Te Kāwanatanga o Aotearoa
New Zealand Government

MANATŪ HAUORA
MINISTRY OF HEALTH

New Zealand Pandemic Plan

A framework for action

(Interim update – July 2024)

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Acknowledgements

The Ministry of Health would particularly like to acknowledge the health care workers for their response and the people of New Zealand for their resilience during the COVID-19 pandemic.

Comments

The Ministry of Health – Manatū Hauora first published the New Zealand Influenza Pandemic Action Plan in 2002, and last updated it in 2017. In the years since the plan was first published, it has undergone substantial revision, due to lessons learnt from the influenza A (H1N1) 2009 pandemic, the evolving and ongoing potential threat from H5N1 influenza and more recently the COVID-19 pandemic, which started in 2020.

This plan will continue to evolve. In particular, we will review it again following the completion of the Royal Commission of Inquiry into COVID-19 Lessons Learned - Te Tira Ārai Urutā. Further changes to the New Zealand health system announced by the government may also result in changes to this plan.

If you have any comments, please send them to the Ministry of Health:

by post to: Ministry of Health – Manatū Hauora
133 Molesworth Street
PO Box 5013
Wellington 6145

or by email to: **info@health.govt.nz**

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MINISTRY OF HEALTH
MANATŪ HAUORA

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Foreword

The *New Zealand Pandemic Plan: A framework for action* sets out the all-of-government measures to be taken to prepare for and respond to a pandemic. It updates the *New Zealand Influenza Pandemic Plan: A framework for action 2017*.

The Ministry of Health leads the health system's response and informs the wider government's response to a pandemic. It is the responsibility of other agencies to plan for and respond to a pandemic in their respective sectors and settings, based on the direction set out by the Ministry of Health.

Pandemics by their nature are unpredictable in terms of timing, severity and the population groups that are most affected. While written with influenza and coronaviruses primarily in mind, this version is broadly applicable to other respiratory illnesses, and, as long as pathogen-specific considerations are accounted for, also has potential application to other diseases with pandemic potential.

This plan updates the 2017 version to reflect the health system reforms of 2022. It also incorporates some of the lessons identified during the COVID-19 pandemic response. The key decisions, public health interventions and phases of the plan remain valid.

The COVID-19 pandemic has demonstrated the impacts that a pandemic can have across all aspects of society. The risk of another global pandemic remains and the severity of its impact, especially on those most vulnerable, can be reduced through implementing lessons learned from COVID-19 through planning and preparedness. In addition to COVID-19, since the first version of this plan the New Zealand national security system has been codified and the health sector has responded effectively as a support agency to a range of hazards and threats, including the Canterbury, Seddon and Kaikōura earthquake sequences, flooding events, volcanic eruptions and terrorism, as well as numerous local and regional events.

This version of the New Zealand Pandemic Plan reflects a risk-based approach that promotes collaboration across the wider health system, all levels of government, agencies and organisations when planning for, responding to and recovering from a pandemic event.

Dr Diana Sarfati
Director-General of Health

Kōrero Takamua

Ko tā te *Mahere Mate Urutā o Aotearoa: He anga hei whai* he whakatakoto i ngā mahi katoa ā-te kāwanatanga me mahi kia whakarite mai me te urupare mai ki tētahi mate urutā. Ko tāna anō he whakahou i te *Mahere Rewharewha o Aotearoa: He anga hei whai 2017*.

Kei te ārahi Te Manatū Hauora i tā te pūnaha hauora urupare me te whakamōhio atu i tā te kāwanatanga urupare whānui ki tētahi mate urutā. Kei ērā atu pokapū te kawenga ki te whakarite mahere hei urupare atu ki tētahi mate urutā i roto mai i ā rātou ake rāngai me ō rātou wāhi, i runga anō i te ahunga i whakaritea ai e Te Manatū Hauora.

Whanokē ana ngā mate urutā mō āhea e puta mai ai, mō te taikaha me ngā rōpū taupori ka kaha pāngia mai. Ahakoa kua tuhia noatia tēnei whakaputanga mō te rewharewha me ngā kowheori, ka hāngai hoki ki ētahi atu mate arahau, ā, ina whakaarohia ngā momo tukumate, ka taea hoki te hāngai atu ki ētahi atu mate ka huri hei mate urutā.

Ka whakahoungia tēnei mahere i tō te 2017 whakaputanga kia whakaata mai i ngā hanganga hou o te pūnaha hauora o 2022. Ka kōkuhu mai hoki i ētahi akoranga i tautohua mai ai i te wā o te urupare ki a KOWHEORI-19. Ka whaimana tonu ngā tino whakataunga, ngā wawao o te hauora tūmatanui me ngā wāhanga o te mahere.

Kua whakaatu mai a KOWHEORI-19 i ngā pāpātanga o tētahi mate urutā ki ngā āhuatanga katoa, huri noa i te pāpori. Ka noho tonu te tūraru o tētahi atu mate urutā ā-ao, ka mutu, ko te kaha o tōna pānga mai, inā hoki ki te hunga tino whakaraerae ka taea te whakaiti iho mā te whai i ngā akoranga i ākona mai ai i a KOWHEORI-19 mā te whakamahere me te ata whakarite. Tāpiri atu i te KOWHEORI-19, mai i te whakaputanga tuatahi o tēnei mahere kua whakaritea te pūnaha haumaru ā-motu o Aotearoa, ā, kua urupare pai hoki te rāngai hauora hei rāngai tautoko i te whānuitanga o ngā pūmate me ngā mahi tūpato, tae atu ki ngā raupapa rūwhenua o Waitaha, o Seddon me o Kaikōura, ngā waipuke, ngā hūnga me te whakatuatea, waihoki ko ngā raru o te kāinga, o te motu hoki.

Ko tā tēnei whakaputanga o te Mahere Mate Urutā o Aotearoa he whakaata mai i tētahi tukanga ā-tūraru e whakatairanga ake ana i te mahi tahi huri noa i te pūnaha hauora whānui, i ngā wāhanga katoa o te kāwanatanga, i ngā pokapū me ngā rōpū whakahaere e whakamahere ana, e urupare ana, e whakaora ake ana hoki i tētahi mate urutā.

Tākuta Diana Sarfati
Te Tumu Whakarae mō te Hauora

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Introduction

Purpose of the New Zealand Pandemic Plan

The New Zealand Pandemic Plan: A framework for action is based on an established strategy to deal with outbreaks of infectious disease, and forms part of the National Health Emergency Plan[1] (Ministry of Health 2015).

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.

This plan provides an overarching framework for possible actions before, during and after a pandemic. Actions in any pandemic will depend on a range of factors (eg, the population susceptibility, transmissibility and severity associated with the particular disease). Part B of the plan sets out relevant actions.

An enduring feature of all the actions we take will be a strong focus on pae ora, Te Tiriti o Waitangi, proportionality, equity and advice that is grounded in science.

Agencies (including Health New Zealand - Te Whatu Ora, individual hospitals, regional emergency management agencies and the National Public Health Service) have their own legislative and functional responsibilities, and work to their own response plans, manuals, handbooks and standard operating procedures based on the New Zealand Pandemic Plan. Each of those documents provides information in addition to that contained in this plan.

This version of the New Zealand Pandemic Plan provides a framework for action that can readily be adopted and applied to any pandemic of respiratory infection characterised primarily by airborne transmission, irrespective of the aetiological pathogen and its severity. We have developed this plan with influenza and coronaviruses primarily in mind, but it is broadly applicable to other respiratory illnesses, and, as long as pathogen-specific considerations are accounted for, may also apply to other diseases with pandemic potential.

The New Zealand Pandemic Plan is of less relevance to pandemics in which spread is predominantly by the faecal-oral route, sexual contact, blood-borne transmission or disease vectors such as mosquitoes, although some components may be applicable.

[1] The National Health Emergency Plan is currently under review; the updated plan will be considered in the second stage of the Pandemic Plan review.

The New Zealand Pandemic Plan is a living document. We will update it from time to time as new evidence becomes available. Agencies should refer to the version of the plan that appears on the Ministry of Health website, which will always be the most up to date.

The New Zealand Pandemic Plan is the foundation for our preparedness for and responses to future pandemics. The Ministry of Health and Health New Zealand - Te Whatu Ora (Health New Zealand) will use it to inform and customise their responses to pandemics. The overall response strategy will likely be determined by Ministers and Cabinet.

Key objective

The key objective of this plan is to minimise deaths, serious illness and significant disruption to communities, the health system and the economy arising from a pandemic associated with a respiratory pathogen.

The New Zealand Pandemic Plan is primarily a central government planning and response framework. It will inform, but not prescribe, the structure of operational plans.

Structure of this document

This plan has three parts (Part A, Part B and Appendices) and concludes with a list of references.

Part A: Setting the scene outlines the approach the Ministry of Health, Health New Zealand, and all-of government take to pandemic planning and preparation, and the coordination arrangements and response functions they would put in place in the event of a pandemic.

Part B: The Action Framework categorises the phases of a pandemic and provides guidance on potential actions that may be relevant to each phase, the individuals or agencies responsible for those actions, and the authority under which actions can be taken. These factors will always depend on the nature of the particular pandemic. The Action Framework provides information to guide key decision-making.

The Appendices contain the Public Information Management Strategy (Appendix A), explanatory material concerning the specific measures identified in Part B (Appendix B), information on Intersectoral Pandemic Group work streams (Appendix C), some further information on recovery (Appendix D) and a glossary of key terms and abbreviations (Appendix E).

New in this version

This version of the New Zealand Pandemic Plan updates the *New Zealand Influenza Pandemic Plan: A framework for action* (Ministry of Health 2017). It represents the first part of a two-stage review process. This version follows a limited interim review undertaken during 2023 and early 2024. Changes here reflect the health system reforms of 2022, some aspects of the COVID-19 pandemic response and also changes in terminology, legislation, agencies' names, population-based calculations and references to publications and websites.

This version does not address the full range of lessons identified during the COVID-19 pandemic and has not updated the roles of other agencies outside the health sector. Much content has therefore been retained from the 2017 plan and predates COVID-19.

We plan to undertake a further, more substantive review, including of the roles of other government agencies, in 2024 /25. This timeline will allow for consideration of findings from the Royal Commission of Inquiry into COVID-19 - Te Tira Ārai Urutā and other relevant work, such as the development of a strategy for the national quarantine capability, reviews of New Zealand pandemic-related legislation, review of the New Zealand COVID-19 Strategic Framework and amendments to the International Health Regulations 2005 (WHO 2006) amendments to the IHR were adopted at the World Health Assembly in May 2024 and in due course New Zealand may choose to accept them).

Audience for this document

The New Zealand Pandemic Plan is for anyone involved in planning, preparing for or responding to a pandemic. It also provides general information on pandemics and government planning for the New Zealand public.

The New Zealand Pandemic Plan summarises many issues. Where possible, it also gives references to websites and key documents that provide further information.

Table 1: Areas of interest to audiences of the New Zealand Pandemic Plan: A framework for action

Audience	Relevant section of document	Supporting information
Public	Part A: Setting the scene Appendix B: Explanatory material	Further guidance and resources on the following websites': **www.health.govt.nz/our-work/emergency-management/pandemics/health-sector-pandemic-influenza-guidance** **info.health.nz/conditions-treatments/infectious-diseases/flu-influenza/**

Audience	Relevant section of document	Supporting information
Health professionals	Entire document	National Health Emergency Plan (Ministry of Health 2015) Guidance documents available from the Ministry of Health's web page 'Health sector pandemic influenza guidance': **www.health.govt.nz/your-health/healthy-living/emergency-management/pandemic-planning-and-response/health-sector-pandemic-influenza-guidance-0**
Health and other sector decision-makers	Entire document	National Health Emergency Plan (Ministry of Health 2015) Guide to the National Civil Defence Emergency Management Plan 2015 (Ministry of Civil Defence and Emergency Management (MCDEM) 2015b) Guidance documents available from the Ministry of Health's web pages 'Health sector pandemic influenza guidance' and 'Workplace pandemic influenza guidance': **www.health.govt.nz/your-health/healthy-living/emergency-management/pandemic-planning-and-response/health-sector-pandemic-influenza-guidance** **www.health.govt.nz/your-health/healthy-living/emergency-management/pandemic-planning-and-response/workplace-pandemic-influenza-guidance**

Exercising plans

As the National Health Emergency Plan (Ministry of Health 2015) states, to be effective, all health emergency plans require ongoing testing through exercises.

The education and training of key staff likely to be involved in the activation of a health emergency plan is essential; this will ensure they will function effectively in what is likely to be a highly stressful and unusual event. The exercising of emergency plans will increase the pool of appropriately trained people with competencies in emergency management.

This plan will be exercised under the National Exercise Programme, which is chaired by the National Emergency Management Agency. Its main objective is to build capability across government through a coordinated series of interagency readiness activities, measured against a set of national objectives. A developed programme of exercises covers all the risks on the National Risk Register, of which communicable diseases (pandemics) is one.

All health and emergency plans should be evaluated and reviewed after each exercise. This may necessitate further training and exercising.

What is a pandemic?

Definition of 'pandemic'

> **Pandemic:** An epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people (Porta 2014).

A pandemic caused by a respiratory pathogen – in particular, a virus – is the most likely event to cause a large-scale health emergency. Coronaviruses have caused multiple outbreaks this century: for example, severe acute respiratory syndrome (SARS) in 2002/03, Middle East respiratory syndrome (MERS) in 2013 and 2015 and the COVID-19 pandemic starting in 2019 (which has moved to being endemic at the time of publication). As of 6 August 2023, over 769 million confirmed cases of COVID-19 and over 6.9 million deaths have been reported globally (World Health Organization (WHO) 2023a). In Aotearoa New Zealand, as of 15 October 2023, cumulatively, 3,407 deaths had been recorded for which COVID-19 was the underlying cause or contributed to the person's death (Health New Zealand 2023a). Three major influenza pandemics occurred in the 20th century, reaching New Zealand in 1918, 1957 and 1968. Estimates put mortality from the 1918 pandemic at between 50 million and 100 million worldwide. In New Zealand, the 1918 pandemic is estimated to have infected between one-third and one-half of the entire population, causing about 8,000 deaths, of which at least 2,160 were Māori. However, the pandemic of influenza A (H1N1) in 2009 reminds us that some pandemics have only a small impact on death rates. We have designed the New Zealand Pandemic Plan to ensure it can be readily adapted for mild, moderate or severe pandemics.

Characteristics of pandemics[2]

Pandemics entail the global spread of a novel pathogen, usually a virus, which evades existing immunity, spreads readily (usually from person to person) and can cause unusually high morbidity and/or mortality for an extended period. Global population mobility through air, sea and land travel is a key contributor to the rapidity of the spread of pandemics in recent years.

Viruses that have pandemic potential are those that can undergo antigenic changes – for example, influenza viruses and coronaviruses. These viruses undergo regular small

[2] Pandemics should not be named by their association with countries or animals, as this can lead to stigmatisation, racism, incorrect assumptions and the misdirection of resources. (For example, consumers may avoid produce from a named animal, even though there may be no risk of infection from it, and this avoidance can lead to health, social and economic consequences.) The Ministry of Health uses the nomenclature recommended by WHO; for example, pandemic influenza A (H1N1) 2009. The Ministry notes that the way the media refer to pandemics is outside the control of international or national agencies.

changes (or mutations) in their genes that alter their surface proteins (or antigens). The antigenic changes mean that a person may be susceptible to the virus even if they have been previously exposed, as their existing antibodies will not effectively recognise and neutralise the antigenically different viruses, or because the virus's fitness to infect and reproduce increases. The evolution of the SARS-CoV-2 virus over the course of the recent COVID-19 pandemic and the evolution of the influenza virus between seasons, are examples of antigenic drift. Sometimes a virus may undergo a major change in its genetic profile. This results in a new virus sub-type to which humans have no immunity. This new sub-type may be a virus with pandemic potential.

New influenza virus strains tend to arise from genetic mutation or a recombination of viruses in humans or species like pigs and birds. New coronavirus strains have emerged from zoonotic spread, when humans have come into closer contact with bats (in the case of SARS-CoV) or dromedary camels (in the case of MERS-CoV) but may also arise through genetic changes during person to person spread. If new sub-types are able to spread efficiently within human populations and cause significant human illness, a pandemic can occur. 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.

Internationally, health agencies including the WHO undertake surveillance of viruses with pandemic potential.

For further consideration of the generic properties of pandemic scenarios and agents, see chapter 3 of the Te Niwha report *Likely Future Pandemic Agents and Scenarios* (Te Niwha 2023).

Coronaviruses and influenza viruses

Coronaviruses (CoV) are a large family of viruses that cause a range of respiratory infections, including the common cold and more severe diseases such as Middle East Respiratory Syndrome (caused by MERS-CoV) and Severe Acute Respiratory Syndrome (SARS-CoV).

Coronaviruses are zoonotic, meaning they are transmitted between animals and people. Common signs of infection include respiratory symptoms, fever, cough, shortness of breath and breathing difficulties. In more severe cases, infection can cause pneumonia, severe acute respiratory syndrome, kidney failure and death.

Influenza is a contagious viral disease of the respiratory tract. It is a major threat to public health worldwide because of its ability to spread rapidly and cause widespread illness and severe complications. Relatively minor epidemics of influenza typically occur annually in New Zealand during winter, often affecting all age groups and causing many complications, including viral or bacterial pneumonia.

Influenza is a significant cause of mortality in New Zealand; in many cases, influenza contributes to an elderly or chronically ill person's death. Population groups at the

highest risk of developing severe outcomes from influenza are typically young children; people aged over 65 years; people with underlying conditions like heart, lung and immunosuppressive conditions; pregnant people; and Māori and Pacific peoples over 55 years of age. However, otherwise healthy adults can also be severely affected.

Influenza is characterised by the rapid onset of respiratory and generalised signs and symptoms, including fever, chills, sore throat, headache, dry cough, fatigue and muscle / body aching. Influenza is easily spread through droplets from an infected person (suspended in the air through coughing or sneezing) being inhaled by another person, or through contact with contaminated objects. The incubation period can range from one to seven days, but is commonly one to three days. There is limited evidence that adults are infectious for half a day to one day before most symptoms start, and until about day five of the illness. Children generally remain infectious for up to seven days after symptoms start, but may be infectious for up to 21 days.

The COVID-19 pandemic

Following the first confirmed detection of human-to-human transmission of SARS-CoV-2 in December 2019, COVID-19, as the disease caused by the virus was subsequently named, rapidly spread around the world in early 2020. In January 2020 the WHO determined the event to be a public health emergency of international concern under the International Health Regulations 2005 and in March 2020 the WHO characterised it as a pandemic.

As of May 2024, the WHO has received reports of over 775 million confirmed cases of COVID-19 and more than 7 million deaths. These numbers most certainly under-report the true burden of disease; the WHO has estimated all-cause excess mortality associated with the COVID-19 pandemic to be in the order of 15 million deaths.

Since its initial detection, the virus has exhibited a remarkable ability to spread within communities, leading to widespread outbreaks and regional surges. Its transmission primarily occurs through respiratory droplets and close contact, including with asymptomatic and pre-symptomatic individuals. Variants of COVID-19, such as Delta and Omicron, have raised concerns due to their increased transmissibility and potential to partially evade immunity. These factors have challenged public health systems worldwide.

Clinically, COVID-19 exhibits a diverse spectrum of severity, ranging from mild or asymptomatic cases to severe acute respiratory distress syndrome and death. The virus predominantly acutely affects the respiratory system, but its impact can extend to various organs, leading to complications like myocarditis and long COVID. Age and underlying health conditions significantly contribute to disease severity; older adults and individuals with comorbidities face elevated risks. The demand for medical resources during surges has strained health care systems, highlighting the need for adequate infrastructure and resources to manage critical cases.

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.

Vulnerable population groups bore a disproportionate burden throughout the pandemic. Socioeconomic factors, limited access to health care and crowded living conditions heightened the virus's impact on marginalised communities. Essential workers, including health care personnel, grocery store employees and public transportation staff, faced increased exposure risks. Additionally, the pandemic exacerbated existing health disparities, affecting racial and ethnic minorities at higher rates. Addressing these disparities requires targeted interventions, equitable access to resources and inclusive public health policies.

Influenza pandemics

During the 20th and 21st centuries to date, the emergence of influenza A virus subtypes has caused four pandemics, all of which spread around the world within a year of being clinically recognised. These were:

- the 1918/19 pandemic influenza A (H1N1)
- the 1957/58 pandemic influenza A (H2N2)
- the 1968/69 pandemic influenza A (H3N2)
- the 2009/10 pandemic influenza A (H1N1) 2009.

The 1918/19 pandemic caused the highest number of known influenza deaths. Many people died within the first few days after infection, and others died of secondary complications; nearly half of those who died were young, otherwise healthy adults.

Emergent influenza viruses are of particular concern with regards to their pandemic potential, due to a lack of prior exposure and underlying immunity in the population. Influenza viruses circulating in animal species can spill over into humans, causing severe disease and high mortality. Several strains of influenza are currently of potential concern and are being monitored globally.

Emergent influenza virus H5N1

Of current concern is high pathogenicity avian influenza H5N1, which primarily causes severe disease in avian populations. H5N1 rarely infects humans but has a case-fatality rate of approximately 50% in those that become infected. However, the true case-fatality rate could be lower, due to the lack of detecting or reporting of asymptomatic and mild cases (Li et al 2008). To date, cases of H5N1 in humans have been sporadic (associated with those who have had exposure to live or dead poultry or contaminated environments such as live bird markets). There has not been any detected human-to-human transmission of H5N1 in humans; thus the current likelihood of a pandemic due to H5N1 is low.

It is still unclear how easily H5N1 can acquire the mutations required to readily infect humans or cause human-to-human transmission. It is unknown whether changes to the transmissibility of the virus would also affect its mortality rate. Risk assessments from agencies such as the WHO, the United Kingdom Health Security Agency and the United States Centers for Disease Control and Prevention differ in detail, but broadly speaking the current threat from H5N1 is characterised as 'low risk/high impact'. The Ministry of Health considers it important to put plans and strategies in place to manage and mitigate the impacts of a potential H5N1 pandemic in New Zealand.

Impacts of the COVID-19 and 1918 pandemics on New Zealand

The COVID-19 pandemic was the most severe pandemic New Zealand had experienced since 1918 and caused significant mortality, morbidity and disruption to health services. Adverse health outcomes were disproportionately experienced by Māori, Pacific peoples, the elderly and those with pre-existing or long-term conditions and disabilities. Like many other countries, New Zealand adopted unprecedented response measures, including national and regional travel restrictions, physical distancing (including through school closures), mask wearing and vaccination. The country effectively closed the border to all but returning citizens and certain essential workers. The capacity limits at managed isolation and quarantine facilities meant that many travellers could not travel when they wished to do so; High Court decisions criticised processes involved in the allocation of these facilities. The Government quickly enacted bespoke legislation to implement far-reaching, tailored and targeted measures, and rapidly revised this legislation as circumstances changed.

While the direct and indirect health impacts of the pandemic were significant, the response measures implemented to save lives and preserve health system functionality themselves caused major disruption to almost every sphere of social and economic activity in New Zealand. The provision of financial support to adversely affected individuals and businesses proved crucial to supporting adherence with public health and social measures. However, in some segments of society, over time, misinformation and disinformation contributed to distrust in public health measures. The importance of measures to build and maintain public trust and confidence cannot be overestimated.

The 1918/19 pandemic also had a profound effect on New Zealand, which took years to recover. Because it came at the end of World War I, the extent of the trauma suffered is less clear than it would otherwise have been. Little was known about the cause of the disease or how it spread, and a variety of ineffective treatments (such as throat-sprays) that were available at public facilities might have been additional sources of infection. Public health knowledge was limited at that time, and in each community health care workers were overwhelmed and able to do little to halt the course of influenza in those infected. Because there was no effective treatment, many people died from secondary infections. Communities formed groups and committees to look after those most in need with food or home help. It seems that without this basic care even more could have died.

Impact of pandemics on Māori and Pacific peoples in New Zealand

The 1918/19 pandemic had a severe impact on Māori, whose death rate of 4.2% was approximately five to seven times higher than the non-Māori death rate. One study suggests that the Māori mortality rate was 7.3 times the European rate (Verrall et al 2010). However, there may have been a significant undercount of Māori influenza mortality rates as a result of undocumented Māori deaths. There were also unusual mortality patterns between Māori and non-Māori, and between males and females. Potential explanations of the increased rates for Māori included the higher rates of chronic respiratory burden experienced by Māori men and women (eg, because of smoking prevalence and tuberculosis), higher rates of household crowding among Māori communities and poorer access to health care in those communities (Summers et al 2018). The 1918/19 pandemic was also devasting for our Pacific neighbours. In Samoa during the 1918/19 pandemic 80% of the population was considered infected, and 20% died (ibid).

Māori and Pacific peoples in New Zealand had higher rates of morbidity for the influenza A (H1N1) 2009 pandemic than other ethnic groups. During the 2009 pandemic, Māori and Pacific were found to have higher influenza notification rates, higher hospitalisation rates and higher mortality rates and were significantly more likely to require intensive care unit-level admission. The mortality rates were 2.6 times and 5.8 times higher for Māori and Pacific peoples respectively when compared with rates for non-Māori, non-Pacific. Factors associated with higher mortality rates included obesity, morbid obesity and underlying respiratory conditions. Additionally, a significant proportion of those who died (39%) were living in the most deprived quintile (Wilson et al 2012).

More recently, a report into COVID-19 mortality in New Zealand shows that the mortality risk was higher for Māori and Pacific peoples (2.0 and 2.5 times respectively) than the risk for those in the European and other groups after accounting for age differences (Ministry of Health 2022b).

There may be multiple contributing factors for the disproportionate impacts of pandemics on populations. These factors span inequities in the determinants of health, including experience of crowding, systemic racism and discrimination, as well as components of communicable disease preparedness and planning, from surveillance to access to health care.

Evidence suggests that socioeconomic disadvantage and inadequate health system design, coupled with underlying health conditions and risks, increase the potentially devastating impact of pandemics on Māori and Pacific communities. Future pandemic planning needs to take account of these risk factors, which have been clearly and consistently identified in systematic reviews and epidemiological studies, to ensure appropriate consideration and planning is undertaken to address the disproportionate risks for these communities in particular.

Pandemic scenarios for preparedness and planning

The New Zealand Pandemic Plan is flexible enough to enable a response to be tailored to the level of severity of a pandemic. Key actions outlined here reflect the more serious end of the scale of national health emergencies, but can readily be customised for less severe pandemics. The 1918/19 influenza pandemic and the COVID-19 pandemic represent the severe to moderate end of the spectrum.

Previous versions of this plan have used the New Zealand standard planning model for planning assumptions. This plan continues to refer to this model but begins to transition from it, in that it now accommodates a range of pandemic 'typologies' (see below).

The standard planning model was developed prior to the COVID-19 pandemic and assumed a severe pandemic wave in which 40% of the New Zealand population (more than 2 million people) became ill over an eight-week period. The model assumed a 'stamp it out' phase followed quickly by a 'manage it' phase. The peak incidence in the model occurred in weeks three to five, when about 1.7 million people – a third of New Zealand's population – would be ill, convalescing or just recovered. (These figures are based on the New Zealand population calculated by Stats NZ in 2023; that is, 5,199,100 people.)

The standard planning model assumed a total case fatality rate of 2%. Thus, about 41,000 deaths occur in the model over the eight-week period, peaking at about 26,500 in week four (New Zealand's normal weekly death rate is around 623). It is important to note that this is not a prediction – it is not possible to make any such forecast before a pandemic develops.

The model's purpose was to provide a structure around which the health sector, the Government and New Zealand as a whole could plan for a very large event having severe impacts on all aspects of society. Because the 1918/19 pandemic in New Zealand is relatively well understood, for the purposes of the interim review of this plan it provided the basis for the standard planning model, while recognising that future pandemics might be more severe or mild in their impact. The interim review also considered early lessons identified from the COVID-19 pandemic response.

Recently, New Zealand researchers have provided a range of potential pandemic scenarios based upon knowledge of past events, allowing for pandemic preparedness and assessment during the early response phases (Baker 2016). These scenarios can be refined as the pandemic progresses. The scenarios allow planning by predicting the physical, psychological and socioeconomic harm that might be caused and guiding the development and implementation of appropriate responses.

Typologies can be based on the type of scenario, informed by features of previous pandemics and on the characteristics of the pathogen. Important typology characteristics include transmissibility, clinical severity, visibility, controllability and certainty of knowledge. Consideration of pandemic typology can inform an assessment

of the potential impact on the population. We expect that the planned second phase review of the New Zealand Pandemic Plan will consider the application of a pandemic typologies approach.

> Although our planning is based on a severe pandemic, we have modified the New Zealand Pandemic Plan so that we can customise the mix of actions at different phases to apply to a mild or moderate pandemic.

Phases of a pandemic: the World Health Organization and New Zealand

Based on experience gained during the COVID-19 pandemic and other recent public health emergencies, the WHO is developing and disseminating resources to support member states to respond effectively to future health emergencies. Its Health Emergency Preparedness, Response and Resilience framework focuses on a strategic shift towards strengthening five intersecting sub-systems of health security, primary health care and health promotion: (1) collaborative surveillance; (2) community protection; (3) safe and scalable care; (4) access to medical countermeasures; and (5) emergency coordination. The WHO has published the first of a series of transmission-specific modules, Preparedness and Resilience for Emerging Threats (WHO 2023a) in draft form. PRET's Module One focuses on respiratory pathogens such as coronaviruses, influenza and paramyxoviruses (such as respiratory syncytial virus). The PRET resources:

- outline relevant principles, such as equity, inclusiveness, evidence-informed decision-making and continuous learning
- recognise the interdependencies between different government and non-government sectors and resilient communities
- describe different operational stages to inform planning, including prevent and prepare, respond, recover and the return to prevent and prepare.

We have not modified this version of the New Zealand Pandemic Plan to give full effect to the draft PRET framework, but we are likely to modify subsequent versions to this end. This version, while not incompatible with PRET, continues to be structured on pandemic phases (See Part B for details).

The plan acknowledges that pandemic activity may come in waves, that response and recovery actions need to recognise this and that different parts of the country may be in different phases at the same time.

The time between onset and widespread outbreak is unlikely to be predictable, and may be compressed. If a pandemic has a particularly rapid onset, some phases might progress quickly or be skipped. For this reason, it is very important to prepare emergency responses in the inter-pandemic period, the 'Plan For It' phase (which corresponds to PRET's 'Prevent & Prepare' stage).

New Zealand pandemic framework

Managing health-related emergencies

The New Zealand Pandemic Plan is one part of the wider New Zealand emergency management framework, which is governed by several Acts and Regulations. The relationship between health emergency planning and planning in the wider emergency management sector is detailed in the National Health Emergency Plan (Ministry of Health 2015), which provides overarching direction for the health and disability sector and all of government.

The National Health Emergency Plan:

- creates the strategic framework to guide the health and disability sector in its approach to planning for, responding to and recovering from the health-related risks and consequences of significant hazards in New Zealand
- clarifies how the health and disability sector fits within the context of New Zealand emergency management
- specifies roles and responsibilities that health and disability agencies and providers must provide and carry out in the areas of emergency planning, risk reduction, readiness, response and recovery
- supports government agencies and other organisations with contextual information on the health and disability sector's emergency management strategic framework and response structure.

The New Zealand Pandemic Plan is an all-of-government document that details arrangements to be made and specific actions to be undertaken in the management of a pandemic of respiratory illness.

Cross-references and supporting material

The latest versions of all plans under the National Health Emergency Plan and associated documents are available on the Ministry of Health's Emergency Management web page 'National Health Emergency Plan': **www.health.govt.nz/our-work/emergency-management/national-health-emergency-plan**

Pandemic planning and preparedness strategy

The Government has taken a strategic approach to preparing for, reducing the impact of, responding to and recovering from a pandemic. Central to this approach are three overarching goals and a six-phase planning strategy. A series of key functions then gives effect to the goals and the strategy. This plan describes all these components; Figure 1 illustrates them.

The three overarching goals are:

- to minimise the impact of the disease on human health and disruption to health services without increasing health inequities
- to enable society to continue to function as normally as possible during and after a pandemic
- to minimise and mitigate the economic consequences of a pandemic on New Zealand.

The key functions giving effect to these goals are of an all-of-government nature, although they maintain a health focus in line with the nature of a pandemic emergency.

The six phases are:

1. Plan For It (planning and preparedness)
2. Keep It Out (border management)
3. Stamp It Out (cluster control)
4. Manage It (pandemic management)
5. Manage It: Post-Peak (post-peak management)
6. Recover From It (recovery).

Experience in the COVID-19 pandemic demonstrated the critical importance of regular risk assessment to inform decision-making on the most appropriate response strategies as evidence and information evolves and the event changes overtime. The six-phase pandemic model allows the Government to tailor and adjust a suite of response measures to ensure they remain appropriate and proportionate to the event.

Table 2 outlines the six phases along with their potential triggers and specific objectives. The Keep It Out and Stamp It Out phases focus on containing the spread of the virus and are often jointly described as 'containment'. Several phases may be in play at one time (to illustrate, the COVID-19 Elimination Strategy may be seen as a combination of Keep it Out and Stamp it Out), and different parts of the country may be in different phases at any one time.

The specific objectives of each phase are not exclusive to each phase. For example, planning is a continuous process through all phases, but is the primary focus of the

inter-pandemic Plan For It phase; border management activities occur in several phases, but enhanced measures are the focus of the Keep It Out phase.

The six-phase strategy focuses attention on the main objectives and tasks at any particular time, and represents a simple way to structure plans and activities.

Figure 1: New Zealand strategic approach to a pandemic

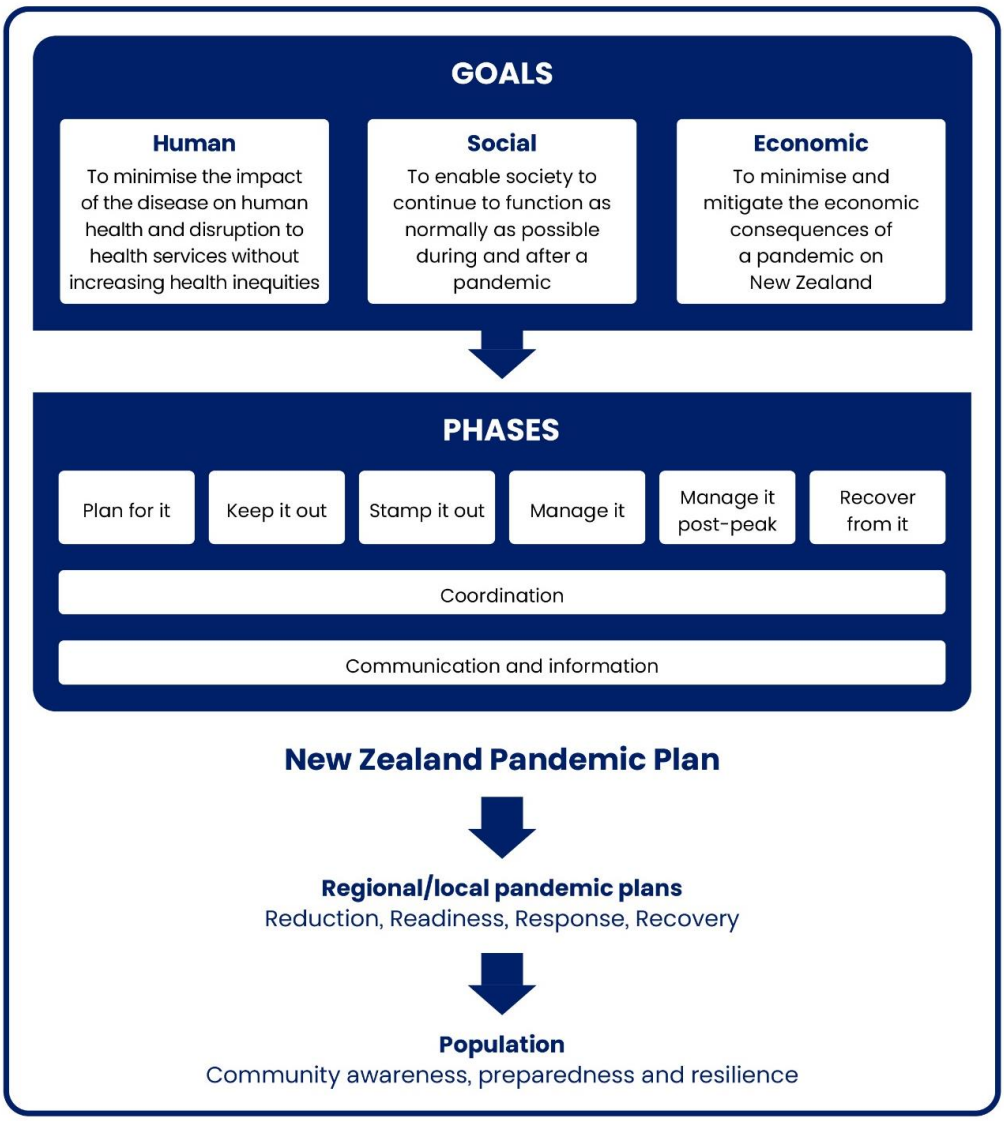


Table 2: Six-phase strategy of New Zealand pandemic planning

Phase	Potential trigger	Specific objectives
Plan For It Planning and preparedness	Level of respiratory illness at normal seasonal levels Sporadic cases of novel or non-seasonal respiratory illnesses reported globally	Plan and prepare to reduce the health, social and economic impact of a pandemic on New Zealand Deal with disease in animals, if required Closely monitor overseas reports of novel or non-seasonal respiratory illness
Keep It Out Border management	Sustained human-to-human transmission of a novel respiratory virus overseas in one or more countries	Prevent, reduce or delay, to the greatest extent possible, the arrival of the pandemic virus in New Zealand Border management may also include exit measures (eg, to prevent or reduce risk of spread into the Pacific)
Stamp It Out Cluster control	Novel respiratory virus or pandemic virus detected in case(s) in New Zealand	Control or eliminate any clusters found in New Zealand (When combined with Keep it Out, the Stamp It Out phase can potentially provide an 'elimination strategy')
Manage It Pandemic management	Multiple clusters at separate locations or clusters spreading out of control	Reduce the impact of the pandemic on New Zealand's population, disruption to health services and the economy
Manage It: Post-Peak Post-peak management	New Zealand wave decreasing	Expedite recovery and prepare for a re-escalation of response
Recover From It Recovery	Population protected by vaccination or pandemic abated in New Zealand	Expedite the recovery of population health, communities and society where affected by the pandemic, pandemic management measures or disruption to normal services

How changes in strategy are decided in New Zealand

Part B sets out high-level triggers for transitioning between phases. Risk assessments should be undertaken regularly; in particular, when new information emerges or circumstances change. Ministers and Cabinet make final decisions (see 'All-of-government response' in Part A).

