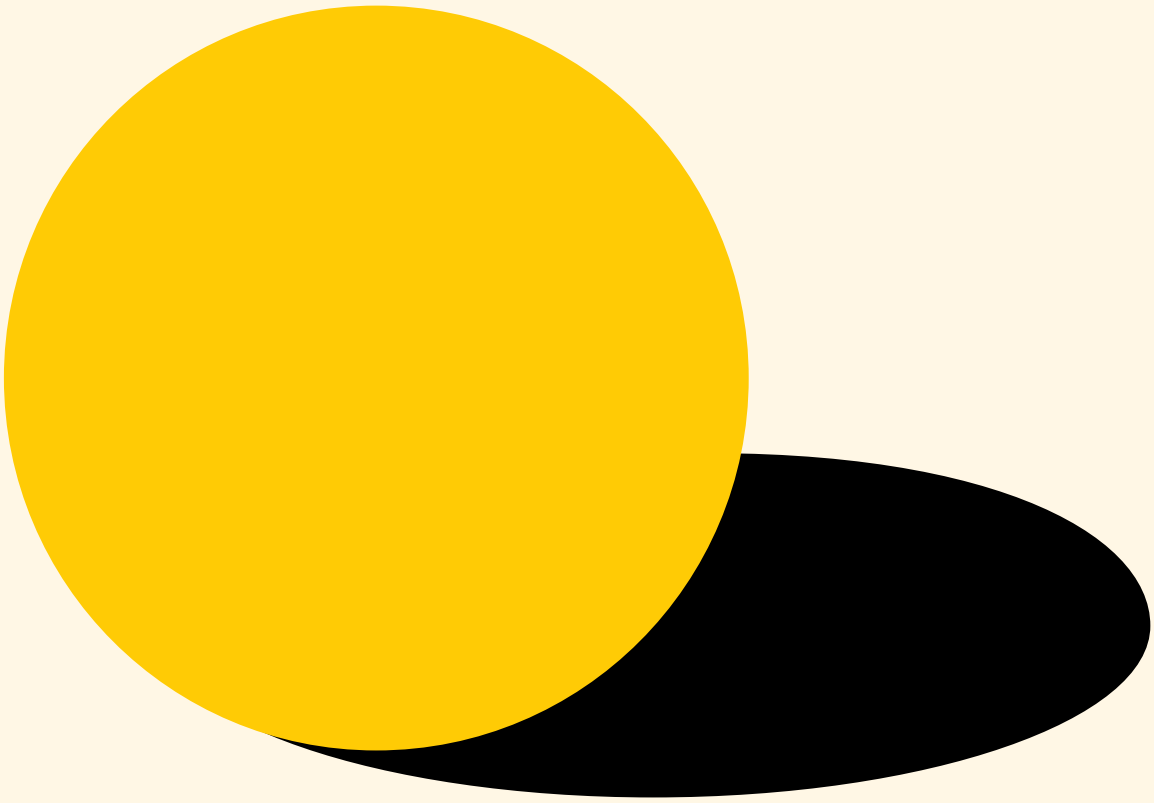
Discussion Paper 2025/04

The COVID-19 Shadow: An independent review five years on

Prepared as a submission for Phase Two of the Royal Commission COVID-19 Lessons Learned | Te Tira Ārai Urutā



MCGUINNESS INSTITUTE
TE HONONGA WAKA

Title *Discussion Paper 2025/04 – The COVID-19 Shadow: An independent review five years on*

This paper forms part of the Institute's *PandemicNZ* project and is the Institute's submission to Phase Two of the Royal Commission COVID-19 Lessons Learned.

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Preface

The next pandemic is not 'if' but 'when'.

It is important to remember that New Zealanders are still dying from COVID-19 – seven in the past week.[1] Furthermore, a significant number of those infected today may also go on to develop long COVID; estimates range from 5% to 10%.[2] Hence, COVID-19 continues to pose a threat to the public health of New Zealanders.

Five years on, the COVID-19 pandemic has taught us that pandemics also have significant economic and social costs, what we refer to in the title as the 'shadow'. While the immediate health emergency has largely passed, we believe the resulting shadow continues to impact us, often in ways that are not fully understand.

A major concern is the recurring portrayal of COVID-19 as a once-in-a-century event[3] – a view that is becoming increasingly untenable given the growing pandemic risks driven by climate change, deforestation, and intensive agricultural practices.[4] We need to shift our mindset and recognise that COVID-19 was a mild-to-moderate pandemic and, due to the nature of the virus and the state of emerging technologies, scientists could fortunately develop a vaccine quickly. We may not be so fortunate next time. For example, there are currently no approved vaccines for fungal infections.[5] Moreover, the threat of engineered pathogens being used in warfare or as tools of political aggression is arguably on the rise.[6]

For all these reasons, the Institute continues to urge the Government to develop a faster and more comprehensive response to ensure that New Zealand is fully prepared for future pandemics, that as a country we are 'pandemic-ready'. In the meantime, the Institute will continue to document and, where possible, conduct research into the impacts of the COVID-19 pandemic. This involves exploring specific areas that warrant deeper examination, with the goal of generating insights for future generations. One example is our recent *Discussion Paper 2025/03 – Time to Prepare: Lessons from the COVID-19 Wage Subsidy*. These deep dives are essential for uncovering the complex nuances that were not always evident during the height of the pandemic.

Further, we anticipate that new topics will continue to emerge, requiring further research and analysis – either because they were excluded from the Royal Commission COVID-19 Lessons Learned terms of reference or will only become evident after it concludes. Given this, there is ongoing uncertainty about how the Government plans to respond to the recommendations from both phases of the Inquiry – particularly regarding who will be responsible for assessing their implementation, including what has been actioned, the effectiveness of those actions, and what remains unaddressed. Because of this, the Institute has sent a series of Official Information Act requests (OIAs) to government departments to understand what is being implemented and what is not. The results will be published in *Working Paper 2025/15 – Record of Progress on the Implementation of Recommendations Related to the COVID-19 Pandemic as at September 2025*.

The McGuinness Institute appreciates the opportunity to contribute to Phase Two of the Royal Commission COVID-19 Lessons Learned and thanks the Commissioners for their consideration.

We encourage the Commissioners, when preparing their report, to reflect on how the recommendations from both phases of the Inquiry are interconnected – for instance, how findings from Phase One, such as the Government's financial support, may have influenced matters addressed in the Phase Two report. Perhaps the Commissioners will come to the same conclusion as us, that a further process is required. We suggest that a select committee be tasked with reviewing both reports and synthesising their findings to inform and embed them into public policy. However, other options may exist.

Thank you for taking the time to read this paper.

Wendy McGuinness
Chief Executive

1.0 Introduction

1.1 Purpose of *Project PandemicNZ*

Project PandemicNZ aims to help New Zealand prepare for future pandemics, by identifying key lessons before they are lost and forgotten. It draws together early Institute publications as well as an increasingly comprehensive suite of research into and publications on the recent COVID-19 pandemic (see a full list of McGuinness Institute *PandemicNZ* publications in Appendix 1).

Pandemics are not uncommon; they are frequent enough to cause major damage while being irregular enough for knowledge not to be passed down through generations. The recent COVID-19 pandemic is the fifth global pandemic in just over a century. Previous pandemics began in 1918, 1957, 1968 and 2009. Improving New Zealand's pandemic preparedness has been a key goal of the Institute since 2005. The occurrence and impact of future pandemics is likely to increase across the world due to climate change and land use changes. The COVID-19 pandemic highlighted gaps in preparedness, both in terms of the health system and supply chains. We must strengthen our capabilities and preparedness so that we are ready for future pandemics.

New Zealand has the opportunity to learn from the COVID-19 pandemic, identifying key lessons that will be beneficial in the long term. It is essential that we review what New Zealand did well, and what can be done to improve our capabilities and preparedness in the future.

1.2 Background

Alongside this submission, we would like to update the Commission on *Project PandemicNZ*, including our work since our submission to the Phase One Inquiry in April 2024 (titled *Discussion Paper 2024/02 – The COVID-19 Ripple Effect: An independent review of New Zealand's response*). These include:

1. *COVID-19 Nation Dates*. We have also produced *COVID-19 Nation Dates (additional dates since September 2024)*.
2. The *2024 GDS Index*.
3. The wage subsidy series of publications.
4. The emergency and crisis series of publications.
5. The upcoming *Working Paper 2025/15 – Record of Progress on the Implementation of Recommendations Related to the COVID-19 Pandemic as at September 2025*, first draft expected in October 2025.
6. The upcoming *Report 19 – A Decision Tree for Future Pandemics*, first draft expected in December 2025.

Each of these six publications is discussed below, setting out how they relate to the Phase Two terms of reference. We will refer back to these publications throughout the discussion sections of this submission.

1.2.1 *COVID-19 Nation Dates*

We have recently updated our book *COVID-19 Nation Dates* (2nd edition) to include additional material following the original publication in September 2024.

To record additional dates since the second edition was published, the Institute has published in draft *COVID-19 Nation Dates (additional dates since September 2024)*. The intention was to begin collating the events that have occurred since original publication of the book. At this stage we are unsure whether a comprehensive third edition will be necessary. That decision is likely to depend on how the Commissioners' recommendations are acknowledged, managed and implemented by Government.

1.2.2 The *2024 GDS Index*

The Institute regularly prepares a review of all government department strategies (GDSs) by producing a GDS Index.

The *2024 GDS Index* includes our analysis of the *New Zealand Pandemic Plan: A framework for action (Interim update – July 2024)* (the *2024 Plan*).[7] The purpose of the *2024 Plan* is reproduced in Box 1 and Box 2, with particular concerns highlighted in bold. We also include four key concerns that are relevant to your review.

(a) The *2024 Plan* is not a general plan for pandemics but a plan specifically for a respiratory pandemic.

The *2024 Plan* only covers respiratory pathogens, although the Ministry of Health (MOH) noted, when releasing the plan in July 2024 (see *COVID-19 Nation Dates*, 2nd ed., p.346), that it can be adapted for other types of pandemics. Our reading of the *2024 Plan* is that this would not be easy to do. One of the issues identified early in the pandemic was that the *2017 Influenza Pandemic Plan* failed to adequately consider other viruses.[8] This is an area that the Commissioners might like to investigate (given the overall purpose of the Inquiry is lessons to be learned).

> Box 1: Excerpt from *New Zealand Pandemic Plan: A framework for action (Interim update – July 2024)*[9]
>
> The purpose of this plan is to outline the health system and wider all-of-government measures that relevant agencies will consider in response to a pandemic **caused by a respiratory pathogen** and to provide an overview of the activities they undertake to ensure New Zealand is adequately prepared for a pandemic or events with pandemic potential. [Bold added] (p.2)

(b) The *2024 Plan* is not a comprehensive plan but an interim plan.

A comprehensive plan has been delayed until the Phase Two recommendations are received and a comprehensive review is carried out by MOH. The *2024 Plan* indicates that an in-depth review will be carried out in 2024–25, with a promise of engagement with other departments.[10] To date, the Institute is not aware that this has happened or is happening.

Further, the urgency that one would expect has not been forthcoming. Of note, the *2024 Plan* acknowledges that there is an increasing risk of zoonotic disease spill-over (see Box 2 below), yet the Office of the Auditor-General (OAG) noted in its November 2024 letter to the Health Committee that further changes to the *2024 Plan* are unlikely to occur until after the second phase of the Royal Commission reports in February 2026.[11] Although this is at one level understandable, the net result is that preparations for the next pandemic have stagnated.

> Box 2: Excerpt from *New Zealand Pandemic Plan: A framework for action (Interim update – July 2024)*[12]
>
> There is an increasing risk of **zoonotic disease spill over** into people as a result of climate change-associated habitat loss, agricultural intensification, food insecurity and increasing deforestation driving wild animals out of their natural habitats and closer to human populations. The consumption or keeping of certain species of wild animals is another risk factor. [Bold added] (p.7)

(c) The *2024 Plan* does not explain when lockdowns should occur, how vaccines should be obtained, or how to manage vaccine demand alongside vaccine hesitancy.

If managed correctly, an effective vaccine development and roll-out means lockdowns are not required (see further discussion in Section 3.1 on p.13). The Commissioners will be fully aware of how interconnected these two areas of policy were during the pandemic and how they are likely to play out in future pandemics.

(d) The *2024 Plan* does not list all the pandemic strategies or explain how they work together.

The Commissioners need to emphasise in their report that MOH must work harder to ensure all pandemic strategies and plans are listed and integrated, using consistent terminology. Not doing so creates an unnecessary risk of repetition and unclear hierarchy between strategies (see Table 1 overleaf).

Table 1: GDSs that have COVID-19 in the title, by mentions in the *2024 Plan*[13]

COVID-19 GDSs in operation at 31 December 2024	Mentioned in the *2024 Plan*?
COVID-19 Health and Disability System Response Plan (April 2020)	No.
COVID-19 Māori Health Protection Plan (December 2021)	No.
Strategic Framework for Managing COVID-19 (September 2023)	Yes, p.44, p.164.

The same goes for strategies that have been archived. MOH advised the Institute that *Kia Kaha, Kia Maia, Kia Ora Aotearoa: COVID-19 Psychosocial and Mental Wellbeing Plan* (December 2020) was archived in 2024. It remains unclear why it was archived, and we recommend that this question is asked of MOH and that the learnings from the *2020 Plan* are made public.

The Institute draws a distinction between a strategy and a plan. A strategy is about choosing the best means to an end, whereas a plan sets out the detail of how the selected strategy will be achieved (i.e. who is going to do what, when and how, listing the specific financial and other resources that will be required).

In many of the documents that MOH prepared to manage a pandemic, and more specifically the COVID-19 pandemic, the terms have been misused. For example, the *2024 Plan* is labelled as a plan, while we would argue it is a strategy as it identifies high-level strategies to achieve its end, i.e. ensuring New Zealand is adequately prepared for future pandemics.[14] We consider this distinction important and suggest more effort should be made by officials, when preparing for a pandemic, to make clear what is a strategy and what is a plan.

In addition to the *2024 Plan*, three other GDSs in operation at 31 December 2024 relate specifically to COVID-19:

1. The *COVID-19 Health and Disability System Response Plan* (April 2020). P.2 emphasised the important role a vaccine would have: 'We are currently pursuing an elimination strategy that aims to eradicate or minimise cases of COVID-19 from New Zealand to a level that is manageable by the health system, until a vaccine becomes available to achieve population-level immunity.'[15]
2. The *COVID-19 Māori Health Protection Plan* (December 2021). P.5 emphasised the role the vaccine had in reducing the spread: 'Of the confirmed and probable cases of COVID-19 among Māori in the current delta variant outbreak (4,698 Māori cases as at 20 December), nearly half have been 12 years or older and unvaccinated. Only 10 percent were Māori who had received both doses of the vaccine. Over a quarter of cases (29 percent) were in tamariki under 12 years old, which highlights why vaccination for people aged 12 years and over is so important in reducing the spread of the virus.'[16]
3. The *Strategic Framework for Managing COVID-19* (September 2023). P.3 emphasised the need to keep up to date with the latest vaccine to combat the latest mutations: 'frequent mutations in the SARS-CoV-2 virus result in variants with immune evasion properties, which means we will need to maintain a focus on vaccine and antiviral research and developments'. Figure 2 (p.14) shows an excerpt from the strategy which indicates that, by September 2023, managing COVID-19 had largely become an exercise of maintaining high levels of vaccination in the community.[17]

1.2.3 The wage subsidy series of publications

The Institute has been particularly interested in the development of the Wage Subsidy Scheme as part of the Government's response to the COVID-19 pandemic.

