a large-scale, interdisciplinary research program exploring the impact of government COVID-19 vaccine mandates in Australia and internationally (Italy, France, the UK, and California), and led by Associate Professor Katie Attwell.

MandEval explores (1) publics' and workforces' attitudes towards vaccination mandates, (2) how mandates influence vaccination behaviour and other decision-making, and (3) perspectives on government communications about policy implementation, enforcement, and removal. The results of this research will inform recommendations for the decision-making around vaccine mandates in future global pandemics.

Chief Investigators: Associate Professor Katie Attwell, Professor Christopher Blyth, Dr Jessica Kaufman, Dr Mesfin Genie, Dr Jeremy Ward, Associate Professor Annette Regan, Associate Professor Marco Rizzi, Dr Huong Le and Dr Jane Williams.



Appendix 2: The Ngarngk Koolangka Moorditj Yarning Project – Watch This Space

The Ngarngk Koolangka Moorditj Yarning Project, led by Associate Professor Anne-Marie Eades and a first nations research team and a Chief Investigator team that includes the author of this Policy Brief, has collected relevant data which was not ready for inclusion.

A/Prof Eades is the driving force of this important project, which investigates attitudes towards and uptake of COVID-19 vaccination amongst Aboriginal women in south-west Western Australia (and non-Aboriginal mothers of Aboriginal babies). The project includes data about attitudes towards and experiences of COVID-19 vaccine mandates.

The project's grant title is: Improving coverage, confidence and knowledge about COVID-19 vaccination among Aboriginal Women of child-bearing age in Western Australia.

Chief Investigators: Associate Professor Anne-Marie Eades, Professor Sandra Eades, Associate Professor Katie Attwell, Associate Professor Zoe Bradfield, Professor Chris Blyth, Professor Juli Coffin, Dr Martyn Symons, Dr Hueiming Lui, Dr Samantha Carlson, Dr Sharynne Hamilton, Ms Tiana Culbong, Ms Lesley Nelson, & Ms Margaret O' Connell

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