Legislation

The New Zealand Pandemic Plan refers to actions authorised by statute. These statutes include the Health Act 1956, the Civil Defence Emergency Management Act 2002 and the Epidemic Preparedness Act 2006.

The Health Act is the primary statute focused on the need to contain communicable diseases, within the country and at the border, and works alongside the more general

Civil Defence Emergency Management Act. The Epidemic Preparedness Act provides additional legislative provisions prompted in part by emerging diseases such as SARS and influenza A (H5N1) and by the limitations of existing law.

In a pandemic response, the Government will use legislative provisions in a way that is proportionate and appropriate to the circumstances. In some cases, this may require the development, enactment and use of event-specific legislation. The COVID-19 Public Health Response Act 2020 is an example of such legislation. It provided a legal framework to implement public health measures across different classes of people or regions in New Zealand. As New Zealand moved out of the emergency phases of the response, The COVID-19 Public Health Response (Extension of Act and Reduction of Powers) Amendment Act 2022 scaled back the Government's previous powers.

The Government may only use provisions under the Epidemic Preparedness Act when the Prime Minister is satisfied that the effects of an outbreak of a quarantinable disease (as listed in Part 3 of Schedule 1 of the Health Act) are likely to disrupt, or continue to disrupt, essential governmental and business activity in New Zealand (or parts of New Zealand) significantly. This standard is high; agencies must therefore not rely on the activation of these provisions in mounting a response.

If necessary to support a response, Cabinet can agree to amend the schedules of infections and quarantinable diseases provided for in the Health Act.

Likewise, agencies must not rely on the provisions in the Civil Defence Emergency Management Act to mount a response.

Appendix B provides greater detail on relevant legislation.

Pandemic planning and preparedness

Overview of pandemic planning

Sudden surges in the number of people seeking health care, either from mass-casualty events or from outbreaks of infectious disease, are difficult to manage, so all hospitals and health agencies have established emergency plans to deal with such events. Within the Ministry of Health and Health New Zealand, these plans have been coordinated through the National Health Emergency Plan (Ministry of Health 2015).

New Zealand demonstrated the advantages of comparatively easily managed borders, an effective government structure and a strong sense of community during the COVID-19 pandemic. Those factors allowed New Zealand to prevent transmission of COVID-19 during initial waves, enabled high vaccination coverage and consequently kept morbidity and mortality rates low in comparison to other countries.

Intelligence between pandemics

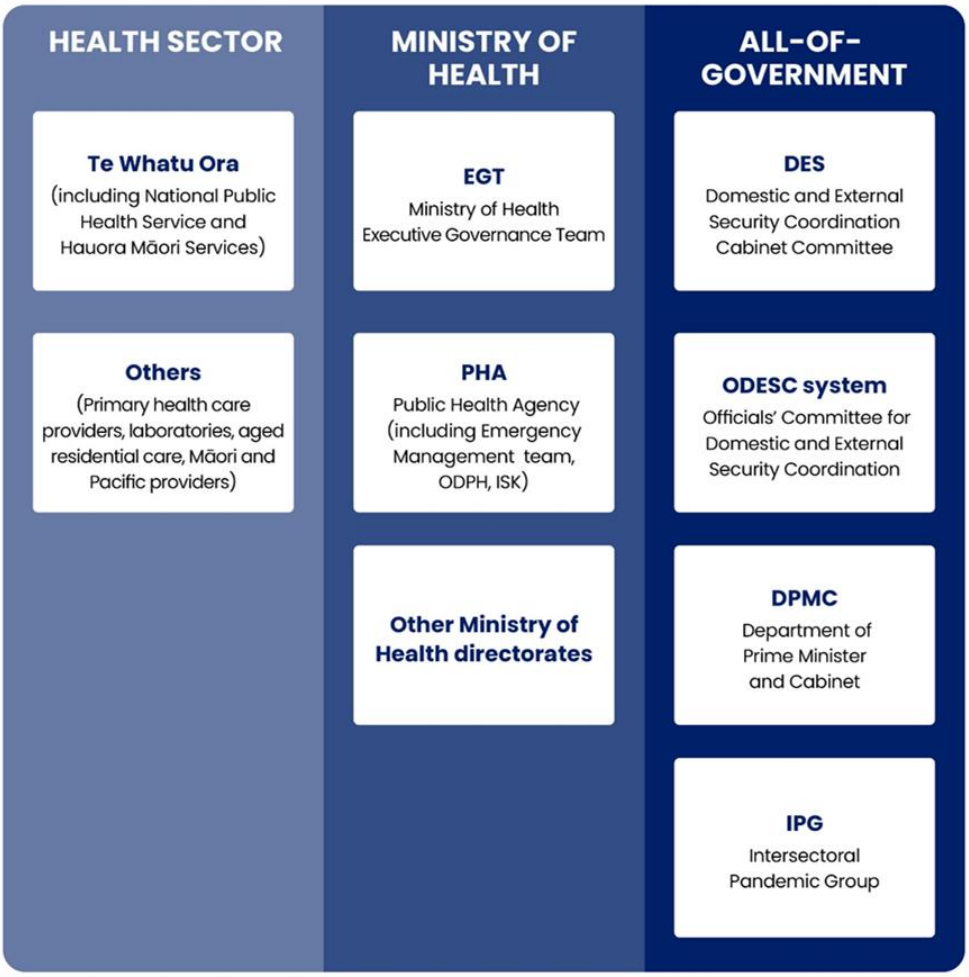
A nationally consistent monitoring and surveillance system during the period between pandemics (the 'inter-pandemic' period) is an essential component of preparedness. As such, surveillance and laboratory capabilities in the context of human and animal health are among the core capacities countries should maintain under the International Health Regulations 2005 (WHO 2006) to support pandemic prevention and response. Overseas trends must be monitored and analysed, and surveillance systems in New Zealand maintained, to enable the early detection of an emerging threat. These systems must be capable of detecting and tracking the progress of a pandemic illness in New Zealand. Information from the intelligence system will play a key role in guiding actions throughout all the phases of a pandemic.

Ministry of Health pandemic planning

The Ministry of Health began pandemic planning in 2005 because of increased national and international concern about the risk posed by pandemic influenza. This concern was reinforced by experience with SARS in 2002–2004, the ongoing threat of influenza A (H5N1), influenza A (H1N1) in 2009 and most recently the COVID-19 pandemic.

Figure 2 sets out the main actors in pandemic planning.

Figure 2: New Zealand pandemic planning actors



During a pandemic, expert groups are convened as required to provide expert clinical, virological, epidemiological, infection control and ethical advice to inform the Ministry of Health's pandemic response planning. These groups will inform the Ministry's policy on communications, key messages, public health interventions and a range of associated issues, and help address specific operational issues as the need arises. They may also provide technical advice to the Director of Public Health.

The Ministry of Health's pandemic planning aims to ensure a coordinated approach that avoids duplication of effort or communication across the large number of groups and organisations within the wider health and disability sectors involved in pandemic planning. One mechanism to achieve this is the Intersectoral Pandemic Group, comprised of central government agencies convened by the Ministry of Health.

The Ministry of Health recognises the importance of an effective flow of information between health agencies (including Health New Zealand) and to regional, district and local health providers (including hospitals, ambulance services and the primary health care sector). Providers of primary health care in the community (eg, general practitioners, pharmacists and primary health care nurses) and ambulance services will be under great pressure in the context of a pandemic, and will need ongoing

information, advice and assistance. Other providers of community health care, such as those working with people with disabilities and in aged care, will need similar help. The Ministry has issued several pandemic-related guidelines to help those involved in pandemic planning and response, including for the management of national reserve supplies, H5N1 pre-pandemic vaccine use and laboratory guidelines.

Health New Zealand – Te Whatu Ora pandemic planning

Health New Zealand is the lead agency for co-ordinating local and regional reduction readiness planning, ensuring health services function to the fullest possible extent during and after a pandemic (and other health emergencies) and ensuring the coordination of all health service providers. Further emergency responsibilities are set out in the New Zealand Health Plan, established under the Pae Ora (Healthy Futures) Act 2022.

Relevant documents and legislation noted in the New Zealand Health Plan include:

- the Health Act 1956
- the Epidemic Preparedness Act 2006
- the Civil Defence Emergency Management Act 2002
- clauses 47–51 and 71 in the Schedule to the National Civil Defence Emergency Management Plan Order 2015
- the National Health Emergency Plan (Ministry of Health 2015)
- *National Health Emergency Plan: Hazardous substances incident hospital guidelines 2005* (Ministry of Health 2005b)
- *Communicable Disease Control Manual* (Health New Zealand).

Te Aka Whai Ora - Māori Health Authority pandemic planning[3]

As originally set out in the Pae Ora (Healthy Futures) Act 2022, the role of Te Aka Whai Ora was to lead and monitor transformational change in the way the entire health system understands and responds to the health and wellbeing needs of whānau Māori. Te Aka Whai Ora's foundational mahi was to:

- lead change in the way the health system understands and responds to Māori health needs
- develop strategy and policy which will drive better health outcomes for Māori
- commission te ao Māori solutions and other services for Māori communities

[3] With effect from 30 June 2024 Te Aka Whai Ora has been disestablished. As a result, the functions of Te Aka Whai Ora were transferred to either the Ministry of Health or Health New Zealand – Te Whatu Ora.

- co-commission other services alongside Health New Zealand and other agencies
- monitor the overall performance of the system and reduce health inequities for Māori
- manifest the aspirations, objectives and imperatives of iwi, hapū and Māori communities.

The Pae Ora (Disestablishment of Māori Health Authority) Amendment Act 2024 came into effect on 30 June 2024. As a result, the above functions transferred to either Hauora Māori Services within Health New Zealand or the Ministry of Health. Functions include working in collaboration with partners and other stakeholders, including iwi Māori partnership boards, Māori health partners and professionals, iwi, hapū and Māori communities. Partnership with Māori and integrating Māori voices into health planning and service delivery remain a priority.

Iwi Māori partnership boards are the primary source of whānau voice and influence regional strategies. Māori health partners and professionals provide services grounded in te ao Māori and are more responsive to Māori needs.

The COVID-19 pandemic highlighted the strength of New Zealand's kaimahi workforce, the innovation and agility of Māori providers and the effectiveness of those providers in improving the hauora of their communities. The importance of resilient communities and the benefit of a health promotion approach in emergency planning and response is increasingly recognised internationally (Public Health Agency of Canada 2023) and was a notable feature of the COVID-19 response in New Zealand.

All-of-government pandemic planning

Planning and preparedness for an event of the scale, scope, complexity and potential impact of a pandemic require expertise from a range of fields across government agencies. The Ministry of Health takes a lead role in strategy and planning for a health-related emergency; Health New Zealand leads operational response planning.

> The New Zealand Pandemic Plan is the core document agencies should use to inform their pandemic planning.

Key issues to consider in pandemic planning and preparedness

The National Health Emergency Plan (Ministry of Health 2015) outlines generic considerations for health emergency planning. The New Zealand Pandemic Plan

highlights the issues specifically related to respiratory pandemics. Planning needs to be accompanied by preparedness programmes, including training and exercising.

Ethical issues in pandemic planning

The National Ethics Advisory Committee is an independent advisor to the Minister of Health on ethical issues of national significance concerning health and disability matters. Its guidance *Finding Balance: Ethical guidance for epidemics and pandemics 2023*[4] sets out a number of principles to guide decision-making. It highlights ethical considerations in a pandemic relating to priority populations, those in higher-risk settings (eg, hospitals, residential services and correctional facilities) and occupations and other vulnerable groups (including people over 65, people experiencing homelessness, rainbow community members, former refugees and recent migrants, and children in poverty). These considerations must underpin planning to ensure inequities are not increased as a result of a pandemic intervention. The committee recommends co-designing epidemic and pandemic plans with relevant population groups to better ensure equal outcomes and connecting with local communities before a pandemic to enable the rapid stand-up of community-led responses, which can significantly reduce or eliminate the risks.

None of the principles should be read as being more important than another. Rather, they are all important, and the appropriate emphasis to give each one depends on the context, and may shift during a pandemic. The six principles are:

- **manaakitanga** – implementing measures that are intentioned and respectful, and demonstrate caring for others. Establishing mutually beneficial communication and collaboration pathways.
- **tika** – implementing measures that are 'right' and 'good' for a particular situation, in a way that is open and transparent. Cultivating trust between decision-makers and the people their decisions affect.
- **liberty** – implementing measures that uphold human rights, including liberties and privacy.
- **equity** – implementing measures that eliminate or reduce unjust inequities in health outcomes for different groups of people and achieve healthy futures for all.
- **kotahitanga** – implementing measures that strengthen social cohesion through empowering local government, leaders and communities to be active participants in planning and response.
- **promoting health and wellbeing** – implementing measures that protect and uplift the four cornerstones of the Te Whare Tapa Whā health model: whānau health, mental health, physical health and spiritual health. Healthy individuals and whānau turn into healthy communities and a healthy population.

Cross-references and supporting material

Finding Balance: Ethical guidance for Epidemics and Pandemics (forthcoming).

[4] This document is yet to be published at the time of the interim review. Its name may change.

Ethics and Equity: Resource Allocation and COVID-19 (National Ethics Advisory Committee 2021)

Māori as tāngata whenua, Te Tiriti o Waitangi and the strategic direction for hauora Māori

Pae Tū: Hauora Māori Strategy (Pae Tū: Ministry of Health 2023b) sets the direction for improving the health and wellbeing of Māori towards pae ora – healthy futures for Māori. It is a key element of the Government's health system reforms required by the Pae Ora (Healthy Futures) Act 2022 and drives the health system to realise new opportunities to accelerate and enhance progress for hauora Māori. The development of Pae Tū was a joint initiative between the Ministry and Te Aka Whai Ora (prior to its disestablishment).

Pae Tū sets out five strategic priorities that build on the reforms and will accelerate action through innovation, collaboration and learning. Pae Tū also drives action across four other population-specific strategies: for Pacific peoples, disabled people, women and rural populations respectively. It acknowledges the diversity of Māori communities and reinforces the whole-of-system approach needed to improve hauora Māori. Health entities must have regard to this strategy when exercising their powers or performing their functions.

Whakamaua: Māori Health Action Plan 2020–2025 (Whakamaua: Ministry of Health 2020c) is the implementation plan for Pae Tū and provides clear direction for health planners and funders, whānau, hapū, iwi and other stakeholders to give effect to our strategic direction for hauora Māori. Whakamaua has played an important role in guiding the Māori health response to COVID-19 as well as the recent health reforms.

Meeting our obligations under Te Tiriti o Waitangi is critical to achieving the aspirations and priorities outlined in Pae Tū and Whakamaua. These obligations are outlined in the Ministry of Health's Te Tiriti o Waitangi framework. They include five Tiriti principles, defined as follows:

- **tino rangatiratanga**: provides for Māori self-determination and mana motuhake in the design, delivery and monitoring of health and disability services
- **equity**: requires the Crown to commit to achieving equitable health outcomes for Māori
- **active protection**: requires the Crown to act, to the fullest extent practicable, to achieve equitable health outcomes for Māori. This includes ensuring that it, its agents and its Treaty partner are well informed on the extent and nature of both Māori health outcomes and efforts to achieve Māori health equity
- **options**: requires the Crown to provide for and properly resource kaupapa Māori health and disability services and to ensure that all health and disability services are provided in a culturally appropriate way that recognises and supports the expression of hauora Māori models of care

- **partnership**: requires the Crown and Māori to work in partnership in the governance, design, delivery and monitoring of health and disability services. Māori must be co-designers, with the Crown, of the primary health system for Māori.

Agencies must give practical effect to these Tiriti obligations in line with our strategic direction for hauora Māori. These responsibilities should be addressed early in the pandemic planning and response process. They could involve:

- using and establishing Māori governance structures to inform decision-making, making use of devolved decision-making authority where appropriate
- investing in Māori communities and hauora Māori providers to ensure they have appropriate resources to lead their own response
- developing tailored Māori communications and using channels that provide a far reach across Māori communities to ensure those communities are kept informed
- ensuring any public health measures have a strong equity approach.

Cross-references and supporting material

New Zealand Pandemic Plan: Appendix A: Public Information Management Strategy

New Zealand Pandemic Plan: Appendix B: Explanatory material

He Korowai Oranga: Māori Health Strategy (Minister of Health, Associate Minister of Health 2014)

Pae Tū: Hauora Māori Strategy (Ministry of Health 2023b)

Whakamaua: Māori Health Action Plan 2020–2025 (Ministry of Health 2020b)

Te Tiriti o Waitangi (Ministry of Health 2020b)

Including Culturally and Linguistically Diverse (CALD) Communities (MCDEM 2013)

Likely Future Pandemic Agents and Scenarios: An epidemiological and public health framework (Te Niwha 2023) – Section 4.2

Other priority populations and equity considerations

Under the Pae Ora (Healthy Futures), Act we are committed to achieve equity in health outcomes for all under an equitable, accessible, cohesive and people-centred system. Specific strategies now set the direction for certain populations that experience inequities in health and wellbeing outcomes:

- Māori
- Pacific peoples
- disabled people
- rural populations
- women.

Policymakers have a duty to identify and anticipate the population groups likely to be disproportionately affected by disease outbreaks (eg, wāhine Māori) and take steps that build on the strengths of those groups and mitigate predictable harms. They should take an intersectional approach, and apply an analytical framework to understand how a person's various social and politic identities (eg, in terms of gender, age and ethnicity) create compounding disadvantage or privilege.

In the context of disease outbreaks, inequitable health and wellbeing outcomes may be associated with poorer access to health services or the increased impact of public health measures (eg, economic impact of quarantine). Some groups may have a higher risk of exposure, acquisition, transmission or severe clinical disease. To address inequities, we can apply our defined Tiriti principles, build on lessons learnt in the past (eg, in the context of community-led responses to COVID-19), undertake better data collection and disaggregation, and address the current gaps in health data sets.

Pacific peoples in New Zealand

'Pacific peoples' is a collective term for diverse ethnic groups who whakapapa (have ancestry) to Pacific Island countries. The seven largest Pacific groups in New Zealand are Samoan, Tongan, Cook Island, Niuean, Fijian, Tokelauan and Tuvaluan. An understanding of this diversity is essential for pandemic planning and preparedness; for example, effective communication of public health messages and health promotion needs to be provided by trusted members of these communities in appropriate languages. Translating health messages into the range of Pacific languages during the COVID-19 response was important to ensure Pacific communities were kept informed). The age structure of the Pacific population is younger than it is for New Zealand's total population. Pacific populations are concentrated in Auckland, Wellington and the Waikato; there are smaller populations throughout New Zealand, including in rural areas.

Pacific peoples were disproportionately affected in the influenza A (H1N1) 2009 pandemic and the COVID-19 pandemic; there is evidence of delayed care and a slow public health response for those at highest risk (Sonder et al 2020). However, COVID-19 also illustrated the resilience of Pacific peoples and the natural support systems among Pacific communities that contribute to collective wellbeing. Pacific providers and communities formed a cornerstone of the response to COVID-19, responding to the evolving needs of whānau and households. The success of this response depended on the strength and resilience of Pacific peoples and the value of tautua (service).

Priority areas within Te Mana Ola: The Pacific Health Strategy (Ministry of Health 2023c) can inform actions aiming to achieve better performance of the health system for Pacific people during a pandemic. Those priority areas are:

- **autonomy and determination:**
  - maintaining and nurturing Pacific decision-making and leadership
  - engaging and involving Pacific leaders and communities (eg, through churches, councils or sports groups) to identify issues, raisie awareness and maximise the delivery of key messages
- **access:** increasing access to culturally safe health services, including to Pacific-led options

- **workforce**: strengthening Pacific pandemic and emergency capacity and capability, and involving more Pacific people in leadership and decision-making
- **disease prevention, health promotion and management for good health**: improving the prevention and management of chronic diseases
- **population health**: improving environments including housing and considering these determinants/environmental factors in responses (eg, ensuring safe and effective options for isolation and quarantine where needed and providing wrap-around services such as integrated social supports).

Cross-references and supporting material

New Zealand Pandemic Plan: Appendix A: Public Information Management Strategy

New Zealand Pandemic Plan: Appendix B: Explanatory material

Te Mana Ola: The Pacific Health Strategy (Ministry of Health 2023c)

Being Prepared (Ministry of Health 2013b)

Including Culturally and Linguistically Diverse (CALD) Communities (MCDEM 2013)

Likely Future Pandemic Agents and Scenarios: An epidemiological and public health framework (Te Niwha 2023) – Section 4.3

Tokelau, Niue and the Cook Islands

New Zealand has constitutional relationships with Tokelau, Niue and the Cook Islands. Tokelau is a dependent territory of New Zealand, and Niue and the Cook Islands are self-governing states in free association with New Zealand. Because of these linkages, and the fact people from Tokelau, Niue and the Cook Islands are New Zealand citizens, the New Zealand Government needs to consider the situation of these states and territory when planning for, and responding to, a pandemic.

The New Zealand Government works closely with the governments of Tokelau, Niue and the Cook Islands to determine how best to help them with their preparedness and response to a pandemic.

There is a need to support South Pacific island nations in general to strengthen regional pandemic control measures and infectious disease surveillance. New Zealand has very specific obligations to these Pacific Realm countries, including in terms of providing access to health care. This has important considerations for the prevention and control of infectious diseases, including legal obligations, the management of borders and the delivery of health care and immunisations.

Cross-references and supporting material

Likely Future Pandemic Agents and Scenarios: An epidemiological and public health framework (Te Niwha 2023) – Section 4.3

Other ethnic communities in New Zealand

It is important to consider the needs, experiences and realities of ethnic communities other than Māori and Pacific peoples. In the COVID-19 pandemic, there was no systematic approach to funding initiatives for ethnic communities. However, specific actions were initiated after needs were identified: for example, translating key information into a variety of languages and establishing the Ethnic Communities COVID-19 Vaccine Uptake Fund.

Cross-references and supporting material

New Zealand Pandemic Plan: Appendix A: Public Information Management Strategy

New Zealand Pandemic Plan: Appendix B: Explanatory material

Disabled people

Disabled people are a vulnerable population, and are more susceptible to secondary health conditions and environmental hazards, including infectious diseases. They are at higher risk of infection and poorer outcomes from pandemics. The COVID-19 pandemic highlighted that public health responses are critical to reducing the disproportionate impacts of pandemics on disabled people, including tāngata whaikaha Māori and Pacific disabled peoples. There is a fundamental need to enable the self-determination of disabled people and ensure their voices are heard, including by engaging disability sector leaders and stakeholders in the co-design of strategies and solutions. Other important goals are:

- learning from pandemic-related disability issues and the disability community's experiences and concerns
- providing clear, consistent public health communications in accessible formats, tailored through disability networks addressing concerns specific to the disability community
- partnering with disabled people in the design of public health measures such as testing strategies and infection prevention and control (IPC) measures.

Cross-references and supporting material

Provisional Health of Disabled People Strategy (Ministry of Health 2023)

Inquiry into the Support of Disabled People and Whānau During Omicron (Human Rights Commission 2022)

Making Disability Rights Real in a Pandemic (Ombudsman 2021)

Women

The COVID-19 pandemic showed that women are disproportionately impacted by public health emergencies like pandemics. One of the priorities of the *Women's Health Strategy* (Minister of Health 2023c) is a 'health system that works for women'. It is essential that pandemic preparedness and response enable participation by diverse groups of women in response planning, decision-making and coordination. A gendered lens should be applied to all policy related to pandemic preparedness and response, and to collecting and analysing gender data that is disaggregated by age, ethnicity and so on.

Cross-references and supporting material

Women's Health Strategy (Minister of Health 2023c)

Rural populations

The COVID-19 pandemic showed the strong social networks and sense of responsibility for collective wellbeing that characterise rural communities. Rural Māori make up almost a quarter of the rural population. In the COVID-19 response, iwi, hapū and marae offered support to help rural people to stay safe and connected and access essential needs.

Future pandemic planning must enable rural Māori to meaningfully participate and direct pandemic efforts from the base of their iwi and hapū, guided by tikanga and kawa. 'Rural-proofing' of future pandemic planning is required to ensure that government action will work for rural communities.

Cross-references and supporting material

***Rural Health Strategy* (Minister of Health 2023b)**

Community issues

Action at a community level will be fundamental to an effective national response to a future pandemic. During the height of a moderate to severe pandemic, people within communities will not be able to rely solely on the health and disability sector or other government agencies for support; they will need to support each other. Health services are likely to be reconfigured and use different models of care, but are still unlikely to be able to provide business-as-usual levels of health care beyond the early stages of a severe pandemic. Families need to be prepared to care for each other at home. Non-governmental organisations, charities and community groups all have an important role to play in assisting their communities to respond to a pandemic. The importance of building resilient communities prior to emergencies and adopting health promotion approaches is increasingly recognised internationally (Public Health Agency of Canada 2023).

One particular community issue that government agencies and other service providers must consider in a pandemic is that people who are dependent on others may be left without their caregivers. At the community level, neighbourhoods should prepare for the possibility that they will need to assist each other in this respect. Local community networks of support will be particularly important for people living on their own.

Pandemics are stressful, and there is often considerable uncertainty about the threat and how to deal with it. Under these circumstances, mis- and disinformation can flourish. As part of the response, there is a need to monitor and address harmful mis- and disinformation, to consult and engage with communities and community leaders, and to build and maintain public trust and confidence.

Other groups that are at higher risk of infection or poor outcomes

Other groups that are at a higher risk of infection or poor outcomes in the context of a pandemic include:

- people who are immunosuppressed
- people with high-risk medical conditions or chronic conditions
- the elderly
- children
- pregnant people
- health care workers
- other essential workers.

The impact of a pandemic on different population groups may vary. People living in institutions such as rest homes or barracks, and schoolchildren, are at higher risk of infection than other groups because they are living or working closely to each other.

Programmes at all phases, therefore, must focus intensively on groups at higher risk, particularly when resources are stretched: for example, during the response phase(s).

During a moderate to severe pandemic, there are likely to be substantial numbers of people whose usual caregivers are unable to provide assistance. This could include children whose parents are sick, older people, people with a chronic illness or disability and people with mental illness. As a matter of priority, services need to be targeted to provide support to such people.

During the COVID-19 pandemic, health care workers globally faced particular risks of exposure in the course of their work. Shortages of personal protective equipment and uncertainty about the mode of transmission contributed to very high mortality rates among health care workers in the early stages of the outbreak. Pandemic planning must pay particular attention to keeping health care workforces safe.

High-risk settings

During preparedness and response, particular attention should be given to certain settings where individuals may be at higher risk of adverse outcomes. These may include:

- aged residential care facilities
- disability care facilities
- corrections facilities
- educational facilities
- Scott Base in Antarctica and other remote scientific stations.

Cross-references and supporting material

New Zealand Aotearoa Pandemic Response Policy for Aged Residential Care (Ministry of Health 2020a)

Six Principles for Safe Visiting and Social Activities in Aged Residential Care (Ministry of Health 2022a)

Summary of roles

Resources must be dedicated as the emergency escalates

New Zealand's strategic response to a pandemic will use the framework detailed in the Action Framework (Part B). As a pandemic emergency escalates, more resources will need to be dedicated to the response. As a result, agencies must understand, and in fact expect, that business as usual will be affected (see 'Business continuity' in Appendix B). In particular, agencies are likely to be affected by high levels of illness among staff, and disruptions to supply and distribution processes. This chapter outlines the responses required.

All-of-government response

An emergency such as a pandemic that potentially affects the whole of society requires national coordination and decision-making to protect and reduce the impact of the emergency on New Zealand as a whole. In such an event, strategic decisions will be made centrally through established processes and systems.

Recent events such as the Canterbury earthquakes (2010/11), the Port Hills Fire (2017), the Whakaari volcanic eruption (2019), the measles outbreak (2019), COVID-19 and Cyclone Gabrielle (2023) have demonstrated the need for effective coordination, cooperation and leadership in managing emergency responses. This section outlines current organisational arrangements to ensure effective coordination, cooperation and leadership in a pandemic emergency.

Governance and decision-making

The Officials Committee for Domestic and External Security Coordination system

The Officials Committee for Domestic and External Security Coordination (ODESC) is the all-of-government strategic crisis management mechanism in the case of events such as a pandemic. The Department of Prime Minister and Cabinet will activate the ODESC system following confirmation of a sustained and efficient human-to-human transmission of a pathogen with pandemic potential overseas (ie, at the Keep It Out phase).

The ODESC system has been used as the all-hazards, all-risks strategic crisis response governance mechanism for a wide range of threat- and hazard-caused crises since 2001.

In responding to a crisis, government seeks to:

- ensure public safety, protect human life and alleviate suffering
- preserve sovereignty and minimise impacts on society, the economy and the environment
- support the continuity of everyday activity and the early restoration of disrupted services (including non-pandemic-related health services)
- uphold the rule of law, democratic institutions and national values.

The ODESC system focuses on strategic matters and provides for a coordinated government response in which:

- strategic risks are identified and managed
- the response is timely and appropriate
- national resources are applied effectively
- adverse outcomes are minimised
- multiple objectives are dealt with together
- agencies' activities are coordinated.

The ODESC system is based on the expectation that a lead agency for a particular hazard, threat or risk will coordinate appropriate all-of-government operational activity in response. Lead agencies have a mandate for this responsibility through legislation or agreed authority. A lead agency monitors and assesses the situation, coordinates national support, reports to ODESC and provides policy advice. In the case of a pandemic, the lead agency is the Ministry of Health.

The Prime Minister is the lead decision-maker in the ODESC system, which operates across three levels:

- ministers
- chief executives
- senior officials.

The Department of Prime Minister and Cabinet leads the National Resilience System. This includes the National Risk Framework, which generates advice and drives decision-making. The Hazard Risk Board, made up of relevant public sector chief executives, has a strategic governance role in this system across national hazard risks (including communicable diseases). The Department of Prime Minister and Cabinet convenes meetings to consider issues, identify risks and ensure decisions are being taken at the right level and escalated as needed. Officials will receive a situation update from the lead agency and other agencies as relevant, discuss key risks and issues, and identify communications requirements (public-facing and to ministers). Decision-making relevant to the situation is elevated from the lead agency through the same three levels described above: from watch groups of senior officials through ODESC chief executives to ministers, as warranted by the situation.

The Ministry of Health as lead agency

The Ministry of Health is the lead agency for national level planning for pandemics (and other health emergencies). Health New Zealand leads the planning and response at a local and regional level. The Ministry's stewardship and oversight role includes collaboration with Health New Zealand. The Ministry's assurance function requires confidence that the other entities are giving full effect to their operational roles. The points below list activities and the associated agencies with responsibilities for them. Where a certain activity does not have a clear owner, in the first instance, the Ministry will take responsibility for identifying the appropriate entity to take ownership.

This list allocates one or more lead entities to each activity. Other entities may still be involved in a supporting capacity:

- initiating, activating, escalating and standing down co-ordination of regional emergency responses through the Health New Zealand National Coordination Centre (NCC) and as required for coordination of a national emergency response, through the National Health Coordination Centre (Ministry of Health). The National Health Co-ordination Centre will be initiated, activated, escalated and stood down as required by the Ministry of Health in the event that the National Crisis Management Centre is activated by NEMA
- maintaining standard operating procedures for the National Health Coordination Centre that clearly identify roles and responsibilities consistent with the Coordinated Incident Management System (CIMS) organisational strategy identified in the National Health Emergency Plan (Ministry of Health 2015). Standard operating procedures are in place for certain functions under the International Health Regulations 2005, risk assessment procedures and interaction with ODESC, which are led by the Ministry of Health and Health New Zealand
- ensuring sufficient staff are trained and exercised to participate in the National Health Coordination Centre at short notice and maintaining a knowledge base on pandemic planning and response (Ministry of Health and Health New Zealand)
- undertaking national intelligence and planning, including liaising with the WHO and other international bodies responsible for providing high-level advice and recommendations to national authorities (Ministry of Health and Health New Zealand)
- providing information and advice to ministers (Ministry of Health and Health New Zealand)
- liaising nationally with, and advising, other government agencies (Ministry of Health and Health New Zealand)
- advising the ODESC system to activate the National Crisis Management Centre when necessary (Ministry of Health)
- convening advisory groups and collating information (Ministry of Health and Health New Zealand)
- providing clinical and public health information and advice nationally, including through 0800 advice lines and digital channels, and providing access to travel advisories that border control agencies produce (Ministry of Health and Health New Zealand)

- overseeing and monitoring the health sector response nationally (Ministry of Health)
- instigating and leading public health risk assessments (Ministry of Health and Health New Zealand)
- commissioning and delivering services for hauora Māori (Health New Zealand).

Ministry for Primary Industries as lead agency

For an animal disease, whether epizootic or panzootic (the animal health equivalents of epidemics and pandemics respectively), the Ministry for Primary Industries will be the lead agency.

If a human contracted the disease as a result of handling affected animals or working in a contaminated environment, the Ministry for Primary Industries would continue as lead agency, working closely with the Ministry of Health and Health New Zealand on the risks associated with the human case or cases and possible human-to-human transmission. In particular, the Ministry for Primary Industries would be responsible for:

- notifying the Ministry of Health and Health New Zealand
- determining the particular strain of the disease in infected animals
- notifying the World Organisation for Animal Health
- implementing technical response policies and plans in accordance with the Biosecurity Act 1993
- monitoring the infection in animal populations
- liaising with the Ministry of Health and Health New Zealand in relation to human cases or suspected cases.

Where human-to-human transmission of an animal disease occurs in New Zealand or overseas and there is an indication of possible pandemic spread, the Ministry of Health becomes the lead agency for managing the pandemic. The Ministry for Primary Industries would, however, continue undertaking incursion response activities. Additional roles the Ministry for Primary Industries would have in a pandemic situation include assisting with welfare recovery, assisting with legal and border issues with other agencies and assisting the Ministry of Health with laboratory testing.

Coordination arrangements nationally and locally

One of the critical components of an effective pandemic response is the relationship between the Ministry of Health, as lead agency, and other government and local organisations involved in emergency management. The National Emergency Management Agency and designated local and group controllers have certain responsibilities for the management of emergencies in the community.

Government agencies are responsible for leading their own responses and those of the sectors they serve, using the New Zealand Pandemic Plan and generic material the Ministry of Health has produced to help them develop and disseminate information.

Roles and accountabilities of local agencies

Health New Zealand, in accordance with national policy, will involve regional and district emergency planners or health coordinators,[5] public health services and, where statutory public health measures are called for, local or national medical officers of health in planning for and responding to a pandemic.

The Minister of Health can authorise the use of special powers under sections 70–72 of the Health Act 1956 to assist with the management of health or disease-related interventions in response to a pandemic. Alternatively, those powers can apply when a state of emergency has been declared under emergency legislation or while an epidemic notice is in force under the Epidemic Preparedness Act 2006. In the absence of such conditions, a medical officer of health may exercise general health protection powers, including under Parts 3A and 4 of the Health Act.

While the Ministry of Health is accountable for implementing the New Zealand Pandemic Plan, civil defence emergency management structures and resources will be available to support management of the pandemic in the community. Other government agencies will continue to operate under their own legislation as they meet their responsibilities under the New Zealand Pandemic Plan.

A state of local or national emergency will only be declared under the Civil Defence and Emergency Management Act in extreme circumstances. A declaration is not necessary for civil defence emergency management resources to be made available. The National Civil Defence Emergency Management Plan Order 2015 provides for such arrangements. Appendix B of this plan provides further information on civil defence emergency management declarations.

In practice, the Government expects the local (or regional) Health New Zealand health coordinator, the local (or regional) medical officer of health and the corresponding civil defence emergency management controller to work in partnership, jointly considering decisions and their consequences as far as possible, with the following accountabilities and responsibilities.

[5] 'Health coordinator' is the generic term this plan uses to denote the person with overall accountability for the local Health New Zealand response. Individual districts of Health New Zealand use different terminology for this role (eg, 'incident controller' or 'response coordinator').