Working Paper 2025/08 – Analysing COVID-19 Wage Subsidy Information Disclosed in Annual Reports of NZSX-listed Companies (September 2025) focused explicitly on how the Wage Subsidy Scheme operated in 2020 and 2021 in relation to NZSX-listed companies, through analysis of annual reports and the Work and Income COVID-19 wage subsidies - Employer Search.

We acknowledge that the operation of private businesses, decisions of the Reserve Bank's independent monetary policy committee, and judgments of the court system are not within this Inquiry's terms of reference. We also note that Phase One covered the economic response, including wage subsidies. However, we consider it important to share our insights as they feed into some of the actions that led to Phase Two being considered necessary (see further discussion in Section 4.2 on p.19).

Discussion Paper 2025/03 – Time to Prepare: Lessons from the COVID-19 Wage Subsidy (August 2025) focused on the development and reviews of the Wage Subsidy Scheme, seeking to provide an independent review of the scheme in its entirety.[18]

Our comments below draw particular attention to the Wage Subsidy Scheme, its inconsistencies, and the poor preparation of private companies for economic shocks. We think that despite the unprecedented nature of the Government's decision to lock down the country, private companies and businesses were (and continue to be) too reliant on the subsidy scheme. We encourage the Commission to consider in its report how the Government can make the private sector less dependent on handouts.

1.2.4 The emergency and crisis series of publications

Undertaking research into COVID-19 made us acutely aware that the pandemic started as an emergency and moved quickly to a crisis. This led to thinking more deeply about whether an emergency calls for a different type of response from a crisis. This series of papers aims to explore how governments, business and individuals manage and communicate the difference between an emergency and a crisis. To explore some of these ideas in more detail, the Institute has prepared two working papers and one discussion paper.

Working Paper 2025/13 – The Language of When Things Go Wrong: Exploring how the terms 'emergency' and 'crisis' are used in legislation (July 2025) explores how the terms 'emergency' and 'crisis' are used in legislation. While this is not necessarily indicative of an official distinction between the two terms, it does indicate how each term fits within the current legislative framework.

Working Paper 2025/14 – An Examination of Aotearoa New Zealand's Process of Emergency Escalation (August 2025) reviews the current processes for New Zealand's response to emergencies and crises. In particular, this paper describes how New Zealand's emergency response arrangements and crisis response arrangements operate in practice.

Discussion Paper 2025/02 – Navigating the Future: How to tell the difference between an emergency and a crisis, and why it matters (final draft published August 2025) expands on the findings of the earlier two working papers. What we have already discovered is that the terminology is very unclear and terms like crisis, emergency and disaster are used in an ad hoc manner.

We concluded that the current emergency management reform should not just focus on the passing of an Emergency Management Act, but instead the passing of a Crisis and Emergency Management Act.

1.2.5 *Working Paper 2025/15 – Record of Progress on the Implementation of Recommendations Related to the COVID-19 Pandemic as at September 2025* (in progress)

The Institute is concerned that there has been a lag in implementing recommendations from the Office of the Auditor-General and the Royal Commission COVID-19 Lessons Learned Inquiry. In early September 2025, the Institute sent out OIA requests to MOH, The Treasury (Treasury), Reserve Bank of New Zealand (RBNZ), Ministry of Defence (MOD), Ministry of Social Development (MSD), Ministry of Business, Innovation & Employment (MBIE), OAG and Inland Revenue Department (IRD) asking for updates on the status of implementing recommendations related to the COVID-19 pandemic. This working paper will combine their responses into one table.

1.2.6 *Report 19 – A Decision Tree for Future Pandemics* (in progress)

We are in the process of preparing a new report in our *Project 2058* series. *Project 2058* is the Institute's flagship project and is used to focus our work on Aotearoa New Zealand's long-term future to the year 2058.

This report will look to consolidate the lessons that we have learned from the COVID-19 pandemic, by creating a decision tree that will identify the key questions that are likely to occur in any future pandemic. We aim to finish a first draft of the decision tree in December, which we would then like to share with the Commissioners. At the same time, we welcome feedback from those with expertise in COVID-19 and other epidemics or pandemics, to help rigorously test and strengthen our thinking.

2.0 Royal Commission COVID-19 Lessons Learned terms of reference

A copy of the full terms of reference can be found in the updated Royal Commission of Inquiry (COVID-19 Lessons) Order 2022 in Appendix 2 (as at 26 September 2024). The terms of reference for Phase Two include a review of key decisions made between February 2021 and October 2022, structured into three parts:

- Part 1: vaccines, including the use of mandates, the approval of vaccines, and vaccine safety;
- Part 2: lockdowns, especially the national lockdown in August and September 2021 and the Auckland/ Northland extended lockdown late 2021; and
- Part 3: testing, tracing, and other public health tools.[19]

Sections 3–5 of this submission cover the three parts above. Section 6 contains the Institute's high-level reflections and recommendations.

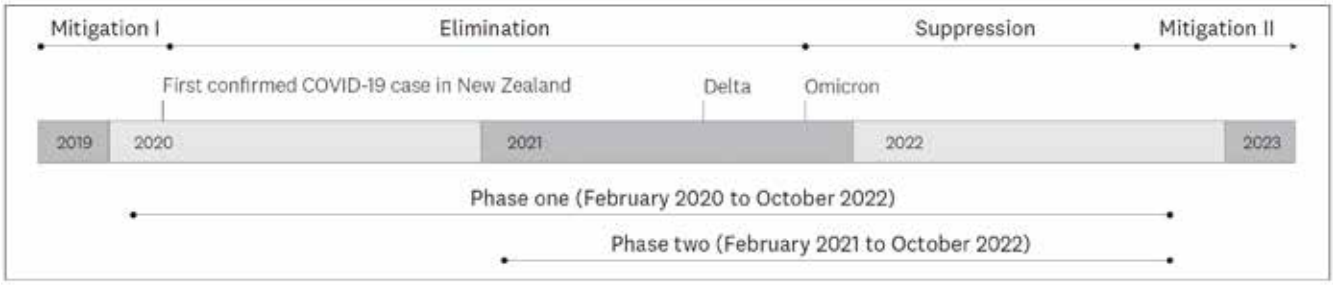
The Institute believes that these three parts should not just be considered in isolation, but as interrelated parts of the wider response. For example, vaccine-related decisions influenced decisions made around the lockdowns, and vice versa. Furthermore, these three parts should be considered interrelated with the Phase One submission.

New Zealand's COVID-19 Inquiry is significantly narrower than the UK COVID-19 Inquiry in terms of the period of time it investigates, the range of topics covered, and transparency and therefore accountability (see the three-page UK terms of reference).[20] While some differences are to be expected, they are two very different inquiries.

Firstly, unlike New Zealand's COVID-19 Inquiry, the UK COVID-19 Inquiry terms of reference were shaped by the Chair (Rt Hon the Baroness Hallett). Hallett, who was appointed in December 2021, undertook a significant amount of public consultation on the terms of reference. She wrote to the UK Prime Minister to recommend major changes to the initial draft terms of reference, including the 'mandate to publish interim reports' so as to ensure recommendations could be considered and implemented in a timely manner. The final terms of reference were confirmed in June 2022. Hallett later noted in the introduction to Module 1: 'The pandemic and the response spared no part of British life and so there is almost no part of that life excluded from our investigations.'[21] In New Zealand, public consultation on the terms of reference appears to have been much less extensive, with Phase One not mentioning any public consultation at all. This may (or may not) explain why New Zealand's terms of reference have a much narrower scope, placing several constraints and limitations on what the commissioners can inquire into. Both Phase One and Phase Two identify 11 'excluded matters' that are outside the scope of the Inquiry (see clause 6 of the Schedule, in the Royal Commission of Inquiry (COVID-19 Lessons) Order 2022, and clause 6 of Schedule 2 in the Royal Commission of Inquiry (COVID-19 Lessons) Amendment Order (No 2) 2024).[22] These excluded matters are the same for both phases, except that 'vaccine efficacy' in Phase One becomes 'the operation of the general regulatory system for vaccines, and the approval of vaccines unrelated to COVID-19' in Phase Two.

The range of time under examination also differs. The UK's COVID-19 Inquiry has no defined starting date but covers the period to 28 June 2022, meaning that it can inquire into what preparation was done/ in place (or not) before January 2020, including the response in January 2020. In contrast, New Zealand's COVID-19 Inquiry does not cover these critical early months, meaning that there is significant risk of missing some of the lessons that could be learned from the early decision-making in the face of uncertainty (see Figure 1 overleaf). The terms of reference specifically state that its coverage is February 2020 to October 2022, and 'not outside those dates'.[23]

Figure 1: Phase One and Phase Two of the Royal Commission COVID-19 Lessons Learned Inquiry[24]



Notes to Figure 1:

1. Phase One: Covers proportionality of impacts, consideration of Te Tiriti, and specific legislative and regulatory settings, strategies and measures. These include, for example, MIQ, contact tracing, testing, vaccine mandates, modelling and surveillance systems, communication, supply of goods and services (including PPE) and the initial economic response to a future pandemic.
2. Phase Two: Covers the vaccine mandates, imposition of lockdowns and testing and tracing technologies (hence there is likely to be some repetition between Phase One and Two).

The Institute believes that there needs to be work done in linking the findings of Phases One and Two of the Royal Commission COVID-19 Lessons Learned Inquiry, so that there is one overall set of findings rather than two disconnected pieces of work. This work could be done by an epidemic/pandemic select committee that is responsible for reviewing the feedback and reporting back to Parliament (see further discussion in Section 6.1 on p.28).

3.0 Part 1: The use of vaccines to manage COVID-19

> The review must be limited to decisions regarding— the use of vaccines in response to COVID-19, specifically— vaccine mandates: the approval of specific COVID-19 vaccines: vaccine safety, including the monitoring and reporting of adverse reactions
>
> – Terms of reference (Phase Two)[25]

One challenge for New Zealand as a small country is access to a necessary vaccine in a timely and affordable manner. New Zealand's smaller size means it is unlikely to be able to negotiate cost-effective and timely terms with international vaccine manufacturers during a pandemic. Taking the time now to negotiate pre-pandemic deals with reputable vaccine suppliers might improve the chances of a timely delivery. In addition, we need to ensure New Zealand has the skills to undertake the necessary due diligence when vaccine options become available (or at least can collaborate with other countries that have these skills). We suggest there will be learnings from other countries which will be worth analysing in terms of what worked and what did not, in preparation for the next pandemic.

Other issues relate to ensuring an adequate cold-chain (fridges or freezers) to maintain vaccine effectiveness. This was particularly relevant with the Pfizer vaccine, which had to be stored at an extremely low temperature. Vaccines that are compromised by inadequate storage conditions must be destroyed, which is wasteful and expensive.[26]

3.1 The vaccine roll-out in response to COVID-19

Motivators to vaccinate the population included:

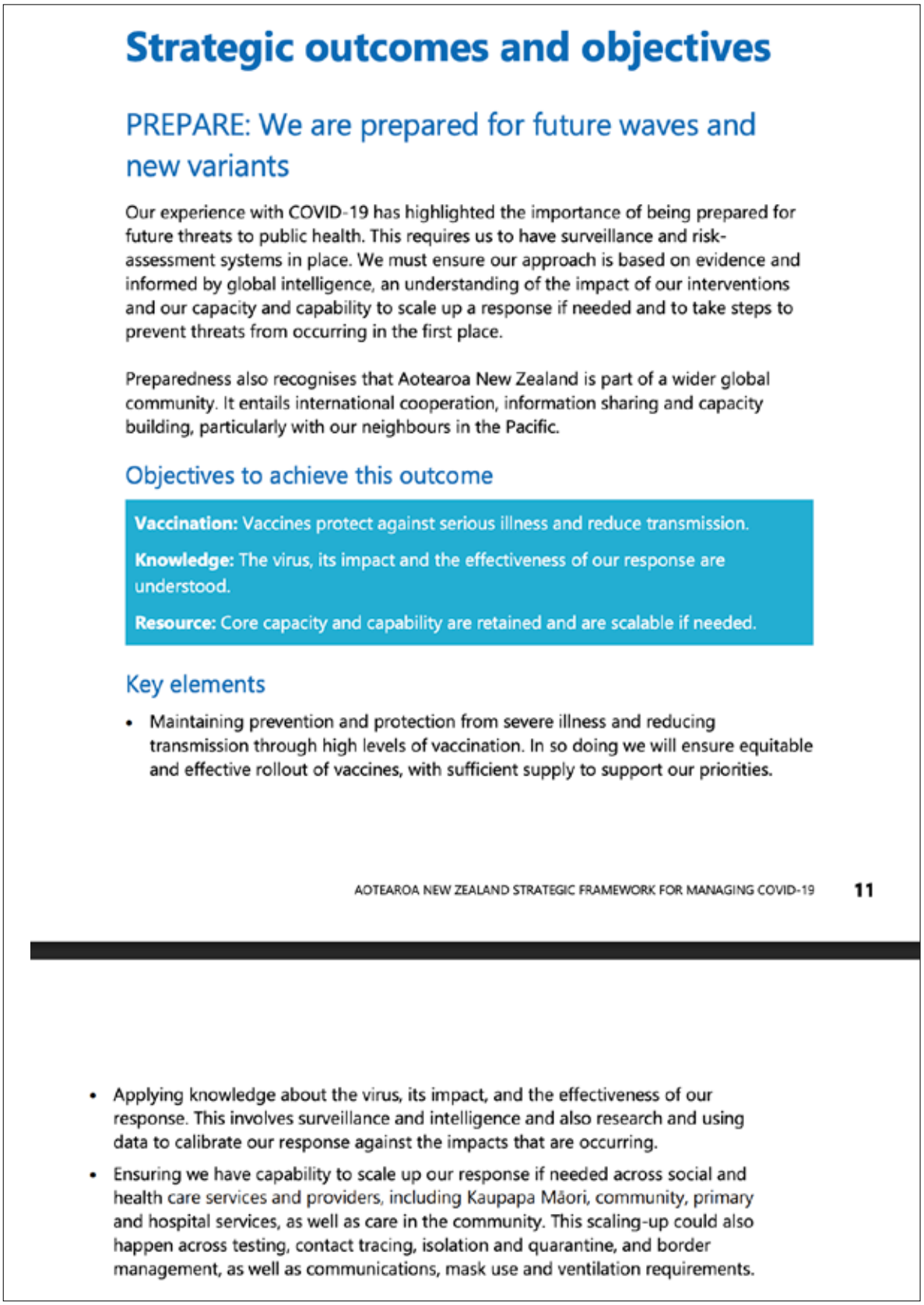
1. New Zealand's health-care system could not cope if the virus circulated widely in an unvaccinated community.
2. The Government could not afford further COVID-19 wage subsidies.
3. Borders needed opening for international travel so New Zealanders overseas could come home, and New Zealanders living locally could travel overseas.
4. Borders needed opening in order for international business, exports and imports, and tourism to operate.
5. The rest of the world was opening up while New Zealand remained closed (creating a long-term disadvantage for New Zealand businesses).