- The health coordinator is accountable for the local pandemic response and for providing the command and control necessary to deliver health response measures under the New Zealand Pandemic Plan.
- The medical officer of health has statutory powers and is accountable for the exercise of those powers to the Director-General of Health. They are also the lead for delivering clinical public health services such as contact tracing, whether or not those powers are exercised.
- The civil defence emergency management controller is accountable for coordinating and directing community and civil defence responses, resources and functions under civil defence emergency management plans.

In terms of health imperatives, the decisions of the health coordinator will prevail because the coordinator is the representative of the lead agency, the Ministry of Health, which has overall accountability for implementing the New Zealand Pandemic Plan.

It is not necessary for agencies to rely on emergency legislation to mount a response in a timely fashion.

> An important consideration in managing a pandemic response is the use of established organisational structures and accountabilities.

The detail for delivery operations will be determined at the local level, to reflect local and regional circumstances, but should conform to the accountabilities outlined above.

> **Cross-references and supporting material**
>
> New Zealand Pandemic Plan: Appendix B: Explanatory material, 'Legislation'

The Coordinated Incident Management System

The Coordinated Incident Management System (CIMS) is New Zealand's model for the systematic management of all emergency responses. It is designed primarily to improve management of the response to emergency incidents through effective coordination between major emergency services. All emergency services in New Zealand use a CIMS organisational structure to staff their emergency operations centres.

Further information on CIMS can be found in the *Coordinated Incident Management System third edition* (National Emergency Management Agency 2020).

The Coordinated Incident Management System in the health and disability sectors

The organisational structures, roles and processes used by the health and disability sector in its response to a national health-related emergency or to manage health aspects of any emergency are based on the CIMS, tailored for use within the health context. The CIMS provides a structure to allow and support the multiple agencies or units involved in an emergency to work effectively together. The national COVID-19 response was initially structured on the CIMS, but over time, the response framework was adapted and replaced with a more enduring, purpose-built functionality that included policy, strategy and an ad hoc all-of-government coordination mechanism. In some areas, local/regional CIMS structures persisted for the majority of the duration of the national response.

The application of the CIMS does not detract from or replace the day-to-day vertical management and service delivery and horizontal dependencies and collaboration between Health New Zealand and other health agencies. Rather, it incorporates management, dependencies and collaboration into a coordination model that goes beyond normal processes. Normal clinical, managerial and other relationships are maintained within units and agencies involved in a response. The CIMS, as such, has no impact on the identity of individual services or the way they carry out their statutory responsibilities, although emergency management requirements may have implications for priorities and reporting lines.

Cross-references and supporting material

National Security System Handbook (Department of the Prime Minister and Cabinet 2016)

National Health Emergency Plan (Ministry of Health 2015)

New Zealand Coordinated Incident Management System third edition (National Emergency Management Agency 2020)

National Crisis Management Centre

The National Crisis Management Centre is a secure, centralised facility for information gathering and management, strategic-level oversight, decision-making and the coordination of national responses. In an emergency the centre facilitates an all-of-government response by supporting government crisis management arrangements.

The ODESC will activate the National Crisis Management Centre on the recommendation of the lead agency during an emergency requiring an all-of-government response.

Cross-references and supporting material

Guide to the National Civil Defence Emergency Management Plan (MCDEM 2015b)

National Health Emergency Plan (Ministry of Health 2015)

Intersectoral response

Intersectoral Pandemic Group work streams

Each government agency, informed and directed by the Ministry of Health as lead agency, is responsible for leading planning, preparedness and response in the sectors it serves. Agencies also play an important role in intelligence: for example, by tracking workforce or student absence, movements at the border and impacts on the economy and critical infrastructure. For the purposes of emergency management, it is important that agencies carry out these responsibilities in a coordinated fashion.
The Ministry of Health will engage with the wider government sector through the Intersectoral Pandemic Group, which coordinates 11 work streams established to plan for and respond to a pandemic. These work streams address critical areas of the national pandemic response. Lead agencies have responsibility for particular work streams, within which agencies with operational roles in a pandemic response will work together (or will establish new work streams where appropriate) to ensure an integrated and coordinated interagency response (see Table 3). For example, the New Zealand Customs Service leads the 'Border' work stream. This work stream also involves the Aviation Security Service, the Civil Aviation Authority, Maritime New Zealand, port and airport agencies, the Ministry for Primary Industries and other border management agencies.

The Ministry of Health may convene the Intersectoral Pandemic Group at any time, to support preparedness and response activities.

These are the default arrangements. The work stream descriptions set out in Appendix C are included primarily for reference. In the event of an emerging pandemic threat, the Ministry of Health would rapidly update these descriptions in conjunction with the relevant agencies.

Table 3: Intersectoral Pandemic Group work streams and lead agencies

Work stream	Lead agency
Health	Ministry of Health Health New Zealand
Biosecurity	Ministry for Primary Industries
Law and order and emergency services	New Zealand Police
Civil defence emergency	National Emergency Management Agency

Welfare	National Emergency Management Agency
Education	Ministry of Education
Border	New Zealand Customs Service
External	Ministry of Foreign Affairs and Trade
Economy	The Treasury
Infrastructure	Ministry of Business, Innovation and Employment
Workplaces	Ministry of Business, Innovation and Employment / WorkSafe New Zealand

During a pandemic, multi-agency groups will also address all-of-government communications (led by the Ministry of Health), legislation issues (led by the Ministry of Health) and coordination (led by the Department of the Prime Minister and Cabinet). As part of a major response, Cabinet may alter the allocation of roles and responsibilities.

Part B: The Action Framework

How to use the Action Framework

Context of the Action Framework

The Action Framework is the core of the New Zealand Pandemic Plan. It outlines the phases of a potential pandemic in New Zealand, and provides guidance on high-level actions that need to be considered and/or adapted for each phase, who is responsible for these actions and by what authority actions can be taken.

Key to the Action Framework

Table 7 summarises the different phases of a pandemic in New Zealand and describes the likely international context as well as New Zealand-specific escalation/de-escalation points to guide the transition between phases.

The formulation of New Zealand phases and their associated actions is not designed to be predictive or prescriptive: the phases are not always going to proceed in order, not all actions will always be appropriate and some may need to be adapted. Rather, the system provides a framework for planning and for customising a response to a future pandemic according to the nature of the event as it unfolds, the virus/pathogen involved and the changing domestic and international situation. Table 5 sets out key factors that will help inform the course of action to be taken during a particular phase.

This approach is consistent with the WHO advice that planning needs to reflect the local situation as well as circumstances globally.

New Zealand phases drive the pandemic response in New Zealand

> The applicable New Zealand phase will be announced by the national coordinator (or equivalent), Director-General, Minister or other senior decision-maker.

Health alert codes provide a simple system of indicative, generic actions to be taken in emergency situations. The National Health Emergency Plan (Ministry of Health 2015) provides further information on alert codes.

Health agencies should always be prepared to escalate the response to a higher level if the situation deteriorates.

Withdrawal of actions may take place incrementally or in stages as determined by national and local circumstances. After a mild pandemic, there may be no need for a recovery phase.

Actions within this Action Framework are cumulative and build on actions detailed in previous phases, but moving between phases and health alert codes is not necessarily a consecutive or chronological process. For example, two phases may be in play simultaneously (eg, Keep It Out and Stamp It Out), or a rapid-onset severe and uncontrollable pandemic may necessitate an immediate move to Manage It.

Interpretation of actions and key decisions for each phase

This Action Framework is flexible, to ensure that agencies consider a range of actions and apply them where appropriate and customise response measures to the particular situation, adapting them as necessary. The actions described under various response phases do not dictate the overall response strategy. The overall response strategy, which will evolve over time, will be informed by many variables, including all-of-government consideration of wider social and economic factors.

The tables within this Action Framework set out actions that can be considered in each phase, who has the responsibility for those actions and under what authority (where necessary) the actions may be taken. The tables identify actions under headings (eg, 'planning' and 'public health interventions') that apply in any pandemic, whether mild, moderate or severe, and in all phases.

Actions marked with the 'key decision' symbol, 'KD', may also be implemented, depending on the situation. These actions require consideration and a decision at the time.

Because actions are cumulative, it is important to review decisions made in previous phases at regular intervals.

> Different parts of the country may experience different phases at different times, depending on local circumstances.

Actions to prevent or slow the progress of a pandemic often have potentially far-reaching implications for individuals, whānau, communities, society and the economy. In some cases, individual people (eg, certain statutory officers or Ministers) have the power to decide to proceed with a particular action. However, in the interests of

national consistency the default setting is that these decisions are made within the ODESC system (as described in Part A). However, event-specific decision-making arrangements may also be implemented. All decisions are expected to be made in consultation with relevant agencies. Rapid, all-of-government decision-making is crucial to ensure a coordinated and flexible response.

> Most interventions (in particular, in the Keep It Out and Stamp It Out phases) rely on timely risk assessments and rapid implementation of response measures for their efficacy. Decision-makers can expect to have to make critical decisions with potentially significant consequences in real time, in a situation of considerable uncertainty and where reliable information may be lacking. The timely communication of such decisions to those responsible for implementing them, and to those affected by them, requires intensive coordination in terms of content (which can change rapidly) and sequencing.

Table 4 illustrates how the response may vary according to the level of potential impact expected. It sets out a range of possible response actions. Decisions on implementation of such action will be based on the unmitigated impacts; that is, what impacts are expected if no response measures are applied.

Table 4: Calibrating the response according to the potential impact of the event

Response actions	**Level of impacts expected**		
	Low	**Medium**	**High**
Virus characteristics and epidemiology	Modest transmission and low realised severity	Moderate level of realised severity or moderate transmission	Moderate transmission and realised severity, or high transmission or realised severity
Public health measures	Mostly guidance	Mandatory measures possible	Mandatory measures likely
Border measures	Business as usual	Some additional requirements appropriate	Restrictive requirements likely appropriate
Welfare and financial support for individuals, communities and businesses	Low level of investment Narrow eligibility for support	Medium level of investment Moderate level of eligibility for support	High level of investment Broad eligibility for support
Enablers (surveillance, science, risk communications, funding, workforce etc)	Minimum dedicated capacity, preparedness for surge capacity	Activate some capacity Services scale-up medium	Activate most capacity Services scale-up high
Emergency legal powers	Generally not needed	May be needed	Most likely needed
Decision-makers	Government agencies / statutory officers	Generally, ministers	Cabinet

Source: *Aotearoa New Zealand Strategic Framework for Managing COVID-19* (Ministry of Health 2023a)

The Te Niwha report *Likely Future Pandemic Agents and Scenarios* (Te Niwha 2023) also provides information on response and control options.

The Ministry of Health expects that relevant agencies will review key decisions and actions throughout a pandemic to ensure they remain proportionate and not unduly rights-limiting. Agencies need to be forward-looking in their decision-making and preparations.

Key factors to consider when deciding whether to scale up or down response measures at each phase

The national coordinator or equivalent will announce the applicable New Zealand phase. Decision-makers need to consider a suite of factors when deciding the most appropriate measures at a given time.

Table 5 sets out some of the key factors that will inform the nature and level of response, indicating escalation or de-escalation points that will inform the transition between phases and key decisions to be made over the course of the pandemic. It is important to consider the interaction and interdependence of these key factors when making decisions, rather than considering each in isolation.

Table 6 lists other factors to be considered in the assessment of risk and proposed response.

The set of actions undertaken in response to a pandemic needs to be reviewed as the nature, impacts and our understanding of the pandemic change. It is important that a similarly systematic approach is also undertaken for scaling down a response, to ensure that measures remain in place only for as long as necessary.

The New Zealand response is likely to be guided initially by international epidemiological and clinical data and other relevant information, but will be increasingly informed by New Zealand data and experience once the pathogen reaches our shores. At all phases, priority should be given to continuous learning from the evolving situation. This includes mid- and after-action reviews, programme evaluation and other assessments of the effectiveness of response measures and capabilities.

Table 5: Key factors that inform risk assessments and the actions to be taken in a pandemic response

Key factor	Impact	Comment	Especially informs
Characteristics of the pathogen: eg, transmissibility, reproduction number, mode of transmission, incubation period, immune evasion, clinical severity, duration of infection and illness, asymptomatic transmission, longer-term morbidity, and populations at higher risk of poor outcomes	Ease of transmission influences the number of cases and the shape of the epidemic curve: high transmissibility and/or short incubation periods increase the number of cases and speed of transmission. Severity influences the proportion of cases who become more seriously ill or die. Ease of transmission and severity combined determine demand for ambulance, primary health care and hospital (including intensive care unit) services. If the pandemic is moderate to severe, there is an increased risk of health services being overwhelmed. The proportion of people who are asymptomatic, and whether they are capable of transmitting the pathogen, are important factors.	Ease of transmission must be considered alongside severity when making key decisions. These are important factors in determining the potential efficacy and sustainability of containment measures. Higher rates of transmission may mean agencies need to be prepared for a swift transition to the Manage It phase. High rates of transmission and severity will mean that greater efforts will need to be put into containment measures to flatten the pandemic curve, delay the peak, reduce the volume of cases and spread the impact on health services and society. Transmission and severity among different population groups and the total population must be considered. For example, a higher rate of fatality or rate of transmission in certain population groups may necessitate the introduction of either broad interventions to prevent harm to a particular group or specially targeted interventions, where feasible. This requires early and ongoing assessment of potentially disproportionate impacts on groups that experience inequity. Te Tiriti obligations also require active protection of Māori.	• exclusion and containment measures at the border and internally, for cluster detection and control. For example, Stamp it Out may not be possible with a high reproduction number • the application of social / physical distancing measures and IPC measures (eg, personal protective equipment) • which settings may present a higher risk of transmission or result in poorer health outcomes • the readiness and response capacities of public health services, primary care services, ambulance services and hospitals, including intensive care units. It may be necessary to consider: – scaling up (or down) of contact tracing capacity – welfare support for the management of cases and contacts, including additional support where warranted for equity purposes – the establishment of community-based assessment centres (CBACs) and customising their purposes – cross-training staff to perform duties they do not usually perform in hospital settings under pressure – reprioritisation of services (eg, cancellation of planned care, including electives)

Key factor	Impact	Comment	Especially informs
		Severity and attack rates in different population groups may affect society in different ways, for example: • higher rates in younger adults or their children will affect workforce productivity • higher rates in some population groups may increase existing health inequalities.	– support for patients to recover at home – standing up regional emergency operations centres – whether non-mandatory measures are sufficient or regulatory/legislative tools are needed
Testing efficacy and availability	Testing can have four main purposes, each of which has a specific aim and method: 1. diagnosis of symptomatic people to inform clinical care 2. identification of cases for isolation and contact tracing 3. surveillance / intelligence to inform public health action (population or sub-population level) 4. screening of asymptomatic infection to inform clinical and public health management. The recommended type of test to be performed and the breadth of testing undertaken for each purpose will vary, dependent on the overall context and public health measures in place at the time. Surveillance data needs to include good demographic information, including ethnicity.	The decision to test, and which method to use, will be influenced by a number of factors: • the likelihood of the person being positive (presence of symptoms and/or risk of exposure) • the purpose for testing (eg, clinical care, prevention of onward transmission or public health intelligence) • current community transmission rates • the settings the person • resides or works in • the availability and performance of testing methods • the capacity and capability of the laboratory workforce.	• purchase and distribution decisions for test kits • whether 'Stamp It Out' through the isolation / quarantine of cases / contacts can be achieved • commissioning of laboratory capacity • whether *ad hoc* testing centres are needed • changes in testing and surveillance strategies over time

Key factor	Impact	Comment	Especially informs
Vaccine efficacy, safety and availability	The nature and timing of a vaccination programme have implications for other aspects of the response strategy. For example, late delivery of a vaccine in a moderate to severe pandemic may mean greater efforts need to be made within the Keep It Out and Stamp It Out phases to flatten the pandemic curve and spread the impact more evenly over time. Consideration needs to be given to the effectiveness of the vaccine and the stability of the vector (eg, the pace of mutation)	A mass vaccination programme is unlikely to start for six months or more after a WHO declaration of a public health emergency of international concern /pandemic and production of a vaccine. Decisions on the purchase of a vaccine (if available) need to be made by the Government/Pharmac, taking into account the costs, timeliness, effectiveness and benefits to society of reducing the impact of the pandemic. Plan for equipment requirements, surge workforce, training and media campaigns.	• length and intensity of containment measures and measures in the subsequent Manage It phase • speed of transition to the recovery phase • immunisation programmes, including priority groups and eligibility
Efficacy of treatment on morbidity and mortality	Depending on the pathogen, therapeutic medicines such as antivirals may play a significant role in containment and response measures. If antivirals are not effective (or cost-effective) against new virus strains, then more intensive efforts may need to be made in the Keep It Out and Stamp It Out phases, and to treat and support patients.	It is important to monitor treatment resistance before and during a pandemic, so containment and response measures can be modified accordingly. Decisions on access to, and clinical practices for, medicines need to assess and address equity issues.	• clinical guidance • contact tracing and other containment measures • laboratory capacity and capability • demand on primary and hospital services
Wider social economic and legislative considerations	Evaluation of response measures needs to include the direct and indirect impacts on individuals, whānau and communities; financial and economic implications; and engagement of key legislative requirements, particularly the New Zealand Bill of Rights Act 1990	These considerations have a bearing on the likely effectiveness of and adherence to proposed response measures with disruptive societal implications. Communication to and engagement with affected and priority population groups are important to inform decision-making on response measures.	• the framing, detail, communication, duration and review mechanism of public health and social measures.

Table 6: Additional factors to consider when mounting a response

Key factor	Impact	Comment	Especially informs
Global trends and experience	These help to inform the degree of action that could or should be implemented in New Zealand at any given point.	Global epidemiological trends, modelling and international experience provide a context for the potential impact in New Zealand to inform New Zealand's response strategy.	• public health risk assessment • level and type of measures, including border controls • readiness plans and response capacity • dissemination of public information • level and types of domestic surveillance and modelling required
Advice of the WHO	The existence of a WHO determined public health emergency of international concern, and standing or temporary recommendations under the International Health Regulations 2005 (WHO 2006), should be used to help guide New Zealand's public health risk assessment and response,	The WHO recommendations should be interpreted in light of the New Zealand situation at the time and New Zealand's obligations under the International Health Regulations 2005.	• public health risk assessment • level and type of measures • readiness plans and response capacity • dissemination of public information • response measures of other countries
Responses of other countries	The responses of other countries may have implications for New Zealand's assessment of risk and response.	Decision-makers need to consider the situations in and responses of comparable countries (eg, Australia) and 'close neighbours' (eg, Pacific countries) 'while ensuring actions are based on the New Zealand situation. New Zealand needs to consider requests by other countries (eg, Pacific Island countries and territories) in undertaking measures for exiting travellers.	• public health risk assessment • mix of actions at different phases • surveillance and reporting • dissemination of public information

Key factor	Impact	Comment	Especially informs
Characteristics of the pathogen and population health risk	This assists with understanding of the potential burden of disease, mortality and impact, and which suite of response measures will be required.	Decision-makers need to consider factors such as: • mode of transmission • transmissibility • reproductive rate • virulence (clinical severity) • immune evasion • availability of a safe and effective vaccine • availability of safe and effective treatments • availability of effective tests to diagnose cases • current level of protection in the population (eg, population immunity, protection against severe outcomes) • populations most at risk of infection and transmission or at greater risk of poor outcomes • mutation – whether characteristics change as the pathogen mutates (eg, increased or decreased virulence, immune evasion)	• public health risk assessment • level and type of measures, including border controls • readiness plans and response capacity • dissemination of public information • level and types of domestic surveillance and modelling required
Potential for health services to be overwhelmed	Extent, type and pace at which response measures need to be activated Ability to provide normal levels of health care, and in particular essential health services, for all patients, not just pandemic patients Impact on planned care and ambulatory services Establishment of community- based assessment centres, including functions, workforce, logistics, and information to the public and other health service providers	Decision-makers need to monitor demand and assess projected demand and put plans in place / activate plans to manage instances where demand might exceed capacity; for example, in: • hospitals • intensive care units • emergency departments • primary and community care services • ambulance services • maternity services	• readiness and response plans for essential health services • dissemination of public information and availability of tele-health services • dissemination of clinical guidance (eg, diagnosis, treatment, use of antivirals, IPC)

Key factor	Impact	Comment	Especially informs
	Reconfiguration of services and redeployment of staff to meet priority requirements Dissemination of information to the public on expectations of the services health providers can or will deliver Demand for additional welfare and other services to support people taking care of themselves and/or dependants at home	• home care services • public health services • mental health and addition services • medical supply services • pharmacy services • laboratory services. Plans should be in place to manage deferred care (eg, screening, immunisation, specialist outpatient appointments, dental care).	• surveillance, including reporting and review of deaths • regional emergency operations centre escalation
Likely effectiveness of response measure(s)	The type, extent and mix of response measures to be put in place.	Decision-makers need to consider: • whether legislation or regulation is required, including enforceability and alternatives to regulation/mandates • the expected level of health gain, costs and cost-effectiveness associated with the measures • whether the public will understand, accept and adhere to the measures • whether exemptions may be needed for the measures (including the ability to resource and implement exemptions regime) • how each measure interacts with other measures to achieve the objective	• public health risk assessment • level and type of measures • dissemination of public information
Proportionality	The extent and type of possible response measures to put in place	Decision-makers need to consider: • the nature and level of risk to public health • the expected efficacy / public health benefits of different response measures • equivalence with the way other health risks are managed	• public health risk assessment • level and type of measures

Key factor	Impact	Comment	Especially informs
		• risk appetite and trade-offs, such as the direct and indirect adverse impacts on individuals, communities, businesses, education • human rights and New Zealand Bill of Rights Act 1990 impacts	
The need for restrictive or mandated measures	The extent, type, mix and duration of response measures to put in place	When possible and appropriate, restrictions should be voluntary rather than compulsory. Measures that promote voluntary compliance will reduce the need for mandatory restrictions. Restrictive measures should restrict only those rights it is necessary to restrict. Special attention may be needed for people who are subject to restrictions (eg, to their freedom of movement) to ensure their other rights are protected. Restrictive measures should only be used when there are no less intrusive and restrictive means available to reach the same objective. Restrictive measures should be regularly reviewed and when the risk has abated, restrictive measures should be removed as soon as possible. Matters for which consideration should be documented include: • New Zealand Bill of Rights Act 1990 • Associated arrangements for exemptions and/or appeals (including criteria, workforce, other resources required for receiving, processing and issuing them etc) • Relevant international obligations • The legislative powers available to implement / enforce mandates	• public health risk assessment

Key factor	Impact	Comment	Especially informs
		• for international travel / border restrictions, article 43 of the International Health Regulations 2005 (WHO 2006)	
Equity	The extent, type and mix of response measures to put in place and mitigations needed to reduce inequities.	Decision-makers need to consider the measure's actual or potential impacts on individuals, groups or communities at the greatest risk of poor outcomes.	• public health risk assessment • level and type of response measures • level and type of mitigation measures
Te Tiriti o Waitangi	The extent and type of response measures to put in place.	Decision-makers need to ensure consistency with the Crown's obligations under Te Tiriti o Waitangi, including the principles of equity, partnership, tino rangatiratanga, active protection and options.	• level and type of response • level and type of mitigation measures • engagement with iwi Māori
Operational implications of standing up the response measure(s)	The extent, type, pace and duration of response measures that can be put in place.	Decision-makers need to consider: • cost and feasibility to implement • the extent to which the measure will be easily understood and complied with • the enforceability of legal requirements (mandates) • the direct and indirect implications for the implementing workforce.	• Level. type, pace and duration of response measures
Explaining the science of pandemics	Explaining the science, including basic terms being used, the rationale for response measures, the uncertainties, changing knowledge etc. These can prove critical in relation to restrictive response measures and the eligibility for, safety and effectiveness of vaccine(s) to counter the pandemic. Along with the pandemic, there will also be misinformation and disinformation, which may be voluminous and significant in its consequences.	There needs to be a focus on a diversity official voices in the public debate and on protecting those voices. Note there were more than 300 media briefings during the COVID-19 response; explaining the science was a critical part of these events.	• The content, timing, spokespeople used, delivery channels etc of public communication

Key factor	Impact	Comment	Especially informs
Sustainability of the response (in all phases, across all sectors)	Sustainability may affect the timing of a shift in phase, the extent and mix of different measures in place, the prioritisation of services and resources etc. The impact on the workforce involved in the response is a critical factor. The sustainability of a response will be influenced by the number of staff and/or volunteers who are able to perform duties outside their normal duties / scope of practice, and by the amount of support they receive to avoid burn-out.	The sustainability of the response will be influenced by the interaction of a number of factors. In a moderate to severe pandemic, greater reprioritisation of normal services will be required to sustain a response. Many actions are interdependent; for example: • quarantining arriving passengers from affected areas may be only a short-term option by itself, unless programmes are put in place to reduce arrivals from affected areas • extensive cluster control operations may be feasible only in the medium term if health workers and staff from other agencies are seconded to response activities.	• personnel resources • use of supplies • prioritisation of services • regional emergency operations centre escalation
Social licence and public sentiment	The level of support for and compliance with public health measures may change over time and influence perceptions and the acceptability of response measures.	Public sentiment in regard to and compliance with mandated and non-mandated response measures should be monitored as part of ongoing assessment on the pandemic response and modified as required.	• dissemination of public information • the mix of measures at different phases • attitude and behavioural surveys
Economic impacts nationally and internationally	The likely mix and impact of actions within New Zealand must take potential economic impacts into account, including: • positive benefits (eg, saving lives, flattening the pandemic curve, delaying or reducing the impact on business and services) • negative impacts (eg, impact, including differential impacts, of movement restrictions on commerce and trade, supply chains, transport,	Economic impacts may result from: • restrictions on non-essential businesses • restrictions on movement • cancellation or restrictions on mass gatherings • staff absence • disruption to national and international supply chains • rationing of critical supplies	• dissemination of public information • mix of actions at different phases • community support • government supports • data and intelligence to monitor and measure impacts

Key factor	Impact	Comment	Especially informs
	maintenance of core infrastructure, business sustainability)	• disruption to commerce and trade • disruption to tourism • widespread defaulting on debt • foreclosure of affected businesses • adverse impacts on the exchange rate • reduction of the tax take. Some of these factors will be influenced by the mix of actions implemented in New Zealand, but many are outside New Zealand's direct control.	• business subsidies and worker compensation schemes
Social impacts	There may be multiple possible social impacts, depending on the severity of the pandemic and the efficacy and nature of response actions, potentially including: • a psychosocial impact on individuals, families, response staff and communities affected • interruption of core public service provision • impacts on law and order • educational impacts • a need for a higher degree of welfare and other support for sick people and their families at home • an increased need to take care of people who have lost support (eg, orphaned children) • an increase or decrease in social cohesion (eg, increased solidarity and altruism or a loss of trust resulting from mis- or disinformation). Impacts of response measures may include: • a reduction in adverse social effects, if the impact of the pandemic is reduced by containment actions (eg, border management, cluster	Resources that can be used to ameliorate social impacts include: • the National Welfare Advisory Group, which can catalyse a nationally consistent approach to welfare (see 'Welfare work stream' in Appendix C: Intersectoral Pandemic Group work streams) • NGOs, Maori and Pacific groups to help to coordinate local resources and deliver community support • the *Framework for Psychosocial Support in Emergencies* (Ministry of Health 2016b) and *Getting Through Together: Ethical values for a pandemic* (National Ethics Advisory Committee 2007).	• dissemination of public information • community support • intelligence and surveillance to measure social impacts • assessments of the proportionality of response measures • the need for community engagement

Key factor	Impact	Comment	Especially informs
	control,), early establishment of community-based assessment centres and support of response staff • an increase in some adverse social effects (eg, family violence and sexual violence, as seen in the COVID-19 lockdown) • social disruption caused by certain measures (eg, if movement into an affected area is restricted, people may lose their ability to care for dependants; school closures will affect educational outcomes)		
International relations	New Zealand's response may have a positive or negative impact on countries with which New Zealand has close relationships (eg, Australia and Pacific Islands) and vice versa.		• Intelligence functions • international reporting and information sharing (for example, during COVID-19, New Zealand and Australia shared national health SitReps)
International commitments	New Zealand's responses should be aligned with our international obligations	Advice to decision-makers needs to consider the potential impact of New Zealand's response on our international commitments, such as: • the International Health Regulations 2005 (WHO 2006) (especially article 43) • the United Nations Convention on the Rights of Persons with Disabilities • the United Nations Convention on the Rights of the Child • the United Nations Convention on the Elimination of All Forms of Discrimination Against Women	• intelligence and reporting

Key factor	Impact	Comment	Especially informs
		• the United Nations Convention on the Rights of Indigenous Persons • the United Nations Declaration of Human Rights • the International Covenant on Economic, Social and Cultural Rights.	

Resources

Getting Through Together: Ethical values for a pandemic (National Ethics Advisory Committee 2007)

New Zealand Pandemic Plan

Table 7 summarises the phases in the New Zealand Pandemic Plan, relating them to potential transition factors for moving between phases and also the international situation.

Table 7: Summary of phases in the New Zealand Pandemic Plan

New Zealand phase	New Zealand situation and transition factors	International situation
Plan For It	No human cases in New Zealand	No viruses/pathogens among animals have been known to cause human infections.
		An animal pathogen is known to cause infection in humans and is a specific pandemic threat.
		An animal or human–animal pathogen has caused sporadic cases or small clusters of disease in people, but has not resulted in sustained human-to-human transmission sufficient to cause community-level outbreaks.
Keep It Out	No or few human cases in New Zealand	Human-to-human transmission of an animal or human–animal pathogen able to sustain community-level outbreaks has been verified (depending on the circumstances, precautionary measures may be initiated prior to confirmation).
		The same pathogen has caused sustained community-level outbreaks in two or more countries in one WHO region.
Stamp It Out	First case identified in New Zealand	Not applicable
	Clusters of cases in New Zealand	
Manage It	Increased and substantial transmission in the general population (containment is no longer feasible or otherwise appropriate)	Not applicable

New Zealand phase	New Zealand situation and transition factors	International situation
Manage It: Post-Peak	Wave decreasing; possibility of a resurgence or new wave; any changes in pathogen transmissibility or severity	Levels of infection in most neighbouring countries with adequate surveillance have dropped below peak levels.
Recover From It	Pandemic over and/or population largely protected by vaccine or infection-induced immunity, and/or pathogen no longer resulting in severe outcomes	Levels of infection have reduced (eg, returned to levels seen for seasonal influenza) in most countries with adequate surveillance.

Plan For It

Planning and preparedness

Objective

To reduce the health, social and economic impacts of a potential pandemic on New Zealand during the inter-pandemic period.

Key issues to be addressed in planning

We seek to:

- strengthen pandemic preparedness at national, regional and local levels
- minimise risk of transmission to humans, and rapidly detect cases and transmission.
- avoid increasing inequities

We will achieve our aims through:

- addressing the underlying modifiable determinants of health that increase risk of morbidity and mortality during a pandemic
- planning, coordination and reporting (among all agencies), including appropriate oversight
- multisource surveillance and intelligence, both domestic (including mātauranga) and overseas, including, where appropriate, through the activation of an incident assessment team to monitor evolving events, even if offshore
- strengthening public health laboratory capabilities and identifying and addressing gaps or weaknesses in surveillance capabilities, including identifying potential opportunities to introduce new / innovative surveillance methods such as monitoring social media and trends in school absence rates
- consider setting up an incident assessment team to monitor evolving events even if offshore
- maintenance, planning for and coordination of public health functions, including containment, routine immunisation programmes and border controls

- health care and emergency response planning
- communications and public engagement planning
- training
- simulation exercises
- preparation in all sectors at local, regional and national levels
- incorporating pandemic response issues into business continuity planning.

In the planning phase we will:

- develop and exercise relationships, plans and procedures
- strengthen / maintain IPC, diagnostic and contact tracing capabilities
- build generic capability and capacity in Māori and Pacific health providers
- establish capability and capacity through training and exercising, and maintain systems and structures for responding to a pandemic and other emergencies
- ensure pandemic-related issues are incorporated into business continuity plans
- alongside the Ministry for Primary Industries, maintain intelligence of animal pathogens that may present a threat to human health
- maintain an appropriate level of engagement within and across communities and agencies during low-risk or low-activity times
- establish likely priorities for a national response.

Plan For It phase

There are no human cases in New Zealand.

Function	Action	Responsibility	Authority
Planning, coordination and reporting	Strengthen pandemic preparedness nationally, regionally and locally, including: • Incorporate pandemic response issues into business continuity planning. • Develop and implement action plans that allow the organisation or sector to address lessons identified in response to the COVID-19 pandemic (2020–ongoing). • Maintain sector-specific guidelines and protocols for planning, response and communications, including a contingency plan to address any disruption to employment and other economic activities associated with restricted public health and social measures. • Establish, revise and exercise pandemic plans locally, regionally and nationally. • Maintain a legal framework for pandemic interventions. • Train staff and exercise agency and intersectoral plans. • Prepare to implement pandemic plans at short notice should circumstances change.	All agencies	No powers required
	• Maintain a communication plan and resources (addressing, for example, public information, dis- and misinformation, health systems' disease assessment and management tools and information for other authorities) at national, regional and local levels. • Maintain and regularly review stockpiles of critical pandemic supplies (eg, personal protective equipment and pharmaceuticals) and mechanisms to access vaccines. • Maintain (and be prepared to revise) plans and policies for the use of vaccines, including priority groups in anticipation of vaccine availability. • Plan for laboratory services (public and private), assessment facilities and antiviral and vaccine delivery mechanisms (including registers of individuals who have received each). • Plan local isolation and/or quarantine facilities, including in terms of linkages to the proposed national quarantine capability, care in the community welfare support and physical distancing measures. • Promote the uptake of inter-pandemic influenza and other funded vaccinations. • Maintain and strengthen IPC functions, including personal hygiene.	Ministry of Health, Health New Zealand	

Function	Action	Responsibility	Authority
	• Plan to minimise the risk of animal zoonotic virus transmission from animals to humans and to rapidly detect transmission.	Ministry for Primary Industries, Ministry of Health, Health New Zealand	Biosecurity Act 1993 Health Act 1956
	• Assess the likelihood of animal or bird infection being the vector to New Zealand.		
	• Assess animal response options and maintain response plans.	Biosecurity New Zealand	Biosecurity Act 1993, sections 43, 109, 114 and 121
	• As required, provide public advice on limiting the risk of transmission from animals.	Biosecurity New Zealand	Health and Safety at Work Act 2015
	• Ensure appropriate workplace guidelines, protection and training for animal workers and exposed humans to reflect WHO guidelines and New Zealand guidelines and legislation.	Ministry of Business, Innovation and Employment / WorkSafe New Zealand, Biosecurity New Zealand	Health and Safety at Work Act 2015
Public health interventions: border	• Ensure national and local multi-sectoral plans are in place. • Ensure plans are nationally consistent, so stakeholders are aware of their responsibilities and roles irrespective of their location. • Assess and review International Health Regulations (WHO 2006) core capacity requirements regularly. • Ensure national and local border emergency management groups meet regularly and that all relevant stakeholders for relevant locations (eg, international airports) meet regularly and update plans. • Review assessment policies and procedures at the border. • Maintain or enhance digital border certification (eg, the New Zealand Traveller Declaration and, potentially, international certificates of vaccination and recent negative test results) • Maintain appropriate capability for scalable quarantine and isolation. • Review and, where appropriate, amend relevant legislation.	All stakeholders active in border operations nationally and at each international port of entry	No powers required

Function	Action	Responsibility	Authority
Public health interventions	• Maintain the capability, preparedness, training and surge capacity to mount border control and cluster control operations when required. • Identify sources of additional staffing locally from health or non-health agencies, to enable an intensive cluster control operation to be sustained if required. • Use training material to develop a local orientation package for these additional staff.	Health New Zealand (National Public Health Service (NPHS)) and border agencies	Health Act 1956
Surveillance and intelligence	• Monitor the situation overseas.	Ministry of Health, Ministry of Foreign Affairs and Trade	No powers required
	• Monitor intelligence and build the knowledge base on pathogen characteristics, disease presentation, diagnosis, treatment, case and contact management, One Health considerations[6]. • Ensure human surveillance systems can identify a novel virus and a developing pandemic within New Zealand following an alert from the WHO.	Ministry of Health, Biosecurity New Zealand	
	• Maintain the capability to track and monitor the impact of a pandemic in New Zealand to inform actions at different phases (eg, whether the illness associated with the pathogen should be notifiable under the Health Act 1956).	Ministry of Health, Health New Zealand, Whaikaha, Biosecurity New Zealand	
	• Maintain and potentially increase animal surveillance as required. • Maintain a response evaluation framework focusing on outcome, output, impact on priority populations and process evaluation.	Ministry for Primary Industries, Department of Conservation All agencies	

[6] One Health is an integrated, unifying approach that aims to sustainably balance and optimise the health of people, animals and ecosystems. It recognises that the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent.

Function	Action	Responsibility	Authority
Health care and emergency response	• Review, update and exercise plans for managing a pandemic. • Prepare for an expansion in demand for key services and consumables including intensive care, community and primary care, ambulance services, laboratory services, 0800 helplines/digital channels, iwi Māori partnership boards, other Māori stakeholders, Pacific leaders and communities, the NPHS and other hospital services.	Health New Zealand	No powers required
Communications and community engagement	At all times: • maintain inter-agency reporting, communications and consultation, including liaison with the WHO and the Australian Department of Health and Aged Care • build public trust and awareness about pandemics and the potential for pandemic through routine media engagement • reinforce health and disability sector awareness and preparedness • promulgate pandemic key messages (eg, 'be aware', 'know that we are preparing for a pandemic at some time') available in different languages and formats • reiterate key public health messages (eg, the importance of hand-washing, cough and sneeze etiquette) available in different languages and formats	Ministry of Health, Health New Zealand and all agencies	No powers required
	• ensure media planning and monitoring	Ministry of Health, Health New Zealand	
	• develop and prepare to adapt the Public Information Management Strategy (Appendix A) as required	Ministry of Health	
	• maintain active and meaningful relationships with national Māori agencies and advisory groups maintain active and meaningful relationships with iwi partnership boards, local iwi/Māori providers and organisations and local marae • maintain active and meaningful relationships with Pacific communities and providers, other ethnic communities, disabled people's organisations and other key stakeholders.	Health New Zealand (NPHS) Ministry of Health, Health New Zealand (NPHS)	

Function	Action	Responsibility	Authority
	If a new strain emerges overseas, or there is a resurgence of an existing strain overseas, undertake a risk assessment and, as required: • inform key stakeholders • promulgate key messages (eg, personal protection and preparedness, where to go for help (eg, 0800 helplines, websites)) and likely impacts • inform the public about current and proposed actions (where appropriate) • provide travel advice relevant to the threat • review and update key messages and communication channels • coordinate communications across and within sectors • create web-based information sources, such as frequently asked question sheets and guides (available in different languages and formats) • initiate background briefings for spokespeople.	NPHS in coordination with Ministry of Health, Biosecurity New Zealand and other agencies as required	

If there is an outbreak of a pathogen with pandemic potential among animals in New Zealand posing a risk of human disease, then the following additional actions will be considered in all phases.

Function	Additional action	Responsibility	Authority
Planning, coordination and reporting	• Update human detection and clinical care guidelines. • Develop/revise a case definition.	Health New Zealand (NPHS, with advice from the Institute of Environmental Science and Research Ltd (ESR))	
	• Develop and implement surveillance of animal workers.	Health New Zealand (NPHS), Biosecurity New Zealand, Ministry of Business, Innovation and Employment / WorkSafe New Zealand	Potential application of Health Act 1956, section 77 (power of medical officer of health to enter any premises and examine persons)
	• Investigate rapidly any reported suspected human cases.	Health New Zealand (NPHS), public health services, Ministry of Business, Innovation and Employment / WorkSafe New Zealand	
	• Enhance laboratory diagnostic capacity for a novel strain.	Health New Zealand (NPHS)	
	• Prepare for possible release of a pre-pandemic vaccine if available.	Ministry of Health, Health New Zealand (NPHS)	
	• Implement (pandemic) response plans.	Biosecurity New Zealand	Biosecurity Act 1993
	• Ensure appropriate protection and training for animal workers and other exposed humans (those who work with poultry and pigs are most at risk) to reflect the WHO guidelines and New Zealand health and safety at work guidelines and legislation.	Biosecurity New Zealand, Ministry of Business, Innovation and Employment / WorkSafe New Zealand	Health and Safety at Work Act 2015
	• Restrict the movement of animals or any at-risk goods from affected areas in New Zealand as required.	Biosecurity New Zealand	Biosecurity Act 1993, sections 130 and 131 and Part 7
Health care and emergency response	• Prepare for possible cases of zoonotic illness by activating enhanced infection control, laboratory procedures, clinical guidelines and isolation facilities, among other measures.	Health New Zealand	

Function	Additional action	Responsibility	Authority
Intelligence	• Target the surveillance of humans in areas where animals are affected, and place primary health care providers on enhanced alert for the detection and notification of the first zoonotic cases.	Ministry of Health, Health New Zealand (NPHS) and Biosecurity New Zealand	Biosecurity Act 1993, sections 43, 109, 114 and 121 and Part 7, Health Act 1956
Communications and community engagement	• Inform key stakeholders of the increased risk regarding infection in animals. • Disseminate guidance materials and key messages for employers, employees and other workplace participants to help them plan, prepare for and respond to a pandemic.	Biosecurity New Zealand, Ministry of Business, Innovation and Employment / WorkSafe New Zealand	No powers required
	• Review, update and increase the frequency of communications for all audiences.	Biosecurity New Zealand, with the support of other agencies as required	No powers required
	• Initiate web and media monitoring. Initiate wide distribution of short videos and secure their broadcast. • Regularly brief government stakeholders for media interviews, and increase the frequency of media updates. • Initiate the production of new materials for paid media advertising in next and ensuing phases (and arrange for an 'authority figure' presenter to regularly present key messages).	Biosecurity New Zealand, with the support of other agencies as required	No powers required
	• Initiate a buying plan for advertising in national media for the next phase.	Biosecurity New Zealand	
	• Carry out ongoing liaison with the WHO and the Australian Department of Health and Aged Care.	Ministry of Health	
	• Communicate with foreign governments and travellers about the New Zealand situation.	Ministry of Foreign Affairs and Trade	

Function	Additional action	Responsibility	Authority
Other cross-sectoral actions	• Ensure appropriate engagement with Biosecurity New Zealand as the lead agency. • Ensure each agency's single point of contact details are disseminated to other agencies. • Maintain a contact list of other agencies. • Keep relevant staff and sectors updated as the situation evolves. • Revisit, review and revise plans and prepare to activate them if the situation escalates.	All agencies	No powers required

Keep It Out

Border management

Potential escalation factors

Several factors may have to be rapidly considered, such as community-level outbreaks overseas through verified human-to-human transmission, significant increase in the risk of a pandemic, evidence of airborne transmission, early indicators of severity, other international actions taken and guidance and formal recommendations from the WHO.

Objective

- To prevent, delay or reduce the arrival of the pandemic into New Zealand by implementing international border management controls, and to allow time to prepare for the next phases.
- To prevent the exporting of cases from New Zealand to countries that are not yet affected (eg, Pacific nations) or, in the event of an epidemic starting in New Zealand, to the international community.

Key decisions

The extent and level of (sea and air) border controls to be implemented will be determined by the actual and potential impact of the pandemic and its ongoing development overseas. This phase will also involve iterative consideration of:

- health advice and alerts and travel advisories
- scaling up surveillance and intelligence
- whether the disease needs to be added to one or more schedules of the Health Act 1956
- a potential move to positive pratique (health status reporting required from all incoming ships and aircraft)
- travel restrictions at air and maritime borders; screening inbound travellers; or requiring recent travel history, evidence of vaccination or a negative pre-departure test (including systems to check/verify measures to manage symptomatic or exposed travellers)
- potentially enhanced travel restrictions up to and including border closure and managed isolation and quarantine
- implementing exit measures (particularly to protect neighbouring Pacific countries)
- authorising special powers or infectious disease management powers under the Health Act 1956, authorising powers under other existing legislation (such as the Epidemic Preparedness Act 2006 or the Civil Defence Emergency Management Act 2002) or creating new powers under bespoke legislation
- putting in place event-specific legal orders/regulations for any mandatory requirements, including pre-departure testing; vaccination certificates; and systems for enforcement, infringement and exemptions
- preparing for a possible release of a pre-pandemic vaccine, if available

- preparing for a possible release of antivirals for use according to policy
- developing and activating an appropriate vaccination strategy (including ordering vaccine supplies or making an advance purchase agreement)
- activating an appropriate testing strategy
- activating antiviral/therapeutic policies
- briefing the Minister of Health and Cabinet on options for an elevated response in advance (eg, by limiting arrivals, managing visa applications, issuing a Notice to Airmen[7] or implementing enhanced quarantine) and seeking agreement for prompt implementation
- developing protocols for case investigation, contact tracing and case and contact management
- consulting with Pacific Realm countries to ascertain actions needed to support their response measures.

Refer also to *Responding to Public Health Threats at New Zealand Air- and Seaports: Guidelines for the public health and border sectors* (Health New Zealand 2023b).

Keep It Out phase

There are no or few human cases in New Zealand.

[7] A Notice to Airmen (NOTAM) also known as Notice to Air Mission, is a notice issued by government agencies and airport operators containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

Function	Additional action	Responsibility	Authority
Planning, coordination and reporting	• Activate or prepare to activate pandemic plans at short notice when notified by the Ministry of Health.	All agencies	No powers required
	• Activate the National Health Coordination Centre.	Ministry of Health, Health New Zealand	No powers required
	• Regularly monitor, evaluate and report on the actual and anticipated impact of the pandemic and response activities in individual sectors and through the Intersectoral Pandemic Group work streams. Report on these activities to the National Health Coordination Centre.	All agencies	
	• Activate emergency management organisational structures as required.	Ministry of Health and Health New Zealand	No powers required
	• Activate the Intersectoral Pandemic Group, border agencies and border industry stakeholder groups and other pandemic work groups as required.	Ministry of Health	No powers required
	• Plan for an escalation to the Stamp It Out and Manage It phases and review recovery plans.	All agencies	No powers required
	• Prepare for a possible release of pre-pandemic vaccine (if available) under the Pre-Pandemic Vaccine Usage Policy.	Ministry of Health, Health New Zealand, public health services	No powers required
	• Order the pandemic vaccine, if available, following a pandemic declaration by the WHO.	Ministry of Health, Pharmac	
	• Release national reserve volumes of antivirals and consider pre-positioning bulk supplies for use according to policy in border management operations. Monitor antiviral usage.	Ministry of Health, Health New Zealand	
	• Prepare to activate contingency plans in anticipation of supply chains being disrupted due to border restrictions	All agencies	
Testing, surveillance and intelligence	• Develop and issue a case definition and provide technical advice to inform action in health and other settings. • Carry out intensive testing and surveillance through primary health care service providers, Healthline calls, accident and medical centres, hospital emergency departments, infectious disease physicians and laboratories to detect possible imported cases and secondary cases.	Health New Zealand (NPHS, with advice from ESR)	No powers required

Function	Additional action	Responsibility	Authority
	• Develop and implement a pathogen-specific multisource surveillance and testing plan • Introduce enhanced staff surveillance and sickness reporting – address any influenza-like illness consistent with the respiratory virus.		
	• Review recent surveillance of influenza-like and severe acute respiratory illness. • Consider enhancing surveillance capabilities (eg, community wastewater testing) and sentinel surveillance, both from health sites and essential workers (such as the border workforce).		
	• Refer to and share sequencing data and other surveillance information with relevant international partners.		No powers required
	• Monitor the situation overseas and perform risk assessments as new information emerges. • Create intelligence summaries.	Ministry of Health (lead), Biosecurity New Zealand and Ministry of Foreign Affairs and Trade	No powers required
	• Carry out testing and surveillance at air and sea borders.	Public health services and border agencies at local and national levels	No powers required
	• Advise WHO of any border measures implemented, as required under the International Health Regulations 2005 (WHO 2006), and provide WHO with the rationale for and relevant scientific information concerning their implementation.	Ministry of Health	No powers required
	• Continuously monitor, improve and assess the appropriateness of response measures.	All agencies, informed by Ministry of Health and Health New Zealand	No powers required
	• Undertake modelling of case and deaths	Health New Zealand, Ministry of Health with support from ESR	No powers required
Public health interventions: border management	• Activate coordination mechanisms between border agencies at local levels to ensure planning and programmes are well coordinated.	Health New Zealand	No powers required
	• Issue travel advisories as appropriate.	Ministry of Health, Ministry of Foreign Affairs and Trade	No powers required
	• Define area(s) of concern from which arriving travellers might be subject to risk-based border controls.	Ministry of Health, Health New Zealand	No powers required

Function	Additional action	Responsibility	Authority
	• Provide information to incoming and outgoing travellers	NPHS, other border agencies, Ministry of Foreign Affairs and Trade	No powers required
	• Monitor and report on border measures being used in other countries.	Ministry of Foreign Affairs and Trade	
	• Alert agencies managing facilities that are to be used for quarantine/isolation and consider activation.	NPHS	No powers required
	• Require additional declarations from masters of maritime vessels. Compliance with national protocols is required.	Maritime operators and shipping agents	Health (Quarantine) Regulations 1983
	• Assist with measures for recreational maritime vessel arrivals and arrivals of non-commercial flights that land at airports served by the New Zealand Customs Service.	Biosecurity New Zealand, New Zealand Customs Service and NPHS	No powers required
	• Identify aircraft from areas of concern and passengers on other aircraft who are from areas of concern, using advanced passenger notification systems and direct questioning.	New Zealand Customs Service	Customs and Excise Act 1996
	• Implement IPC procedures for aircraft and maritime vessels as required.	Airlines, Maritime New Zealand and shipping agents, with advice on procedures from NPHS	
	• Consider moving to positive pratique (100% health status reporting required from all incoming aircraft). If Australia takes this step it would be prudent for New Zealand to do so, as the measure will be more effective if actioned in all countries in which an aircraft lands.	Ministry of Health	No powers required
	• Establish public health presence at points of entry and implement processes for screening, assessment referral and management of travellers.	NPHS	Health Act 1956
	• Require and collect contact-tracing information from travellers arriving from areas of concern. • Introduce pre-departure test requirements and verification at port of departure, if applicable. • Introduce post-arrival testing requirements, if applicable.	Airlines, New Zealand Customs Service, Health New Zealand	Customs and Excise Act 1996, section 282A Health Act 1956, section 70 as an interim measure (would require new legislation)

Function	Additional action	Responsibility	Authority
	• Introduce post-arrival quarantine/isolation for all inbound arrivals, if applicable (and consider appropriate requirements for airline staff and maritime workers).		Health Act 1956, section 70 as an interim measure (would require new legislation)
	• Request the Minister of Health's conditional authorisation for the use of special powers by the medical officer of health under section 70 of the Health Act 1956. Brief the Minister on options for an elevated response in preparation for escalation of the situation.	Ministry of Health	Health Act 1956; Health (Infectious and Notifiable Diseases) Regulations 1966
	• Seek ministerial agreement to New Zealand's coordinated response to the pandemic situation; for example: – in limiting or refusing arrivals of craft or individuals from areas of concern – in issuing Notices to Airmen – in managing visa applications – in implementing enhanced quarantine measures.	Ministry of Health, in consultation with border agencies and the ODESC	Health Act 1956
	• Implement the above interventions approved by ministers.	Ministry of Health, Health New Zealand, NPHS, New Zealand Customs Service, Ministry of Business, Innovation and Employment/Immigration New Zealand, Ministry of Foreign Affairs and Trade	Health Act 1956
Public health interventions: other	• Implement or prepare to implement case investigation, contact tracing, and case and contact management capabilities in support of cluster control activities. • Promote vaccination to appropriate population groups, including health care and border workers. • Consider establishing regional emergency operations centres.	Health New Zealand, NPHS	No powers required
Health care and emergency response	• Assess suspected cases at the border using WHO case definitions and travel history, as advised by the Ministry of Health.	Medical officer of health, NPHS, Health New Zealand	Health Act 1956, Parts 4 and 3A, section 70(f) (if applicable)

Function	Additional action	Responsibility	Authority
	• If a suspect case is reported, arrange for the person to be met and assessed at an appropriate location. Ensure the emergency department (or facility) is advised if the case is being transported and that appropriate laboratory testing is undertaken. Apply IPC policy. • Quarantine/isolate people whose symptoms do not require hospitalisation in either managed facilities or elsewhere.	NPHS, ambulance services, Health New Zealand (regional) Health New Zealand (NPHS)	Health Act 1956, Part 3A, sections 97B and 101
	• If a case is confirmed, manage other symptomatic people (and other suspected cases and contacts) according to set management procedures for suspected cases.	Health New Zealand (regional)	Health Act 1956, section 92I
	• Prepare and disseminate clinical guidelines, including for the use of personal protective equipment, testing, treatment, isolation/quarantine and vaccination procedures (if applicable).	Health New Zealand	No powers required
	• Commence targeted immunisation once a vaccine is available.	Ministry of Health, Health New Zealand	No powers required
Communications and community engagement	• Review and update materials for education services, employers, employees and other workplace participants containing key messages for workplaces to help them plan for, prepare for and respond to a pandemic.	Ministry of Business, Innovation and Employment / WorkSafe New Zealand, Ministry of Education	No powers required
	• Establish authoritative channels (eg, a website or web page) to provide key information for the public and agencies to guide their planning and response. • Review key messages and promulgate new messages reflecting health action (eg, border controls). • Review and increase the frequency of media conference updates. • Continuously review and update public information in conjunction with all key agencies. • Engage with Māori, Pacific peoples, people with disabilities and other communities to develop information and key messages that are appropriate, useful and targeted. • Continuously liaise with the WHO, the Australian Department of Health and Aged Care (ongoing) and other Australian state agencies as required.	Health New Zealand, Ministry of Health, with support from other agencies as required	No powers required

Function	Additional action	Responsibility	Authority
	• Regularly review the Public Information Management Strategy (Appendix A), incorporating feedback from talkback monitoring, media monitoring, call centre reports, web monitoring, sector intelligence and other agency intelligence.	Ministry of Health and Health New Zealand with support from other agencies as required	No powers required
	• Issue information to all travellers to New Zealand by air or sea of the escalating situation and the public health measures they may need to follow (eg, pre-alert airlines to symptoms of concern).	Ministry of Business, Innovation and Employment, Ministry of Health, Tourism New Zealand and the Tourism Industry Association, Maritime New Zealand, shipping agents	No powers required
	• Continuously evaluate and refresh paid media campaigns.	Ministry of Health, Health New Zealand	
	• Expand services through the national Healthline number and other channels to provide information and clinical advice to the public, and use regular monitoring of calls to refresh scripts and provide data on the pandemic to inform national policy.	Health New Zealand	
	• Coordinate communications to foreign governments on the situation in New Zealand and advise New Zealanders overseas.	Ministry of Foreign Affairs and Trade	No powers required
	• Distribute situation reports and intelligence summaries.	Ministry of Health, Health New Zealand	
	• Review planning documents and information, with special reference to border control, the tourism and travel sectors and education (international).	All agencies	
Other cross-sectoral actions	• Brief staff and key decision-makers. • Keep up to date with national policy and advice issued by the Ministry of Health. • Lead communications, planning and response within the agency and with the sector the agency serves. • Answer queries from the relevant sector. • Maintain coordination with other agencies through established national and district mechanisms. • Ensure each agency's single point of contact details are maintained and disseminated to other agencies. • Ensure response staff are given the opportunity for rest and recuperation.	All agencies	No powers required

Stamp It Out

Cluster control

Potential escalation factor

Human cases infected with the pathogen are detected in New Zealand.

Objective

- To contain, control and/or eliminate any cases or clusters that are found in New Zealand, as well as to decrease the impact on certain population groups at higher risk of severe outcomes.
- Depending on the circumstances, to enable a return to the Keep It Out phase.

Key decisions

- Assess whether protocols for case investigation, contact tracing and case and contact management can be implemented, and if so at what volumes and for how long.
- Prepare authorisation for use of special powers and an epidemic notice, or bespoke legislation for mandatory requirements if needed.
- Consider declaring a state of local or national emergency under the Civil Defence Emergency Management Act 2002.
- Consider national, regional or location-specific stay-at-home (isolation and quarantine) notices, movement restrictions and other physical distancing measures.
- Put in place regulations for any mandatory requirements, including enforcement, infringement and exemptions.
- Close or restrict the use of educational facilities in affected areas.
- Scale up IPC measures at settings that present a higher risk of poor outcomes (eg, aged residential care facilities).
- Escalate contact tracing systems (including case investigation and management).
- Implement advice or mandates to restrict public gatherings, as appropriate.
- Release antivirals for use according to policy and monitor their usage.
- Order the pandemic vaccine, if available, after a pandemic declaration by the WHO.
- Commence vaccination when the vaccine becomes available.
- Release the pre-pandemic vaccine, if available, under the pre-pandemic vaccine usage policy, noting that the policy may need to be reviewed regularly.
- Stand up testing plans.
- Consider whether air and sea border entry restrictions/requirements are required, including in terms of IPC measures.
- Consider the need for exit-assessment procedures, depending on the domestic and international situation and the risk of exporting the disease (particularly to neighbouring Pacific countries).

- Issue domestic and/or international 'don't travel' notices, as appropriate.
- If not already activated, activate CBACs and establish regional response structures.

Stamp It Out phase

Two situations are covered by this phase. The extent of implementation of control measures will depend on the particular characteristics of the pandemic, and the measures will need to be reviewed continuously to ensure that they remain appropriate to the nature of the threat and capability and capacity of response resources. Additionally, the nature and extent of the control measures necessary may vary from one district to another and change over time.

Situation one: The first laboratory-confirmed human case in New Zealand has been identified, whether imported, locally acquired or of source unknown, with a risk of community transmission.

Situation two: There are one or more clusters of cases in New Zealand. These may be in one or more locations (and of different sizes), but containment remains feasible.

Function	Action	Responsibility	Authority
(If arising from contact with New Zealand animals)	• Implement actions detailed in the Keep It Out phase in addition to actions noted below.	Biosecurity New Zealand, Ministry of Health, Health New Zealand (NPHS), Ministry of Business, Innovation and Employment / WorkSafe New Zealand, New Zealand Customs Service, Department of Prime Minister and Cabinet	
Planning, coordination and reporting	• Review actions and decisions in the context of information provided by the Ministry of Health and Health New Zealand, and increase the response as necessary and in accordance with agency response plans.	All agencies	No powers required
	• Ensure ongoing surveillance information informs policy and operational decisions on implementing the CIMS and regional response plans and preparation for an escalated response.	Ministry of Health, Health New Zealand	No powers required
	• Prepare to activate business continuity plans, in anticipation of staff or supply chains being disrupted by the pandemic internationally or within New Zealand.	All agencies	No powers required
	• Prepare for the Manage It phase and review Recover From it plans.	All agencies	No powers required
	• Activate emergency operation centres using CIMS, including the National Health Coordination Centre, if not already activated.	Ministry of Health, Health New Zealand	No powers required
	• Consider risk assessment criteria and transition factors for a shift to the Manage It phase (eg, increasing transmissibility, increasing case numbers, containment measures failing or at risk of failing or particular risk to specific populations).	Health New Zealand, Ministry of Health	No powers required
	• Release therapeutics/antivirals for use according to policy and monitor their usage, if applicable.	Ministry of Health, Health New Zealand	No powers required
	• If available and appropriate, release pre-pandemic vaccine under the pre-pandemic vaccine usage policy	Ministry of Health, Health New Zealand	No powers required
	• Prepare authorisation for use of emergency powers and an epidemic notice, if required.	Ministry of Health	Health Act 1956, section 70
	• Order vaccine, if available.	Ministry of Health	No powers required

Function	Action	Responsibility	Authority
Testing, surveillance and intelligence	• Actions on the identification of a first case will depend on case investigation. Factors to consider include the following: – Implement a surveillance and testing strategy, which may include the following: – If the case has travelled overseas recently, increase monitoring and surveillance at the border. – Exposure to animal sources of infection – If the case has not travelled overseas recently and there has been no animal exposure, assume human-to-human transmission within New Zealand. • Ensure contact-tracing and case investigation information informs policy and programmes. • Conduct intensive surveillance to detect other cases, possible secondary cases and contacts, including through source investigation.	Health New Zealand (NPHS, with advice from ESR), Ministry of Health, Biosecurity New Zealand	Notification requirements (to medical officer of health): Health Act 1956, sections 74 (health practitioners) and 76 (quarantine); Health (Quarantine) Regulations 1983, regulations 3 (pilots) and 10 (masters of ships)
	• Carry out surveillance through border management.	Health New Zealand (NPHS)	No powers required
	• Carry out intensive surveillance (locally, regionally or nationally as appropriate) through primary care, Healthline and accident and medical and hospital emergency departments to detect possible cases and clusters, and notify cases to a medical officer of health for cluster control measures. • Enhance laboratory surveillance.	Health New Zealand (with advice from ESR), Ministry of Health	
	• Monitor the demand and capacity of the health and disability sector.	Health New Zealand	No powers required
	• Enhance existing processes for monitoring staff absences through sentinel surveillance in district and regional Health New Zealand facilities, schools and other workplaces.	Health New Zealand, Public Service Commission, Ministry of Education, Ministry of Health	No powers required
	• Ensure surveillance information informs policy and operational decisions on implementing the CIMS and regional response plans and preparation for a full response.	Ministry of Health, Health New Zealand	No powers required
	• Monitor the situation overseas. • Create intelligence summaries.	Ministry of Health (lead), Biosecurity New Zealand, Ministry of Foreign Affairs and Trade	No powers required

Function	Action	Responsibility	Authority
	• Ensure laboratories have sufficient supplies and capacity as well as surge capacity and establish criteria for prioritised testing. • Manage the procurement, supply and distribution of self-testing kits, if available.	Health New Zealand	No powers required
	• Carry out national and international reporting, including to the WHO. • Advise the WHO of the first and subsequent cases identified in New Zealand.	Ministry of Health	International Health Regulations 2005 (WHO 2006)
	• Review the surveillance of animals in the area or areas where humans are affected, as appropriate. • Continuously monitor, improve and assess the appropriateness of response measures	Biosecurity New Zealand	Biosecurity Act 1993, sections 43, 109, 114 and 121
Public health interventions: border management	• Review Keep It Out phase actions and consider exit assessment procedures, initially on a voluntary basis, depending on the New Zealand situation, WHO advice and the risk of exporting disease.	Border agencies (lead), Health New Zealand (NPHS), airport authorities	Special powers may be required under the Health Act 1956, section 71
	• Consider and implement measures or restrictions on people leaving New Zealand to prevent spread of the disease internationally (with specific reference to Pacific Island countries and territories).	Border agencies, ODESC system	Health Act 1956; Epidemic Preparedness Act 2006
	• Implement Keep It Out phase actions, exit assessment and other procedures as agreed above.	Border agencies	
	• Carry out contact tracing, voluntary quarantine and the dissemination of advice to contacts on IPC measures and disease symptoms.	Health New Zealand	Health Act 1956
	• Ensure those in voluntary quarantine can access food, medications and treatment for existing conditions and are referred to welfare agencies for income support needs.	Health New Zealand (NPHS) (lead), local authorities	
	• Activate a national contact-tracing system and plan for surge capacity.	Health New Zealand (NPHS)	No powers required
	• Monitor contacts' health while they are in home quarantine and, if applicable, on antiviral prophylaxis.	Health New Zealand (and primary health services if applicable)	
	• Promote relevant public health IPC measures (eg, cough and sneeze etiquette, advice that people should stay home if sick and physical distancing).	Ministry of Health, Health New Zealand	No powers required

Function	Action	Responsibility	Authority
	• Issue domestic or international 'don't travel' advisories, as appropriate.	Ministry of Health, Ministry of Foreign Affairs and Trade	No powers required
	• Prepare authorisation for use of emergency powers or bespoke legislation as required.	Ministry of Health	Health Act 1956, section 70
	• Consider declaring a state of local emergency under the Civil Defence Emergency Management Act 2002 if this is not already in force.	Local government, National Emergency Management Agency, ODESC system	Civil Defence Emergency Management Act 2002, Part 4
	• If authorised, consider national, regional or location-specific stay-at-home (isolation and quarantine) notices and domestic movement restrictions (eg, local, regional or national lockdown). • If authorised, close educational facilities in affected areas.	Ministry of Education, medical officer of health	Epidemic Preparedness Act 2006; Civil Defence Emergency Management Act 2002; Health Act 1956, sections 70(1)(la) and (m)
	• If authorised, consider closures or limits within premises of a stated kind, and/or forbid or limit people to congregate in outdoor places of amusement or recreation.	Ministry of Education, medical officer of health	Epidemic Preparedness Act 2006, Civil Defence Emergency Management Act 2002, Health Act 1956, section 70(1)(m)
	• If authorised, consider isolating or quarantining patients.	Medical officer of health, Health New Zealand (NPHS)	Health Act 1956, Part 3A; Epidemic Preparedness Act 2006; Civil Defence Emergency Management Act 2002; Health Act 1956, section 70(1)(f) and (fa)
	• Isolate affected areas in New Zealand or limit travel between regions, if appropriate and possible and if agreed by Cabinet (through the ODESC system).	New Zealand Police, New Zealand Defence Force	Epidemic Preparedness Act 2006; Civil Defence Emergency Management Act 2002; Health Act 1956, sections 70(1)(g) and (h), Part 3A
	• Identify potentially higher-risk groups and institutional settings in the community to inform communications and enable the targeting of control interventions, as required.	Ministry of Health, Health New Zealand, with support from Whaikaha	No powers required

Function	Action	Responsibility	Authority
	• Implement intensive, targeted cluster control activities and other programmes in higher-risk populations and settings.	Health New Zealand	No powers required
	• Protect unaffected islands, or easily isolated regions, if authorised by the Minister of Health, if an epidemic notice is in force or if an emergency has been declared under the Civil Defence Emergency Management Act 2002 (that is, forbid people or things from an infected place entering a healthy district; forbid people from leaving a healthy district or a place within it; and consider detaining people attempting to leave or enter an affected area).	Ministry of Health, New Zealand Police, New Zealand Defence Force	Epidemic Preparedness Act 2006; Civil Defence Emergency Management Act 2002; Health Act 1956, sections 70(1)(g) and (h), 79
	• Commence immunisation once a vaccine is available.	Health New Zealand	No powers required
Health care and emergency response	• Isolate cases and treat according to clinical advice and antiviral policies.	Medical officer of health	Health Act 1956
	• Update human resource guidelines and policies prepared by Health New Zealand for major emergencies as required.	Health New Zealand	No powers required
	• Track all staff contacts of cases, review their health status and redeploy staff as required.	Health New Zealand	Health Act 1956, Part 3A, sections 92P and 92ZQ
	• Implement contact-tracing, case investigation and testing systems. • Scale up laboratory capacity as required.	Health New Zealand	No powers required
	• Liaise with ambulance services to provide updated information on IPC and service requirements.	Health New Zealand	No powers required
	• Consider activating CBACs to support cluster control responses.	Health New Zealand	No powers required
	• Consider activating regional response structures.	Health New Zealand	No powers required
Communications and community engagement	• Coordinate communications to foreign governments and New Zealanders overseas about the situation in New Zealand.	Ministry of Foreign Affairs and Trade, Ministry of Health, Health New Zealand, with the support of other agencies as required	No powers required
	• Implement a multi-media campaign fronted by a trusted authority figures covering: – hygiene – social distancing – self-care and caring for others	Ministry of Health, Health New Zealand, with the support of other agencies as required	No powers required

Function	Action	Responsibility	Authority
	– staying safe – limiting spread – control interventions – accessing advice and help – vaccination – therapeutics.		
	• Distribute information to staff, the sector and clients through normal channels at national, regional and local levels.	All agencies	
	• Ensure tailored materials for populations at increased risk of infection or severe outcomes, such as: – Māori – Pacific peoples – non-English-speaking communities – higher-risk groups, as informed by epidemiological data.	Ministry of Health, Health New Zealand, Whaikaha, with the support of other agencies as required	
	• Expand the capacity of telephone helplines to meet an increase in demand from the public and health professionals. • Distribute situation reports and intelligence summaries.	Health New Zealand Ministry of Health, Health New Zealand	No powers required
	• Provide customised information to overseas visitors in New Zealand.	Ministry of Business, Innovation and Employment, Health New Zealand, Tourism New Zealand, Tourism Industry Association	No powers required
Other cross-sectoral actions	• Focus on ensuring and maintaining appropriate engagement with the Ministry of Health as the lead agency to inform action. • Ensure contact details for each agency are up to date. • Keep staff and sectors updated on the evolving situation. • Ensure response staff are given the opportunity for rest and recuperation.	All agencies	No powers required

Manage It

Pandemic management

Potential escalation factors

- There are multiple clusters in New Zealand at separate locations or clusters spreading out of control.
- It is logistically impossible to maintain widespread cluster control activities.
- There is sustained and substantial transmission in the population.

Objective

- To reduce the impact of the pandemic on New Zealand's population, including inequities of outcomes for specific population groups.
- To minimise serious illness and deaths.
- To slow the spread of the pathogen.
- To reduce pressure on primary and secondary care services.

Key decisions

- Consider whether to focus on suppression (to minimise the burden of disease) or mitigation (to protect the health system from being overwhelmed).
- Release therapeutics for use according to policy and monitor antiviral usage.
- Order the pandemic vaccine, if available, following a pandemic declaration by the WHO.
- Consider the need for an epidemic notice, if one is not already in force; consider declaring a state of local or national emergency under the Civil Defence Emergency Management Act 2002; and review both on an ongoing basis.
- Review the need for containment measures, and implement as necessary.
- Consider setting national prioritisation criteria for the distribution and use of critical goods and services that may be in short supply.
- Review border entry/exit/closure requirements.
- Identify mitigating measures for gatherings.
- Consider the use of telehealth appointments in health care settings.
- Consider the provision of support services available to support cases/contacts to safely isolate/quarantine.
- Identify required and/or already available data and digital tools (eg, for contact tracing) to support the response.

Manage It phase

There is increased and substantial transmission in the general New Zealand population.

The application of Manage It phase actions will depend on the epidemiology of the pandemic; the severity of outcomes from infection on population groups (including longer term sequalae); the availability, effectiveness, acceptability, cost and impact of the response measures and its geographical spread; and the availability and coverage of therapeutics and vaccines.

Some districts or regions may remain at the Stamp It Out phase, while others move to the Manage It Phase. Movement from the Manage It phase into the Manage It: Post-Peak phase may also vary. Targeted Stamp It Out programmes may be maintained during later phases to protect populations at greater risk.

Function	Action	Responsibility	Authority
Planning, coordination and reporting	• Review actions and decisions and adjust to the current situation. • Implement new actions and change/remove previous actions as the evolving situation demands.	All agencies	No powers required
	• Ensure the National Health Coordination Centre is adequately resourced for the increase in demand, and consider possible activation of the National Crisis Management Centre.	Ministry of Health	No powers required
	• Consider the need for an epidemic notice and/or other bespoke legislative tools.	Ministry of Health, Minister of Health, Prime Minister	Epidemic Preparedness Act 2006
	• Consider declaring a state of local or national emergency under the Civil Defence Emergency Management Act 2002 if this is not already in force.	Local government, Ministry of Civil Defence and Emergency Management, ODESC system	Civil Defence Emergency Management Act 2002, Part 4
	• Order the pandemic vaccine, if available, following a pandemic declaration by the WHO.	Ministry of Health	No powers required
	• Release therapeutics for use according to policy and monitor their usage.	Ministry of Health	No powers required
	• Activate recovery arrangements.	All agencies	No powers required
	• Consider setting national prioritisation criteria for the distribution and use of critical goods and services that may be in short supply.	All agencies	Civil Defence Emergency Management Act 2002, Part 4; Health Act 1956; other sector-specific legislation
Testing, surveillance and intelligence	• Change the overall emphasis in surveillance activities from nationwide detection of cases and clusters to extensive assessment of the general spread, the health and social impacts of the pandemic and the efficacy of control measures.	Ministry of Health, Health New Zealand, NPHS, agencies focused on social and economic impact	No powers required
	• Target containment surveillance programmes in higher-risk settings and in groups with a higher risk of acquisition and/or severe outcomes. • Monitor Healthline calls. • Monitor information from CBACs, primary care services and hospitals on patients seen; clinical status; capacity of critical services such as emergency departments, laboratory services and intensive care units; and usage of national reserve supplies.	Health New Zealand, Ministry of Health, ESR	No powers required

Function	Action	Responsibility	Authority
	• Monitor data on mortality and illness caused by the pathogen. • Monitor workforce absence at sentinel sites. • Monitor antiviral resistance and vaccine effectiveness. • Monitor pathogen molecular epidemiology (eg, genome sequencing surveillance). • Monitor the load on, and capacity of, the health and disability sector. • Monitor laboratory capacity and prioritise services, if required.		
	• Review surveillance of animals in areas where humans are affected, as appropriate.	Biosecurity New Zealand	Biosecurity Act 1993, sections 43, 109, 114 and 121
	• Monitor the situation overseas.	Ministry of Health, Biosecurity New Zealand, Ministry of Foreign Affairs and Trade	No powers required
	• Distribute situation reports and intelligence summaries.	Ministry of Health, Health New Zealand	
Public health interventions: border management	• Re-evaluate border measures and ensure a nationally consistent approach.	Border agencies	No powers required
	• Implement exit assessment if required.		Health Act 1956, section 71
	• Re-evaluate actions and critical decisions implemented in the Stamp It Out phase. Consider the value of maintaining, increasing, targeting or reducing interventions such as measures to slow the spread of the pandemic, including closures or restrictions in the education sector, social distancing, advice on staying home, focusing on hygiene, reduction or restriction of travel, restrictions on public gatherings and venues, and voluntary quarantine of contacts. • Tailor programmes to high-risk populations or settings. • Review and update case and contact management. • Consider support for cases and close contacts in quarantine/isolation.	Ministry of Health (lead), Health New Zealand, other government agencies	No powers required
Health care and emergency response	• Consider adjustments to scopes of practice and/or registration requirements to enhance health care workforce flexibility. • Action regional plans locally and/or regionally as necessary or directed, including for primary care, CBACs, hospital services (including emergency	Health New Zealand	No powers required

Function	Action	Responsibility	Authority
	departments and intensive care units) and therapeutics distribution to prioritise the maintenance of essential health services while considering deferrals of other health services where appropriate. • Increase and support national, regional and local telephone triage as necessary, and monitor demand. • Provide relevant and accessible information to higher-risk populations and settings. • Review the core competencies required to deliver critical services under pressure (eg, in an intensive care unit or primary health care) to inform any necessary reprioritisation of health resources locally, regionally or nationally. • Monitor the impact on critical hospital services; postpone electives if required and liaise with other district/regional Health New Zealand administrative units to make best use of available regional and national resources.		
	• Report to the Ministry of Health on service capacity, as required. • Comply with any national service or resource priority criteria the Ministry of Health establishes. • Liaise with ambulance providers to prioritise the use of this service, if required.	Health New Zealand	No powers required
	• Monitor the use of personal protective equipment. • Respond to local/regional Health New Zealand requests for use or distribution of personal protective equipment from the national reserve supply.	Ministry of Health	No powers required
Communications and community engagement	• Implement measures applicable to the Stamp It Out phase, and additionally: – continuously review the communications strategy, with special reference to audiences and key messages, incorporating feedback from media monitoring and other agencies' channels and intelligence – continuously evaluate and refresh paid media campaigns and inter-agency communications and consultation – ensure messaging is in appropriate languages and formats to support affected populations.	Health New Zealand, with support from other agencies as required	No powers required
	• Continuously liaise with the WHO and appropriate Australian agencies and departments on all issues, and Pacific Realm and other Pacific countries as appropriate.	Ministry of Health	No powers required

Function	Action	Responsibility	Authority
	• Coordinate communications to foreign governments about the situation in New Zealand and advise New Zealanders overseas.	Ministry of Foreign Affairs and Trade	No powers required
	• Create and distribute situation reports and intelligence summaries.	Ministry of Health	
Other cross-sectoral actions	• Implement measures applicable to the Stamp It Out phase, and in particular: – focus on ensuring and maintaining appropriate engagement with the Ministry of Health as the lead agency – keep contact details for each agency up to date – keep staff and sectors of each agency updated on the evolving situation – monitor staff absences – undertake preparatory actions for the Manage It: Post-Peak and Recover From It phases – ensure response staff are given the opportunity for rest and recuperation – use *Framework for Psychosocial Support in Emergencies* (Ministry of Health 2016b) to inform recovery planning.	All agencies	No powers required

Manage It: Post-Peak

Potential de-escalation factors

- The wave is decreasing and the likelihood of significant resurgence is low or manageable.
- The severity and/or health impact of the infection has decreased.
- The associated risk is considered manageable within business-as-usual settings.