Vaccines were mentioned throughout the *2024 Plan*; the most insightful commentary is reproduced in Box 3 below. It showed that the supply chain disruptions and vaccine hesitancy made access and use of vaccines difficult.

Box 3: Excerpt from *New Zealand Pandemic Plan: A framework for action (Interim update – July 2024)*[27]

A significant challenge throughout the pandemic was the rapid development and uneven distribution of vaccines. Multiple effective vaccines were developed in record time, but their global availability was highly inequitable. High-income countries secured a substantial portion of vaccine supplies, leaving low- and middle-income countries with limited access. This imbalance not only perpetuated health disparities but also hampered the global effort to achieve widespread immunity and reduce the chances of new more virulent variants emerging. Initiatives like COVAX aimed to address this disparity by facilitating equitable vaccine distribution, but challenges such as supply chain disruptions and vaccine hesitancy continued to impede progress. (pp.8–9)

Figure 2: Excerpt from the *Strategic Framework for Managing COVID-19* (September 2023) (pp.11–12)[28]



Strategic outcomes and objectives

PREPARE: We are prepared for future waves and new variants

Our experience with COVID-19 has highlighted the importance of being prepared for future threats to public health. This requires us to have surveillance and risk-assessment systems in place. We must ensure our approach is based on evidence and informed by global intelligence, an understanding of the impact of our interventions and our capacity and capability to scale up a response if needed and to take steps to prevent threats from occurring in the first place.

Preparedness also recognises that Aotearoa New Zealand is part of a wider global community. It entails international cooperation, information sharing and capacity building, particularly with our neighbours in the Pacific.

Objectives to achieve this outcome

Vaccination: Vaccines protect against serious illness and reduce transmission.

Knowledge: The virus, its impact and the effectiveness of our response are understood.

Resource: Core capacity and capability are retained and are scalable if needed.

Key elements

- Maintaining prevention and protection from severe illness and reducing transmission through high levels of vaccination. In so doing we will ensure equitable and effective rollout of vaccines, with sufficient supply to support our priorities.

- Applying knowledge about the virus, its impact, and the effectiveness of our response. This involves surveillance and intelligence and also research and using data to calibrate our response against the impacts that are occurring.
- Ensuring we have capability to scale up our response if needed across social and health care services and providers, including Kaupapa Māori, community, primary and hospital services, as well as care in the community. This scaling-up could also happen across testing, contact tracing, isolation and quarantine, and border management, as well as communications, mask use and ventilation requirements.

In the early stages of the vaccine roll-out there was a significant oversupply, which in turn led to a large amount of stock being destroyed when it passed its expiry date. In November 2023, Health New Zealand revealed that almost 3.5 million doses of COVID-19 vaccines had expired between January and October 2023.[29] This was equivalent to approximately 30% of Pfizer vaccines administered. Thus, it would be fair to say we had a significant undersupply, followed by a significant oversupply (see Figures 3 and 4 overleaf).

Figure 3: Vaccine doses administered and discarded in New Zealand by vaccine type, 19 February 2021 to 10 June 2024[30]

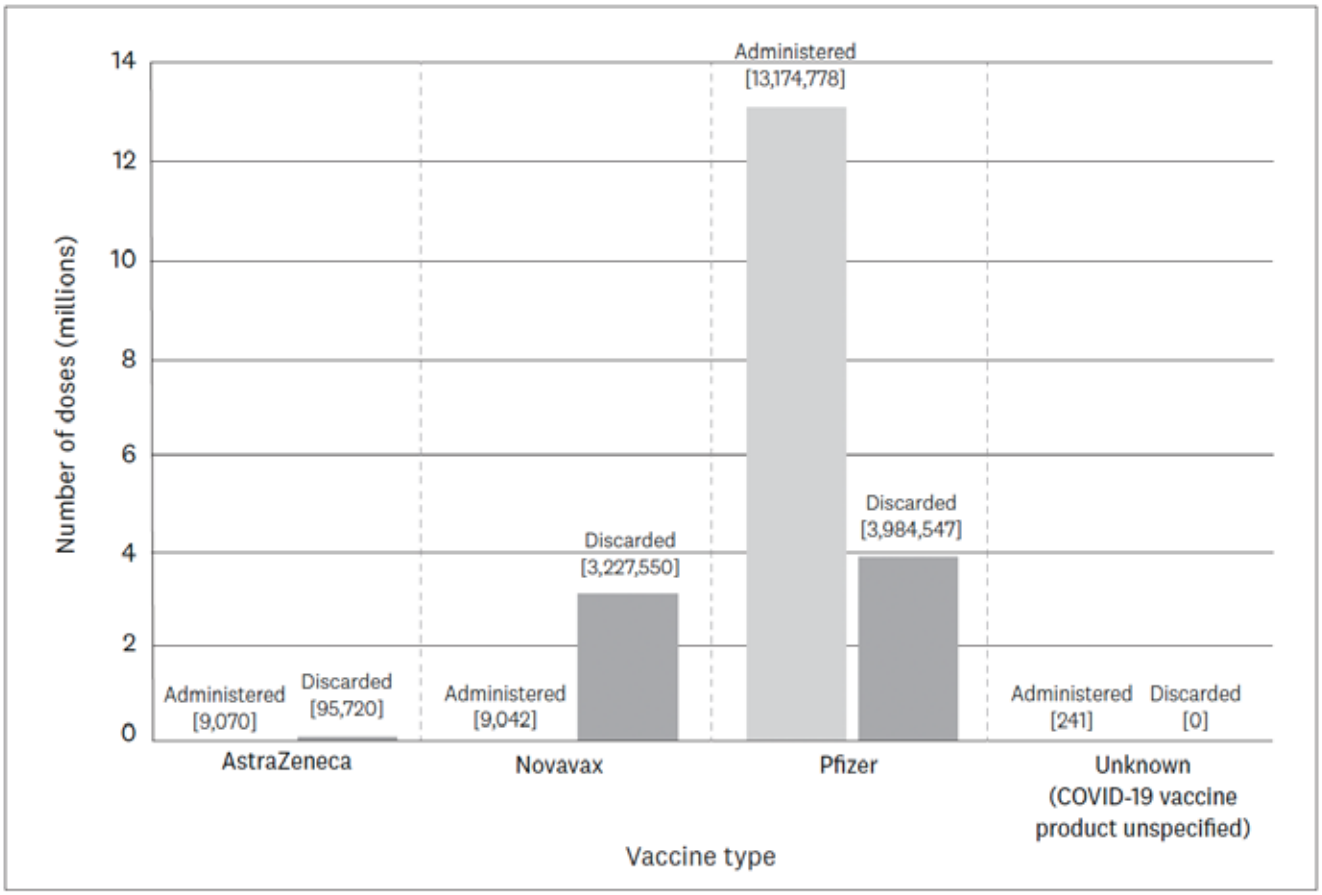
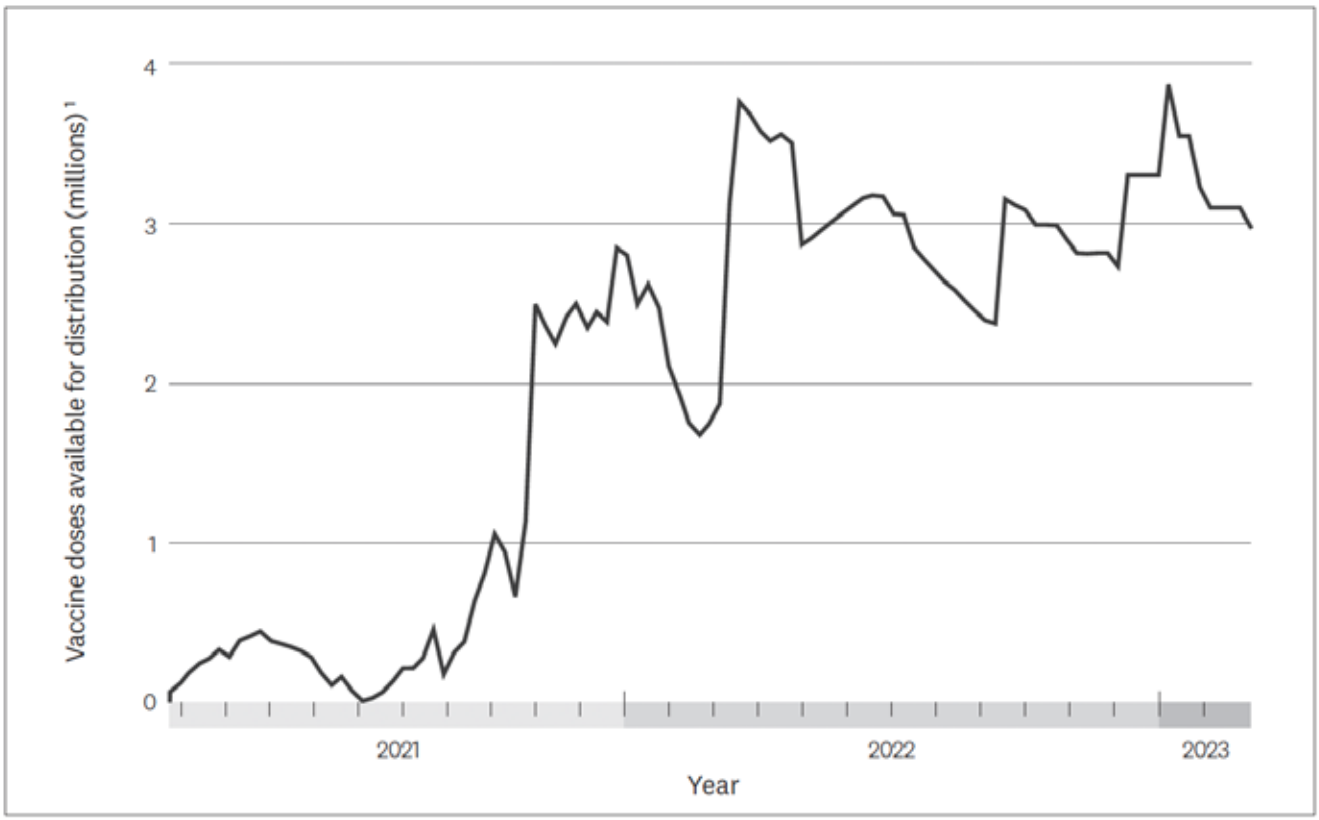


Figure 4: Vaccine doses in stock, 21 February 2021 to 28 February 2023[31]



In June 2021, New Zealand signed an agreement to transfer its vaccine allocation of 1.6 million doses of AstraZeneca to lower-income economies eligible under the Gavi COVAX Advance Market Commitment. Six Pacific nations (Fiji, Papua New Guinea, the Solomon Islands, Timor-Leste, Tonga and Tuvalu) were the first to benefit. A further 420,000 doses were donated directly from New Zealand's vaccine stocks between May 2021 and May 2024 (see Table 2 below).[32]

Table 2: COVID-19 vaccine doses donated, 15 May 2021 to 20 May 2024 [33]

Country donated to	2021	2022	2023	2024	Total
Cook Islands	34,350	9,760	778	180	45,068
Fiji	52,560	50,000	0	0	102,560
Niue	2,730	2,340	360	140	5,570
Samoa	55,860	111,810	2,000	0	169,670
Tokelau	2,520	2,770	0	0	5,570
Tonga	30,060	54,910	2,620	300	87,890
Tuvalu	0	4,000	510	260	4,770
Total	178,080	235,590	6,268	880	420,818

There was also debate over whether the focus of the roll-out should be on getting one dose to as many people as possible or full immunity (i.e. two doses for a smaller number of people). While other countries such as the UK focused on giving one dose to as many people as possible (following up with a second dose when supply had amped up), New Zealand focused on optimising two doses to our most vulnerable citizens and minimising the gaps between doses. See McGuinness Institute Think Piece 37, *The gap between doses matters!*[34] Evolutionary microbiologist Andrew Read from Pennsylvania State University provided this perspective: 'Twice as many people with partial immunity has got to be better than full immunity in half of them.'[35]

The gap between doses is particularly relevant when considering the type of immunity that the vaccine provides. Early in the pandemic it was assumed that COVID-19 vaccinations would reduce the risk of transmission; however, this was an incorrect assumption.[36] An August 2024 briefing by the Public Health Communication Centre stated that COVID-19 vaccines provide what is known as protective immunity (the replication of the relevant pathogen is limited so subsequent disease is mild) rather than sterilising immunity (the pathogen is eliminated before replication, disease is avoided, and transmission is prevented).[37] Knowing what type of immunity would be provided by the vaccine will allow officials to design a more effective vaccine strategy.

3.2 Approval of vaccines

On 31 December 2020, the Pfizer/BioNTech vaccine was the first vaccine to receive emergency validation from the World Health Organization (WHO). WHO's Emergency Use Listing (EUL) enabled countries to expedite their own regulatory approval processes to import and administer the vaccine.[38] In the early period of the COVID-19 pandemic, the Government signed agreements with four different suppliers, but by mid-2024 only one, Pfizer, was retained. Notably, it was almost a year between signing the first agreement and the first delivery of vaccines.[39] During any pandemic, the sooner that we receive the vaccine, the sooner we can begin to immunise the population.

Vaccine Alliance Aotearoa New Zealand (VAANZ) designed and manufactured a novel COVID-19 vaccine, 'Kiwi Vax'. A pre-clinical (non-human) study showed it induces a safe and highly effective immune response, produced far more cheaply than commercially developed vaccines. 'The immune response generated by the vaccine is also very durable and long-lasting and results to date indicate that Kiwi Vax is stable at refrigerator temperature for several months and at room temperature for at least one month. These are important advantages over current vaccines.' Kiwi Vax has been philanthropically funded, but in March 2024, VAANZ executive director and Malaghan Institute professor Kjesten Wiig stated that it is unlikely to acquire the funding needed to make it to the market, and argued getting Kiwi Vax to the market was no longer VAANZ's end game. Instead, '[t]he point of the project is really to build the capability here in New Zealand. It's not for this, so much as for next time this happens.' Wiig said getting the vaccine through a Phase 1 trial would be a seal of credibility.[40] As of August 2025 there is no further update on whether this has progressed past Phase 1.

VAANZ was a $10 million collaboration set up by the Government in 2020 to evaluate overseas vaccines as they became available, and to boost New Zealand research in case international vaccines were not available. (MBIE provided a further $2 million of funding in 2021.) Minister for Science, Innovation and Technology Judith Collins believes the $10 million spent on VAANZ was a good investment, because it has built the country's vaccine development and manufacturing capability, and helped attract another $10 million in philanthropic funding.[41]

3.3 Vaccine safety

Though the majority of the population received the vaccine without adverse effects, there were some serious adverse reactions and, tragically, a small number of fatalities.