Objective

To move towards the restoration of normal services, expediting recovery, while preparing for a potential re-escalation of the response.

Key decisions

- reviewing with consideration of removing or easing any mandatory requirements, or the use of other special powers (eg, border and travel restrictions, restrictions on public gatherings)
- reviewing and modifying non-mandatory public health advice and guidance (eg, the extent of necessary IPC measures such as use of personal protective equipment /face-masks), the frequency of testing, the settings at which specific advice applies (eg, visitors to farms or aged residential care facilities)
- reviewing any other specific public health measures for specific settings, such as workplaces, education facilities and health services settings
- reviewing and modifying vaccination programmes
- reviewing contact tracing and testing programmes
- reviewing surveillance needs
- reviewing the communication strategy
- determining the ongoing response and any scaling back of services and activities
- preparing to re-introduce interventions from earlier phases at short notice, if required, should there be a resurgence or a new wave.

Manage It: Post-Peak phase

The initial wave of the pandemic is decreasing, but there is the possibility of a resurgence or a new wave.

It is likely that actions applied in the Manage It phase will be slowly stood down during this phase, and that actions for the Recovery From It phase will be introduced and strengthened. This phase may occur at different times across the country, reflecting local circumstances. At this stage, maintenance of surveillance and intelligence activities is particularly important, to ensure early warning of any change in circumstances that requires action. Should there be a resurgence of the pandemic, the actions implemented in previous phases may need to be re-introduced at short notice.

Function	Action	Responsibility	Authority
Planning, coordination and reporting	• Inform agencies of the change in phase.	Ministry of Health	
	• Review actions and decisions; in particular, actions relating to key decisions made in earlier phases. Stand down controls and programmes when feasible, noting that they may need to be re-introduced quickly if there is a resurgence.	All agencies	No powers required
	• Debrief staff and agencies, and collate lessons identified to better inform planning and future responses.	All agencies	No powers required
	• Evaluate the effectiveness of measures used and update plans, guidelines, protocols and algorithms accordingly.	All agencies	No powers required
	• Collate report on lessons identified in the New Zealand health and intersectoral response to inform planning and future responses, using an evaluation framework.	Ministry of Health	No powers required
	• Collate resources and store material developed in the response for use in future pandemics.	All agencies	No powers required
	• Review activation of the National Health Coordination Centre and National Crisis Management Centre, and prepare to transition to the Recover From It phase coordination mechanism.	Ministry of Health	No powers required
	• Review the ongoing need for an epidemic notice or the use of special legislative powers, and revoke or stand these down if appropriate.	Ministry of Health, Minister of Health, Prime Minister	Epidemic Preparedness Act 2006
	• Review the ongoing need for a declaration of a state of local or national emergency under the Civil Defence Emergency Management Act 2002, and revoke or stand this down if appropriate.	Local government, Ministry of Civil Defence and Emergency Management, ODESC System	Civil Defence Emergency Management Act 2002, Part 4
	• Review usage of national reserve supplies and consider re-ordering.	Ministry of Health	No powers required
	• Implement activation of recovery arrangements as required.	All agencies	May require Civil Defence Emergency Management Act 2002, Part 4
	• Prepare to re-introduce interventions from earlier phases at short notice, should there be a resurgence.	All agencies	No powers required

Function	Action	Responsibility	Authority
Testing, surveillance and intelligence	• Review surveillance programmes applied in earlier phases to focus activities on early detection of any resurgence. • Continue to distribute situation reports and intelligence summaries. • Monitor the load on, and capacity of, the health system • Continue molecular epidemiology and pathogen treatment resistance monitoring. • Analyse molecular and epidemiological data to inform programmes to be re-introduced in a resurgence.	Ministry of Health, Health New Zealand, ESR	No powers required
	• Review the surveillance of animals in areas where humans are affected.	Biosecurity New Zealand	Biosecurity Act 1993, sections 43, 109, 114 and 121
	• Monitor the situation overseas to identify any changes in frequency and severity of the pandemic, and in management plans and guidance from critical international bodies (such as the WHO).	Ministry of Health, Biosecurity New Zealand, Ministry of Foreign Affairs and Trade	No powers required
Public health interventions	• Re-evaluate measures that have been put in place and return, in a staged manner if appropriate, to business as usual when appropriate.	All border agencies, NPHS	Refer previous phases
	• Continue or commence a pandemic vaccination programme, as required.	NPHS	No powers required
	• Consider an incremental return to business as usual for educational institutions and childcare facilities.	Ministry of Education, Ministry of Health, NPHS	Health Act 1956; Civil Defence Emergency Management Act 2002
	• Remove mandatory requirements when appropriate.	Ministry of Health, NPHS	Health Act 1956; Civil Defence Emergency Management Act 2002, bespoke legislation
Health care and emergency response	• Review actions and decisions and stand down controls and pandemic programmes when feasible, noting that they may need to be introduced quickly if there is a resurgence. • Prepare to return to business as usual.	Health New Zealand, Ministry of Health	No powers required

Function	Action	Responsibility	Authority
Communications and community engagement	• Continuously update the public and agencies on any changes to the status of the pandemic. • Advise the public and agencies that it is possible that the pandemic will resurge or that a second wave will occur, so they remain vigilant. • Continuously review and refresh the communications strategy, with special reference to audiences and key messages, incorporating feedback from evaluations, media monitoring, behavioural insights and other agencies' channels and intelligence. • Consider initiating development of a recovery campaign with reference to post-trauma knowledge and best practice. • Continuously liaise with the WHO and the Australian Department of Health and Aged Care, Pacific Realm and other Pacific countries as appropriate.	Health New Zealand, Ministry of Health, with support from Whaikaha as required	No powers required
	• Disseminate key messages on the post-peak situation, consistent with communications released by the Ministry of Health.	All agencies	No powers required
	• Update advice on travel, if appropriate.	Ministry of Foreign Affairs and Trade	No powers required
	• Disseminate information on travel to New Zealand.	Ministry of Business, Innovation and Employment, Ministry of Health, Tourism New Zealand, Tourism Industry Association	No powers required
	• Coordinate communications to foreign governments on the situation in New Zealand, and advise New Zealanders overseas.	Ministry of Foreign Affairs and Trade	No powers required
Other cross-sectoral actions	• Ensure response staff are given the opportunity for rest and recuperation. • Maintain appropriate engagement with the Ministry of Health as the lead agency. • Ensure each agency's single point of contact details are disseminated to other agencies. • Refer to *Framework for Psychosocial Support in Emergencies* (Ministry of Health 2016b) to inform recovery planning.	All agencies	No powers required

Recover From It

Recovery

Potential de-escalation factors

- The population is largely protected by vaccination or prior infection.
- The pandemic has abated globally and in New Zealand.
- The pathogen has become endemic but is resulting in more mild illness/less severe health outcomes.

Objective

To expedite the recovery of population health, communities and society where they have been affected by the pandemic, response measures or disruption to normal services and begin to embed lessons identified during the pandemic.

Key decisions

Most decisions listed for this phase are common to all pandemics, whether mild or severe, and focus on phasing out response measures introduced in earlier phases, noting that recovery takes time and that some controls and response measures may need to be retained for a period while society progressively settles on the new normal. In a mild pandemic, there may be no need for a specific recovery phase. In more severe pandemics, decisions may need to be made on:

- the establishment of recovery offices
- setting or maintaining national prioritisation criteria for the distribution and usage of critical goods and services that may be temporarily in short supply
- initiating systematic evaluations of the response.

Recover From It phase

The pandemic is over and/or the population has been protected by vaccination or prior infection, and/or the pathogen is now resulting in mild illness / less severe outcomes or has become endemic. During or at the end of this phase, each function will return to the activities in the Plan For It phase.

Function	Action	Responsibility	Authority
Planning, coordination and reporting	• Review actions and decisions, and develop phased plans for ceasing response activities introduced in earlier phases, starting or continuing recovery-specific programmes, integrating preparedness and response activities across the system and transitioning to a new business as usual. • Assess the impacts of the response on Te Tiriti obligations and health equity and identify further interventions to mitigate adverse or inappropriate impacts	All agencies	No powers required
	• Give iterative consideration to activating or standing down recovery activities as demanded by the situation.	All agencies	No powers required
	• Review the ongoing need for an epidemic notice and other regulatory powers, if still applicable.	Ministry of Health, Minister of Health, Prime Minister	Epidemic Preparedness Act 2006, other
	• Review the ongoing need for a declaration of a state of local or national emergency under the Civil Defence Emergency Management Act 2002, if still applicable.	Local government, Ministry of Civil Defence and Emergency Management, ODESC system	Civil Defence Emergency Management Act 2002, Part 4
	• Review pandemic supplies (vaccines, therapeutics, personal protective equipment) and any other national reserve supply stocks, recall unused supplies to the national reserve and reassess the need to re-order.	Health New Zealand	No powers required
	• Deactivate, if still applicable, the National Health Coordination Centre, National Crisis Management Centre and other emergency operations centres.	All agencies	No powers required
	• Give iterative consideration to the need to establish or de-activate operation recovery offices.	All agencies	No powers required
	• Consider setting national prioritisation criteria for the distribution and usage of critical goods and services temporarily in short supply.	All agencies	Civil Defence Emergency Management Act 2002, Part 4; Health Act 1956; other sector-specific legislation
Surveillance and intelligence	• Review current surveillance and intelligence activities and maintain those required during the transition to full recovery (eg, those providing information on health service impact).	Ministry of Health	No powers required
	• Monitor the load on and capacity of the health and disability sector. • Return to Plan For It activities when the Recover From It phase is over.	All agencies	No powers required

Function	Action	Responsibility	Authority
Public health interventions	• Move to routine measures specified in the Plan For It phase. • Integrate management of the pathogen into the core work of the health and disability sectors (as applicable). • Revoke any remaining mandatory measures and replace with guidance if still needed.	All border agencies, NPHS	No powers required
Health care and emergency response	• Implement a phased stand-down of response activities. • Focus on recovery activities. • Assess priorities for business resumption. • Resume business-as-usual services gradually. • Organise debriefings, document lessons identified, and review and revise plans accordingly. • Move to routine measures as implemented in the Plan For It phase.	All health agencies	No powers required
Communications and community engagement	• Continuously review and refresh the communications strategy, with special reference to audiences and key messages, incorporating feedback from behavioural insights, monitoring and information from other agencies.	Health New Zealand, with the support of other agencies	No powers required
	• Coordinate communications to foreign governments and New Zealanders overseas about the situation in New Zealand.	Ministry of Foreign Affairs and Trade	No powers required
Other cross-sectoral actions	• Implement a phased stand-down of response activities. • Focus on recovery activities. • Use Ministry of Civil Defence and Emergency Management and Ministry of Health resources to inform recovery planning. • Assess priorities for business resumption. • Resume business-as-usual services gradually. • Ensure each agency's single point of contact details are disseminated to other agencies. • Maintain a contact list of other agencies. • Organise debriefings. • Review and document lessons identified. • Revisit, review and revise plans accordingly. • Move to actions specified in the Plan For It phase.	All agencies	No powers required

Appendices

Appendix A: Public Information Management Strategy

Introduction

The Public Information Management Strategy contains the key message framework and relevant actions for specific audiences to supplement the objectives and principles outlined in Appendix B of the New Zealand Pandemic Plan. This appendix should be read in conjunction with the indicative communications and community engagement actions outlined in detail in the Action Framework tables in Part B.

Cross-references and supporting material

New Zealand Pandemic Plan: Part B, all phases, 'Communications and community engagement' sections

Key messages framework

The Ministry of Health, in conjunction with its health and disability partner agencies Health New Zealand and Whaikaha, has identified anticipated information demands for each phase of a pandemic, and formulated messages to disseminate to communities in response to those demands.

Much of the information to be communicated will remain constant, although the emphasis will change as the public health response evolves. The sharing of information will also vary in frequency, depending on how the pandemic unfolds through its different phases.

In any pandemic, messaging needs to be appropriately tailored to the situation. The following section sets out some questions intended to prompt key messages to support public information management in a pandemic. This section provides some potential key messages where they are likely to be consistent across events.

Key messages prompts

It looks like a respiratory-type pandemic is about to start

- Does the risk to health, and growing public awareness/anxiety, mean health officials now need to inform/educate the public about this pandemic?
- What is a pandemic?
- What is the risk of this virus/pathogen to health relative to other endemic respiratory viruses?
- What are the symptoms and duration of infection? How does the virus behave? (eg, How does it spread? What is its longevity on surfaces?)

There is much about this that we do not know

- What do we know so far?
- What are we doing so far?

The pandemic may be very bad

- What do people need to know about the possible extreme severity of the pandemic?
- How we are acting to manage that risk?

What matters most is how we prepare

- What can households, communities and organisations do to get ready?
- How should households plan for coping with sickness and absences?
- How should homes and businesses plan for a situation where contact with others is severely constrained or limited?
- How can we emphasise the importance of business preparedness?

Individual and community preparations should focus on reducing the chance of getting sick, helping households cope during a pandemic and minimising disruption

What steps can people take to stay well and protect others? Key messages could include:

- Cover coughs and sneezes and keep your distance from anyone who is sick.

- Wash and dry your hands (or use a sanitiser).
- If you're sick, stay home.
- Gather essential supplies.
- Know how to look after yourself at home.
- Organise your work to focus on essential tasks.
- Organise volunteers and help networks.
- Prepare for disruption or restrictions from a pandemic:
  - Make plans for any family members travelling overseas to return home promptly.
  - Make arrangements to ensure continuity of care for dependants who live in another location.
  - Ensure you have supplies of items needed for protective measures (eg, masks and hand sanitiser).
  - Ensure you have essential supplies (medicines and foods) for a few days (see the section on possible shortages below).

Immunisations are important

- How will the vaccine enhance people's protection in a pandemic?
- What do people need to know about the availability of vaccines?
- How and where will vaccines be administered? Will they be free?
- How safe and effective are vaccines?
  - On efficacy, how does the vaccine reduce the risk of infection, the risk of transmission and the risk of severe disease? How does this reduce over time?
  - What are the safety risks and potential side effects of the vaccine?
- How do we quantify the risk vs the benefit?
- What was the approval process for the vaccine, and what ongoing safeguards are in place to ensure adverse reactions are reported?
- What other medicines/treatments are available to protect or treat the effects of the illness, and how are they safe and effective?

Physical distancing will help us control it

- How is social distancing effective in reducing transmission?
- What public events may be cancelled and why?
- Will people have to work from home? Why? Will business interactions potentially need to be virtual or online?
- Do people need to try to reduce interactions with other people in their day-to-day activities?
- How will access to health services be constrained? Will people need to use more online or virtual consultations?
- Will hospital visitors or family or friends' support for patients potentially no longer be permitted? Why?

- Will any restrictions apply to visiting loved ones in aged care facilities? Why?

School closures will help us control it

- Will schools need to close? Why?
- How do schools need to prepare?
- How do individuals, communities and employers need to prepare for the eventuality of school closures in terms of managing long-distance learning for school children?

Getting ready is about preparing for possible shortages

Key messages could include:

- A pandemic could severely disrupt the supply of good and services, including health care and other government support.
- Being well prepared as a household or an organisation will ensure resources and services can be prioritised for people with the most urgent needs.
- Health care will be prioritised to meet urgent care needs and the pandemic response.

Getting ready is about preparing for possible travel disruptions or border closures here and overseas

What plans do people need to make in terms of possible restrictions to travel which may remain in place for long periods, including internationally and within New Zealand?

Think about how to care for loved ones at home

- How will health care be prioritised?
- What, if any, disruption will this cause to health services (planned care, etc)?
- How likely is it that hospitals and other health services will be overwhelmed, and what steps are being taken to manage this?
- What do people need to do to make sure they have the medicines and essential supplies they might need?
- What should people do if the health of a sick person in their household deteriorates?

The Government, Health New Zealand and the Ministry of Health are responding to the pandemic

- How are the Government, Health New Zealand, the Ministry of Health and other agencies actively planning, coordinating and facilitating a response?
- How do central health agencies use and disseminate information about the pandemic? Key messages could include:
  - We will proactively and frequently share significant new information with the public to support them to make decisions about their health and the health of their loved ones.
  - We will be honest about the limits of our information and update the information when we know more.

We will be upfront and honest

Key messages could include:

- Be prepared for news that may be concerning – we will not sugar-coat messages.
- There may be changing or conflicting information; initial information may change as we receive more detail.
- Pandemics are characterised by uncertainty, and actions in response need to be taken quickly.

How to get the information you need

- How can people access further information (eg, websites, apps, media releases, social media)?

Take care with sources of information

- How can people know whether an information source is reliable? Key messages could include:
  - Seek information from reliable and government sources.
  - Test any news or information you receive from other sources against trusted and reliable sources of information as during times of uncertainty there is an increase in the spread of news from unreliable sources. If in doubt, do not pass it on.

Sequence of communication planning

Discrete initiatives and key messages will be developed for specific audiences at different phases. The following sections list key questions for which the public are likely to need answers, according to the six phases of a pandemic response.

Plan For It and Keep It Out

- What can I do to prepare?
- How can we reduce the risk of infection and transmission? What will happen at the borders? Will they be closed? If so, when and where?
- What are the household supplies New Zealanders will need in a pandemic?
- What will happen to travel services?
- Will restrictions affect my day-to-day life (in terms of education, work, home, access to high-risk locations)? How can I accommodate these restrictions?
- How likely is a pandemic?
- What will happen to me if I get sick?
- Is there a vaccine? How can I access it?
- How will health services cope?
- What are you planning to do to respond?
- Who is in charge?
- Will people be able to ring a free phone number such as Healthline for advice?
- How can antivirals help? Will they cure people?
- Where can I get up-to-date information?

Stamp It Out

- What can I do to help reduce the risk of severe illness or death to myself and my loved ones?
- Where can I get up-to-date information?
- What are the household supplies I will need?
- What should I do if I think I have the pandemic illness? Who should I call for more advice? How should I look after myself (specifically)?
- Is it safe to go to work?
- How can I keep myself safe at work?
- Where can I seek local assessment and treatment for the pandemic illness?
- Who is eligible for antivirals or a vaccine?
- How can I get antivirals or a vaccine for myself or my family members?
- What should I do about travel overseas or family members travelling overseas?

- What should I do if I have been overseas in an affected area and am feeling unwell with flu-like symptoms?
- Where should I go for more information or help for health problems other than the pandemic illness (eg, scheduled surgery)?
- Can the pandemic illness be spread by air-conditioning units?
- Who is in charge of making decisions nationally?
- To what extent should I stay away from infected areas?
- Where should I go for welfare help?
- What are the extended powers of medical officers of health?
- When and how are medical officers of health's extended powers enacted?
- What should I do and who should I call if someone I am looking after dies?
- How can I volunteer services to help others?

Manage It

- Where can I get up-to-date information?
- How can I reduce the risk to myself and my family? What health and physical distancing measures (including safety on public transport) should I take?
- What should I do if I think I have the pandemic illness? Who should I call for more advice? How should I look after myself (specifically)?
- What should I do if someone in my family gets the pandemic illness? How should I look after them?
- How can I seek assistance if I get sicker?
- What can I expect from health services?
- When, how, where and in what circumstances should I call for medical help? (Note that the response to this question will essentially give self-triage information – the 'where' aspect will be local information.)
- Where can I seek local assessment and treatment for the pandemic illness (eg, are there local community-based assessment centres that can provide this)?
- Who is eligible for antivirals or a vaccine?
- How can I get antivirals or a vaccine for myself or my family members?
- Which public gatherings, if any, will be cancelled?
- What should I do and who should I call if someone I am looking after dies?
- How can I volunteer my services to help others?
- How can I keep myself safe at work?
- Who is in charge of decision-making nationally?
- To what extent should I stay away from infected areas?
- What are the extended powers of medical officers of health?
- When and how are medical officers of health's extended powers enacted?

Recover From It

Recovery messages will be developed in conjunction with relevant agencies at the time of the event. Key agencies concerned with social issues, health, the economy and business should take part in developing recovery messages.

Messages will need to take into consideration the scale of the event, existing community networks, social factors and public expectations.

- What psychosocial recovery activities and support programmes are available for the public, health personnel and other front-line staff and volunteers?
- Where can I get up-to-date information?
- How can I volunteer my services to help others?
- Who is in charge of decision-making nationally?
- What priority is being given to recovery activities, in terms of:
  - reinstating services providing basic necessities
  - reopening educational facilities
  - identifying services that continue to be disrupted or unavailable?
- How long will it take for services to return to normal?

Take particular care with unofficial sources of information

During times of uncertainty, we are particularly vulnerable to misinformation or fake news.

To help decide if information is true, use Netsafe's tips for spotting disinformation, 'Tips for spotting fake news' (**https://netsafe.org.nz/wp-content/uploads/2022/06/Tips-Fake-News_Trifold_0622.pdf**). These tips include:

- understanding the context
- comparing other sources
- understanding the subtlety
- checking the facts
- knowing your biases.

Communication initiatives to reach target audiences

Communication is essential to the management of any pandemic response. Information must be designed and disseminated in ways that reach all audiences. It must empower individuals and communities to make informed choices, support delivery of our response when acting as guidance and ultimately empower New

Zealanders to promote and protect the health of their wider community, their whānau and themselves.

A communications plan should aim to ensure that communications:

- use existing media, communication channels, resources and partnerships (eg, news media outlets, established communications networks, websites and other digital platforms, professional bodies and organisations, and faith-based and social groups)
- are simple (ie, do not over-complicate the message) and achievable, emphasising what is important and what will work
- are appropriately targeted and use a range of relevant methods to reach and engage key audiences (ie, that there are specific strategies and plans in place for specific groups, through established professional bodies and networks).

It is important to regularly monitor the effectiveness of public communications and adjust the approach as necessary.

News media

Established media channels are one of the primary methods of communication in a pandemic, and adequate resources need to be provided initially to ensure the maintenance of an effective and constructive working relationship. Media initiatives include:

- media conferences – these are helpful for providing information and critical for providing opportunities for journalists to ask questions and talk to people in key roles
- media releases and advisories – these draw attention to information and upcoming events and provide a baseline of credible information, and can take pressure off busy spokespeople
- briefings for news editors and specialist journalists – these can provide in-depth background information, on the record
- frequently asked questions sheets and information for file – these can provide a context and support for specific initiatives
- media interviews (one on one or with another guest or two; live or taped and edited; in person, on the telephone or via satellite) – these can provide pertinent information, on the record
- support for partner organisations, particularly those that are better placed to speak to specific audiences, to make use of media opportunities
- media monitoring of national and international media sites – this can keep the Ministry of Health abreast of breaking stories and ensure it is ready to respond as required.

Digital channels

Digital channels, including social media, provide critical tools for managing information. They are an efficient way of communicating with large audiences quickly. Opportunities to use these tools in a pandemic response include:

- implementing a dedicated space an existing website, such as Health New Zealand's consumer-facing website(s), supported by broader digital channels, that provides a consistent branded one-stop shop for public-facing information about the pandemic, including media conferences, interviews and other video and resources
- establishing a dedicated team with the responsibility and authority to develop and maintain digital pandemic communication channels and ensure that content is coordinated, current and aligned to the current level of pandemic response and risk
- ensuring digital communication caters for all discrete groups, including Māori, Pacific peoples, other ethnic groups and groups with special needs, such as disabled people (and ensuring it complies with accessibility standards)
- linking the dedicated pandemic response site to other relevant web pages and sites, local and international, and integrating it tightly with social channels
- being aware of how similar sites present information, and copying formats that work
- making use of social media platforms including SnapChat, Instagram, Facebook, X and YouTube to disseminate information in a safe and secured way
- making use of other digital media communication channels (eg, 'influencers').

Use of digital media and consideration of digital exclusion[8]

All digital media use needs to take into consideration groups that are more likely to be digitally excluded, such as Māori, Pacific peoples, disabled, rural people and elderly people. Alternate provisions need to be made accordingly (the COVID-19 response provides an example of this; there was a high demand for telephone services to order physical vaccine passes for those who were unable to use digital versions).

Telephone helplines

Helplines are an essential tool for disseminating information and managing large numbers of enquiries at an operational level. National helplines (such as Healthline) can disseminate general advice, and local helplines can provide information on accessing local services. Public information managers need to work closely with operations teams to ensure the provision of consistent messages and to capture feedback that can be used to improve and enhance communications. The establishment of helplines will involve setting up 0800 numbers, creating scripts and pre-recording messages to be played after hours and during call diversions.

[8] 'Digital inclusion' is defined as an end state in which everyone has equitable opportunities to participate in society using digital technologies.

Public awareness and education

It will be important at different stages of the pandemic response to heighten awareness and provide educational messages through paid media channels. Planning for this will involve:

- developing key messages and information
- planning collateral and campaigns to the point of readiness for production
- obtaining pre-approval of a budget for production, considering possible media mechanisms (eg, print or electronic media, direct mailings or billboards at high-impact sites) and accordingly obtaining pre-approval of media partners
- where appropriate, establishing a consistent branding approach across multiple channels (eg web, social, physical assets, video, etc)
- developing public service broadcasts able to be used in national emergencies
- considering a variety of methods to reach communities and agencies.

Māori and Pacific audiences

Teams involved in the public information management function will coordinate with Māori- and Pacific-focused health teams within the Ministry of Health, Health New Zealand and networks led by other government agencies to ensure key messages reach Māori and Pacific audiences effectively. Communication with these audiences can occur through:

- Māori television
- Māori and Pacific radio stations
- Māori and Pacific language translations on Health New Zealand's website or other appropriate dedicated websites.
- the networks and resources of Te Puni Kōkiri, the Ministry for Pacific Peoples and other government agencies
- Māori health providers and iwi/hāpu-led organisations
- Pacific health providers and community groups.

Ethnic communities

Key information on the pandemic needs to be published online in a variety of languages other than English, Māori and Pacific languages. Other resources and channels will need to be considered as the pandemic develops to ensure many ethnic communities have access to timely and relevant information; for example:

- non-mainstream media outlets, such as the 11-station Access Radio national network
- the Department of Internal Affairs' Office of Ethnic Affairs' translations, database and regional contact advice, and its current list of the top 15 languages most commonly spoken by ethnic communities in New Zealand
- ethnic television programmes (eg, in the Auckland area, those in Mandarin and Cantonese)

- small Chinese-language newspapers, particularly in Auckland
- locally based refugee services and networks
- religious groups forming centres for ethnic communities (eg, Islamic organisations; in the influenza A (H1N1) 2009 pandemic, these organisations were willing to spread health messages through their networks, websites and newsletters).

Disabled communities

Teams involved in the public information management function will coordinate with focused health teams within the Ministry of Health, Health New Zealand and Whaikaha to ensure key messages reach disabled communities effectively. These teams will work in a timely way to disseminate information materials in accessible formats including New Zealand Sign Language (eg, ensuring media and public briefings involve an interpreter), Easy Read and Braille and ensure digital media is designed in accordance with accessibility standards. We will work together to ensure information is accessible and appropriate for tāngata Whaikaha (Māori disabled people) and Pacific disabled people.

Other publicity opportunities

An existing network of professional, vocational, community, cultural and special-interest media provides opportunities for communication with a wide variety of audiences. Such media include:

- community newspapers
- professional and trades journals (eg, in the health and disability sector, *New Zealand Doctor, Pharmacy Today* and nursing journals)
- central agencies' communication networks (the Ministries of Business, Innovation and Employment, Education and Welfare all maintain such networks)
- educational supplements and resources
- children's television, in Māori and English (eg, *What Now* ran a colouring-in competition during the influenza A (H1N1) 2009 pandemic, and its programmers are willing to continue to work closely with the Ministry of Health in the event of a future pandemic)
- church and social groups
- regional television
- train and bus stations and sidings.

Monitoring and managing false information during a pandemic

During a pandemic, there will be a heightened public awareness of and sensitivity to public health threats. This means the public could potentially be more receptive to authoritative sources of public health information, but it also means there is a greater risk from the spread of false health information. False information can erode trust in government and health institutions and reduce people's receptiveness to public health

advice and compliance with public health measures. This can significantly reduce the effectiveness of any pandemic response. Moreover, belief in false information can lead people to adopt practices that could actively harm them, rather than protect them.

Given the potential consequences, any public information management approach to a pandemic needs to address the potential harm of false information. Steps to address this should include:

- ensuring accurate public health information is widely available and disseminated in a way that reaches people and makes sense to them. This requires a multi-channel and multi-audience approach delivered across digital channels, in print and in person. Careful consideration should be given to meeting a range of formatting, language and accessibility needs
- partnering with trusted community voices and organisations, who are usually in a better position to speak to their communities about public health than government or health agencies
- monitoring and 'pre-bunking' false information before it is widely disseminated. This does not mean directly acknowledging the false information but rather ensuring that communities that may be vulnerable to the specific false information have access to accurate information first
- in the medium term, promoting resources that increase people's ability to critically assess the reliability of information.

Communications resources

Including Culturally and Linguistically Diverse (CALD) Communities (MCDEM 2013)

Being Prepared (Ministry of Health 2013b)

Appendix B: Explanatory material

This section provides additional information to support or supplement matters raised earlier in the document.

Ethical considerations

The National Ethics Advisory Committee notes that an effective pandemic response will require a range of interventions, some of which, in the interest of protecting the collective's right to health, will limit individual liberties. To find the correct balance between individual and collective rights, the committee recommends that interventions should align with the 'Balance Principles', be mātauranga Māori and/or evidence-based and be proportional to the benefit they are trying to achieve or the risk they are trying to mitigate.

Ethically, restrictive powers and intrusion into people's lives should be exercised at the minimum level required to achieve public health objectives. Interventions designed to slow or eliminate the spread of an epidemic should, when possible and appropriate:

- be agreed rather than imposed. Measures that have been agreed to willingly are, all other things being equal, better ethically
- aim to minimise any limitation of human rights and carefully describe the justification for that limitation. Special attention may need to be paid to people who are subject to restrictions (eg, to their freedom of movement), to ensure their other rights are protected
- provide reciprocal support for people who, to protect others, have restrictions imposed upon them
- be evidence-based and proportionate.

People are more likely to accept difficult decisions if decision-making processes are open and transparent, reasonable, inclusive and responsive, entailing clear lines of accountability. Decision-making processes are also more likely to be acceptable if they are based on agreed, core ethical values and are evidence driven.

It is important to note that ethical considerations are broader than the legislation suggests, and that the law is silent on many issues raised in pandemic planning. In addition, the law is often slow to follow moral change in the community, so older legislation may not necessarily reflect a community's current ethical values.

Some pandemic programmes must be implemented swiftly if they are to be effective, and some will have ethical components that need to be considered in real time. It will not always be effective to rely on the usual processes.

Public Information Management Strategy

Overarching principles

Public information management is an integral part of an integrated, wider response strategy to provide leadership and reassurance for the public, the health and disability sector and other sectors during a pandemic. It complements the health system's and wider sector's pandemic response.

The Public Information Management Strategy allows central health agencies, including the Ministry of Health, Health New Zealand and Whaikaha, to explain the public health response and advise the population on the public health measures they need to take as the pandemic progresses. It is designed to enhance alignment between agencies; avoid confusion; and maintain accuracy, clarity and consistency of message. The overarching principles of the strategy are to:

- build trust and provide reassurance
- announce early
- be transparent
- respect public concerns
- be proactive
- manage risk
- plan in advance
- be responsive.

This strategy recognises that providing accurate, timely and consistent information is essential to the effective management of a pandemic response, and that in a pandemic one of the most critical roles of the central health and disability agencies will be to provide leadership and coordination in communications, to ensure the approach is locally led, regionally enabled and centrally supported. It also recognises that central health agencies have a duty to ensure information is accessible and reaches priority populations in pandemic, including Māori, Pacific peoples, women (the majority of carers) and disabled people. Specifically, meeting our Te Tiriti of Waitangi obligations means partnering with Māori to develop ways of communicating with Māori during a pandemic, ensuring that the information being shared empowers Māori to act and actively enhances their protection from the impact of the pandemic.

As the public health operational response lead, Health New Zealand runs the Public Information Management Strategy in the event of a pandemic, including by deciding the public and sector channels through which pandemic information will be shared. This will be supported by other health and disability organisations, including Whaikaha, which will have access to channels and relationships that are more effective at reaching specific populations.

The Public Health Agency, within the Ministry of Health, will provide public health advice to Health New Zealand's Outbreak Response team to be used in the Public Information Management Strategy. Health New Zealand will operationalise such public health advice, working with its supply, contact tracing, and IPC teams to develop advice and guidance to the public and the sector. This advice will then be reviewed by the Ministry and Whaikaha before it is finalised.

As part of its oversight of the Public Information Management Strategy, Health New Zealand will produce materials, as required, which can be customised by relevant national, regional and local agencies and organisations in their responses. For example, regional health services can take national resources, add in local details on how the public can obtain advice and treatment and disseminate this material through local community networks and media.

Health New Zealand will also use translations services to provide public information in te reo Māori, Pacific languages and other languages, and in accessible formats.

Different parts of New Zealand may be at different response phases at any given time. It is therefore important to ensure that national information is adapted and disseminated by local agencies (such as Health New Zealand districts/regions) to meet local circumstances. Support is still required to ensure the communications approach for priority populations works for those communities. It is equally important that the information being shared by central agencies (nationally or locally) across New Zealand is consistent with agreed messaging and established best practice principles.

The Public Information Management Strategy is an evolving strategy that is designed to be revised as more is learnt about a pandemic and its characteristics. New information will allow central health agencies to better target messages and manage communications. Throughout the phases of a pandemic, the lead agency will:

- lead all communications on public health, supported by other central health agencies and key stakeholders as appropriate
- appoint a Public Information Management Strategy manager(s) who has the ability to carry out the necessary responsibilities, supported by an appropriately resourced team of communications staff
- ensure the appropriate resourcing and development of public information materials; awareness campaigns; and website, social media and media content as required to support the response
- provide expertise, leadership and advice to support the pandemic response leadership group and other key decision-makers
- provide expertise, leadership and advice to support other government agencies, ministers and other key stakeholders as required as part of the all-of-government pandemic response effort
- develop and deliver appropriately targeted audience communications and collateral to support the operational aspects of the pandemic response.

Communications objectives

The provision of information on a pandemic needs to be clear, timely, accurate, authoritative, planned and sustained, with the aim of establishing and maintaining mutual understanding and trust between those managing the response and between agencies and the public. It also needs to reach high-priority populations in need.

Key objectives are to:

- maintain public trust and confidence in the response and in agencies' competence and capability
- be proactive and provide information before people know they need it
- be flexible enough to respond to unforeseen or changing circumstances
- ensure those who need information and advice, including external and international agencies and non-governmental organisations, receive accurate, consistent and timely information and advice on which to base their own communications and responses
- ensure that communications are provided in appropriate, culturally safe and accessible forms, particularly for priority populations
- foster a level of public awareness and a sense of urgency appropriate for the level of risk, without creating alarm or panic
- be transparent in raising awareness of the potential consequences of a pandemic: discuss all potential threats and ensure audiences are aware of them
- ensure New Zealanders and overseas visitors have clear and simple information about how to prepare themselves and their families/whānau for a pandemic, and where to get help
- ensure the public receives clear and frequent information about the steps they can take to protect themselves and others (eg, on the importance of hand washing and mask wearing).