In December 2023, Health New Zealand stated on its website that:

> Publicly available data shows that four deaths in New Zealand are possibly linked to adverse reactions following COVID-19 vaccination. This is in the context of 3,361 people whose deaths have to date been directly attributed to COVID-19 in New Zealand, with more than 12.6 million vaccines administered to eligible New Zealanders as of 2 October 2023.[42]

Between March 2021 and November 2022, the Centre for Adverse Reactions Monitoring (CARM) published bimonthly reports that discussed adverse events following immunisation with COVID-19 vaccines.[43] CARM no longer publishes a report that specifically lists possible COVID-19 vaccine deaths, but administers the joint Suspected Medicine Adverse Reaction Search (SMARS) database with Medsafe.[44]

We have found that the new database is unnecessarily difficult to use, and it does not provide any detail on age bands, or clarity over whether deaths were caused by the vaccine. Therefore, the report was far more useful for the public and policy analysts than the database (which requires some specialised knowledge to navigate).

3.4 Vaccine mandates

A small minority of workers with jobs that were covered by vaccine mandates decided not to be vaccinated. This not only impacted their jobs and careers, but made it difficult for employers, who were already overstretched and unsure how to respond.[45]

Communication around getting vaccinated 'for New Zealand' meant those who decided against getting vaccinated were colloquially called 'anti-vaxxers' or 'conspiracy theorists', even when medical, religious or other legitimate reasons prevented them from choosing to receive the vaccine.[46] This tension between people who received the vaccine and those who did not was one of the contributing factors to the occupation of Parliament and protests across the country.[47]

3.5 Observations

Vaccines should not be seen in isolation. They have an inverse relationship to lockdowns and the impacts of lockdowns (such as wage subsidies). Perhaps an earlier vaccination programme that focused on getting one dose to as many people as possible may have reduced the need for the extended lockdown in 2021 (or at least shortened it).

More clarity in a vaccine strategy prior to or early in a pandemic may provide a closer estimate for the number of vaccines that need to be purchased, ensuring we do not end up with such a significant oversupply. Similarly, a plan for how we might more effectively donate vaccines to other countries in our region may have prevented some of the wasted vaccines.

Vaccine mandates should be a tool of last resort. Given the high cumulative double-vaccination rates that were in place before the vaccine mandates were introduced, it is difficult to argue that the mandates were necessary.[48]

Finally, having the capability and knowledge base to develop and test vaccines within New Zealand will be a key in the response to future pandemics. This can be developed through funding programmes such as VAANZ, as well as supporting international vaccine research organisations.

3.6 Recommendations

Recommendation 1

Consider whether an alternative vaccine strategy – prioritising two doses for a targeted or staged group, rather than one dose for as many people as possible – might have enabled an earlier lifting of lockdowns in New Zealand. While New Zealand adopted the former approach, the UK pursued the latter, which may have contributed to an earlier easing of restrictions. Although the Institute has not yet investigated this issue, we believe it warrants further exploration.

Recommendation 2

Develop a vaccine strategy that outlines the key factors to consider when the Government is faced with a pandemic and must decide how to allocate vaccine access. This strategy could also include a framework for modelling how many vaccines will be needed (including some redundancy), so that any excess with sufficient shelf life can be donated to reduce unnecessary waste.

Recommendation 3

Continue investing in and strengthening domestic capabilities to assess and select the most suitable vaccines, and to potentially produce and test vaccines locally, through ongoing support for initiatives such as VAANZ.

4.0 Part 2: Use of lockdowns

> The review must be limited to decisions regarding—the imposition and maintenance of lockdowns during this period, and specifically the national lockdown in August and September 2021, and the extended lockdown in Auckland and Northland in September 2021.
>
> – Terms of reference (Phase Two)[49]

4.1 Imposition of lockdowns

One of the first terms we searched for in the *2024 Plan* was 'lockdowns'. Disappointingly, the content regarding lockdowns was minimal. They were mentioned in three paragraphs in the *2024 Plan*:

Box 4: Excerpt from *New Zealand Pandemic Plan: A framework for action (Interim update – July 2024)*[50]

Impacts of response measures may include:

...

- an increase in some adverse social effects (e.g., family violence and sexual violence, as seen in **the COVID-19 lockdown**) [Bold added] (p.56)

If authorised, consider national, regional or location-specific stay-at-home (isolation and quarantine) notices and domestic movement restrictions (e.g., **local, regional or national lockdown**). [Bold added] (p.82)

The COVID-19 pandemic demonstrated that countries that tried to implement less stringent control measures, due to economic concerns, often had to impose prolonged periods of **lockdown** or quarantine, causing more detriment to the economy in the long run. Stricter measures **in initial lockdowns in New Zealand** allowed a quicker transition and faster economic recovery. [Bold added] (p.155).

As discussed, lockdowns were very interconnected with vaccinations in New Zealand's response to the COVID-19 pandemic. In future, if the population is well vaccinated, the effects of a virus will likely be less severe (see p.16) and lockdowns will probably not be required. This implies an inverse relationship between lockdowns and effective vaccines.

As mentioned on p.16, one condition of ending the Auckland lockdown was to have a large percentage of the population fully vaccinated. The push for vaccination was largely led by businesses and, in particular, Auckland businesspeople. For example, KFC advertised a free Popcorn Chicken Snack Box if you showed your vaccination card or sticker in select stores (see p.68 of *COVID-19 Nation Dates*, 2nd edition).[51] The 90% Project, an *NZ Herald* initiative, was instrumental in removing the need for the lockdown in December 2021 with its successful campaign 'for at least 90 per cent full vaccination against Covid-19 in our eligible population by Christmas'.[52]

4.2 During the lockdown

We consider the existence of the Wage Subsidy Scheme was highly relevant to the 2021 Auckland lockdown, both in terms of the comfort it gave businesses and the cost to the country.

Table 3: COVID-19 Wage Subsidy Scheme[53]

Duration	Name	Amount ($m)
17 Mar 2020–9 Jun 2020	Wage Subsidy	10,949
10 Jun 2020–1 Sep 2020	Wage Subsidy Extension	2,573
21 Aug 2020–3 Sep 2020	COVID-19 Resurgence Wage Subsidy	318
4 Mar 2021–21 Mar 2021	Wage Subsidy March 2021	183
20 Aug 2021–9 Dec 2021	Wage Subsidy August 2021	4,790
Total		18,813

Note to Table 3: The COVID-19 Wage Subsidy Scheme, outlined above, refers to all COVID-19 Wage Subsidy-related payments. It was managed by Work and Income at the MSD. The subsidy was available to businesses, employers and self-employed workers, who experienced or were reasonably expected to suffer a decline in revenue due to COVID-19. The criteria are set out on the MSD website.[54]

Working Paper 2025/08 – Analysing COVID-19 Wage Subsidy Information Disclosed in Annual Reports of NZSX-listed Companies (September 2025) found that the Scheme faced several challenges, largely due to its rapid implementation.

Issues discussed in the working paper included:

- Lack of preparedness by Government leading to an over-reliance on the high-trust model
- Lack of preparedness by organisations
- Lack of timely guidance on financial reporting
- Lack of a clawback clause when super profits are achieved, and
- Failure to ensure fraudulent behaviour is advised to shareholders and included in the company's annual report.

Many of these issues could (and should) have been resolved in advance. If the system had been designed and tested in preparation for a pandemic (or other shock), New Zealand would have delivered a more durable, effective, efficient, trusted and reliable system. The costs of administering the poorly designed scheme once it had started were significant, both in terms of investigating and prosecuting individuals for fraud, and the loss in public trust at a time when society faced a high level of anxiety over the future.[55]

The wage subsidy cost the Government $18.8 billion, and the phases of the subsidy (see Table 3 above) overlap extensively with the lockdowns imposed (see Table 4 overleaf). Reducing the time spent in lockdown would have allowed businesses to remain open and thus less dependent on these subsidies, saving money that could have been used elsewhere.

Table 4: Timeline of Alert Levels 3 and 4[56]

Period	Location	Timeline entry (Chapter 7)
23–25 Mar 2020	Alert Level 3 – All of New Zealand	23 Mar 2020
25 Mar–27 Apr 2020	Alert Level 4 – All of New Zealand	25 Mar 2020
27 Apr–13 May 2020	Alert Level 3 – All of New Zealand	27 Apr 2020
12–30 Aug 2020	Alert Level 3 – Auckland only (first)	11 Aug 2020
14–17 Feb 2021	Alert Level 3 – Auckland only (second)	14 Feb 2021
28 Feb–7 Mar 2021	Alert Level 3 – Auckland only (third)	28 Feb 2021
17–31 Aug 2021	Alert Level 4 – All of New Zealand	17 Aug 2021
31 Aug–2 Dec 2021	During this period, the alert levels applying to different geographical regions changed multiple times.[1]	31 Aug 2021, 2 Sep 2021, 7 Sep 2021, 25 Sep 2021, 3 Oct 2021, 5 Oct 2021, 7 Oct 2021, 8 Oct 2021, 19 Oct 2021, 27 Oct 2021, 2 Nov 2021, 9 Nov 2021, 11 Nov 2021, 16 Nov 2021 and 2 Dec 2021

Note to Table 4: On 5 October 2021, a three-step system was introduced for Alert Level 3 to help transition regions to lower alert levels.[57]

In the Institute's opinion, the Government failed to explore the option of preparing the health-care system for a pandemic. New Zealand spent a significant amount of money on vaccinations. If some of the money that was used in the response had instead been used to prepare the hospitals for a pandemic, the health-care system would have benefited from a long-term fix, rather than a short-term solution. Building the capacity of the health-care system prior to a pandemic will mean that New Zealand may not need to be locked down in the future, as the health-care system will be able to manage surges in cases more effectively.

Interestingly, the UK COVID-19 Inquiry Module 1 notes that the Chancellor of the Exchequer advised there was 'no planning done by the UK Treasury or indeed, as far as I'm aware, any western treasury for asking the entire population to stay at home for months and months on end'. The report suggested that the UK Treasury should be required to plan specifically for non-economic shocks, as well as economic shocks.[58]

A survey conducted online of a demographically representative sample of 2010 adult New Zealanders over April 2020 found that although two-thirds of participants appeared to be coping well with the lockdown, about one-third reported moderate to high psychosocial distress (rates well above baseline measures from past population surveys).[59] In particular, the data showed a much higher level of distress in younger adults (under 44 years) compared with baseline population rates. The majority of participants of all ages identified positive aspects of the lockdown, such as more family time, work flexibility and social cohesion. They reported taking the opportunity to pause, reflect, consider priorities and re-create healthy habits, and enjoyed the environmental benefits of reduced travel. However, almost one in ten experienced some form of family harm, including sexual assault, physical assault, or harassment and threatening behaviour.

The study concluded that while the economic impacts of the lockdown measures were serious and were ongoing, equal attention needed to be paid to the effects of lockdowns on mental wellbeing. The authors noted that in the future, 'Governments should treat the adequate provision of psychosocial support with similar priority to contact tracing, provision of personal protective equipment, and procurement of ventilators.'

4.3 End of the lockdown

The Phase One report of the Royal Commission COVID-19 Lessons Learned Inquiry notes that following early successes in the elimination strategy, the Government was prone to holding on to existing settings and strategies for too long.

In retrospect, moving from alert levels to the traffic light system may not have been necessary. The alert level system could have been adjusted to deal with the move from elimination to suppression, by easing existing restrictions within the alert level system.

4.4 Observations

Government, and the Treasury, are yet to articulate the full wider non-fiscal costs as a result of decisions made during the pandemic.[60] It is essential to understand the cost of the decisions that were made during the COVID-19 pandemic so that future decision-makers can make better decisions, or at least make decisions with more confidence. See further discussion in Section 6.2 on p.28.

Without an approximate understanding of the costs of key decisions, future decision-makers will find it difficult to balance costs, risks and benefits when faced with the next potential pandemic. Importantly, having detailed information on costs would enable those preparing for the next pandemic to have an understanding of the strategic options.

4.5 Recommendations

Recommendation 4

Identify criteria and decision-making steps to help Government determine when implementing a lockdown would be appropriate (or not). These measures should be incorporated into the update of the *2024 Plan*.

Recommendation 5

Develop ways to reduce over-reliance on Government financial support.

Ideas could include:

- Conduct a post-crisis review of business preparedness
  - Assess whether private businesses were incentivised to build financial resilience prior to the pandemic.
  - Identify sectors or business types that were particularly vulnerable and examine the role of government support in their survival.
- Introduce incentives for business continuity planning
  - Encourage businesses to develop and maintain robust continuity plans through tax incentives, grants or certification schemes.
  - Link access to future emergency financial support to the existence of such plans.

- Design conditional support mechanisms
  - Structure future financial assistance (e.g. wage subsidies) to include conditions that promote long-term resilience, such as reinvestment in workforce training or digital infrastructure.
  - Consider tiered support based on demonstrated preparedness or risk mitigation efforts.
- Promote private-sector risk management tools
  - Support the development and uptake of private insurance products or pooled risk funds tailored to economic shocks.
  - Collaborate with industry bodies to raise awareness and adoption of these tools.
- Strengthen public-private sector dialogue
  - Establish regular forums between Government and business leaders to discuss economic risk, preparedness and expectations around support.
  - Use these platforms to co-design future support frameworks that balance short-term relief with long-term sustainability.
- Monitor and evaluate support impact
  - Develop metrics to evaluate the impact of financial support on business behaviour and resilience.
  - Use findings to refine future policy and avoid unintended consequences such as dependency.

Recommendation 6

Generate an information system to improve decision-making during a pandemic.

- Develop a pandemic scenario costing framework
  - Establish a standardised methodology for estimating the economic costs, risks and benefits of various public health interventions (e.g. border closures, lockdowns, targeted restrictions).
  - Ensure this framework is adaptable to different pandemic types and scales.
- Quantify daily economic impacts of major interventions
  - Calculate the daily cost of border closures to the economy, including impacts on tourism, trade and labour mobility.
  - Estimate the daily cost of nationwide lockdowns, factoring in productivity losses, business closures and social service disruptions.
  - Assess the cost of regional lockdowns to understand the differential impacts across geographic areas.
- Model counterfactual scenarios
  - Use retrospective modelling to explore alternative timelines, such as the economic impact if borders had closed earlier (e.g. mid-February vs late March).
  - Estimate potential cost savings from earlier interventions that may have reduced the need for broader lockdowns.
- Integrate findings into strategic planning
  - Include these cost-benefit insights in the MOH's update of the *2024 Plan*.
  - Ensure decision-makers have access to real-time modelling tools during future outbreaks to inform timely and proportionate responses.
- Establish a central data repository
  - Create a publicly accessible database of intervention costs and outcomes to support transparency and future research.

  - Encourage collaboration between government agencies, academic institutions and economic modellers to maintain and update this resource.

- Promote scenario-based training for decision-makers
  - Develop training modules using historical and hypothetical scenarios to help leaders understand trade-offs and consequences of different strategies.
  - Use these modules to stress-test decision-making processes and improve preparedness.