Sequence of communication planning and key messages

Discrete initiatives and key messages will be developed for specific audiences and different phases. Appendix A provides an overview of these.

Intelligence

Intelligence functions

Important intelligence activities include:

- gathering and assessing information on relevant international developments, actions and advice from reputable sources, including international public health counterparts, and escalating information that may have an impact on New Zealand
- surveillance of influenza-like illness, viral isolates, testing data and unusual events
- analysis and structured risk assessments that support planning and decision-making (including modelling)
- behavioural surveillance and monitoring sentiment and social licence for public health actions; maintaining communications with community groups and front-line staff ('soft intel').
- enhancing surveillance during a pandemic response (including international and domestic surveillance)
- monitoring response activities and resources (in the health and disability sector and other sectors)
- evaluating response activities (in the health and disability sector and other sectors)
- assessing impacts on health services, society and the economy
- assessing impacts on non-health services and sectors
- gathering clinical information about illness, severity and management
- gathering and assessing epidemiological information (including on time trends, geography, impacts on particular population groups and transmission patterns)
- reviewing and assessing virology data
- reviewing mortality data
- undertaking other research.

A number of these functions can also be categorised as 'surveillance'.

Information gathered by way of these activities should be analysed and used to produce reports and provide advice to the health and disability sector and other sectors as needed.

One important function is receiving and providing updates to and from the World Health Organization through the National Focal Point under the International Health Regulations 2005 (WHO 2006).

> Government agencies are responsible for monitoring the impact of a pandemic; monitoring, evaluating and reporting on response activities in their own sectors and through the Intersectoral Pandemic Group work streams; and reporting on these activities to the National Health Coordination Centre and National Crisis Management Centre.

Surveillance

Surveillance is the key intelligence function performed by health and other agencies before, during and after a pandemic, particularly at the national level. Pandemic surveillance involves the ongoing, systematic collection, analysis, interpretation and

dissemination of data to inform planning and response activities, and, ultimately, to reduce morbidity and mortality.

Table 8 sets out important surveillance objectives for health agencies in a pandemic, along with national systems and data sources in place as at 2023. Resources and functions allocated to (and within) health planning and intelligence teams need to take account of these.

An important priority between pandemics is ensuring that influenza-like illness surveillance will be enhanced in a pandemic. Throughout all phases, the Ministry of Health and Health New Zealand will work with other agencies to collect and analyse data, which will allow early determination of national trends. The Ministry of Health and Health New Zealand will use their networks to facilitate prompt public health action on the basis of this data analysis.

The objectives for public health surveillance and the surveillance methods used will change as a pandemic develops and spreads through the country. In the Plan For It phase, the priority is to ensure domestic surveillance systems are fit for purpose and processes are in place to obtain international intelligence to monitor the international situation. As the country moves through the Keep It Out and Stamp It Out phases, the early detection of imported and secondary cases and clusters becomes the priority, so appropriate control measures can be implemented. In the Manage It phase, characterised by widespread disease in New Zealand, intensive efforts towards the detection of cases will be replaced by monitoring the progress of the pandemic; assessing its impact on the population, health and social services, and critical infrastructure; and assessing the effectiveness of response activities. In the Recover from It phase, heightened surveillance efforts will be scaled back down, and the data will be used to support reviews and lessons-learned exercises.

No single surveillance system or information source can provide all the information needed for pandemic preparedness, control and management. The WHO recommends multisource systems to ensure resilience and responsiveness. The surveillance system will be under considerable pressure during a pandemic, and resources are likely to be limited.

Given the variable incubation and latency periods of a virus (or pathogen) and potential delays in diagnosis, notification and action, response decisions will need to anticipate the likely situation in two to three generations of the virus (which may be as little as four to six days), rather than respond to the immediate situation.

Central and local government, the health and disability sector, social service agencies, the media and the public have their own information needs. Important common requirements include:

- coordinating and prioritising surveillance activities to meet well-defined surveillance objectives
- implementing robust surveillance infrastructure and operations that can operate in a timely manner
- using simple, existing information sources and surveillance methods where possible

- considering how enhancing existing systems would compare with creating new systems (eg, by carrying out costs and benefits analyses) and using different data sources (eg, point-of-care tests, wastewater surveillance and workplace or school absentee rates)
- implementing appropriate checks and balances for monitoring the quality of new surveillance systems
- collecting sufficient demographic information to enable equity analyses
- making multiple use of information – gather once, avoid duplication and use for many purposes
- ensuring a variety of collection methods, so that the potential collapse of one source can be compensated for
- integrating and ensuring consistency with other pandemic-related information management planning and development activities.

Table 8: Health sector surveillance objectives

Objective	National strategy or systems	Owner	Relevant phase
Identify and monitor international events of concern and related advice to inform action in New Zealand	International Health Regulations 2005 (WHO 2006) and WHO communication channels	Ministry of Health	All
Detect cases and clusters early	Notification through public health services and laboratories	Public health services, Ministry of Health	Keep It Out, Stamp It Out
Detect cases and contacts	Monitoring of probable and confirmed cases notified to the local medical officer of health and through EpiSurv (a database that collates notifiable disease information) and Notifiable Disease Management System	Public health services, Health New Zealand	All
Detect community transmission	EpiSurv and sentinel surveillance and genomic surveillance in various settings	Ministry of Health, Health New Zealand	Stamp It Out
Monitor virological changes domestically	Virological surveillance (various methods) and molecular epidemiological assessments of viral transmissibility, disease severity and impacts, including on prevention (eg, vaccine effectiveness) and treatment (eg, antiviral resistance) measures	Health New Zealand	All

Objective	National strategy or systems	Owner	Relevant phase
Monitor the level of influenza-like illness, infection and disease activity in the community and the pressure on primary health care services	Monitoring of influenza-like illness consultations in sentinel practices	Ministry of Health, Health New Zealand	All
	Influenza-like illness sentinel surveillance (including virological surveillance) influenza-like illness sentinel surveillance Monitoring of influenza-like illness-related calls to Healthline Flu-tracking citizen science[9] influenza-like illness surveillance Notifiable disease surveillance as above (consider a role for over-the-counter rapid antigen test self-reporting) Monitoring of testing and positivity rates Possible infection and sero-prevalence surveys to assess prevalence Possible Wastewater-based epidemiology quantitation to monitor infection trends		
Monitor containment activities being undertaken	Monitoring of, for example: • volumes of flights • levels of contact tracing and contact tracing performance metrics • levels of laboratory testing and demographic coverage	Ministry of Health, Public health services, Health New Zealand	Keep It Out, Stamp It Out
Monitor pressure and impacts on health services and levels of resources	Monitoring of, for example: • public health services • ambulance services • primary health care use • hospitalisations • severe acute respiratory infections • intensive care unit admissions and ventilator use • illness among personnel • antivirals (national reserve supplies) • vaccines uptake and equity of access • laboratory and testing services • Healthline calls	Health New Zealand	All

[9] Citizen science is research conducted with participation from the general public, or amateur/ nonprofessional researchers.

Objective	National strategy or systems	Owner	Relevant phase
Monitor the impact on the community and population groups	Monitoring of data on absences from: • schools • the workforce in Health New Zealand (including public health services) • employers in certain industries • the state sector Monitoring of impacts in certain settings (eg, aged residential care services) Epidemiological analysis and research on impacts across population groups	Ministry of Health, Health New Zealand, NPHS, Whaikaha, Ministry of Education, State Services Commission	All
Assess the effectiveness of interventions	Review and evaluation of the pandemic response	Ministry of Health, Health New Zealand, Whaikaha, other government agencies	All
Detect and monitor deaths	EpiSurv and the Office of the Chief Coroner The Ministry of Health only reports deaths confirmed as being due to the pandemic virus to the WHO. Alternative pragmatic definitions of death may be needed as well.	Ministry of Health, Health New Zealand	All
Detect and monitor longer-term morbidity and sequalae associated with the infection	Review hospital discharge data, health survey and other relevant information sources	Ministry of Health, Health New Zealand	
Track the characteristics of the virus internationally, including information on incubation and infectious periods, severity, transmissibility and antiviral sensitivity	Epidemiological reports from the WHO, other health authorities and sources	Ministry of Health	All
Anticipate future scenarios (modelling)	Modelling that describes potential pandemic scenarios of cases and hospitalisations and evaluates the impact of potential public health actions and policies	All	All
Monitor public attitudes and behavioural data	Behavioural surveys to assess sentiment, social licence for public health actions Methods to track attitudes, understanding and behavioural trends over time Monitoring systems to identify and track levels of dis- and misinformation	All	All

Legislation

Mandatory measures are authorised by statute

Any action specified in this plan in relation to individuals, businesses or other entities that includes the possibility of compulsory measures being taken must be authorised by statute. The action is otherwise likely to be unlawful and, in particular, might be contrary to the New Zealand Bill of Rights Act 1990.

Mandated measures may include:

- requirements for people to be tested, screened or vaccinated (may include arrivals to New Zealand)
- quarantining or isolating people (ie, supporting those potentially exposed and those with the disease in a quarantine or treatment/isolation facility (or at home) or prohibiting them from leaving a particular facility/home)
- restricting the movement of people into or out of an area
- restricting travel (within or out of New Zealand)
- imposing a duty to supply information for risk assessment or contact tracing (eg, future travel plans or past travel history)
- requirements for people to undergo preventive treatment
- requirements for people not to go to work or other public places or to do so only under certain conditions
- commandeering of resources (eg, land, buildings or vehicles).

Where response measures involve mandated actions, particularly those that restrict basic freedom of movement and association, a system needs to be developed with clear criteria and processes to allow for exemptions to be sought and issued in a timely and transparent manner.

Legislative measures

In a pandemic response, Government and designated officers may use available legislative powers as appropriate to the particular situation. These include:

- powers provided for in the Health Act 1956 ('routine' and 'special' powers)
- additional powers available under the Epidemic Preparedness Act 2006 to facilitate the management of serious epidemics of specified diseases
- additional powers under the Civil Defence Emergency Management Act 2002 (in a state of emergency declared under that Act) if required in a very severe situation.

The powers in the Health Act 1956 and the Epidemic Preparedness Act 2006 can be exercised only in relation to specific diseases or categories of disease (notifiable disease and infectious disease, in the case of the Health Act, and quarantinable disease, in the case of the Epidemic Preparedness Act). In particular, the Epidemic Preparedness Act relates to only nine named quarantinable diseases set out in Part 3 of Schedule 1 of the Health Act. (Quarantinable diseases are specifically dealt with in Part 4 of the

Health Act.) Infectious disease management powers, whether or not applied in an emergency, were revised in 2017; they are set out in Part 3A of the Health Act. They apply to all the infectious diseases set out in Schedule 1, including quarantinable diseases.

Other legislation that contains provisions relevant to managing a pandemic includes:

- the Health (Infectious and Notifiable Diseases) Regulations 2016
- the Health (Burial) Regulations 1946
- the Health (Quarantine) Regulations 1983
- the Cremation Regulations 1983
- the Health Practitioners Competence Assurance Act 2003
- the Medicines Act 1981 (and regulations made under that Act)
- event-specific legislation that may be enacted, such as the COVID-19 Public Health Response Act 2020
- the Pae Ora (Healthy Futures) Act 2022.

The Medicines Act 1981 provides mechanisms for the approval and classification of medicines and controls conditions for prescribing, dispensing and selling medicines (including vaccines). These controls can be changed quickly by notice in the *Gazette* and may be relevant in particular pandemic situations. For example, in 2009 a *Gazette* notice authorised the supply of prescription medications without a prescription when supplied from a CBAC.

Table 9 provides a summary of specific legislative provisions.

Health Act 1956

The Health Act 1956 (and its associated regulations) is the core statute for a wide range of public health functions. It details significant health protection roles for the Minister of Health, the Director-General of Health, the Director of Public Health, statutory officers (such as medical officers of health and health protection officers) and local government officers (such as environmental health officers).

Medical officers of health and health protection officers would rely on two kinds of primary powers in a pandemic: routine and special, as follows.

- Routine powers are available to the officers, and do not usually need prior approval by someone else to use (although exercise of the Part 3A powers with regard to non-notifiable infectious diseases requires the prior approval of the Director of Public Health under delegation from the Director-General of Health).
- Special powers (for medical officers of health only) need prior authorisation granted:
  - by the Minister of Health
  - by virtue of an epidemic notice having been issued by the Prime Minister under the Epidemic Preparedness Act 2006 in connection with a quarantinable disease
  - by virtue of a state of emergency having been declared under the Civil Defence Emergency Management Act 2002.

When authorised to do so, medical officers of health can exercise potentially very significant powers. Such officers are accountable to, and subject to direction from, the Director-General of Health. During COVID-19, significant powers were exercised at a national level by the Director-General rather than by local medical officers of health.

Routine and special powers as defined in the legislation relate to specific diseases or categories of disease.

The term 'non-seasonal influenza' (capable of being transmitted between human beings) applies to any new form of influenza. Non-seasonal influenza is now specified as a notifiable, infectious disease by its inclusion in Part 1 of Schedule 1 of the Health Act. As such, medical officers of health may be authorised to use the Health Act's special powers to help manage non-seasonal influenza in the event of a pandemic, or simply use the powers in Part 3A of the Act. However, there are some distinctions between the two sets of powers, which means advice should be sought at the time about which set is appropriate. For example, the special powers can be used nationally and apply to whole communities as well as individuals. In most cases, Part 3A powers only apply to individual cases and contacts, or suspected cases. An exception is a direction to close an educational institution or part of it. The police are not expressly authorised to enforce directions under Part 3A, but have an explicit enforcement role with regard to the special powers.

Routine powers

Several routine powers are relevant in the pandemic context.

A medical officer of health or health protection officer has the power to enter any premises, including by boarding an aircraft or ship, at any reasonable time if he or she 'has reason to believe that there is or recently has been any person suffering from a notifiable infectious disease or recently exposed to the infection of any such disease' (section 77 of the Health Act).

The power to examine allows a medical officer of health or health protection officer to medically examine any person in any premises, including on an aircraft or a ship, to ascertain whether a person believed to be suffering from a notifiable infectious disease or recently exposed is suffering or has recently suffered from the disease (section 77).

The power to detain at a specified place of residence for isolation purposes allows a medical officer of health to issue a written direction to a person or contact whom the officer believes on reasonable grounds poses a public health risk arising from an infectious disease under sections 92I to section 92K. These sections outline a variety of conditions the officer may specify in the direction, including to stay at all or specified times at a specified place of residence, subject to specified conditions. The direction must specify its duration. Directions cannot be used to compel a person to seek treatment under Part 3A. For that to happen, the officer must apply for and be granted a public health order, order for contacts or medical examination order with a treatment order component under that Part. A medical officer of health may issue a direction under section 92K to a person to undergo a medical examination, although several preconditions must first be met (eg, the person has not complied with a previous request to seek examination).

A medical officer of health can also issue directions to the head of an educational institution where staff or students pose a public health risk because of infectious disease and the risk is unlikely to be managed effectively by solely giving directions to individuals (section 92L). A medical officer of health may, after consultation with the head of the institution, direct them to direct a student or staff member to stay away from the institution for a specified period, until the infection risk has passed (section 92L). The *Communicable Diseases Control Manual* (Health New Zealand nd) (currently under review) sets out disease incubation periods for various infectious diseases, which will assist in determining how long unimmunised contacts and infectious cases must stay away from the institution. Alternatively, the head may decide to take action themselves, under the Education and Training Act 2020. Where it is necessary to close part or all of the institution, the medical officer of health can issue a direction for closure to the institution's head.

Subpart 5 of Part 3A of the Health Act provides for formal contact tracing. This is most useful in a situation in which voluntary contact tracing is not working, or the case is not cooperating. A medical officer of health, health protection officer or other person authorised to contact trace under subpart 5 can require the case to provide specified information about contacts, including each of their identifying and contact details, in order for the contact tracer to identify the disease's source, make contacts aware that they too may be infected and may require testing and treatment, and limit the transmission of the disease.

Special powers

Special powers are authorised by the Minister of Health or by an epidemic notice or apply where an emergency has been declared under the Civil Defence Emergency Management Act 2002.

The power to detain, isolate or quarantine allows a medical officer of health to 'require persons, places, buildings, ships, vehicles, aircraft, animals, or things to be isolated, quarantined, or disinfected' (section 70(1)(f)).

The power to prescribe preventive treatment allows a medical officer of health, in respect of any person who has been isolated or quarantined, to require people to remain where they are isolated or quarantined until they have been medically examined and found to be free from infectious disease, and until they have undergone such preventive treatment as the medical officer of health prescribes (section 70(1)(h)).

The power to requisition premises allows a medical officer of health to requisition premises and vehicles for the accommodation, treatment and transport of patients (section 71(1)).

The closure of premises such as schools can be required under sections 70(1)(1a) and 70(1)(m). This can be made by way of written order to the person in charge of the premises or order published in a newspaper or broadcast by television or radio and able to be received by most households in the district. If specified in the order, premises operating certain infection control measures may be exempted from closure.

Section 71A states that a member of the police may do anything reasonably necessary (including the use of force) to help a medical officer of health or any person authorised

by the medical officer of health in the exercise or performance of powers or functions under sections 70 or 71.

These special powers were used for the first time during the response to COVID-19. In general terms, they performed well. However, there were some mis-steps in their application, they lack procedural and human rights safeguards and court judgments have found that while they can be used as a stop-gap measure in emergency situations, they are not suitable for sustained, complex responses.

Epidemic Preparedness Act 2006

The Epidemic Preparedness Act 2006 provides for:

- the Prime Minister to issue an epidemic notice and epidemic management notices, and for statutory changes to then be made through 'modification orders'
- epidemic modification orders to be made (prospectively or immediately) and passed by Order in Council.

Epidemic notices

Mechanism for invoking emergency powers

The provisions in the Epidemic Preparedness Act can take effect once an epidemic notice is issued by the Prime Minister. The Prime Minister may issue an epidemic notice only when the Director-General of Health recommends taking that step. With the agreement of the Minister of Health, the Prime Minister must be satisfied that the effects of an outbreak of a particular quarantinable disease are likely to significantly disrupt (or continue to disrupt) essential government and business activity in New Zealand (or parts of New Zealand). The outbreak can be overseas or in New Zealand. Epidemic notices last for a maximum of three months and are renewable.

Effects of an epidemic notice

When an epidemic notice has been issued, the special powers for medical officers of health under the Health Act are authorised. While an epidemic notice is in force the Prime Minister may, with the agreement of the responsible minister, issue an epidemic management notice. An epidemic management notice may activate, if this is specified in the notice, action under other statutes (which may refer to an epidemic management notice (section 8(1) of the Epidemic Preparedness Act)) or a modification to a specific statute made by a prospective modification order. Immediate modification orders may also be made; these are designed to allow more flexibility in pandemic management than envisaged and addressed in any prospective modification orders. Implementation of a prospective or an immediate modification order must have the agreement of the minister responsible for administering the relevant statute.

Modification orders

Effects of modification orders

Modification orders:

- can be absolute
- can be subject to conditions
- may be made by stating alternative means for complying with the requirements or restriction, or by substituting a discretionary power for the requirements or restriction.

Acts to which a modification cannot be made

A modification cannot be made to the New Zealand Bill of Rights Act 1990, the Bill of Rights 1688, the Constitution Act 1986, the Electoral Act 1993, the Judicial Review Procedure Act 2016, the Parliamentary Privilege Act 2014 or the Epidemic Preparedness Act 2006.

International Health Regulations 2005

The International Health Regulations 2005 (WHO 2006) require WHO member states to be able to detect, plan for and respond to disease outbreaks of all kinds, including pandemics. Their scope is broader than just communicable diseases, and includes any acute or emerging public health event of potential international significance: for instance, emergencies arising from toxicological, radioactive or other sources.

Under the International Health Regulations, countries must designate a National Focal Point for coordination and communication with the WHO, to respond to requests from the WHO for information about public health risks and to notify the WHO within 24 hours of an event that may be a public health emergency of international concern.

A 'public health emergency of international concern' is defined in the International Health Regulations as an extraordinary public health event that requires an international response. Countries must notify the WHO in accordance with a decision instrument as set out in Annex 2 of the Regulations. The Public Health Agency within the Ministry of Health is the National Focal Point in New Zealand.

Under the International Health Regulations, countries must develop and maintain core public health capacities for maintain surveillance of, investigate, respond to and report on all potentially significant public health events. These capacities must be in place locally or regionally, nationally and at the border.

One specific requirement of the International Health Regulations is that countries take measures to avoid exporting disease. In a pandemic, this means that once cases have been identified in New Zealand, measures may be needed at the border for departing travellers (eg, exit assessment).

Civil Defence Emergency Management Act 2002

The Civil Defence Emergency Management Act 2002 (currently under review) is the principal instrument of the civil defence emergency management (CDEM) framework. Other instruments include the National Disaster Resilience Strategy (MCDEM 2019) and Guide to the National Civil Defence Emergency Management Plan 2015 (MCDEM 2015b), as well as the National Civil Defence Emergency Management Plan Order 2015, the Biosecurity Act 1993, the Resource Management Act 1991 and the Health Act 1956 (as outlined above).

The Civil Defence Emergency Management Act provides for (among other things):

- planning for emergencies
- the declaration of a state of local or national emergency: local authority mayors (or delegated elected representatives) or the Minister of Civil Defence can declare a state of local emergency, and the Minister of Civil Defence can declare a state of national emergency
- emergency powers that enable CDEM groups and controllers to:
  - close or restrict access to roads and public places
  - regulate traffic
  - provide rescue, first aid, food, shelter and so on
  - conserve essential supplies
  - undertake emergency measures for the disposal of dead people and animals
  - provide equipment
  - enter into premises
  - evacuate premises or places
  - remove vehicles
  - requisition equipment, materials, facilities and assistance
- requirements for government departments and agencies to prepare plans to continue functioning during and after an emergency.

Cross-references and supporting material

Guide to the National Civil Defence Emergency Management Plan (MCDEM 2015b)

National Disaster Resilience Strategy (MCDEM 2019)

National Civil Defence Emergency Management Strategy (Minister of Civil Defence 2008)

National Civil Defence Emergency Management Plan Order 2015

Civil defence emergency management declarations

Before the Epidemic Preparedness Act 2006 was enacted, a declaration under the Civil Defence Emergency Management Act 2002 or an authorisation by the Minister of Health was required to authorise the special powers of medical officers of health under the Health Act 1956. These powers are now authorised by virtue of an epidemic notice having been issued regarding a quarantinable disease, which should lessen the need for a declaration under the Civil Defence Emergency Management Act 2002. A CDEM declaration should now be required only when the emergency powers detailed in sections 85–92 of the Civil Defence Emergency Management Act need to be released (these powers are summarised in the list above).

State of local emergency

Local agencies should consider the potential need for a declaration of a state of local emergency under the Civil Defence Emergency Management Act in conjunction with central government, so that responses are consistent and made in the interests of New Zealand as a whole. The National Emergency Management Agency recommends to local authorities and CDEM groups that declarations for any kind of emergency should be made only when the powers provided by the Act are required and when the declaration will add value to the response.

State of national emergency

Any declaration of a state of national emergency made by the Minister of Emergency Management under the Civil Defence Emergency Management Act will be made in consultation with the ODESC system.

Any declaration of a state of local or national emergency under the Civil Defence Emergency Management Act in response to a pandemic will be made to support the Ministry of Health in its lead role.

Civil defence groups can provide assistance irrespective of whether a declaration has been made.

Cross-references and supporting material

Declarations: Director's Guidelines for CDEM Sector (DGL 13/12) (MCDEM 2012)

Table 9: Summary of specific legislative provisions

Legislation	Relevant sections of the legislation
Health legislation	
Health Act 1956	Part 3 (Infectious and notifiable management, diseases): • special powers (sections 70, 71, 71A and 72) • routine powers (sections 77–82 and 96–101) • notifying diseases (sections 74, 74AA and 76) • power to enter premises and examine persons (section 77) • mortuaries and burials (sections 84 and 86) Part 3A (Management of infectious diseases): written directions restricting movement and behaviour and to seek medical examination (sections 92I to 92L); urgent public health orders to detain at specified premises for 72 hours (section 92ZF); application for court orders, including for treatment (sections 92ZF to 92ZJ); formal contact tracing (subpart 5); prosecution (eg, sections 92V and 92W) Part 4 (Quarantine) Under the Health Act, the Health (Infectious and Notifiable Diseases) Regulations 2016
Epidemic Preparedness Act 2006	Particularly sections 5, 8, 11–15 and 66–69
Health (Quarantine) Regulations 1983	Regulations 3, 10 and 13
Health (Burial) Regulations 1946	
Non-health legislation	
Biosecurity Act 1993	Particularly: • restricting imports of animals and animal products (section 25) • animal surveillance (sections 43, 109, 114 and 121 and Part 7) • restricting movement of animals or at-risk goods (sections 130 and 131 and Part 7 (dealing with biosecurity emergencies))
Civil Defence Emergency Management Act 2002	Particularly Parts 4 (declaration of state of emergency) and 5 (powers in relation to civil defence emergency management) and section 58
Customs and Excise Act 2018	Advance notice of arrival (section 12), persons arriving in New Zealand to provide information (section 28A)

Disease containment measures

Impact on business as usual and key control measures

A moderate to severe pandemic will probably be characterised by a high level of absence in the workforce, as people fall ill or stay at home to care for sick relatives and friends. Essential services such as police, fire, transportation, communications and

emergency management services need to be maintained during a pandemic. Other services and supplies, including hospitals, food and other essential items, water, fuel, gas, electricity, educational facilities, banking, postal services and sanitation, may also be affected. It is reasonable to assume that normal business activities, regardless of their nature, will suffer during a severe pandemic, and that there will be lesser impacts during mild pandemics.

Given the potential severity of a pandemic, New Zealand's strategy is to take every practicable step in the designated Keep It Out and Stamp It Out phases before having to move to the Manage It phase, taking into account the potential impact and characteristics of the particular novel pathogen concerned. This strategy allows more time to obtain information about the pathogen and the best way to manage it, prepare to mobilise health and other sectors for a response and reinforce public understanding of hygiene measures.

Targeted containment measures may also be applied in the Manage It phase to reduce transmission of the pathogen. These measures may be implemented to lower transmission among vulnerable and susceptible communities, and in settings such as schools and rest homes.

It is important to consider a variety of control measures to prevent, eliminate or slow down transmission of a pathogen. Modelling indicates that such interventions may help to eliminate or slow a pathogen's spread, pending the arrival of a vaccine. Public health measures could include border management measures, intensified surveillance, early detection and isolation of cases and quarantine of contacts, promotion of the importance of strict personal hygiene (especially hand washing), the use of antivirals, the restriction of public gatherings and the closure of education institutions.

The evidence for the effectiveness of many pandemic control interventions consists primarily of historical and contemporary observations, supplemented by mathematical models. New Zealand's COVID-19 pandemic experience has shown how specific containment measures can slow the arrival of a virus and save lives. It has also illustrated that some measures have the potential to increase health and other inequities; it is always important to consider potential equity impacts.

The particular interventions to be adopted in a pandemic will depend on the phase of the pandemic, the severity of the disease (a more virulent strain will justify more socially demanding measures) and the extent of transmission within the country and community.

In most situations, designated officers encourage people to comply with containment measures and do not need to use statutory powers. In situations where statutory powers need to be used, this should be done in a way that is proportionate, people-centred and offers the least restrictive option.

Determination of the nature and extent of public health measures to implement will be based on the key factors summarised in Part B, taking into account their potential positive and negative impacts on health, society and the economy, and particularly potential impacts on equity.

Response measures must be proportionate to the risk, based on the best available evidence and insights from communities and stakeholders. Decision-makers must be committed to measuring and reviewing the effectiveness and impact of the response and taking prompt action to recalibrate and update that response as required.

When determining which measures to use, it is crucial to minimise or mitigate potential social, economic and health impacts. Efforts to manage the public health risk that a pandemic presents need to also consider proportionality in regard to other health emergencies, other infectious diseases and other long-term public health challenges and pressures the health system is facing at any particular time.

Different areas of the country may be under different controls at different times or even the same time, depending on whether they have cases, are managing a suspected cluster or are managing district-wide illness. For example, one local area may need to mount intensive cluster control measures, while areas as yet unaffected by the pandemic can remain at a state of alert. Action in the affected area should be informed not only by the need to protect and support the local population but also by the need to prevent the spread of disease to other localities. Quick, decisive and far-reaching measures that are temporarily disruptive to the locality concerned but are in the national interest may be the most effective in the Keep It Out and Stamp It Out phases.

Cross-references and supporting material

Likely Future Pandemic Agents and Scenarios: An epidemiological and public health framework (Te Niwha 2023) – Section 8

Border management

If a potential pandemic has not yet reached New Zealand shores, it may be possible to prevent the pathogen from entering the country, or to delay its entry or reduce the number of importations, allowing other response measures to be put in place (during the Keep It Out phase). Such an intervention may be feasible because of New Zealand's geographical isolation, its limited number of entry points and its well-coordinated border management systems. In the Keep It Out phase, routine public health risk management procedures at the border could be elevated, according to the development of the global situation. Elevated measures may include increasing information to arriving passengers, providing travel advisories, undertaking clinical screening, requiring proof of a negative test or vaccination prior to departure, post-arrival testing, closing the border to certain countries or categories of arrivals based on risk, and imposing mandatory quarantine for people arriving in New Zealand.

There is value in trying to keep the pathogen out, or to at least delay its arrival, to allow time for preparedness activities, pathogen attenuation and a reduction in the time it is in the country before an effective vaccine becomes available. Border health measures can be an effective tool to protect New Zealanders from the effects of a future pandemic that occurs outside of New Zealand. Decisions on whether to implement border health measures will depend on many factors, including virulence, transmissibility, the availability of vaccines and treatments.

Specific border actions are described in Table 10 below and in the 'public health interventions: border management' sections of the Phase Action Framework tables in Part B of this document. Decisions on border management measures will depend on the situation, including the threat from the particular pathogen, the actions being taken by other countries, recommendations from the WHO and the possible adverse consequences of control measures, such as interrupting supply chains. Border interventions may not necessarily conclude after the Keep It Out phase; they may be maintained through the Stamp It Out phase.

Cross-references and supporting material

Responding to Public Health Threats at New Zealand Air- and Seaports: Guidelines for the public health and border sectors (Health New Zealand 2023b)

Approaches to border management

The measures described in the Action Framework support a strategy of exclusion. This strategy involves limiting arrivals from affected areas, using intervention measures for those from affected areas intending to travel to New Zealand and quarantining arrivals who have been, or may have been, exposed to the pandemic pathogen. While disruptive, limiting arrivals will be particularly important to ensure Keep It Out measures are sustainable for the weeks or months for which they may be necessary. Programmes to reduce arrivals from specific regions or countries can include:

- the New Zealand Immigration Service managing visa applications and issuing a directive on advance passenger screening to reduce carriage of non-New Zealand residents
- warning travellers to New Zealand prior to their departure that they may be placed in quarantine on arrival for a specified period
- the Civil Aviation Authority, in liaison with the Ministry of Transport, issuing a Notice to Airmen of New Zealand border closure
- establishing mandatory entry requirements (eg, evidence of a negative test, vaccination or prior infection).

Should a pandemic virus prove to be more virulent, exclusion measures coupled with facility-based quarantine and the use of testing and antivirals (if available) could be introduced. Initiated early enough, these measures would give New Zealand the best opportunity to keep rates of infection low and the goal of successfully containing the disease achievable. However, clear evidence regarding disease characteristics may not

be available early on, and decisions may have to be made in the context of this uncertainty.

Should the virus prove less virulent, a less restrictive strategy of separation could be chosen. This could require all arrivals from areas/regions/countries of interest to voluntarily quarantine themselves from the community for a length of time (depending on the available evidence) after their arrival in New Zealand. All arrivals would be given hygiene information, advised to report any illness and asked for contact-tracing information.

Infected travellers are most likely to become symptomatic within two days; this time period is therefore a suggested duration for voluntary quarantine. This option would always entail a degree of non-compliance (mandatory home quarantine could be too onerous to manage). However, it could be more successful than asking people to quarantine themselves for up to eight days.

Although not as costly or disruptive as facility-based quarantine, self-quarantine at home can have benefits. It can also be burdensome on public health services, which may be tasked with managing distributed at-risk passengers. Also, travellers arriving at the border with no homes or other places to go to (or homes that are far from their place of arrival) would have to be placed in quarantine facilities for the required time, or their domestic travel managed appropriately.

Should the virus prove to be serious but not readily transmissible, a strategy that focused on those arriving who have been in close association with symptomatic people could be chosen. All arrivals would be given hygiene information, advised to report any illness and asked for contact-tracing information. Those arriving in close association with symptomatic people (such as family members, travel group members or people sitting nearby) would be placed in quarantine and released if the symptomatic traveller was deemed not to be a case.

> The Government would decide which course of action to take. Any decision might require strong action to be taken initially, until such time as the global situation becomes clearer. The reasoning for this is that measures can always be relaxed, but if certain measures are not put in place at the first opportunity, the option to escalate may no longer be available.

Use of isolation and quarantine for border management

The modelling undertaken for New Zealand, and the experience of the COVID-19 pandemic, suggests that the most effective single intervention at the border to prevent or delay the introduction of a pandemic pathogen into New Zealand is to minimise numbers of incoming travellers. Travel restrictions and the use of facility-based quarantine, supplemented by antivirals and vaccination where available, would give New Zealand the best opportunity to restrict the number of cases introduced into the community and successfully contain the disease's spread. The Quarantine and Isolation Capability Readiness Plan (as maintained by the Protection directorate within the

National Public Health Service) takes a phased approach, providing a range of functions that can be initiated rapidly as required. Border closures or travel restrictions, either in general or for specific groups, need to be considered carefully and in a way that takes into account our international obligations (including the International Health Regulations 2005 (WHO 2006)) and the New Zealand Bill of Rights Act 1990.

Table 10: Overview of possible border management actions, responsibilities and relevant legislation

Possible actions	Responsibility	Legislation
All ships and aircraft arriving in New Zealand from overseas are liable for quarantine, and must receive pratique to commence operations in New Zealand.	Airlines and shipping operators, NPHS	Health Act 1956, section 107; Health (Quarantine) Regulations 1983
Masters of ships arriving in New Zealand must inform health authorities of the health status of those on board their vessels before arrival. On arrival, vessels must also submit a maritime declaration of health to officials. Public health statutory officers either grant pratique or arrange to meet the vessel on arrival based on the health status reports.	Shipping operators	Health (Quarantine) Regulations 1983
Captains of aircraft must report to their agents the health status of all people on board at least 15 minutes before landing in New Zealand. Any sign of illness among passengers and crew and any unsanitary conditions on board the aircraft must be reported to health authorities by the airline's agent. Pratique is deemed to have been granted unless there has been a report of illness or unsanitary conditions on board.	Airlines and airline agents	Health (Quarantine) Regulations 1983
When illness has been reported by the captain of an aircraft, public health statutory officers operationalise a process for managing any potential risk on board the craft and grant pratique when satisfied that public health risks are managed. Public health services are responsible for ensuring all New Zealand international airports have procedures for managing the public health risks around the arrival of unwell passengers.	Public health services	Health (Quarantine) Regulations 1983
The use of enhanced quarantine is considered for the quarantining of large numbers of people in the absence of symptomatic people but where there is good reason to believe those people may have been exposed to the pandemic pathogen (due to where they have travelled or who they have had contact with) as a pandemic management measure. Locate larger quarantine facilities for this.	Ministry of Health, Public health services within NPHS (Health New Zealand) in consultation with relevant agencies	Health (Quarantine) Regulations 1983
Pre-arrival risk-profiling efficacy and methodology (eg, mining passenger name record data) and determination of escalation/relaxation trigger points are considered (based on modelling of phases).	Ministry of Health in consultation with relevant agencies	No powers required if voluntary, otherwise a new regulatory power is needed

Possible actions	Responsibility	Legislation
The use of, exit assessment procedures is considered. The determination of such procedures and required authority.	Ministry of Health in consultation with relevant agencies	No powers required if voluntary, otherwise a new regulatory power is needed.
Routine border health reporting is required from masters of vessels and captains of aircraft.	Airlines and maritime operators	Health (Quarantine) Regulations 1983
Public health services work with airports of first arrival to ensure all reports of illness on board incoming aircraft are reported to and responded to by public health services.	Ministry of Health, Health New Zealand, NPHS	No powers required Health (Quarantine) Regulations 1983
When the threat of a pandemic exists, airlines are informed of symptoms of particular concern and reminded of the statutory requirement that all symptoms suggestive of infectious disease must be reported to the destination airport before the craft's arrival.	Ministry of Health, Health New Zealand and NPHS	No powers required Health (Quarantine) Regulations 1983
If an aircraft's passengers report symptoms that give rise to suspicion of a quarantinable disease, the plane, its passengers and its crew can be detained for inspection.	NPHS	Health Act 1956, sections 97B and 101
Masters of ships must seek radio pratique from a medical officer of health or health protection officer between 12 and 24 hours before their expected arrival. The medical officer of health or health protection officer may withhold pratique if not satisfied of the state of health of the ship. If radio pratique is withheld, the ship may not berth and people cannot leave or board the ship without the medical officer of health's or health protection officer's authority, and before the ship has been inspected.	Master of ship, medical officer of health, health protection officer	Health Act 1956, sections 97B, 99 and 101
If illness is reported, depending on the symptoms reported, health authorities can arrange for ill people to be met, and (if they are extremely unwell or meet the case definition and exposure risk factors for the pandemic disease) transported to a hospital or other designated facility.	Airlines and shipping agents (for reporting), NPHS	Health Act 1956
The medical officer of health can examine any person suspected of suffering from or having been exposed to a quarantinable disease.	Medical officer of health	Health (Quarantine) Regulations 1983, regulation 22; Health Act 1956, section 97
If authorised by the Minister of Health, or if an emergency has been declared under the Civil Defence Emergency Management Act 2002, a medical officer of health can require people to submit to medical examinations and isolate or quarantine them as he or she sees fit.	Medical officer of health	Epidemic Preparedness Act 2006; Civil Defence Emergency Management Act 2002; Health Act 1956, section 70(1)(e), (ea), (f) and (fa)
Ensure emergency departments (or other facilities) are advised of cases being transported.	NPHS	No power required

Possible actions	Responsibility	Legislation
Grant pratique to the craft once the public health risk has been managed.	NPHS	Health Act 1956, section 107
Consider the use of the following public health interventions: • quarantine of arrivals from specific regions or countries • closure of the border for specific categories of people (eg, those arriving from or travelling through a particular country) • pre-arrival risk-profiling • pre-departure testing requirements • post-arrival testing requirements • vaccination requirements for arrivals • exit assessments • contract-tracing information management • ensuring air and shipping lines and ports are kept up to date in terms of their reporting requirements • other measures as described in *Responding to Public Health Threats at New Zealand Air- and Seaports* (Health New Zealand 2023b)	Ministry of Health, NPHS, border agencies	

Cluster control

Background to cluster control

The aims of the Stamp It Out (cluster control) phase in a pandemic are:

- to control or eliminate the disease after its limited introduction into New Zealand (in conjunction with rigorous border management) or, failing this,
- to delay early transmission of the disease to allow more time for emergency plans to be activated, and
- to obtain epidemiological information with which to inform pandemic management response.