5.0 Part 3: Testing, tracing and other public health tools

> The review must be limited to decisions regarding—the procurement, development, and distribution of testing and tracing technologies and non-pharmaceutical public health materials, specifically the impact of private sector involvement or non-involvement.
>
> – Terms of reference (Phase Two)[61]

5.1 Tracing and testing

While contact tracing will always be the first tool to manage an outbreak, being able to test people and water in an efficient and cost-effective manner will be second. Wastewater testing was an extremely useful tool in the latter stages of the COVID-19 pandemic.[62]

In March 2022, emails released to the *NZ Herald* under the Official Information Act show MOH asked suppliers to prioritise its orders of rapid antigen tests (RATs) over those of private businesses. In the case of one test manufacturer, the Ministry asked for the tests to be supplied 'exclusively' to the Government while it built up its stocks. This request was made after just 2% of the Ministry's orders for January and February from one supplier were confirmed delivered in late January 2022. In February 2022, a distributor claimed two-thirds of RATs ordered online had not arrived, as they had been requisitioned for Government stocks. The Ministry denied RATs were being requisitioned, but agreed that forward orders of RATs that were not already in New Zealand were being 'consolidated' by the Government.

In June 2023, it was announced that approximately 18 million RATs, worth an estimated $160 million, were set to expire. The majority of these tests were purchased when there was a global shortage, and these uncertainties made it necessary to purchase in bulk (as was done with vaccines and personal protective equipment (PPE)).[63]

5.2 Public health materials

New Zealand's isolated geography means we are particularly vulnerable to supply chain challenges. This was very much the case in the first few months of the COVID-19 pandemic, when the shortage of PPE for clinical staff was a major concern. For example, we had 9 million P2 masks as at 28 January 2020, and although this seems a significant number, for a population of 5 million it is fewer than two masks per person. Given they should theoretically be disposed of after one use, or at a minimum replaced every eight hours, the level of stock was very inadequate.[64]

Concerns over the way New Zealand manages critical infrastructure are discussed in an essay by Des Gorman (Emeritus Professor of Medicine in the Faculty of Medical and Health Sciences at the University of Auckland) and Murray Horn (former Secretary of the Treasury and former CEO of ANZ). They note that any likely risk should be regularly tested and reviewed in advance to ensure critical components are identified, purchased and stored. These include 'ensuring sufficient physical capacity can be made available (for quarantine, for testing, tracing and immunisation, PPE stocks, ICU capacity and so on) as well as clarity around who is best placed to do what to both keep threats out and contain any outbreaks'. The essay suggests that the Government should develop agreements with companies in New Zealand to manage pandemic risk, in much the same way agreements exist to ensure biosecurity risks are managed.[65]

In 2023 and 2024, MOH's Emergency Management Team undertook a review of the national reserve supply (NRS). In April 2024, MOH advised the McGuinness Institute that the 'outcome of the review will not be published due to commercial and national security sensitivities that preclude us from providing more specific information about the stocks held, including locations. However ... supplies are held in various locations across the country.' On 26 August 2024, MOH advised that it has no intention of inviting public consultation or making the composition of the NRS public.

In the McGuinness Institute's view, it is essential that information on types of stock, volumes held and expiry dates is publicly available, and that it is regularly updated and audited. Some details, such as storage locations (for security reasons) or commercially sensitive details, do not need to be made public. Transparency about, and accountability for, quantities will provide health-care workers and the general public with confidence in New Zealand's ability to withstand a pandemic.

5.3 Private sector involvement

The 2017 *New Zealand Influenza Plan: A framework for action* mentions a contract with a New Zealand manufacturer to make masks for the health sector.[66] MOH clarified in June 2024 that the Whanganui-based company was QSi (Quality Safety and Medical Manufacturers T/A Quality Safety). On 25 March 2020, MOH wrote to QSi, placing an order of 12 million P2 masks and 12 million surgical masks. However, the company was slow to start production and the number produced was sporadic and low. QSi produced a total of 5.5 million P2 and 9.4 million surgical masks in 2020. Since December 2020, QSi has not produced any further masks for MOH.[67]

In late 2020, MOH reported that QSi had failed a quality assurance check of its P2 masks produced in 2018 and 2019, resulting in all masks produced between 2016 and 2020 being put on hold.[68] On 5 March 2021, MOH entered into a new agreement with QSi, which was later transferred to Health NZ. As at 14 August 2024, the agreement is still in operation. However, no businesses in New Zealand have a contract to manufacture masks specifically to supply the NRS in an emergency.[69]

From March 2020, the Government had to find ways to fund the import of critical supplies from overseas, largely from Australia. The Government established a COVID-19 support package, which included $372 million via an International Air Freight Capacity (IAFC) scheme to bring critical goods into New Zealand. The IAFC scheme ended in April 2021.[70]

5.4 Observations

Our health system needs to be made more resilient to pandemic shocks; that means having modern machines and tools available, but equally importantly, investing in retaining and training medical staff to be able to use them. AI and other technologies are likely to impact how future pandemics are managed and will therefore influence how tools for testing and tracing evolve.

Providing a continuous supply of essential goods and services during a whole-system civil emergency requires a lot of thought, consultation and preparation. The cost of the additional flights under the IAFC scheme to bring medical supplies to New Zealand was excessive. A more cost-effective solution would be to store, and ideally manufacture, essential quality products here.

Maintaining a baseline of domestic manufacture (and servicing) of critical medical products and equipment is essential.

We must identify an essential base-level of skills and services to support critical products and advise government. Ensuring frequent pandemic trials are undertaken will assist officials in designing the most effective ways to test and trace. It is also critical to ensure privacy is maintained in order to ensure public trust and support in these technologies. New Zealand was fortunate in the level of skills and expertise in modelling, vaccinology and epidemiology in the country, and support from associates and colleagues abroad, but that level of support should not be taken for granted. A geographically isolated country needs to be well stocked for every eventuality. Given the lessons of COVID-19, countries are more likely to lock down their borders and wait and see how an emerging pathogen behaves, rather than risk a leaky border and being exposed to multiple outbreaks and potential country-wide lockdowns. It is clear that a locked-down border is better than a locked-down country, and a locked-down country is better than a country where a deadly pathogen is able to run wild (what was referred to as 'unmitigated spread').[71] Furthermore, countries are

more likely to prefer a strong domestic economy to a restricted domestic economy. New Zealand therefore needs to have the stock that enables it to operate in isolation, as more countries are likely to seal their borders in the future.

One of the crucial lessons is that pandemic preparedness is not solely MOH's problem to solve. A whole-of-society crisis needs a whole-of-society NRS. Therefore, the NRS should be treated as a public asset with the contents and quantities made public. Similar to vaccines, building the domestic capacity and capability to produce and store public health materials such as PPE and testing equipment will significantly improve redundancy and flexibility in the health system.

The government needs to operate a first in, first out (FIFO) system of stock control, undertake frequent quality control audits and independent reviews, and publish the stocktake monthly. The NRS is something we can control and prepare in advance. It is a public asset for communities at a time of need; it should not be hidden away from public view. Quite the contrary; as the frequency of emergencies increases, it becomes even more important for officials to be transparent, and welcome feedback on the composition of the NRS.

Government should consider working alongside the private sector to ensure a national reserve is maintained. In Switzerland, for example, it is common practice for the government to work with the private sector. The Swiss emergency supply system places the responsibility of maintaining emergency supplies with the private sector, rather than with public authorities. This distributes risk and avoids the need to build up large reserves in one location. The aim is that the items in storage will cover the normal needs of citizens in the event of a crisis that lasts for three to six months.[72] Under this model, the responsibility for storing and maintaining quality stock is borne by the private sector. This plays to its strengths, and most importantly, the public sector does not need to pay for logistics, administration or storage. Given the significant benefits of this approach, New Zealand should consider implementing something similar.

5.5 Recommendations

Recommendation 7

Maintain and strengthen investment in Public Health and Forensic Science (formerly the Institute of Environmental Science and Research) to ensure New Zealand retains the critical laboratory expertise, equipment and core skills required for effective testing and tracing during future health emergencies.

Recommendation 8

Reinstate public access to the NRS register. Transparency around stock types (including vaccines), volumes held and expiry dates is essential for public trust and accountability. This information should be subject to regular auditing and updates, and made publicly accessible to ensure that medical professionals and the wider public have confidence in New Zealand's level of pandemic preparedness. Importantly, there should also be a mechanism for medical professionals and the public to provide feedback and raise concerns if the register seems inadequate in terms of types of product and the quantity held.

Recommendation 9

The government should explore partnerships with private sector businesses to support the supply and maintenance of the NRS, leveraging existing commercial supply and distribution networks. To ensure national readiness during times of crisis, a sufficient stockpile of PPE should be maintained – enough to protect the population for up to six months. This supply must be proportionally distributed across the country to guarantee equitable access for all communities.

Recommendation 10

Identify and regularly test domestic suppliers and training programmes for the use of medical equipment, to ensure New Zealand maintains sufficient local capabilities in the event of future supply chain disruptions.

6.0 The COVID-19 shadow

In addition to the above topics, the Institute believes that it is important to understand the extent to which decisions made during the pandemic are still being felt today (the shadow). These areas of concern reiterate the Institute's belief that it is insufficient to view the three parts of the terms of reference in isolation and within the specified timeframe. The topics discussed below, and their relationship to the relevant parts of the terms of reference, will be discussed in more detail in *Report 19 – A Decision Tree for Future Pandemics*.

6.1 Loss of knowledge in Parliament

Parliament's institutional memory is at significant risk of loss due to COVID-19 decision makers leaving parliamentary positions. 71 members of Parliament from March 2020 have since left their seats, which leaves only 40% remaining in June 2025. The Epidemic Response Committee in March 2020 consisted of 11 ministers elected to the group. Just four members of this group are still members of Parliament today. Further, only 25% of the COVID-19 ministerial group remain as part of the current 123 members of Parliament.[73] Pandemic knowledge through first-hand experiences will be lost if measures are not taken to protect the knowledge regarding how or how not to manage such emergencies.

One major problem with New Zealand's approach was that we did not have a pandemic select committee, which meant there was little to no expertise on pandemic management in Parliament. Parliament should put in place a pandemic select committee that is required to meet at least annually to go through all pandemic plans and reports on pandemic trials. Select committees can undertake inquiries into specific issues or concerns, and such inquiries can be both cost-effective and timely.[74] If we had done this, the results of smaller inquiries could have then been used by the Royal Commission COVID-19 Lessons Learned Inquiry. If a permanent select committee was established, one would expect that standing up the National Health Coordination Centre (NHCC) would automatically trigger a briefing by MOH to the permanent committee.[75]

6.2 The long-term impact of fiscal policies

Throughout the pandemic, the Treasury provided support for the economy through the use of fiscal policies.

Treasury is responsible for creating and managing fiscal policies in New Zealand. These policies generally have the following three objectives:

- Fiscal sustainability – ensuring that the government manages its finances in a way that is consistent with sustaining its role in providing public goods and social services to future generations.
- Fiscal structure – ensuring that the government organises the structure of its outlays and tax and other revenues in a way that supports the effective functioning of society.
- Macroeconomic stabilisation – ensuring that the government manages fiscal policy in a way that provides stability to the economy as a whole.[76]

Examples of fiscal policies include the Wage Subsidy Scheme, which was intended to be timely, temporary, and targeted to help businesses retain staff, thus preserving labour market attachment and increasing demand in the economy as a whole.

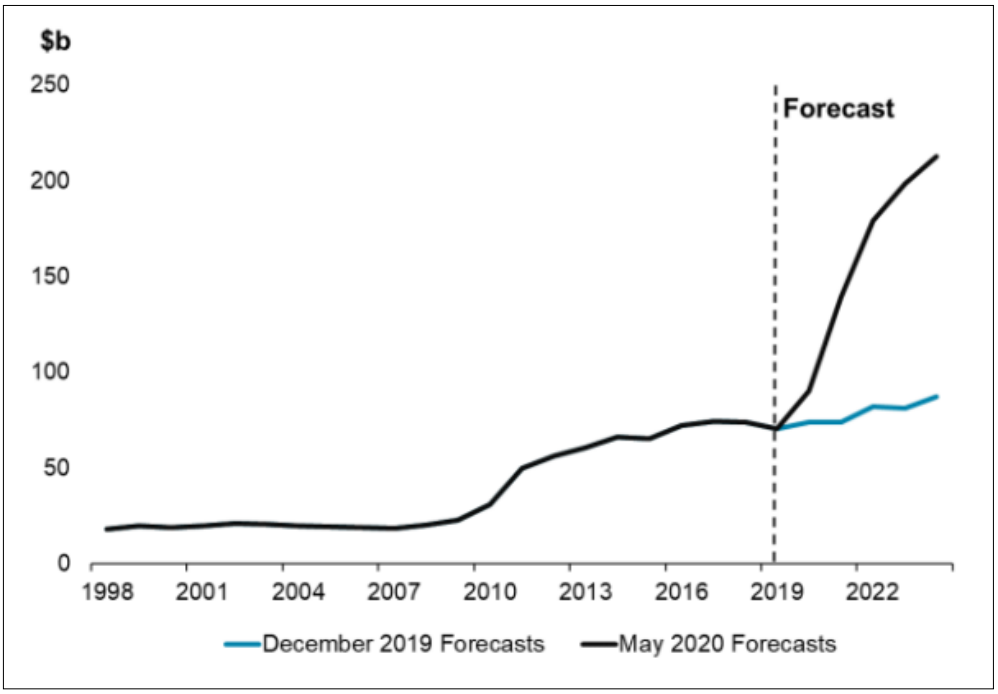
6.2.1 How fiscal policies were financed

It is important to consider the impacts of how Treasury was able to provide this support, whether it was sourced through reprioritisation of other funds, or through 'fiscal space' or buffers.

An example of reprioritisation can be seen in Treasury's 2021 Cabinet paper *Reprioritisation options prior to Budget 2021*. The paper sought approval for reprioritisation of up to $1.08 million in funding decisions under the Budget 2020 and COVID-19 Response and Recovery Fund (CRRF), and recommended these reprioritised funds be added back to the CRRF.[77]

Examples of buffers can be seen through the actions of the Treasury's New Zealand Debt Management (NZDM) early in the pandemic. Historically, NZDM has maintained a liquidity buffer of at least $2 billion.[78] The buffer is made up of a portfolio of cash and liquid, high-quality financial assets to ensure that the Government can respond to unexpected fiscal shocks. With the onset of COVID-19, NZDM issued an excess of $15 billion in New Zealand Government Bonds (NZGB), approximately ten times larger than the year prior (see Figure 5 below). These additional funds allowed the Government to provide additional support at the peak of the crisis.

Figure 5: Forecasts of New Zealand Government Bonds on issue, May 2020

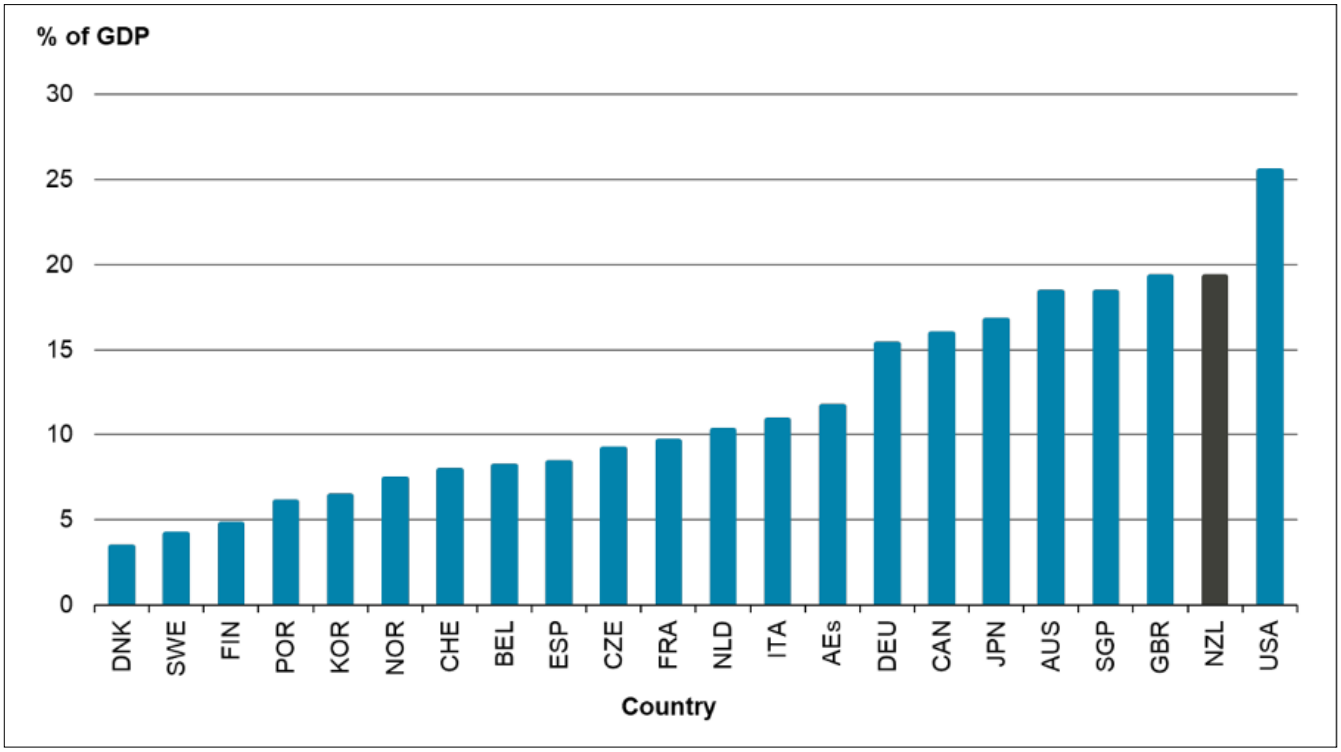


In December 2021, NZDM analysis led to an agreement to increase in the size of the buffer to at least $15 billion, resulting in greater resilience and flexibility when it comes to unexpected but significant shocks to the economy. The McGuinness Institute sent an OIA to Treasury asking about the use of buffers and borrowing during the pandemic (see our OIA 2025/12).[79]

6.2.2 Long-term impact of fiscal policy decisions

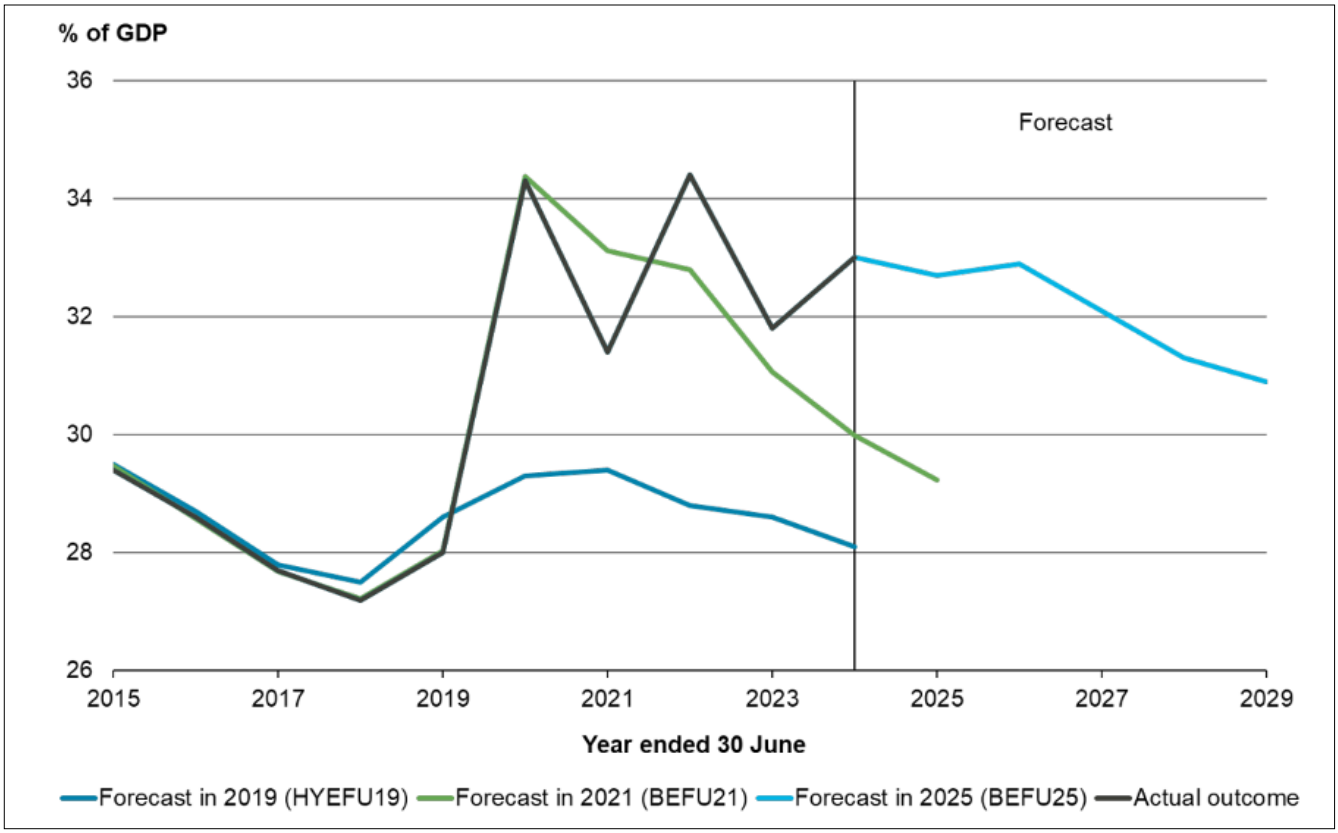
Finally, it is important to understand the full, long-term impact of economic decisions made in response to COVID-19. In *Te Ara Mokopuna: Treasury's 2025 Long-term Insights Briefing*, Treasury notes that the pandemic response illustrated some of the challenges of using fiscal policy to respond to shocks. It was not immediately clear what the impact of many of the economic policies or schemes was. Looking back, the overall scale of New Zealand's fiscal response to the pandemic was one of the largest among advanced economies, resulting in an estimated 20% of GDP in spending and lost revenue (see Figure 6 overleaf).[80]

Figure 6: Additional spending and foregone revenue due to the response to COVID-19 across advanced economies[81]



Treasury also notes that the 2020 increases in core Crown expenditure in response to COVID-19 have persisted longer than forecast (see Figure 7 below).[82] Between the 2021 and 2024 Budgets, an overall lower GDP (as a result of a lower tax base and spending plans based on higher revenue that did not eventuate), combined with fiscal policies persisting longer than Treasury had anticipated, resulted in higher expenditure as a share of GDP.

Figure 7: Successive Treasury forecasts of core Crown expenses[83]



While arguably the fiscal and monetary measures were necessary, and successful in achieving their objectives, it is clear to see that their subsequent impact on the economy was not fully understood. It is important that these impacts be fully quantified, to ensure that the Treasury and RBNZ better understand the full extent of benefits and also costs when the next major economic shock occurs.

6.3 Impact of the pandemic on NZDF and MOD

Another topic that has not been fully addressed by Phase Two of the Royal Commission COVID-19 Lessons Learned Inquiry is the long-term impact that the COVID-19 pandemic has had on the New Zealand Defence Force (NZDF) and MOD.

NZDF began providing personal to support the COVID-19 response from 27 January 2020.[84] Initially supporting the National Crisis Management Centre in a range of planning functions, NZDF's Operation Protect tasked personnel with supporting the managed isolation and quarantine (MIQ) facilities that were run by MBIE. Due to a loss in the public's confidence in contracted security at MIQ facilities, the NZDF became responsible for maintaining perimeter security.[85] Between 1 April 2020 and 13 May 2022, approximately 6200 NZDF personnel were involved in Operation Protect. While the majority of personnel were involved with providing support to MIQ, others provided planning and logistics support, and a small group of medical personnel were involved in providing vaccinations in Wellington.[86] The Royal New Zealand Navy was also used to transport vaccines across the Pacific region.[87]

There were several negative impacts on NZDF as a result of their involvement, both in terms of financial costs and impacts on the personnel. In 2021, PricewaterhouseCoopers (PwC) and Sir Brian Roche were asked to provide a third review of NZDF's procurement policies and practices for major capability projects. In their review, they note that NZDF's Capability Management System may be undermined or unravelled in an environment where resources are committed elsewhere.[88] NZDF received $3.37 million in additional funding from the CRRF.[89] The McGuinness Institute sent an OIA to MOD asking for the total costs of Operation Protect, including whether it was funded by the CRRF (see our OIA 2025/14).[90]

Attrition was a major impact of the pandemic on NZDF's capabilities. 338 personnel left the NZDF, with close to a third of them citing their involvement in Operation Protect as a factor in their decision to leave. The Army suffered the greatest loss, with an attrition rate of 10.6% in 2021.[91] This attrition largely came from the loss of overall morale, as the demands of Operation Protect kept personnel away from their families and their ability to conduct their usual training.

Other concerns that were raised include the impact of Operation Protect on the NZDFs ability to respond to other crises or threats. In June 2021, Chief of Defence Kevin Short told the Minister of Defence, Peeni Henare, 'I am conscious that the NZDFs ability to respond to a Christchurch [type] of Kaikōura scale earthquake, or a Pacific event of the size of Tropical Cyclone Winston in Fiji, will remain degraded for the foreseeable future ... [the ongoing commitment] reduces the capability of the NZDF to respond to another national or regional emergency with previously expected scale or speed'.[92]

Similarly, the deployments throughout Operation Protect limited the NZDF's ability to train collectively, resulting in a 'skill fade of core military competencies'.[93] For example, the 'amphibious landing' NZDF conducted in March and April 2023 was the first of its type in some time.[94] This type of drill is key to NZDF's capability to respond to disasters across the Pacific, but because of their commitment to Operation Protect, it had been some time since it had last been conducted. Despite the amazing work that NZDF did throughout the pandemic, they were left in a position where they were low on resources, personnel and training.

6.4 Other recommendations

Recommendation 11

The Royal Commissioners should assess how the findings and recommendations from both phases interrelate, with the aim of producing a single, cohesive set of recommendations for government agencies and departments to implement. This is particularly important given the narrow scope of the terms of reference.

Recommendation 12

The Commissioners should establish a clear framework for monitoring the implementation of their recommendations, ensuring accountability, transparency and progress can be measured over time.

Recommendation 13

Increase funding to strengthen the health-care system's pandemic preparedness by investing in critical areas such as medical equipment, workforce training, ventilation, automatic doors (reducing the risk of fomite transmission) and access to essential medicines.

Recommendation 14

Seek to understand the long-term impacts of the pandemic. Specific recommendations include:

- Undertake a comprehensive review of pandemic impacts
  - Commission a cross-agency effort to assess the long-term social, economic and institutional impacts of the COVID-19 pandemic.
  - Ensure the review captures how decisions made during the pandemic continue to affect New Zealand today.
- Require a joint Treasury–RBNZ evaluation
  - Direct the Treasury and the RBNZ to conduct a joint, consolidated review of their collaboration during the pandemic.
  - This review should assess the effectiveness of their coordination, and quantify the total economic costs of the pandemic, including debt servicing and interest rates associated with emergency borrowing.
- Evaluate NZDF resource allocation
  - Review the full costs and operational implications for the NZDF during the pandemic response.
  - Consider whether the resources allocated to pandemic-related duties could have been more effectively used elsewhere, and assess the impact on NZDF's ability to respond to other national or international crises.
- Report findings to Parliament and the public
  - Ensure that all findings from these reviews are publicly reported and presented to Parliament to support transparency, accountability and informed future decision-making.

Recommendation 15

The pandemic preparedness strategy/plan should be specifically mentioned in the Pae Ora (Healthy Futures) Act 2022. The failure to do so prevents pandemic preparedness from being incorporated into the design of the health-care system (e.g. the necessary redundancy, the NRS or the focus on ventilation) and the monitoring of the health-care system (e.g. for including in key measures and ongoing reviews of what a successful health-care system looks like). The strategy/plan is so important, yet it is not mentioned in any legislation including the Epidemic Preparedness Act 2006.[95]

Recommendation 16

Establish a dedicated select committee on epidemics and pandemics to provide ongoing parliamentary oversight and coordination. One of its key responsibilities should be to review and hear the findings from both phases of the Royal Commission COVID-19 Lessons Learned Inquiry. The committee should report its conclusions and recommendations back to Parliament and the public to ensure transparency, coherence and accountability.

7.0 Recommendations: lessons learned

Based on our research, the Institute developed 16 recommendations designed to help New Zealand better prepare for future pandemics. These recommendations are summarised in Sections 7.1 and 7.2 below. For the ease of the Commissioners, the recommendations are organised to align with the terms of reference set out for the second phase of the COVID-19 Inquiry.

7.1 Recommendations specific to the terms of reference

Part 1: The use of vaccines

1. Consider whether an alternative vaccine strategy – prioritising two doses for a targeted or staged group, rather than one dose for as many people as possible – might have enabled an earlier lifting of lockdowns in New Zealand. While New Zealand adopted the former approach, the UK pursued the latter, which may have contributed to an earlier easing of restrictions. Although the Institute has not yet investigated this issue, we believe it warrants further exploration.
2. Develop a vaccine strategy that outlines the key factors to consider when the Government is faced with a pandemic and must decide how to allocate vaccine access. This strategy could also include a framework for modelling how many vaccines will be needed (including some redundancy), so that any excess with sufficient shelf life can be donated to reduce unnecessary waste.
3. Continue investing in and strengthening domestic capabilities to assess and select the most suitable vaccines, and to potentially produce and test vaccines locally, through ongoing support for initiatives such as VAANZ.

Part 2: The use of lockdowns

4. Identify criteria and decision-making steps to help Government determine when implementing a lockdown would be appropriate (or not). These measures should be incorporated into the update of the *2024 Plan*.
5. Develop ways to reduce over-reliance on Government financial support.
6. Generate an information system to improve decision-making during a pandemic.