The rigour with which cluster control measures are implemented needs to be related to the rigour of border controls. The continuing introduction of new imported cases would eventually overwhelm the capacity of public health services to respond to outbreaks. The WHO accepts that the spread of a pandemic cannot be prevented effectively in continental countries with multiple land borders and entry points: in such countries, cluster control attempts are likely to be of less benefit compared with wider pandemic management. However, the WHO notes that the prevention or delay of the importation of the pandemic into isolated island nations with limited entry points such as New Zealand may be possible. For this reason, the Action Framework includes cluster control measures.

Public health cluster control measures depend on early recognition of imported and secondary cases through early diagnosis and notification to public health services. When the number of cases is limited and cases are recognised early enough, cluster

control interventions may be able to limit, slow the spread of or control an outbreak. Once the pathogen is widespread in a community, interventions aimed at reducing spread may have little effect. However, cluster control measures may be maintained throughout the response phases of a pandemic in higher-risk settings (such as institutions, rest homes, early childhood education services and schools) and in higher-risk populations.

The identification of early imported (primary) and local (secondary) cases through astute clinicians and surveillance will trigger case investigation and contact-tracing procedures by public health services, under the direction of a medical officer of health.

Targeted cluster control measures may be maintained in the Manage It phase to offer additional protection in institutions and among vulnerable and susceptible communities.

The Ministry of Health has developed guidelines for public health services to assist their decision-making in the implementation of cluster control measures in a pandemic.

Cross-references and supporting material

Likely Future Pandemic Agents and Scenarios: An epidemiological and public health framework (Te Niwha 2023) – Section 4.8

Isolation and quarantine for cluster control and pandemic management

Voluntary or compulsory isolation of cases and quarantine of contacts are potentially important measures to prevent or slow the spread of a pandemic at all phases of a pandemic response, particularly in the context of border and cluster control.

Isolation and quarantine may be used in combination with post-exposure prophylaxis, using antivirals distributed to contacts at the border control and cluster control phases. Modelling indicates that this combination of programmes will be more effective than isolation and quarantine on their own in controlling the spread of a respiratory-type pandemic, providing antivirals are effective against the particular pandemic strain.

However, evidence and experience suggest that, in the Manage It phase, when there is sustained transmission in the general population, self-isolation may be better than active interventions to isolate patients and identify and quarantine contacts. More rights-limiting measures may be socially disruptive and not be the best use of limited health resources.

Use of antivirals for cluster control

The provision of effective antiviral medication to people with pandemic-like respiratory-type illness and for the post-exposure prophylaxis of contacts may reduce

the likelihood of spread. Antivirals, if they are effective against the pandemic virus, will be used early in a pandemic as part of efforts to contain or eliminate initial clusters by providing treatment for cases and post-exposure prophylaxis for close contacts, as determined by the medical officer of health within the scope of national guidelines. If the pandemic becomes more widespread within New Zealand, it is expected that antivirals will be reserved for the treatment of cases, with prioritisation based on equity.

Restriction of movement

Isolation and quarantine could be used as part of the entry assessment of domestic travellers into more isolated communities where no cases have occurred. Alternatively, exit assessment of domestic travellers from areas where the pandemic is widespread could be undertaken.

The ability of communities to slow the entry of the virus by restricting entry or exit will depend on local geography and associated logistics. Prolonged cessation of travel into a geographic region may be difficult to implement because of social and economic imperatives for continued contact. Essential goods and services invariably need to pass through internal borders.

Decisions concerning the compulsory restriction of movement into and out of an area must take into account the likely effectiveness of the strategy, as well as other costs and benefits (including the potential to prevent morbidity and mortality as compared to potential social and economic impacts) and how these affect equity.

Hygiene and physical distancing

Messages about personal hygiene and measures to increase physical distancing in a pandemic are a critical part of any pandemic response. The public should be advised to avoid crowded spaces, adhere to infection control measures such as cough and sneeze etiquette, avoid mixing with other people if a person is coughing or sneezing, and regularly and effectively wash and dry their hands. Such messages must be disseminated during any pandemic, however mild or severe. Public gatherings are likely to be a means of transmission during the early stages of a pandemic. Although it is likely the public will of their own accord avoid mixing during the course of a severe pandemic, compulsory cancellation of public gatherings (or restriction of numbers) may be instituted in certain circumstances (eg, in an attempt to control a cluster outbreak). In other circumstances, employers and businesses may decide to close, or to postpone or cancel an event in the interests of staff health.

Situations or events involving large numbers of people in confined spaces (such as public transport systems or large events in crowded indoor venues) are more likely to contribute to disease transmission than, for example, local rugby club matches in the open air.

An inevitable tension exists between promoting physical distancing and encouraging community support. The key message of physical distancing (to avoid unnecessary contact with others) is at odds with the key message of community support (to be aware of other members of the community and provide support if necessary). People

may respond to physical distancing messages in a disproportionate manner, avoiding all contact rather than just unnecessary contact. Physical distancing messages should not encourage discrimination or prejudice, and should make explicit the fact that people who have close personal contact with cases will not necessarily become cases themselves.

The issue of the tension between physical distancing and community support should be openly raised. Physical distancing measures should be discussed from the planning phase. When these measures are implemented, information should then be given about the importance of community support and about how to minimise risk while maintaining social contact.

Community support and engagement will be required at all stages of the pandemic in varying forms. Early engagement with community leaders is important, to balance risks and benefits and to ensure that community needs are met and those at the highest risk of severe disease are supported.

Closure of or restrictions on education institutions

The closure of, or other restrictions on, early childhood education services and schools in an affected area during a pandemic in the Keep It Out and Respond To It phases may make a significant contribution to controlling spread. Decisions by medical officers of health to close these institutions will be influenced by the epidemiology of the virus (eg, in terms of age groups typically affected and severity) and local circumstances but must be balanced against the potential impact of a closure on children's learning and social needs and parents' needs for childcare. Education institutions may also decide to close voluntarily: such decisions need to take into account local circumstances and the advice of the medical officer of health. Measures other than closures can also be considered (eg, rostering particular year groups off school and limiting large assemblies).

While early childhood education services, schools and tertiary institutions may be closed, their premises would not necessarily be closed in a quarantine sense. For example, staff could continue to go to work to deliver services, hold online classes or carry out 'alternative duties' for their employer or another agency. School premises may be used for alternative purposes; for example, as CBACs.

The Ministry of Education has developed pandemic planning guidelines for early childhood education services, schools, kura and tertiary educational organisations. The Ministry of Education is responsible for leading the response in the education sector, although a medical officer of health may initiate a written direction (for example, requiring students or staff to stay away from the institution) by consulting with the head of the institution, under Part 3A (section 92L) of the Health Act. Any educational service closure, including closure of afterschool care, school holiday programmes and activities affecting children or adolescents, may impact parents, the workforce and productivity. For example, during COVID-19 educational services were delivered remotely, online; it was necessary for parents of young children to support or supervise this. National and international evidence showed that, during the COVID-19 pandemic, a disproportionate number of women exited the workforce. Childcare and other caring responsibilities may have contributed to this decline.

It is important that decisions concerning the closure or reopening of educational institutions are well communicated so that parents, employers and others can put appropriate plans into place.

Cross-references and supporting material

'Education work stream' in Appendix C: Intersectoral Pandemic Group work streams

Limitations on cluster control operations

Cluster control may not be warranted if the first indication of a pandemic arriving in the country is a large outbreak or several outbreaks (which would indicate a similar number of second- and third-generation contacts already incubating infection and an escalating number of contacts). In this case, immediate activation of the Manage It phase may be considered.

The main limitation on cluster control is expected to be the availability of staff with sufficient skills to undertake control measures. Health New Zealand, in consultation with kaupapa Māori and Pacific providers, will need to plan for the rapid redeployment of staff to help with public health control activities, including border management activities. Resources will mainly come from the health and disability sector (public health services, hospitals, kaupapa Māori and Pacific providers, primary care services and non-governmental organisations), but other sectors may be able to contribute (eg, police, local government, education, veterinarians and the biosecurity sector). High-intensity responses may not be sustainable for more than a few weeks. However, if border management is rigorous, the numbers of imported cases are limited and the reproductive rate of the virus is relatively low, control efforts could be continued for many months.

Manage It

Transition to pandemic management

In the Manage It phase, the strategy may see a reduction in restrictions, including in terms of individual interventions and population-wide actions. However, some actions from the Stamp It Out phase may continue, including:

- public health involvement in emergency management through the CIMS
- public advice on symptoms and dealing with the illness, through 0800 helpline numbers, the media, and digital channels
- voluntary or mandatory isolation of affected people at home or in hospital – on advice given through clinical services (eg, CBACs), 0800 helplines, Care in the Community and public health services
- voluntary or mandatory home quarantine of contacts

- targeted cluster control measures in institutions and for vulnerable and susceptible populations
- education sector closures, alternative ways of delivering education (eg, online teaching) or restrictions on activities or attendance numbers
- physical distancing measures, including social distancing at work, working from home and encouraging non-essential workers to stay at home
- disseminating advice to postpone non-essential local and national travel
- imposing restrictions on public transport
- imposing restrictions on public gatherings
- surveillance through analysis of data from settings such as CBACs, primary health care providers and hospitals; mortality data; public health data; and surveys
- continued border management – by this stage, international travel would be expected to have reduced substantially
- ongoing pandemic vaccination planning and implementation.

Past pandemics have varied substantially in terms of their effects on health and society. If a pandemic is mild, such as the influenza pandemics of 1968 and 2009, then existing health services will be able to cope, albeit with some adjustment. People would receive health services largely as they do at any other time, through hospitals and general practices, and some interventions noted above would not be required.

If a pandemic is moderate to severe, such as the COVID-19 pandemic, then alternatives to regular health service provision will be required. It should be noted, however, that even in a substantial pandemic most people will suffer uncomplicated respiratory illness, which will resolve itself.

Self-management at home will be necessary during a severe pandemic. This can be safe and effective, if the public has good information about how to look after themselves and others and how to identify complications and seek advice should they occur. Self-management can be supported through remote care by primary care services or specialised support such as care in the community. Additional support may be required for those in unsuitable accommodation, or with limited means to support themselves or their whānau.

While regular home visits to all patients by health professionals may not be possible, other means of contact can be maintained (eg, telehealth or e-health), to identify social and health needs requiring further intervention or escalation.

Care in the community

Public preparation for a future pandemic is important for New Zealand's preparedness as a whole. Individuals and whānau should have a plan that addresses:

- how they will manage if they live on their own
- identification of pre-arranged contacts
- how they will obtain necessary supplies if they are unwell or subject to movement or other restrictions.

The public should be informed about effective IPC practices, such as thorough hand-washing, covering coughs and sneezes, mask wearing, keeping an appropriate distance from others where at all possible and staying home if sick.

In a pandemic, advice will be made available on self-care, care of others and how to seek help, including how to access social and health support. Proactive community support will be required for some groups that are at higher risk of poor outcomes.

Telephone triage

In the event of a pandemic, Health New Zealand will activate telephone triage systems that the public can access for health information and advice. These systems will reduce the need for the public to go to primary care or hospitals. Assessment and care of those ill with influenza in the community could play an important role in a pandemic, because high rates of infection may mean that all except the seriously ill will need to be cared for at home.

A 24-hours a day, seven days a week call centre system will give the public continuous access to professional advice and information.

Cross-references and supporting material

National Health Emergency Plan (Ministry of Health 2015)

Community-based assessment centres

A moderate to severe pandemic emergency will put significant pressure on primary and community services, as well as hospital emergency services and ambulances. Health New Zealand, in consultation with primary and community providers, particularly Māori and Pacific providers, and ambulance services, should plan the most effective and integrated way for health services to respond to large volumes of demand in a significant health emergency while maintaining normal health services to the greatest degree possible.

Community-based assessment services must be flexible enough to meet the needs of differing (eg, urban and rural) communities, and will need to reflect the severity of the particular pandemic and the particular nature of community health services needed, which may also change during the course of the event.

Health New Zealand, in conjunction with local primary health care services, should plan for CBACs to be established in an emergency.

The purpose of a CBAC is to provide additional focused primary-care capacity while diverting people away from business-as-usual health facilities such as GP clinics and pharmacies to minimise the risk of transmission. A sudden increase in demand for

primary care services for people with infectious disease symptoms may arise during a pandemic.

In a pandemic, CBACs may provide one or more services, including vaccination, testing or the provision of test kits, assessment of possible cases and distribution of antivirals or antibiotics.

Community-based assessment centres require clear clinical leadership, with strong management and administrative support. They provide clinical assessment, advice, triage and referrals as necessary, but no inpatient or observation services. They can be established in any facility with the resources for the required clinical services, in locations where they can best meet the needs of the local community: for example, within a medical centre, a hospital outpatient facility, a community hall or a marae. (A different approach will be required in a marae context; consultation with relevant communities will be required.) Community-based assessment centres may also need to be close to pharmacy services. In some sparsely populated areas, mobile CBACs could be considered.

Health New Zealand will locally make final decisions on the activation, nature and location of CBACs, and will widely publicise their purpose and location.

A CBAC training and education pack is available for CBAC staff orientation and may be sourced from Health New Zealand emergency managers.

Cross-references and supporting material

Guidance on Community-based Assessment Centres and Other Support Services (Ministry of Health 2008b)

National Health Emergency Plan (Ministry of Health 2015)

COVID-19 Care in the Community Framework (Health New Zealand 2022)

Clinical assessment and treatment

Although most people with the pandemic illness should be able to remain in their homes and look after themselves, people with severe symptoms may require assessment or referral to secondary care. That assessment may take place over the telephone or at a CBAC. It will include a decision about where and how to treat the patient, based on factors such as the severity of the patient's illness, the presence of pre-existing co-morbidities and available resources.

In the event of a moderate to severe pandemic, there may not be enough qualified health professionals in operation to be able to assess all suspected cases. Information for the public on how to care for themselves and others at home during a pandemic will be provided to the public through various communication channels. Alternative models of care, such as kaupapa Māori and Pacific providers and remote services (telehealth) may also be used to provide the clinical assessment and treatment needed.

Hospital treatment

If people with the pandemic illness are assessed as needing hospital care and resourced beds are available, they will be referred for treatment. As demand for hospital care in a moderate to severe pandemic is likely to exceed supply, public and private hospitals will need to prioritise admissions, rationalise non-acute services and review staff rosters. Capacity to admit people to hospital during the Manage It phase is likely to be limited during a mild to moderate pandemic and considerably constrained during a severe pandemic.

Emphasis should be placed on high-quality supportive care in the community, to prevent hospital admissions and ensure the holistic care of individuals and whānau. Ensuring high-quality community care may include liaising with a broad variety of groups and stakeholders, including local councils, non-governmental organisations, kaupapa Māori and Pacific providers and voluntary groups.

Cross-references and supporting material

Likely Future Pandemic Agents and Scenarios: An epidemiological and public health framework (Te Niwha 2023) – Section 4.11

Pharmacists

In a pandemic pressure on pharmacy services may be high due to increased demand as well as staff absences because of illness or family responsibilities. Pharmacy services will likely be involved in the provision of front-line advice to the public, handling an increased demand for dispensed prescriptions and over-the-counter treatments of pandemic-related symptoms. As the COVID-19 pandemic proved, there is also likely to be high demand for administering vaccinations, distributing masks and performing point-of-care tests. Pharmacists may also have a role in supervising the dispensing of antivirals and antibiotics in CBACs.

Pharmacists will continue to dispense non-pandemic medicines during a pandemic and will need to engage in resolving supply chain difficulties caused by interruptions in international manufacture and supply.

Health New Zealand may need to liaise with pharmacists to reach agreement on the prioritising of pharmacy services.

Antiviral medicine

Pandemic-specific antiviral drugs can reduce the duration and severity of illness if given within 48 hours of the onset of symptoms and can reduce the incidence of secondary complications. In accordance with advice from the WHO and other expert advice, New Zealand maintains a supply of influenza antiviral medications as part of the national reserve supply. The specific type and quantity of antivirals in that supply are currently under review as at November 2023. There is good evidence that the

antiviral oseltamivir reduces the duration of illness and reduces viral levels; the evidence is less robust for any reduction in hospitalisation or mortality.

Some members of the public may purchase their own antiviral medication. Once the nature of the pandemic disease becomes clear, the Ministry of Health will publish advice for individuals on when and how to best use their own supplies.

It is possible the pandemic virus strain could develop resistance to antivirals, limiting their effectiveness. The pandemic virus strain will be monitored for resistance, and any developments will be incorporated into modified usage policies and advice to individuals.

During the COVID-19 pandemic, there were antiviral medicines available to treat early COVID-19 at home, including ritonavir with nirmatrelvir (Paxlovid) and molnupiravir (Lagevrio).

Cross-references and supporting material

Likely Future Pandemic Agents and Scenarios: An epidemiological and public health framework (Te Niwha 2023) – Section 4.10

Antibiotics

Secondary infection with pneumonia-causing bacteria is a common complication of respiratory infection. To ensure antibiotics can be provided for the treatment of pneumonia during a pandemic, Health New Zealand has enhanced the supplies of antibiotics held in New Zealand and included provisions for the Cook Islands, Niue and Tokelau.

Vaccination

Pre-pandemic vaccines

From time to time, the Ministry of Health may purchase small quantities of vaccines made from a circulating strain of a new influenza virus that has the potential to cause a pandemic. These will be held in reserve to be used if a pandemic eventuates. Following the recent health reforms, the Ministry retained responsibility for setting the national reserve supply's policy direction (including composition) and transferred the supply chain functions (including procurement and storage) to Health New Zealand.

Cross-references and supporting material

National Health Emergency Plan: H5N1 pre-pandemic vaccine usage policy (Ministry of Health 2013c)

Likely Future Pandemic Agents and Scenarios: An epidemiological and public health framework (Te Niwha 2023) – Section 4.9

Pandemic vaccine

Since January 2010, New Zealand has maintained an advanced purchase agreement with vaccine manufacturers for the supply of pandemic vaccine. However, there will always be some months' delay between the declaration of a pandemic and the arrival of pandemic vaccine supplies in New Zealand. This is because a vaccine that will protect against the pandemic strain cannot be made until that strain has developed and is identified.

Pandemic vaccine orders and vaccination campaign strategies will be influenced by several factors, including the nature (including the virulence) of the pandemic virus, the size of pandemic waves that may have already affected the population and the probable timing of vaccine deliveries. The process of vaccinating the population may be further complicated if each individual needs to be vaccinated more than once.

Depending on the availability of the pandemic vaccine and the characteristics of the particular pandemic, careful consideration should be given to identifying priority groups for the implementation of a large-scale vaccination programme. During COVID-19, priority was given to vaccinators, front-line health care workers, border and other essential workers and population groups at higher risk of poorer health outcomes (eg, people with pre-existing/long-term conditions, pregnant women, the elderly, Māori, Pacific peoples and people with disabilities). Priority groups should be determined based on clinical and epidemiological data.

Depending on transmission rates, the severity of the illness and the efficacy of vaccine in preventing transmission and reducing poor health outcomes, the government may consider imposing restrictions under legislation on people who choose not to accept vaccination, in relation to work, access to premises and other activities. If legislative measures of this nature are adopted, consideration needs to be given to the New Zealand Bill of Rights Act, legitimate exemptions, international travel requirements and public acceptability in light of the wider framework of response measures.

Should a pandemic vaccination campaign be necessary, the Ministry of Health and Health New Zealand will work together in developing guidance. As well as focusing on priority groups, such campaigns would need to pay detailed attention to planning for logistics (eg, to ensure adequate needles and syringes, sharps containers and other vaccination equipment and supplies), the cold chain, workforce training, phasing and strategies to minimise wastage. Experience from COVID-19 demonstrated the importance of using Māori, Pacific and other providers to maximise the vaccine uptake.

Any pandemic vaccination programmes need to take account of New Zealand's responsibilities to the Cook Islands, Niue and Tokelau. Decisions on the purchase of pandemic vaccine for New Zealand's use should also consider the extent to which New Zealand may be expected to contribute to the global vaccination programme (as it did, for example, via the COVAX facility during the COVID-19 pandemic).

Cross-references and supporting material

Likely Future Pandemic Agents and Scenarios: An epidemiological and public health framework (Te Niwha 2023) – Section 4.9

Other clinical supplies

Normal supply chains to New Zealand may be severely interrupted during a pandemic due to a reduction in international manufacturing and supply chains. It will be a priority to ensure health care workers and first responders are protected, because they provide care for the population. There are various clinical supplies held in Health New Zealand stores and bulk stores around the country. These are funded and managed by Health New Zealand, but the Ministry of Health determines the composition of strategic reserves and approves their use.

Enhanced supplies of personal protective equipment include general purpose masks and P2 grade masks, gowns, aprons and gloves. Stocks of intravenous fluids and associated equipment, such as giving sets, injection devices, needles and syringes, have also been enhanced.

Large numbers of deaths over a short time could affect the capacity of normal services to dispose of dead bodies within a reasonable or culturally acceptable timeframe, or to safely store dead bodies until disposal is possible. Health New Zealand holds supplies of body bags. Like other clinical supplies, these remain under the oversight of the Ministry.

Due to the possible disruption of international and national manufacturing and distribution of supplies for other diseases and conditions, it may be necessary for the Ministry of Health to set prioritisation criteria for other critical clinical supplies in short supply.

Cross-references and supporting material

Guidance on Infection Prevention and Control during an Influenza Pandemic (Ministry of Health 2006a) – Under review

National Health Emergency Plan: National reserve supplies management and usage policies. Third edition (Ministry of Health 2013a)

Ministry of Health web page 'National reserve supplies': **www.health.govt.nz/our-work/emergency-management/national-reserve-supplies**

Laboratory diagnosis

The overall approach to diagnosing pathogens with pandemic potential, and the management of cases, will be affected by the pandemic alert status as determined by the WHO and the Ministry of Health. During the early phases of a pandemic in New Zealand (Keep It Out and Stamp It Out), health providers should be able to access diagnostic tests with the maximum sensitivity and specificity and a turnaround time of less than 24 hours, to assist a rapid public health response.

Once a pandemic pathogen has entered New Zealand, the need for highly sensitive testing will diminish, except for the purpose of accurate diagnoses for seriously ill individuals. However, periodic testing may be required to examine for antimicrobial/antiviral resistance, if such a treatment is available.

It is preferable to take samples for viral diagnosis during the first three days after the onset of clinical symptoms. However, samples may be taken up to a week after the onset of illness, or even later in severely ill or immune-compromised patients. The specimens of choice will be dependent on the pathogen of concern. In general, for samples for respiratory pathogens nasopharyngeal and throat swabs will be appropriate.

A nucleic acid-based method (eg, polymerase chain reaction or real-time polymerase chain reaction test) is generally optimal for detecting a novel pathogen; this can be modified to detect an emergent pathogen. During the early phases of a pandemic, samples from suspected and probable cases will be tested locally or (using the laboratory transport network) sent to a referral laboratory for testing, confirmation and characterisation. During later phases, when infection is widespread, the testing strategy may alter.

The Ministry of Health and Health New Zealand, with assistance from the New Zealand Microbiology Network and New Zealand Diagnostic Laboratory providers, will work together to review and develop guidelines for collecting, handling and transporting human specimens for laboratory diagnosis of pathogens with pandemic potential.

Cross-references and supporting material

National Laboratory Guidelines for Pandemic Influenza: Collection and handling of human specimens for laboratory diagnosis of influenza with pandemic potential (Ministry of Health 2006b)

Likely Future Pandemic Agents and Scenarios: An epidemiological and public health framework (Te Niwha 2023) – Section 4.5

Care of the deceased

The standard planning model for a severe pandemic assumes about 41,000 deaths over an eight-week pandemic wave, with approximately 26,500 in the peak week. For context, New Zealand averages about 623 deaths from any cause per week in normal times. Clearly, this will have an impact on normal services for dealing with the

deceased. Health New Zealand emergency planning processes include provision for managing larger than normal numbers of deceased.

Under section 46AA of the Burial and Cremation Act 1964, no one may dispose of a body without a doctor's certificate or coroner's authorisation. If people are instructed to stay at home during a pandemic, some may die from pandemic illness without having seen a doctor. Although a natural consequence of illness, such deaths must be reported to the coroner under section 13(1) of the Coroners Act 2006. This may cause additional delays and pressures on coronial services.

Role of agencies

Several agencies are involved in managing matters relating to the dead during a pandemic, as follows.

- The New Zealand Police is an agent for the coroner.
- Births, Deaths and Marriages within the Department of Internal Affairs is responsible for registering deaths. Section 38 of the Births, Deaths, Marriages, and Relationships Registration Act 2021 requires every death in New Zealand to be notified and registered in accordance with that Act.
- The Ministry of Justice is responsible for the coronial system. Normal coronial processes will continue for other deaths (eg, homicides) during a pandemic. Coronial services in a severe pandemic will come under enormous pressure.
- The Ministry of Business, Innovation and Employment/WorkSafe New Zealand is responsible for health and safety in the workplace, including for funeral directors and pathologists, one aspect of which is preventing the spread of disease.
- The Ministry of Health is responsible for public health issues and administering burial and cremation legislation.
- Health New Zealand receives information on the medical cause of deaths (see section 46AA(2) of the Burial and Cremation Act 1964) via the Death Documents online.
- Territorial authorities are responsible for registering mortuaries and providing cemeteries. In a pandemic, funeral directors, territorial authorities and managers of denominational burial grounds may face challenges, including pressure on space.
- Regional councils and territorial authorities are responsible for ensuring compliance with the Resource Management Act 1991 in regards to burial and cremation. A high number of deaths may present challenges in terms of the establishment or extension of cemeteries and burial grounds, the installation and operation of cremators, and so on under the Resource Management Act.
- In a pandemic, funeral directors will carry out their existing roles, which includes registration of deaths with Births, Deaths and Marriages; signed identification of the deceased; transfer of the deceased from the place of death to a funeral home; placement of the deceased into an identifiable body pouch; transfer of the deceased to a local cemetery for burial or, where possible, a crematorium for cremation; and providing support for families in the community. During a pandemic event, specific restrictions may be imposed.

Coronial issues

During a pandemic, some deaths will require coronial assessment. The Office of the Chief Coroner will maintain a database of suspect and confirmed cases of pandemic. The Ministry of Health and the Office of the Chief Coroner, under a specific memorandum of understanding, will work together during a pandemic to share information on each case during a pandemic and to ensure public information is released as consistently as possible. Coronial findings may take a long time to process before being released to the Ministry of Health.

Infection hazards from bodies of people who have died from the pandemic pathogen

The Health (Burial) Regulations 1946 enable medical officers of health, health protection officers and the coroner to obtain information, direct embalming processes and set conditions for the hygienic storage, transport and disposal of the dead, as required. Advice for handling of deceased in a pandemic will need to be adapted based on the particular pathogen and transmission pathways involved.

Dead bodies will not transmit a respiratory pathogen. However, some post-mortem activities (eg, lung biopsies or other specimen collections) may generate droplets or aerosols that can transmit the pathogen. These guidelines are not intended to provide advice for pathologists.

The degree of risk from handling the bodies of people who have died from the pandemic pathogen is considered low. Bodies do not need to be bagged. Viewing and embalming pose only a low risk of infection and are considered safe.

While the deceased may not pose a risk, people who were in contact with the deceased before they died may have been exposed to the virus, and therefore need to be particularly careful to practice hygiene and personal protection procedures as advised by the Ministry of Health.

Table 11: Infection hazards from bodies of people who have died from pandemic

Function	Action	Responsibility	Authority
Care of the deceased	The degree of risk for handling bodies of people who have died from the pandemic pathogen is considered to be low. Bodies do not need to be bagged. The viewing and embalming of bodies are considered safe.	Ministry of Health, Health New Zealand, Ministry of Business, Innovation and Employment / WorkSafe New Zealand	Health Act 1956, Burial and Cremation Act 1964, Health and Safety at Work Act 2015

Gatherings, tangihanga and funerals

With any death it is important that relatives and friends have an opportunity to grieve. Any restrictions imposed on gatherings, tangihanga and funerals should be proportionate and based on risk.

In the height of the pandemic, if physical distancing measures are in place, and depending on the transmission characteristics and virulence of the pathogen, it is

possible that mass gatherings at funerals and tangihanga will be discouraged, prohibited or otherwise limited.

Health authorities should encourage communities and funeral directors to plan such gatherings with an awareness of the risks and to think about this issue in advance, evaluating the risk of transmission against the importance of cultural practices and protocols. Even when funerals and tangihanga may proceed, it might be appropriate to encourage physical distancing, limit the numbers of people attending such events, encourage or require the wearing of masks and other IPC measures. To ensure cultural practices are considered in the context of a pandemic and any identified risks, engagement with experts in tangihanga will be undertaken by those coordinating the health response to develop key messages and protocols.

Emergency powers are available under section 70 of the Health Act 1956 to prohibit or limit mass gatherings, which can include funerals and tangihanga, should public health needs require it. Once this power is authorised, either by the Minister of Health or because an emergency has been declared under the Civil Defence Emergency Management Act 2002, the Ministry of Health will provide advice on its implementation.

Funeral directors may face significant demand. Funeral directors themselves may be suffering the effects of significant morbidity and mortality among their number, and consequent resource difficulties. Funeral directors will need to manage the reaction of bereaved whānau and friends if there are limitations on funerals and tangihanga, as well as ensuring they comply with requirements. This means their capacity to provide grief therapy and to work as fully as they normally do with families and friends may be compromised.

Refrigeration and storage of bodies

Bodies may need to be stored for a time, because they cannot be prepared for burial or cremation in a timely manner or because remains are unidentified. Bodies that need to be preserved indefinitely should be stored in refrigerated containers that can maintain temperatures below –24°C. Care should be taken to avoid thawing and re-freezing remains. Unembalmed bodies may be stored in refrigerators of temperatures above 0°C for up to five days before muscle and bone is likely to decompose.

Burial

If there is no medical certificate stating a person's cause of death, or the body cannot be identified, police will refer the matter to the coroner. While awaiting coronial direction, bodies should be placed in cold storage.

Despite the predicted increase in the number of deceased in a severe pandemic, the Ministry of Health advocates burial in separate graves or cremation whenever possible. Mass graves should not be necessary – it is preferable to hold bodies in cold storage rather than to bury them in mass graves for later disinterment and reburial.

Local Government New Zealand and the Funeral Directors' Association of New Zealand have indicated that they could manage an increase in number of deaths in a pandemic situation.

The Funeral Directors' Association of New Zealand has indicated that funeral directors are confident they have capacity to transport greater numbers of bodies during a pandemic (subject to the availability of protective safety gear, fuel and so on), and that unembalmed bodies could be buried in body bags instead of caskets, if necessary.

Cremation

The Cremation Regulations 1973 make provision for the Minister of Health to permit cremations to be carried out, or to authorise medical referees to permit cremations to be carried out, without complying with some duties required of a medical referee, subject to such exceptions or conditions as the Minister may specify or impose.

Funeral directors have indicated that in a pandemic situation, bodies may not be embalmed if there is undue pressure on the handling of remains. If the deceased is to be cremated, unembalmed remains should remain in cold storage and only be taken to the crematorium just prior to cremation.

The continuity of gas supplies to operate cremators may be a risk. The Ministry of Business, Innovation and Employment's website includes energy supplies in its list of essential infrastructure to be maintained in a pandemic.

Transport of bodies to or from overseas

Limitations on air transport may mean bodies will need to be stored before transport can occur (see the storage recommendations given above).

Where a body is to be transported between countries, the normal procedure is for a funeral director in the country where death has occurred to consign the body to a funeral director in the country to which the body is to be transported, designated by the relatives of the deceased. The funeral director in the country to which the body is to be transported advises the former funeral director of the requirements imposed by the country of destination.

Health and biosecurity permits are not required for the importation of human remains into New Zealand.

Health approval is not required to export bodies from New Zealand, but the country of destination may impose requirements on importation. The medical officer of health or health protection officer within the NPHS can prepare a health authority statement for bodies being exported from New Zealand on request from a funeral director overseas.

When the body of a person who died in New Zealand is to be transported outside of New Zealand, the death must be notified to Births, Deaths and Marriages for registration before the body leaves the country.

Welfare arrangements

A pandemic may affect the physical and psychosocial wellbeing of large numbers of people who may suffer bereavement, severe illness or separation from families and support. People may also experience loss of employment and income, along with social and community isolation.

The ability of individuals to be self-reliant and for communities to remain resilient in the face of these challenges will be vital. Well-developed community support networks will go a long way to assisting individuals and communities to respond to and recover from a pandemic. It will be essential to educate people on how to prevent the spread of the pandemic pathogen and provide information on actions they can take to be self-reliant.

Local civil defence emergency management groups will coordinate welfare support by government and non-governmental organisations in communities as required.

Welfare provision in a pandemic will follow the same guidelines as for any emergency response; it will involve supporting people through the coordinated provision of:

- food and shelter
- support of those unable to care for themselves; for example:
  - people who have no family or friends able to assist them
  - people whose caregiver is sick and so is unable to care for them (eg, children, people with disabilities and older people living with a caregiver)
  - people who depend on external help (eg, those relying on home support)
  - people who are required to isolate or quarantine and need support to do so.
- financial assistance
- psychosocial support to promote recovery.

In most emergency situations in New Zealand, immediate welfare will be coordinated and provided by local authorities, with support from non-government and central government agencies. In large-scale emergency events, overall coordination is provided by civil defence emergency management groups and the National Welfare Coordination Group (NWCG) working to support the process as required. It is important to ensure that Health New Zealand and the Ministry of Health respectively liaise closely with these groups to ensure seamless coordination of services.

At a national level, the NWCG's role is to identify the nature and scope of the immediate response required from central government and to ensure the responsibilities of individual agencies within the group are met. The NWCG works with member organisations in an integrated and supportive way, assisting regional and local activity and obtaining government approval for the appropriate levels of assistance for the relief of those affected by the event.

Cross-references and supporting material

'Welfare work stream' and 'Civil defence emergency management work stream' in Appendix C: Intersectoral Pandemic Group work streams

Managing the economic impact

The severity and duration of the pandemic will have a critical bearing on the range of responses that the Government considers to help mitigate the immediate impact and support rapid recovery.

A severe pandemic is likely to have serious adverse short-term effects on the economy and on most individual businesses. In addition, uncertainty about how serious any pandemic may turn out to be, how long it may last and when things may return to normal may have a major impact on business and consumer confidence. Such confidence effects are likely to play a major role in the severity of the economic impact and the speed of the recovery.

Due to disruptions to international and national manufacturing and distribution networks, certain critical goods may be in short supply and exports may be disrupted. As a result, policies that aim to restore confidence and support demand, maintain normal commercial relationships and promote a quick return to work are likely to be the most effective in mitigating economic impacts. This means looking to ensure that, as far as practical:

- macroeconomic policy can respond appropriately to help maintain economic stability
- any risks to financial stability are recognised and managed
- providers of infrastructure and other services essential to other economic activity have taken steps to maintain the continuity of those services
- businesses have arrangements in place to manage their exposures in a serious pandemic and to maximise the chances of emerging from a pandemic with their viability (and their employment relationships) maintained
- households and individuals can continue to meet their immediate financial needs
- subsidies are considered where appropriate.

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.