Part 3: Testing, tracing and other public health tools

7. Maintain and strengthen investment in Public Health and Forensic Science (formerly the Institute of Environmental Science and Research) to ensure New Zealand retains the critical laboratory expertise, equipment and core skills required for effective testing and tracing during future health emergencies.
8. Reinstate public access to the NRS register. Transparency around stock types (including vaccines), volumes held and expiry dates is essential for public trust and accountability. This information should be subject to regular auditing and updates, and made publicly accessible to ensure that medical professionals and the wider public have confidence in New Zealand's level of pandemic preparedness. Importantly, there should also be a mechanism for medical professionals and the public to provide feedback and raise concerns if the register seems inadequate in terms of types of product and the quantity held.
9. The government should explore partnerships with private sector businesses to support the supply and maintenance of the NRS, leveraging existing commercial supply and distribution networks. To ensure national readiness during times of crisis, a sufficient stockpile of PPE should be maintained – enough to protect the population for up to six months. This supply must be proportionally distributed across the country to guarantee equitable access for all communities.
10. Identify and regularly test domestic suppliers and training programmes for the use of medical equipment, to ensure New Zealand maintains sufficient local capabilities in the event of future supply chain disruptions.

7.2 Other recommendations

11. The Royal Commissioners should assess how the findings and recommendations from both phases interrelate, with the aim of producing a single, cohesive set of recommendations for government agencies and departments to implement. This is particularly important given the narrow scope of the terms of reference.
12. The Commissioners should establish a clear framework for monitoring the implementation of their recommendations, ensuring accountability, transparency and progress can be measured over time.
13. Increase funding to strengthen the health-care system's pandemic preparedness by investing in critical areas such as medical equipment, workforce training, ventilation, automatic doors (reducing the risk of fomite transmission) and access to essential medicines.
14. Seek to understand the long-term impacts of the pandemic.
15. The pandemic preparedness strategy/plan should be specifically mentioned in the Pae Ora (Healthy Futures) Act 2022. The failure to do so prevents pandemic preparedness from being incorporated into the design of the health-care system (e.g. the necessary redundancy, the NRS or the focus on ventilation) and the monitoring of the health-care system (e.g. for including in key measures and ongoing reviews of what a successful health-care system looks like). The strategy/plan is so important, yet it is not mentioned in any legislation including the Epidemic Preparedness Act 2006.
16. Establish a dedicated select committee on epidemics and pandemics to provide ongoing parliamentary oversight and coordination. One of its key responsibilities should be to review and hear the findings from both phases of the Royal Commission COVID-19 Lessons Learned Inquiry. The committee should report its conclusions and recommendations back to Parliament and the public to ensure transparency, coherence and accountability.

7.3 Discussion

The second phase of the COVID-19 Inquiry must intensify the urgency to prepare – not just for Government, but also businesses and individuals. Pandemics are not just a health issue, they are an all-of-society issue. New Zealand was not prepared, and is still not prepared. It is crucial to put the obligation on Government, businesses and individuals to prepare for a pandemic. That means putting money aside to manage economic shocks and retaining an adequate level of stock to deal with supply chain risks. We need organisations and individuals to be forward thinkers, rather than depending on the Government to solve their financial woes when things go wrong.

It is recommended you read Marc Daalder's 25 March 2025 article on this point: 'The next pandemic is coming. NZ isn't ready'.[96] Given the role of the Commissioners is to help prepare New Zealand for the next pandemic, we strongly suggest New Zealand is not getting itself prepared, and the role of the Inquiry is to make some blunt and specific recommendations, with timeframes and responsibilities.

Abbreviations

CARM	Centre for Adverse Reactions Monitoring
CRRF	COVID-19 Response and Recovery Fund
EUL	Emergency Use Listing
FIFO	First in, first out
GDSs	Government department strategies
IAFC	International Air Freight Capacity
IRD	Inland Revenue Department
MBIE	Ministry of Business, Innovation & Employment
MIQ	Managed isolation and quarantine
MOD	Ministry of Defence
MOH	Ministry of Health
MSD	Ministry of Social Development
NHCC	National Health Coordination Centre
NRS	National Reserve Supply
NZDF	New Zealand Defence Force
NZDM	New Zealand Debt Management
NZGB	New Zealand Government Bonds
OAG	Office of the Auditor-General
PPE	Personal protective equipment
QSi	Quality Safety and Medical Manufacturers T/A Quality Safety
RATs	Rapid antigen tests
RBNZ	Reserve Bank of New Zealand
SMARS	Suspected Medicine Adverse Reaction Search
The *2024 Plan*	*New Zealand Pandemic Plan: A framework for action (Interim update – July 2024)*
VAANZ	Vaccine Alliance Aotearoa New Zealand
WHO	World Health Organization

Appendix 1: List of McGuinness Institute pandemic documents, 2005–2025[97]

Date	Title	Document type
December 2005	Managing the risk of a 'bird flu' pandemic – a Chartered Accountant's perspective	Article
June 2006	Managing the Business Risk of a Pandemic: Lessons from the Past and a Checklist for the Future	Early report
May 2015	Lessons from the West African Ebola Outbreak in Relation to New Zealand's Supply Chain Resilience	Contributing paper
March 2020	OIA to MOH: Virus outbreak (ICU beds and more)	Correspondence
March 2020	OIA to DHBs: Open Letter to District Health Boards	Correspondence
March 2020	Letter to MOH: Thank you	Correspondence
March 2020	Distancing strategy: Flattening the COVID-19 curve	Infographic
March 2020	COVID-19 Phase 1: Instagram poll results	Infographic
March 2020	Worksheet 2020/01: COVID-19 Exploring certainties and uncertainties	Worksheet
April 2020	OIA to MOH: Intensive Care Drugs	Correspondence
April 2020	OIA to MOH: National Reserve Supply	Correspondence
April 2020	OIA to MOH: Vaccinations	Correspondence
April 2020	OIA to DPMC: COVID-19: Moving from Level 4 to Level 3	Correspondence
April 2020	Unlocking Strategy: the COVID-19 dilemma	Infographic
April 2020	Country graphs: Mapping the COVID-19 curves	Infographic
April 2020	Think Piece 33 – The Long Normal: Preparing the National Reserve Supply (NRS) for pandemic cycles	Think piece
April 2020	Think Piece 34 – I am hungry for a vision for our country	Think piece
April 2020	Working Paper 2020/01 – Analysis of options if P2/N95 masks are no longer available	Working paper
March/May 2020	OIA to DHBs: Open Letter to District Health Boards (Responses)	Correspondence
May 2020	Survey Insights: An analysis of the 2020 NZNO PPE Survey	Survey
June 2020	Think Piece 35 – Where next? A Garden of Eden or a Slough of Despond?	Think piece
July 2020	OIA to AgResearch	Correspondence
July 2020	Working Paper 2020/06 – Letter to the Minister on AgResearch's approval for GM animals in light of pandemic risk	Working paper
January 2021	OIA to MPI: Pandemic Risk: AgResearch Approval for GM animals (continued)	Correspondence

Date	Title	Document type
January 2021	OIA to EPA: Pandemic Risk: AgResearch Approval for GM animals (continued)	Correspondence
March 2021	OIA to MOH: Risk Management	Correspondence
April 2021	Working Paper 2020/12: - An analysis of the responses to the 'Open Letter to District Health Boards (dated 25 March 2020)'	Working paper
June 2021	Think Piece 37: The gap between doses matters!	Think piece
July 2021	OIA to MOH: Risk Management (continued)	Correspondence
September 2021	Discussion Points: Discussion Paper 2021/03 – A COVID-19 Situational Report: Beyond Aotearoa New Zealand's Fortress	Slideshow
September 2021	Discussion Paper 2021/03 – A COVID-19 Situational Report: Beyond Aotearoa New Zealand's Fortress as at 1 September 2021	Discussion paper
October 2021	A Suppression Strategy: Living with COVID-19 in the Year 2022	Infographic
March 2022	OIA 2022/01 to MOH: Composition of the National Reserve Supply	Correspondence
April 2022	OIA 2022/03 to MOH: Number of staff employed (FTE) by MOH	Correspondence
March 2023	OIA 2023/02 to MSD: COVID-19 wage subsidy information on NZSX-listed companies	Correspondence
March 2023	COVID-19 Nation Dates: A timeline of significant events in Aotearoa New Zealand's COVID-19 pandemic	Book
Submitted April 2024, published August 2025	The Ripple Effect: An independent review of New Zealand's response to COVID-19 – Submission to the Phase One Inquiry	Submission/ Discussion paper
September 2024	COVID-19 Nation Dates: A timeline of significant events in Aotearoa New Zealand's COVID-19 pandemic (2nd ed)	Book
July 2025	Discussion Paper 2025/01 – Lessons from the Double Moral Panic that Hit New Zealand in the 1980s: The AIDS pandemic and the Homosexual Law Reform Bill	Discussion paper
August 2025	Discussion Paper 2025/03 – Time to Prepare: Lessons from the COVID-19 Wage Subsidy	Discussion paper
August 2025	COVID-19 Nation Dates (additional dates since September 2024)	Booklet
September 2025	Working Paper 2025/08 – Analysing COVID-19 Wage Subsidy Information Disclosed in 2020–2024 Annual Reports of NZSX-listed Companies	Working paper
WIP 2025	Working Paper 2025/15 - Record of progress on the implementation of recommendations related to the COVID-19 Pandemic as at September 2025	Working paper
WIP 2025	Report 19 – A Decision Tree for Future Pandemics	Project 2058 report

Appendix 2: Royal Commission of Inquiry (COVID-19 Lessons) Order 2022[98]

This version of the Royal Commission of Inquiry (COVID-19 Lessons) Order 2022 is dated 26 September 2024.

Schedule 1
Terms of reference (phase 1)

cl 8(1)

Schedule 1 heading: replaced, on 26 September 2024, by clause 12(1) of the Royal Commission of Inquiry (COVID-19 Lessons) Amendment Order (No 2) 2024 (SL 2024/177).

1 Background

(1) The COVID-19 pandemic presented a significant threat to public health in New Zealand and the world. At first, there was uncertainty about COVID-19's characteristics or how it might evolve, and there were no vaccines or effective disease-specific treatments. New Zealand had not experienced anything similar in several generations. Existing pandemic planning was specific to combatting influenza and was therefore not appropriate for responding to COVID-19. There was no international consensus on how to respond either; other countries adopted different and rapidly changing strategies, and the pandemic placed systems for multilateral co-operation under stress. The nature of the threat from COVID-19 changed as more was learned, as the virus evolved, and as treatments and strategies were developed and implemented. The emergency phase of the pandemic continued over an extended period.

(2) New Zealand's initial response was an elimination strategy. The strategy included limiting passenger flows across international borders to keep the virus out, extensive testing to detect community transmission, and a set of public health measures to stamp out outbreaks quickly when they appeared. That public-health-informed strategy was supported by economic and other measures to maintain basic services, ensure that businesses could retain staff and cover their costs when they could not operate, and support people to isolate where necessary. The strategy involved a set of alert levels, which triggered public health responses calibrated to the risk of virus transmission and informed people how to protect themselves.

(3) By December 2021, a high proportion of New Zealanders had been vaccinated against COVID-19. New Zealand then moved to a national strategy of minimisation and protection to minimise the spread of the virus in the community, protect those who were most at risk, and protect the capacity of the health system to respond to non-COVID health needs. A new COVID-19 Protection Framework set out graduated public health responses to outbreaks and how people could keep themselves safe. Economic and other measures were also updated.

(4) In September 2022, the COVID-19 Protection Framework was retired and the Government indicated that powers in COVID-19 legislation would be narrowed, signalling the end of the emergency phase of the pandemic.

(5) The measures New Zealand put in place to respond to COVID-19 generally enjoyed high levels of public support, and were positively reviewed by independent experts. But there has also been criticism of New Zealand's preparedness to deal with COVID-19, of the organisation of its response, and of particular public health measures and their impact on people's lives.

(6) New Zealand's response to the pandemic has already been the subject of expert scrutiny. The World Health Organization, the *Lancet* Commission on lessons for the future from the COVID-19 pandemic, and the International Science Council have conducted reviews. Within New Zealand, 75 individual reviews have been undertaken across government since 2020, generating 1,639 recommendations covering a broad range of issues and subjects. Independent reviews have been conducted by reviewers such as the COVID-19 Independent Continuous Review, Improvement and Advice Group, the Auditor-General, and the Ombudsman. New Zealand courts and the Waitangi Tribunal have determined several challenges to the lawfulness, Te Tiriti consistency, and appropriateness of actions taken in response to the pandemic. The Government has also proactively released COVID-19 papers and decisions. As a consequence, there is now a substantial amount of publicly available information on New Zealand's pandemic response.

(7) There will be future pandemics. They will not be exactly the same as COVID-19 and New Zealand's preparation for future pandemics needs to be flexible enough to respond effectively to a broad range of potential events. It is necessary and timely to inform our preparedness for such events by considering New Zealand's response to COVID-19, synthesising the lessons captured in existing investigations, reports, and reviews, both domestic and international, and drawing on institutional knowledge about those matters while it is still fresh in our minds. The Government has therefore decided to establish a Royal Commission of Inquiry to provide recommendations on actions that will strengthen New Zealand's pandemic preparedness.

2 Matter of public importance

The matter of public importance that the inquiry is directed to examine is the lessons learned from Aotearoa New Zealand's response to COVID-19 that should be applied in preparation for any future pandemic.

3 Purpose of inquiry

The purpose of the inquiry is to strengthen Aotearoa New Zealand's preparedness for, and response to, any future pandemic by identifying those lessons learned from New Zealand's response to COVID-19 that should be applied in preparation for any future pandemic.

4 Scope of inquiry

(1) The scope of the inquiry is the lessons learned from New Zealand's response to COVID-19 that should be applied in preparation for any future pandemic in the following areas:

- the legislative, regulatory, and operational settings required to support New Zealand's public health response to a pandemic, relating to—
  - isolation and quarantine arrangements for international arrivals and limiting the movement of people through the international system:
  - community isolation and quarantine arrangements, contact tracing and case management systems, and limiting the internal movement of people through local boundary controls:
  - the regulatory approval of, and the making available and mandating of, vaccines and other pharmaceutical and testing measures:
  - modelling and surveillance systems:
  - non-pharmaceutical public health measures, including vaccine passes, gathering limits, and personal protective equipment and its procurement and distribution:
  - tools, systems, and frameworks developed in response to COVID-19:
  - the settings needed to ensure that New Zealand's health system continues to deliver necessary services during a pandemic:
- communication with, engagement of, and enabling people and communities to mobilise and act in support of both personal and community public health outcomes over an extended period:
- the legislative, regulatory, and operational settings needed to ensure the continued supply of goods and services required to enable people to isolate or otherwise take protective measures for an extended period during a pandemic, relating to the provision of—
  - lifeline utilities and other necessary services:
  - education and childcare:
  - other government services:
- the legislative, regulatory, and operational settings required to support New Zealand's immediate economic response to a future pandemic, relating to—
  - fiscal and monetary policy responses, including co-ordination and preparedness to implement large-scale changes quickly and monitor their impacts:
  - temporary financial support to individuals, businesses, and sectors, including how such support might be quickly implemented, appropriately and accurately distributed, monitored, and ended:
  - short-term measures, such as exemptions, to sustain specific industries during a pandemic:
- the decision-making structures and arrangements that might be used or put in place during an evolving pandemic of extended length:
- consideration of the interests of Māori in the context of a pandemic, consistent with the Te Tiriti o Waitangi relationship:
- consideration of the impact on, and differential support for, essential workers and populations and communities that may be disproportionally impacted by a pandemic.

(2) The inquiry may assess whether New Zealand's initial elimination strategy and later minimisation and protection strategy in response to the COVID-19 pandemic, and supporting economic and other measures, were effective in limiting the spread of infection and limiting the impact of the virus on vulnerable groups and the health system, having regard to New Zealand's circumstances, what was known at the time, and the strategies adopted by comparable jurisdictions.

(3) The inquiry should consider the strategies, settings, and measures identified above as they existed or operated between February 2020 and October 2022, and not outside those dates.

5 Matters upon which recommendations are sought

The inquiry should make recommendations on the public health strategies and supporting economic and other measures that New Zealand should apply in preparation for any future pandemic, in relation to the principal matters within the inquiry's scope, by applying relevant lessons learned from New Zealand's response to COVID-19 and the response from comparable jurisdictions.

6 Limits to inquiry's scope

The following matters are outside the scope of the inquiry:

- particular clinical decisions made by clinicians or by public health authorities during the COVID-19 pandemic:
- how and when the strategies and other measures devised in response to COVID-19 were implemented or applied in particular situations or in individual cases:
- the specific epidemiology of the COVID-19 virus and its variants:
- vaccine efficacy:
- the recent reforms to New Zealand's health system, including the organisational arrangements for public health services:
- the judgments and decisions of courts and tribunals and independent agencies such as the Ombudsman, the Privacy Commissioner, or the Independent Police Conduct Authority relating to the COVID-19 pandemic:
- the operation of the private sector, except where the private sector delivers services integral to a pandemic response:
- particular decisions taken by the Reserve Bank's independent monetary policy committee during the COVID-19 pandemic:
- any adaptation of court procedures by the judiciary during the COVID-19 pandemic:
- any adaptation of parliamentary processes during the COVID-19 pandemic:
- the conduct of the general election during the COVID-19 pandemic.

7 Inquiry procedure

(1) In accordance with section 14 of the Inquiries Act 2013, the inquiry must comply with the principles of natural justice and avoid unnecessary delay or costs.

(2) The inquiry must operate in a way that—

- does not take a legalistic and adversarial approach:
- uses information that is publicly available:
- uses the most efficient and least formal procedures to gather any additional necessary information:
- ensures that any request for necessary information is specified with due particularity.

(3) The inquiry should review investigations, reports, and reviews (both domestic and international) and any other publicly available material relevant to these terms of reference.

(4) The inquiry must not duplicate or repeat work already undertaken in any other investigation, report, or review.

(5) The inquiry is not bound by the conclusions or recommendations of any other investigation, report, or review.

(6) The inquiry should consider international investigations, reports, and reviews and other material, without travelling internationally or inviting persons to travel to New Zealand.

8 Access to inquiry information

The inquiry must restrict access to inquiry information where it considers such steps are required in order to—

- protect the international relations of the Government of New Zealand:
- protect the confidentiality of information provided to New Zealand on a basis of confidence by any other country or international organisation:
- avoid prejudice to the maintenance of the law, including the prevention, investigation, and detection of offences:
- ensure that current or future criminal, civil, disciplinary, or other proceedings are not prejudiced:
- protect commercially sensitive information, including commercial information subject to an obligation of confidence:
- protect information for any other reason that the inquiry considers appropriate.

9 Administration

The inquiry must—

- support the relevant department (the Department of Internal Affairs) to meet its administrative and reporting requirements relevant to the inquiry by providing the department with regular information and reports on the administration and finances of the inquiry:
- provide a quarterly report to the Minister of Internal Affairs on progress on delivery of the findings and recommendations required under these terms of reference that—
  - sets out the critical activities the inquiry needs to complete:
  - reports on—
    - the expected cost of completing the activities:
    - the expected timing for completing the activities:
    - the progress towards completing the activities (including costs to date):
  - explains what steps the inquiry is taking, or proposing to take, to mitigate any risk that it may not complete its activities in accordance with these terms of reference.

10 Timing

(1) The inquiry may begin considering evidence on 1 February 2023.

(2) The inquiry must deliver its report on phase 1 to the Minister of Internal Affairs by 28 November 2024.

Schedule 1 clause 10(2): replaced, on 26 September 2024, by clause 12(2) of the Royal Commission of Inquiry (COVID-19 Lessons) Amendment Order (No 2) 2024 (SL 2024/177).

Schedule 2
Terms of reference (phase 2)

cl 8(2)

Schedule 2: inserted, on 26 September 2024, by clause 13 of the Royal Commission of Inquiry (COVID-19 Lessons) Amendment Order (No 2) 2024 (SL 2024/177).

1 Background

(1) The Government has reviewed the scope and operation of the Royal Commission of Inquiry into Lessons Learned from Aotearoa New Zealand's Response to COVID-19 That Should Be Applied in Preparation for a Future Pandemic (the **inquiry**) and considers that some matters of public concern about that response are not adequately addressed in the inquiry's phase 1 terms of reference.

(2) Public consultation in 2024 on potential matters for terms of reference for a new or expanded inquiry indicated a broad range of concerns. Some of these are being or will be addressed by phase 1 of the inquiry.

(3) The Government therefore reaffirms its Coalition Agreement commitment to expand the scope of the inquiry.

(4) The Government has established phase 2 of the inquiry to provide further recommendations on actions that will strengthen New Zealand's pandemic preparedness. Phase 2 of the inquiry will critically assess key decisions taken by the Government in response to COVID-19 during 2021 and 2022, and the associated economic responses.

Schedule 2 clause 1: inserted, on 26 September 2024, by clause 13 of the Royal Commission of Inquiry (COVID-19 Lessons) Amendment Order (No 2) 2024 (SL 2024/177).

2 Matter of public importance

The matter of public importance that the inquiry is directed to examine is the lessons learned from Aotearoa New Zealand's response to COVID-19 that should be applied in preparation for any future pandemic.

Schedule 2 clause 2: inserted, on 26 September 2024, by clause 13 of the Royal Commission of Inquiry (COVID-19 Lessons) Amendment Order (No 2) 2024 (SL 2024/177).

3 Purpose of inquiry

The purpose of the inquiry is to strengthen Aotearoa New Zealand's preparedness for, and response to, any future pandemic by identifying those lessons learned from New Zealand's response to COVID-19 that should be applied in preparation for any future pandemic.

Schedule 2 clause 3: inserted, on 26 September 2024, by clause 13 of the Royal Commission of Inquiry (COVID-19 Lessons) Amendment Order (No 2) 2024 (SL 2024/177).

4 Scope of phase 2 of inquiry

(1) In phase 2, the inquiry must review the key decisions taken by Government in New Zealand's response to COVID-19 during 2021 and 2022. The review must be limited to decisions regarding—

- the use of vaccines in response to COVID-19, specifically—
  - vaccine mandates:
  - the approval of specific COVID-19 vaccines:
  - vaccine safety, including the monitoring and reporting of adverse reactions:
- the imposition and maintenance of lockdowns during this period, and specifically the national lockdown in August and September 2021, and the extended lockdown in Auckland and Northland in September 2021:
- the procurement, development, and distribution of testing and tracing technologies and non-pharmaceutical public health materials, specifically the impact of private sector involvement or non-involvement.

(2) For the purposes of these terms of reference, a **key decision** is a decision that has a potential or actual significant impact on large numbers of people or groups of people, or that has a significant cost at a national or regional level (or both).

(3) In reviewing those decisions, the inquiry must assess—

- whether those decisions were sufficiently informed by advice on any social and economic disruption such decisions were likely to cause, and in particular the effect those decisions might have on—
  - social division and isolation:
  - health and education:
  - inflation, debt, and business activity:
- whether those decisions reflected the advice that was given to decision makers at the time:
- whether those decisions took account of the experience and evolving practices from comparable jurisdictions:

- whether those decisions struck a reasonable balance between COVID-19 public health goals and minimising social and economic disruption:
- whether those decisions produced unforeseen consequences.

(4) The inquiry may assess these matters, having regard to New Zealand's circumstances, what was known at the time, and relevant decisions made by comparable jurisdictions.

(5) The inquiry must only consider key decisions made on these matters between February 2021 and October 2022, and not outside those months, though it may have regard to any consequences of those decisions that were not apparent until after October 2022.

(6) Despite subclause (5), the inquiry may consider key decisions made relating to vaccines before February 2021, provided those decisions otherwise fall within these terms of reference.

Schedule 2 clause 4: inserted, on 26 September 2024, by clause 13 of the Royal Commission of Inquiry (COVID-19 Lessons) Amendment Order (No 2) 2024 (SL 2024/177).

5 Matters upon which findings and recommendations are sought in phase 2

The inquiry should make, in relation to the matters within the scope of phase 2,—

- findings on whether key decisions were well informed, and whether those decisions had unforeseen consequences:
- recommendations on considerations that should be taken into account in future decisions to best prepare New Zealand to respond to any future pandemics.

Schedule 2 clause 5: inserted, on 26 September 2024, by clause 13 of the Royal Commission of Inquiry (COVID-19 Lessons) Amendment Order (No 2) 2024 (SL 2024/177).

6 Limits to inquiry's scope in phase 2

(1) The following matters are outside the scope of the inquiry in phase 2:

- particular clinical decisions made by clinicians or by public health authorities during the COVID-19 pandemic:
- how and when the strategies and other measures devised in response to COVID-19 were implemented or applied in individual cases:
- the operation of the general regulatory system for vaccines, and the approval of vaccines unrelated to COVID-19:
- the specific epidemiology of the COVID-19 virus and its variants:
- the recent reforms to New Zealand's health system, including the organisational arrangements for public health services:
- the judgments and decisions of courts and tribunals and independent agencies such as the Ombudsman, the Privacy Commissioner, or the Independent Police Conduct Authority relating to the COVID-19 pandemic:
- the operation of individual private sector businesses, except where those businesses deliver services integral to a pandemic response:
- particular decisions taken by the Reserve Bank's independent monetary policy committee during the COVID-19 pandemic:
- any adaptation of court procedures by the judiciary during the COVID-19 pandemic:
- any adaptation of parliamentary processes during the COVID-19 pandemic:
- the conduct of the general election during the COVID-19 pandemic.

(2) In accordance with section 11 of the Inquiries Act 2013, the inquiry does not have the power to determine the civil, criminal, or disciplinary liability of any person.

Schedule 2 clause 6: inserted, on 26 September 2024, by clause 13 of the Royal Commission of Inquiry (COVID-19 Lessons) Amendment Order (No 2) 2024 (SL 2024/177).

7 Inquiry procedure in phase 2

(1) In accordance with section 14 of the Inquiries Act 2013, the inquiry must comply with the principles of natural justice and avoid unnecessary delay or costs.

(2) The inquiry must operate in a way that—

- does not take a legalistic and adversarial approach:
- uses information that is publicly available:
- uses efficient procedures to gather any additional necessary information:
- ensures that any request for necessary information is specified with due particularity.

(3) Subject to subclause (2), the inquiry may conduct public hearings into any part of its terms of reference only if it considers that such hearings will significantly enhance public confidence in the processes of the inquiry, the conclusions it reaches, and the recommendations it makes.

(4) The inquiry should review investigations, reports, and reviews (both domestic and international) and any other publicly available material relevant to these terms of reference.

(5) The inquiry must not duplicate or repeat work already undertaken in any other investigation, report, or review.

(6) The inquiry is not bound by the conclusions or recommendations of any other investigation, report, or review.

(7) The inquiry should consider international investigations, reports, and reviews and other material, without travelling internationally or inviting persons to travel to New Zealand.

Schedule 2 clause 7: inserted, on 26 September 2024, by clause 13 of the Royal Commission of Inquiry (COVID-19 Lessons) Amendment Order (No 2) 2024 (SL 2024/177).

8 Relationship between phase 1 and phase 2 of the inquiry

(1) Although the matter of public importance for phases 1 and 2 of the inquiry is the same, the terms of reference for phases 1 and 2 of the inquiry are different, and the processes for each phase differ because—

- phase 1 of the inquiry has been conducted in private, with persons appearing before it on conditions of confidentiality:
- phase 1 of the inquiry has made interim non-publication orders under section 15 of the Inquiries Act 2013, and is contemplating permanent non-publication orders under that section:
- phase 2 of the inquiry may, in accordance with these terms of reference, conduct public hearings.

(2) Phase 2 of the inquiry must consider the report on phase 1 of the inquiry, and any other publicly available information received during phase 1 of the inquiry, but must not duplicate or repeat work undertaken during phase 1 of the inquiry.

(3) Phase 2 of the inquiry may reach different conclusions or make different recommendations from those set out in the report on phase 1 of the inquiry, but only on matters falling within the scope of phase 2 of the inquiry. All findings and recommendations in the report on phase 2 of the inquiry must be based on the evidence available to and received during phase 2 of the inquiry.

(4) Phase 2 of the inquiry will not access or have regard to any material that is subject to orders made by phase 1 of the inquiry under section 15 of the Inquiries Act 2013, or to the internal deliberations of phase 1 of the inquiry.

Schedule 2 clause 8: inserted, on 26 September 2024, by clause 13 of the Royal Commission of Inquiry (COVID-19 Lessons) Amendment Order (No 2) 2024 (SL 2024/177).

9 Access to inquiry information

The inquiry must restrict access to inquiry information where it considers such steps are required in order to—

- protect the international relations of the Government of New Zealand:
- protect the confidentiality of information provided to New Zealand on a basis of confidence by any other country or international organisation:
- avoid prejudice to the maintenance of the law, including the prevention, investigation, and detection of offences:
- ensure that current or future criminal, civil, disciplinary, or other proceedings are not prejudiced:
- protect commercially sensitive information, including commercial information subject to an obligation of confidence:
- protect information for any other reason that the inquiry considers appropriate.

Schedule 2 clause 9: inserted, on 26 September 2024, by clause 13 of the Royal Commission of Inquiry (COVID-19 Lessons) Amendment Order (No 2) 2024 (SL 2024/177).

10 Administration

The inquiry must—

- support the relevant department (the Department of Internal Affairs) to meet its administrative and reporting requirements relevant to the inquiry by providing the department with regular information and reports on the administration and finances of the inquiry:
- provide a quarterly report to the Minister of Internal Affairs on progress on delivery of the findings and recommendations required under these terms of reference that—
  - sets out the critical activities the inquiry needs to complete:
  - reports on—
    - the expected cost of completing the activities:
    - the expected timing for completing the activities:
    - the progress towards completing the activities (including costs to date):
  - explains what steps the inquiry is taking, or proposing to take, to mitigate any risk that it may not complete its activities in accordance with these terms of reference.

Schedule 2 clause 10: inserted, on 26 September 2024, by clause 13 of the Royal Commission of Inquiry (COVID-19 Lessons) Amendment Order (No 2) 2024 (SL 2024/177).

11 Timing of phase 2

(1) The inquiry may begin considering evidence relating to the matters that are within the scope of phase 2 on 29 November 2024.

(2) The inquiry must deliver its report on phase 2 by 26 February 2026.

Schedule 2 clause 11: inserted, on 26 September 2024, by clause 13 of the Royal Commission of Inquiry (COVID-19 Lessons) Amendment Order (No 2) 2024 (SL 2024/177).

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