A mild pandemic, such as the first wave of the influenza A H1N1 2009 pandemic, is unlikely to have a significant impact on the economy and society.

Cross-references and supporting material

'Economy work stream', 'Infrastructure work stream' and 'Workplaces work stream' in Appendix C: Intersectoral Pandemic Group work streams

Business continuity

Ensuring private business and public agencies have robust arrangements for business continuity must be a particular focus for all phases.

The COVID-19 pandemic showed that a severe pandemic can cause widespread, prolonged disruption. This disruption can be caused by many compounding factors, including staff absences, public health measures and supply chain disruption.

The impact of the disruption caused by a pandemic could make it hard for businesses and public agencies to continue to function as normal, so it is important to plan ahead. Businesses and agencies should identify which aspects of their business are essential to maintain and consider the people and resources they need to maintain those aspects.

Planning should consider:

- possible alternative work practices, such as remote working or working with social distance practices in place
- contingencies for staff absences and disruption to critical resources or suppliers
- staff welfare, including immediate, medium-term and long-term personal recovery issues, stress and grief
- how businesses can protect their workers, including in terms of personal protective equipment, which may be in high demand and short supply at the time of a pandemic.
- what services may need additional support to manage surge in demand (eg, IT support services)
- The continuity of key decision-making roles, including delegated authorities (eg, authority to make payments).

In a severe pandemic, priority access to infrastructure services, including petroleum supplies, electricity and telecommunication services, cannot be guaranteed. Infrastructure providers and others with priority needs should consider the possibilities for making individual arrangements as part of their business continuity planning and engage directly with their suppliers where appropriate. They should make their needs known to regional CDEM group controllers in advance.

Cross-references and supporting material

Ministry of Health's web page 'Workplace pandemic influenza guidance':

https://www.health.govt.nz/your-health/healthy-living/emergency-management/pandemic-planning-and-response/workplace-pandemic-influenza-guidance

Maintenance of essential services

The Ministry of Business, Innovation and Employment is leading work to promote business continuity, with support from the National Emergency Management Agency

and the Ministries of Transport and Health, across the infrastructure sectors of energy (electricity, oil, gas and coal), communications (telecommunications, broadcasting and post), transport and water and waste.

In general, pandemic planning in the infrastructure sector is well advanced. General business continuity plans exist for lifeline utilities, and most of those utilities have developed a specific pandemic business continuity plan.

Ongoing work in preparing for a pandemic includes:

- improving plans (by testing and exercising them and identifying potential bottlenecks to service delivery)
- ensuring plans can be implemented (by ordering needed supplies, enabling working from home and, where necessary, talking to CDEM groups about their needs)
- sharing plans externally (by working with service providers and integrating plans).

Completed plans should be regarded as living documents that undergo review as new information becomes available.

Travel restrictions

Internal travel restrictions imposed in response to a moderate to severe pandemic pose challenges for servicing of infrastructure (eg, the maintenance of electricity lines, internet cables and gas pipes), delivery of goods and a wide range of other social and economic activities. Any such restrictions will be determined at the time in the light of not only the nature of the pandemic but also the need to protect the communities and maintain key services in affected communities. The implementation and maintenance of travel restrictions are both planning-intensive and resource-intensive, and require significant public communication. Decision-makers will need to consider exempting certain groups of essential services from internal travel restrictions, in terms of the legal and public health implications of such exemptions. Infrastructure providers and transport operators are expected to plan for and implement arrangements to enable necessary service continuity during travel restrictions.

Cross-references and supporting material

'Infrastructure work stream' in Appendix C: Intersectoral Pandemic Group work streams'

Manage It: Post-Peak

Overview

It is important to maintain vigilance when a pandemic wave is waning. In this phase, the pandemic may be far from over. The immediate priority in the Manage It: Post-Peak phase is to continue managing the impacts of the pandemic, scaling back the

response where appropriate and transitioning to the recovery phase as required, while preparing for the likelihood of further waves of infection. The timing, severity and magnitude of a potential increase will always be subject to considerable uncertainty, but it is prudent for recovery preparations to begin at this phase.

Once the pattern of demand for services returns to normal seasonal levels after a first pandemic wave, agencies need to take the opportunity to learn from the experience and to prepare for the high probability of further waves of infection.

The process of the management and scaling down of the response will vary from district to district and from agency to agency, depending on local circumstances. The National Health Coordination Centre, if it is still activated, will also scale back its activities, while continuing to coordinate the national response.

The two objectives at this phase are to:

- manage – to continue to respond to and manage the impact of the pandemic on individuals (in particular, those at higher risk), the population, health and other services and the economy, while scaling back the response as appropriate to changing local circumstances, and transitioning to the recovery phase
- prepare – to ensure New Zealand is prepared at national and district levels for further waves of infection, the timing, scale and severity of which cannot be predicted.

Key areas of uncertainty

The key areas of uncertainty in the Manage It: Post-Peak phase are as follows.

Will the number of infected people increase?

It is highly likely that, after a first wave, New Zealand will experience a further increase in case numbers.

When will the number of infected people increase?

Further growth in case numbers could occur at any time. This could begin in the short term: that is, if the decline in numbers proves to be short-lived and the number of cases starts to climb again. Alternatively, and more probably, case numbers could increase as part of a subsequent wave of infection some time in the few months or even years following the initial peak period, as has been observed in previous pandemics. All four influenza pandemics over the past 120 years have demonstrated multiple waves of infection. The intervals between successive waves have ranged from as little as a few months to as long as two to three years. Several years after the WHO declared the emergency phase of the COVID-19 pandemic over, COVID-19 had not yet developed a seasonal pattern, as seen with influenza. The virus is continuing to change.

How many people might get sick?

In three of the last four influenza pandemics, the second wave produced more deaths than the first wave, and sometimes significantly more. Depending on the proportion of

the population infected in the first wave, it is prudent, for planning purposes, to assume that any resurgence of a pandemic virus may affect more people than the first wave. This will depend on potential mutations/changes to the aetiological agent/pathogen, and the consequent impact on virulence and pathogenicity, including in terms of the transmissibility and severity of the pandemic illness. This was seen during COVID-19 waves internationally: the delta variant caused greater rates of hospitalisations and deaths. The impact of the delta variant in New Zealand is in contrast to the impact of the omicron variant, which had increased transmissibility that made it very difficult to control: strategies that had been effective in previous waves, such as case and contact tracing, became less so. With community outbreaks or widespread transmission, there is always a risk that some population groups will experience higher rates of infection and poorer health outcomes. Response strategies need to be adapted accordingly.

How severe will the illness be?

Future resurgences may not have the same characteristics as a first wave. The virus may change in terms of its transmissibility, immune evasion, clinical severity, response to antivirals/therapeutics or vaccination (if available), or the population groups it affects most Furthermore, the COVID-19 pandemic showed that a pandemic illness can have inequitable health consequences for different population groups.

A new wave

If the level of infection overseas rises again, or changes in virulence or pathogenicity affect the level of risk, it will be necessary to review actions within New Zealand. The Ministry of Health will provide advice on the anticipated severity and impact of a second or further waves during the Manage It: Post-Peak phase. The mix of actions from earlier phases that are implemented in the case of a new wave will depend on several factors, as follows.

- If vaccination of the New Zealand population has been completed to an appropriately high level and the vaccine is effective and safe for all population groups, then the level of response required will be considerably reduced. The burden on health services may be redistributed from hospital to community care services.
- If a vaccine is not available, then actions from the Keep It Out phase to the Manage It: Post-Peak phase need to be considered.
- If certain population groups (eg, infants, the elderly or pregnant women) have not received the vaccination because it has not been registered for use by those groups, then targeted support programmes will need to be implemented for those groups.
- If the uptake of vaccination in the population has been low, then actions relevant to the phase will need to be implemented in addition to promotion of vaccination.
- If the duration of immunity from vaccination or prior infection wanes, targeted interventions may still be required. Booster vaccination programmes may also need to be considered.

See Part B for key factors influencing decision-making in this phase. Note that, in addition, it is necessary to prepare for transition to the recovery phase at this time.

COVID-19 and previous influenza pandemics have demonstrated that over several years, multiple waves of infection with different characteristics should be expected. Factors affecting the likelihood, timing and size of subsequent waves include the availability, effectiveness and uptake of vaccines; viral characteristics, including the rate of mutations and population susceptibility; and the nature, intensity and duration of public health and social measures implemented in response to the event (See Figures 3 and 4 below).

Figure 3: COVID-19 average daily case numbers in New Zealand, 2020 to 2023

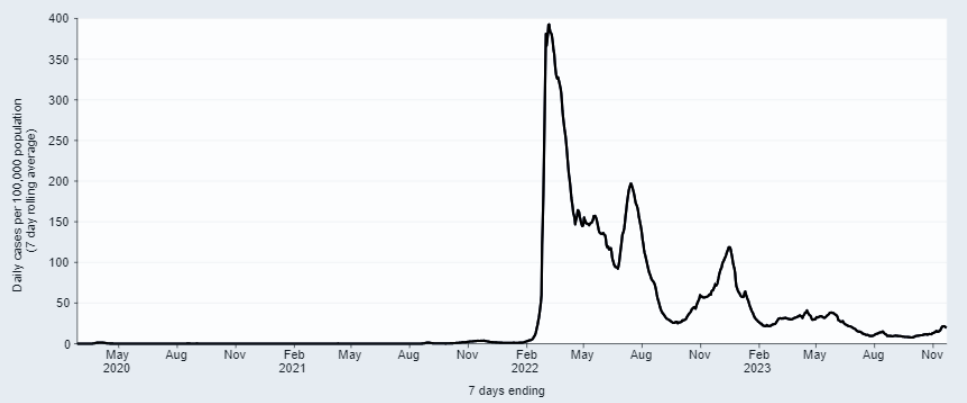
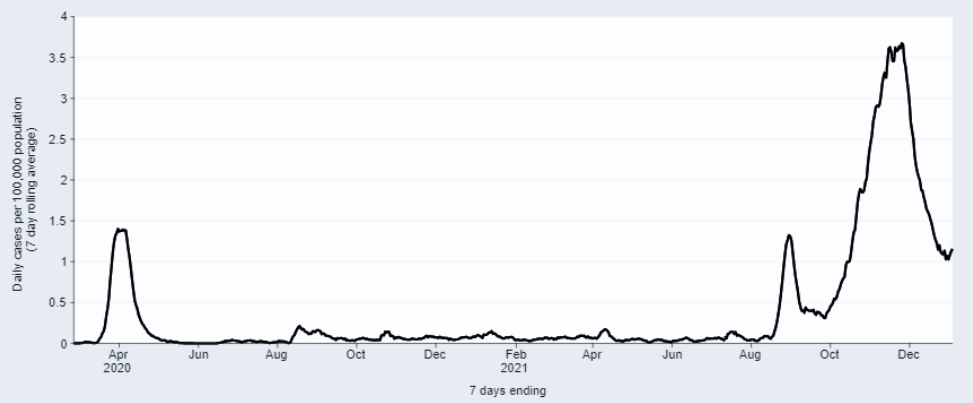


Figure 4: COVID-19 average daily case numbers in New Zealand, 2020 to 2021



Long-term impacts of pandemic pathogens

Consideration should be given to potential long-term sequalae and the subsequent impact on individuals and health service provision. This will potentially include the need for further/ongoing research to describe the associated syndromes and planning for adequate health service provision and support for individuals over the longer term. For example, long COVID is now well recognised; some individuals report a diverse range of symptoms for weeks or months after the expected recovery period. The Ministry of Health has established a long COVID programme in response.

Recover From It

Definition of 'recovery'

Recovery: the coordinated efforts and processes to effect the immediate, medium-term and long-term holistic regeneration of a community after an emergency.

Recovery activities will be minimal following a mild to moderate pandemic wave with a low rate of deaths and workforce absence and little social and economic impact (as in the first wave of the influenza A (H1N1) pandemic in 2009). A Recover From It phase may not be required.

However, the recovery phase will be prolonged in a severe pandemic that has had significant impacts on social and economic environments over an extended period, as seen in the COVID-19 pandemic.

Recovery activities should begin during the response phases and continue into the medium and long term. Planning for the transition from Manage It to Recover from It needs careful consideration and should include a wide variety of agencies. The transition will be influenced by the severity of the pandemic, the status of response activities, resourcing issues, financial and political factors and whether recovery structures have been established.

The general cornerstones for recovery, and a description of the national structure that may need to be put in the place for recovery management in a moderate to severe pandemic are outlined in Appendix D: Recovery.

Planning for recovery

A coordinated approach to recovery planning at local, regional and national levels will be important to ensure recovery activities are effective. The main recovery focus will be on health, social and economic domains and ensuring an equitable transition to 'business as usual'. If routine health care services (eg, screening, dental care, immunisation and specialist appointments) have been interrupted by the pandemic, resumption of normal services and addressing the backlog will require significant attention and resources across the health system. Key agencies concerned with social issues, health, the economy and business will play a lead role in recovery planning. However, there may also be impacts on natural and built environments; for example, from a lack of maintenance. Relevant agencies may therefore also be involved.

The development of pandemic recovery plans can be informed by existing recovery plans for other forms of emergencies, but need to address the unique nature of a pandemic. For example, the onset of a pandemic may be slower than the onset of other forms of emergency, but the pandemic will extend across many months, and may come in waves, thus affecting society for a longer period. The course of a pandemic may evolve into long-term endemicity, making it challenging to know when the

country should enter the Recover From It. Recovery activities may be staged to match the course of the pandemic as it unfolds.

Psychosocial recovery planning

Recovery encompasses the psychological and social dimensions of the regeneration of a community. The process of psychosocial recovery from emergencies involves easing the physical and psychological difficulties individuals, families/whānau and communities have experienced, as well as building and bolstering social and psychological wellbeing.

Recovery planning also needs to encompass community wellbeing concepts such as social cohesion and social trust, which may have been negatively affected by restrictive public health measures. Efforts to restore public trust and manage mis- and disinformation will be vital.

Psychosocial support is an important issue to incorporate into recovery planning. Psychosocial support addresses an individual's emotional, spiritual, cultural, psychological and social needs in the immediate, medium- and long-term recovery phases following an emergency event. It also contributes to the wider community social structure and to mechanisms for supporting the community as a whole, such as existing culture and heritage, sports and leisure, and education and faith groups within the community. Psychosocial support must provide for those providing psychosocial support services as well as those who are receiving them.

Psychosocial recovery planning is intersectoral in nature. It requires coordination between agencies at national, regional and local levels and spans all the phases of emergency management, including planning.

Cross-references and supporting material

Framework for Psychosocial Support in Emergencies (Ministry of Health 2016b)

General considerations for recovery following a moderate to severe pandemic

A pandemic event will affect the whole of New Zealand. The impacts may be felt differently in different regions at different times, but overall impacts will not be isolated to a geographic area.

Prioritisation of recovery activities

The prioritisation of recovery activities in a severe pandemic to bring some level of usual daily function back to society is a key issue. A basic approach may involve:

- placing a primary focus on reinstating services providing the basic necessities of life (that is, food and clean water) as soon as practical and promoting the concept of community self-reliance in this respect
- placing a secondary focus on reinstating law and order, telecommunications (including the internet), banking services and financial assistance services (welfare support)
- decisions as to when to reopen or otherwise transition back to normal for educational institutions
- acknowledging that government agencies and the private sector may not be able to deliver their usual services for an extended period, necessitating an ongoing process of prioritising services and managing resources while meeting public expectations.

Community networks

Communities differ in terms of levels of public and private sector representation and ethnic or socioeconomic make-up. These differences will determine the nature and effectiveness of targeted recovery activities. Agencies should identify and make use of existing community networks in each unique area.

Social factors

Numerous social issues may arise during recovery. Staffing capacity for the delivery of all government services, and psychosocial support for vulnerable communities, Māori, minority ethnic groups and others that experience inequity, may require particular support. After a pandemic it may be necessary to establish a 'one-stop-shop' recovery centre. Such centres may be useful for providing communities with a variety of support services delivered through central government departments, local government, non-governmental organisations and other agencies. They could minimise travel and inconvenience for affected people and facilitate coordination and liaison between relief and recovery services.

Some communities or population groups may have experienced particular hardship, either because of the disease or because of the impacts of response measures. Misinformation and disinformation may also contribute to a reduction in social cohesion. Active effort should be made to rebuild and maintain public trust and confidence.

Public expectations

Agencies will need to manage public expectations at national and local levels if communities face a long period before a return to usual daily functions. This management of expectations must be led at a national level and delivered, enhanced and supported at a regional level.

Cross-references and supporting material

Recovery Management: Director's guidelines for CDEM groups [DGL 4/05] (MCDEM 2005b)

Guide to the National Civil Defence Emergency Management Plan (MCDEM 2015b)

Exercise Pomare: Post Exercise Report (Ministry of Health 2018)

Aotearoa New Zealand Strategic Framework for Managing COVID-19 (Ministry of Health 2023a)

All-of-government pandemic recovery coordination

For the majority of the COVID-19 pandemic, the Ministry of Health was the lead agency for the health system response and the Department of the Prime Minister and Cabinet assumed the role of coordinating the all-of-government response. This approach may be appropriate for future events.

Effective recovery requires planning and management arrangements that are accepted and understood by recovery agencies and the community.

In a mild pandemic, special recovery structures and arrangements will not be required.

Following a severe pandemic, participants in the recovery process will be numerous, including central and local government, non-governmental organisations, community agencies and individuals. Each of these groups has a role to play in determining how the recovery progresses. Recovery arrangements must cover both preparation and implementation.

In the context of a severe pandemic, recovery planning and response require an all-of-government approach at local and national levels. Strong leadership and clear accountabilities are necessary, and the development of appropriate relationships is critical. In these circumstances it will be necessary to consider a national recovery management structure, as outlined in Appendix D.

It is likely that the social and economic domains will be those most significantly affected; these will therefore most require the attention of special task groups. However, built and natural environments may also be affected, so agencies concerned with these environments could have a role to play. The way in which these issues are addressed may have long-lasting effects on the community, and may be costly in financial and resource terms.

The transition from response to recovery

The transition from response to recovery in a pandemic should be staged, and may vary geographically. The transition should be event-driven rather than time-driven. It is

expected that the transition, including the transition of lead agencies, will be discussed and agreed at the national level for implementation nationally, regionally and locally.

The principal aspects of the transition to recovery are:

- ensuring recovery structures are established before transition occurs
- implementing recovery task groups
- preparing a national recovery action plan that is drafted in consultation with recovery task groups
- developing a communications plan with relevant recovery agencies
- ensuring the transition is equitable and proportionate
- remaining prepared for and alert to further waves of infection and maintaining preparedness for other concurrent events (eg, earthquakes or cyclones).

If a transition to recovery has taken place after the first wave and a second wave emerges, recovery may need to be scaled down and response activity reactivated.

Recovery responsibilities in the health sector

Ministry of Health

Following a moderate to severe pandemic, the Ministry of Health's responsibilities will include participating in an all-of-government recovery approach and overseeing the national coordination of health and disability sector recovery activities. The Ministry may also need to develop national policy for the prioritisation of health supplies and services, to ensure national consistency across Health New Zealand districts.

The Ministry of Health will take the lead in managing national public information on the recovery of health services. The Ministry will work with other government agencies and the national recovery manager or recovery coordinator (if one has been appointed) to ensure a coordinated recovery.

The Ministry of Health may seek to enable relevant emergency powers to be retained, if such powers will assist in significantly reducing the duration of the recovery period and protecting public health. The Ministry will also be responsible for ensuring that triggers for either an escalation or a standing-down of recovery activities are event-driven rather than time-driven.

The Ministry will provide advice about psychosocial recovery activities and support programmes for the public and health personnel. It will do this in partnership with other agencies within the NWCG. The Ministry will also monitor and report to ministers on the effectiveness of recovery activities led by Health New Zealand in delivering improved hauora outcomes for Māori .

Health New Zealand

Health New Zealand's responsibilities will include participating in all-of-government recovery activities at district, regional and national levels and overseeing the district and regional coordination of health sector recovery activities. Health New Zealand may

need to implement national policy for the prioritisation of health supplies and services, to ensure national consistency across regions and districts.

Health New Zealand and the Ministry of Health will work with other government agencies to manage public information so that messages remain complementary and unambiguous. Health authorities will need to disseminate advice about psychosocial recovery to individuals and affected communities and to implement support and recovery programmes for the public and health personnel in partnership with the CDEM sector.

Additional roles include:

- participating in all-of-government recovery activities at district, regional and national levels to bring whānau voice and the interests of Māori into decision-making
- taking direct responsibility for (some) recovery activities focused on supporting Māori, including commissioning services or distributing funding where particular communities have been seriously affected
- engaging with policy development led by the Ministry of Health or other agencies to centre the interests of Māori in discussions and influence decisions to better address problems faced by whānau Māori.

Cross-references and supporting material

National Health Emergency Plan (Ministry of Health 2015)

Appendix C: Intersectoral Pandemic Group work streams

These Intersectoral Pandemic Group work streams are the default arrangements. The work stream descriptions that appear below are included here primarily for reference. In the event of an emerging pandemic threat, the Ministry of Health will rapidly update them in conjunction with the relevant agencies.

Health work stream

Agencies

Ministry of Health (lead), Health New Zealand, Te Puni Kōkiri

Legislation

Burial and Cremation Act 1964 and Health (Burial) Regulations 1946

Epidemic Preparedness Act 2006

Health Act 1956

Health (Infectious and Notifiable Diseases) Regulations 2016

Health Practitioners Competence Assurance Act 2003

Health (Quarantine) Regulations 1983

International Health Regulations 2005 (WHO 2006)

Medicines Act 1981

Pae Ora (Healthy Futures) Act 2022

Radiation Safety Act 2016 and Radiation Safety Regulations 2016

Key documents

National Health Emergency Plan (Ministry of Health 2015)Facility-specific and regional coordination plans

Guidance on Infectious Disease Management under the Health Act 1956 (Ministry of Health 2017b)

Websites

Ministry of Health 'Emergency Management': **www.health.govt.nz/your-health/healthy-living/emergency-management**

Ministry of Health 'Being Prepared' (Ministry of Health 2013b): **www.health.govt.nz/your-health/healthy-living/emergency-management/pandemic-planning-and-response**

Health New Zealand 'Communicable Disease Control Manual': **www.tewhatuora.govt.nz/for-the-health-sector/health-sector-guidance/communicable-disease-control-manual**

WHO 'Preparedness and Resilience for Emerging Threats (PRET)': **www.who.int/initiatives/preparedness-and-resilience-for-emerging-threats**

Roles and responsibilities

Ministry of Health

The Ministry of Health is the lead agency for setting the overall strategy and policy framework for the health sector in planning for and responding to a pandemic. The Ministry of Health's stewardship and oversight role for health system includes collaboration with Health New Zealand. The Ministry also has a monitoring and assurance function for these health entities. The Ministry's particular responsibilities in a pandemic include:

- activating a national emergency response, including by activating and running the National Health Coordination Centre
- undertaking national intelligence and planning, including by liaising with, and reporting to, the WHO and other international bodies responsible for providing high-level advice and recommendations to national authorities
- advising the ODESC system to activate the National Crisis Management Centre if necessary
- developing strategy and policy for Māori health outcomes
- monitoring the overall performance of the system in terms of preparedness and response.

Shared responsibilities

Some responsibilities are shared across two or more agencies, including:

- maintaining standard operating procedures for the National Health Coordination Centre that clearly identify roles and responsibilities consistent with the CIMS organisational strategy identified in the National Health Emergency Plan (Ministry of Health 2015) (Ministry of Health, Health New Zealand)
- ensuring sufficient staff are trained and exercised to participate in the National Health Coordination Centre at short notice, and maintaining a knowledge base on pandemic planning and response (Ministry of Health and Health New Zealand)

- convening expert advisory groups and disseminating clinical and public health advice to relevant audiences, including the public, using a range of channels (Ministry of Health, Health New Zealand)
- providing information and advice to ministers (Ministry of Health, Health New Zealand)
- liaising nationally with, and advising, other government agencies (Ministry of Health, Health New Zealand)
- overseeing the health and disability sector response nationally to ensure the consistency of advice given and action taken across the country (Ministry of Health, Health New Zealand)
- instigating and standing down universal or targeted public health assessments (Ministry of Health, Health New Zealand)
- coordinating services and resources nationally, as required (Ministry of Health, Health New Zealand).

Health New Zealand

Health New Zealand is the lead agency for planning for and responding to a pandemic at the national, regional and local levels within the parameters set by the Ministry. Health New Zealand's particular responsibilities during the response include:

- coordinating with the medical officer of health and the CDEM controllers in the regions
- providing appropriate support to the NPHS and local/regional public health services so they can carry out their core functions
- implementing its major incident and emergency plan or pandemic plan, as necessary, and contributing to implementation of the applicable regional incident coordination plan
- implementing instructions, advice and guidelines issued by the Ministry of Health through the regional coordination team
- ensuring hospitals and health services function to the fullest possible extent during and after the emergency, including in terms of IPC and laboratory capacities
- ensuring community-based health services are available to meet increased demand for assessments, including by establishing CBACs as required
- implementing vaccination campaigns
- commissioning and operating national quarantine capability
- using information produced by the Ministry in communicating with local communities, agencies and providers
- communicating with and supporting health and disability providers in the regions, including ambulance services, primary care providers, aged care providers, non-governmental organisations and Māori and Pacific providers
- liaising with other agencies at a local level, as appropriate (including local government, CDEM agencies, education providers, welfare agencies, border agencies and national health groups with local representation)
- commissioning te ao Māori solutions and other services for Māori communities (Hauora Māori Services)

- contributing to the regional coordination team, providing inter-regional support for health services and implementing regional decisions at a local level.

National Public Health Service (Health New Zealand)

Public health services that are part of the NPHS are responsible for:

- developing and implementing plans for public health emergencies
- maintaining and enhancing surveillance of public health
- maintaining and enhancing border health response activities
- operational intelligence
- managing 'cases' (people infected with a pathogen, whether symptomatic or not) and 'contacts' (people who have, or may have, been exposed to a pathogen, but who have not yet developed, or may not develop, symptoms), including in terms of investigation, arranging for welfare/manaaki and using control measures (including statutory powers) as necessary
- integrating public health technical advice, planning and response with Health New Zealand district- and hospital-level planning and response and with primary care services
- accessing support from Health New Zealand and other agencies to maintain core functions
- advising local agencies and lifeline utilities about the public health aspects of their planning and response
- investigating, assessing and responding to events involving risks to public health
- ensuring advice and actions are consistent across the country.

Te Puni Kōkiri

The role of Te Puni Kōkiri is to:

- engage with whānau, hapū, iwi, Māori individuals, Māori organisations and Māori communities to ensure their needs are being met
- work, as required, with relevant government agencies to facilitate and coordinate support for Māori
- oversee Whānau Ora commissioning agencies.

Ambulance providers

Ambulance providers will be responsible for the continuation of their service and the appropriate management of increased demand during a pandemic. Ambulance providers will also provide representatives for Health New Zealand national and regional groups and CDEM groups, as required.

ESR

ESR is responsible for coordinating national, real-time notifiable disease surveillance and data analysis, so transmission patterns throughout New Zealand can be monitored. This will involve surveillance elements such as wastewater epidemiology, genomics, modelling and other functions.

ESR's laboratory at the National Centre for Biosecurity and Infectious Disease in Upper Hutt is the WHO National Influenza Centre and reference laboratory for New Zealand. This laboratory maintains the capacity to isolate, diagnose and characterise a pandemic influenza virus in a high-containment laboratory. It is expected that ESR will also be involved in national reference testing for other pandemic pathogens. In addition, ESR will serve as a key contact to facilitate communication among, and provide scientific advice to, agencies within New Zealand and internationally.

Other microbiology laboratories

A network of microbiology laboratories in New Zealand (including ESR) will coordinate and deliver testing.

Ongoing work

The health work stream is responsible for addressing five key areas, each with their own objectives:

- pandemic intelligence
- health and disability sector capability and capacity
- Ministry of Health logistics
- government and sector leadership and coordination
- public information management.

Biosecurity work stream

Agencies

Ministry for Primary Industries (lead)

Legislation

Biosecurity Act 1993

Hazardous Substances and New Organisms Act 1996

Health Act 1956

National Animal Identification and Tracing Act 2012

Wild Animal Control Act 1977

Key documents

Critical Biosecurity Event Response Protocol 2023[10]

Policy for MAF's Response to Risk Organisms (Ministry of Agriculture and Forestry 2008)

Websites

Ministry for Primary Industries 'Resources: Biosecurity 2025':
https://www.mpi.govt.nz/biosecurity/about-biosecurity-in-new-zealand/biosecurity-2025/resources-biosecurity-2025/

Government Industry Agreement for Biosecurity Readiness and Response:
www.gia.org.nz/

Roles and responsibilities

Ministry for Primary Industries

The Ministry for Primary Industries is responsible for monitoring animal populations for influenza and responding to outbreaks in animals. That Ministry will also report to the World Organisation for Animal Health, the international veterinary agency responsible for international animal health issues.

Ongoing work

The Ministry for Primary Industries is the lead agency for planning for and responding to an outbreak of highly pathogenic influenza in animal species. It also has a role in the context of human pandemic influenza. In particular, the Ministry for Primary Industries is responsible for:

- surveillance of influenza and other potential zoonoses in animals
- responding with investigation and laboratory diagnosis to public enquiries about sick animals, including through the exotic pest and disease hotline
- preparing technical and other information on illnesses in animals
- preparing technical response policies considering such matters as detection, vaccination, culling and disposal
- establishing and implementing import health standards to control the risk of potential zoonoses in animals entering New Zealand through the importation of animal material.

[10] This response protocol (dated 1 November 2023 and still in draft as of May 2024) is jointly owned by HNZ, MoH and Biosecurity NZ.

Law and order and emergency services work stream

Agencies

New Zealand Police (lead), New Zealand Defence Force, New Zealand Fire Service, Ministry of Justice, Department of Corrections, New Zealand Parole Board, National Emergency Management Agency, Ambulance New Zealand, Department of the Prime Minister and Cabinet

Legislation

Civil Defence Emergency Management Act 2002

Coroners Act 2006

Corrections Act 2004

Defence Act 1990

Epidemic Preparedness Act 2006

Fire Service Act 1975

Fire and Emergency New Zealand Act 2017

Policing Act 2008

Key documents

Influenza Pandemic Medical, Human Resources and Personal Protective Equipment Guide (New Zealand Fire Service 2006)

National Influenza Pandemic Action Plan (New Zealand Fire Service 2008a)

National Pandemic Influenza Action Plan (New Zealand Police 2008)

Regional Influenza Pandemic Action Plan (New Zealand Fire Service 2008b)

Websites

New Zealand Police: **www.police.govt.nz**

New Zealand Fire Service: **www.fire.org.nz**

Roles and responsibilities

New Zealand Police

Police responsibilities in a pandemic are the same as in any emergency:

- maintaining law and order
- responding to requests from the medical officer of health

- taking all measures within their power and authority to protect life and property, and to assist with the movement of rescue, medical, fire and other essential services
- assisting the coroner as required by the Coroners Act 2006
- coordinating movement control over land, including communications and traffic control.

New Zealand Defence Force

During a pandemic, the New Zealand Defence Force will offer aid to other agencies to the greatest extent possible. However, its resources may be compromised, through illness of available personnel and other commitments, including commitments overseas, and responsibilities for other government-directed contingency tasking.

Where available, New Zealand Defence Force equipment and personnel may be able to assist in local or regional situations where normal services are under pressure. In general, government agencies do not assume that substantial assistance will be available from the New Zealand Defence Force, on the basis that its help would be in addition to other arrangements. The priority tasks of the New Zealand Defence Force will be centrally controlled to meet government-directed priorities.

Fire and Emergency New Zealand

Fire service responsibilities in a pandemic are the same as in any emergency:

- firefighting to control, contain and extinguish fires
- containing releases and spills of hazardous substances
- undertaking urban search and rescue
- redistributing water for specific needs (eg, to preserve health and hygiene in stricken areas).

Ministry of Justice

During a pandemic the Ministry of Justice's role is to provide services to support law and order. It is responsible for providing essential court services, coronial services, support to the judiciary and policy advice. It will also advise and inform the Ministers for Courts and Justice on the provision of essential services and other matters that may arise.

Department of Corrections

The Department of Corrections' role in a pandemic is to ensure the safe and secure containment of New Zealand's prisons and the continued monitoring of high-risk offenders.

New Zealand Parole Board

If an epidemic management notice is in force in respect of a pandemic, the New Zealand Parole Board, the chairperson or a panel convenor acting alone can make release decisions about offenders on the basis of documents only.

National Emergency Management Agency

The National Emergency Management Agency will support CDEM groups, their controllers and local government to address the expected consequences of pandemic on their communities. It is hosted by the Department of the Prime Minister and Cabinet.

Ambulance providers

See information on the Health work stream above.

Department of the Prime Minister and Cabinet

The Department of the Prime Minister and Cabinet serves the Governor-General, the Prime Minister and the Cabinet, and helps to coordinate the work of core public service departments and ministries. Its role in pandemic planning and response is to assist in coordinating all-of-government activities through the ODESC system.

Department of Internal Affairs

The Department of Internal Affairs' major roles and responsibilities during a pandemic are to provide:

- executive government support (eg, continued support to members of the executive, publication of the Gazette, maintenance of the translation service and the Visits and Ceremonials Office)
- identity services (eg, births, deaths and marriages; and passports and citizenship in support of passports, if required)
- policy support for local government, if required.

Ongoing work

The focus of the law and order and emergency services work stream is to plan for the impact of a pandemic on law and order and emergency services agencies in New Zealand and, in a pandemic, to maintain law and order, support border agencies and contribute towards the control or elimination of pandemic influenza.

The objectives of this work stream are to:

- determine national and regional law and order responses
- identify areas in which health agencies, the New Zealand Police and other agencies and their designated officers (particularly medical officers of health) will require support
- update New Zealand Police national and district emergency plans
- develop internal and external New Zealand Fire Service contingency plans
- assist in the Department of Corrections' internal and external planning
- work with other agencies to clarify the role of the New Zealand Defence Force between and during pandemics, and identify trigger points for that role.

The work stream is convened as required to address law and order and emergency services planning and response issues.

Civil defence emergency management work stream

Agencies

Central government agencies

National Emergency Management Agency (lead), Ministry of Health, Health New Zealand, Ministry of Business, Innovation and Employment, Ministry of Social Development, Ministry of Transport, Ministry for Primary Industries, New Zealand Police, Oranga Tamariki

Other agencies

CDEM groups, local authorities, Local Government New Zealand, the fast-moving consumer goods (FMCG) sector

Legislation

Civil Defence Emergency Management Act 2002

National Civil Defence Emergency Management Plan Order 2015

Key documents

New Zealand Local Authority and CDEM Group Pandemic Planning Guide (MCDEM 2006c)

Guide to the National Civil Defence Emergency Management Plan 2015 (MCDEM 2015b)

16 CDEM group plans

Director's guidelines for the CDEM sector

FMCG sector contingency plan(s) (proposed)

Websites

National Emergency Management Agency: **www.civildefence.govt.nz**

Get Ready: **https://getready.govt.nz/**

Roles and responsibilities

National Emergency Management Agency

The roles and responsibilities of the National Emergency Management Agency in a pandemic, in support of the Ministry of Health as the lead agency, are to:

- support CDEM groups and local government to manage the consequences of the pandemic illness on their communities
- facilitate local CDEM support to the FMCG sector to enable that sector to maintain sufficient food and grocery supplies to point of sale during a pandemic
- coordinate the CDEM welfare, infrastructure and lifeline utility aspects of a pandemic.

Ministry of Health

See information on the health work stream above.

Ministry of Business, Innovation and Employment

The Ministry of Business, Innovation and Employment will provide advice on measures to mitigate impacts on energy and information communication technology services.

Ministry of Social Development

See information on the welfare work stream below.

Ministry of Transport

See information on the infrastructure work stream below.

Civil Defence Emergency Management groups

The role of CDEM Groups in a pandemic, in support of the health sector-led response, is to prioritise and coordinate the regional CDEM interagency responses to support communities, through:

- providing or arranging the provision of suitably trained and competent personnel (including volunteers) and an organisational structure for the group in its area
- providing, arranging the provision of, or making available materials, services, information and any other resources necessary to support the response
- responding to and managing the non-health adverse effects of the pandemic in its area
- reporting on the coordination of the CDEM welfare, infrastructure and lifeline utility aspects of a pandemic.

Local authorities

The roles and responsibilities of local authorities in a pandemic, in support of the health sector-led response, will be to provide local leadership, maintain essential local government services, provide a local CDEM response and support the activities of the CDEM group to address the community consequences of the pandemic.

Fast-moving consumer goods sector

Representatives of the FMCG sector will coordinate during a pandemic to maintain essential food and grocery supplies to point of sale. Coordinating organisations include the New Zealand Food and Grocery Council, Retail NZ, Retail Meat New Zealand, Fonterra, Horticulture New Zealand, Progressive Enterprises, Foodstuffs, Colgate Palmolive and Goodman Fielder.

Ongoing work

The CDEM work stream is focused on facilitating the development of plans to identify and deal with CDEM pandemic preparedness and response issues. This includes supporting local government to address its roles in providing community leadership and managing community services and assets and its CDEM functions in support of the health and disability sector.

The objectives of the CDEM work stream are to:

- support local government to provide ongoing local government leadership and governance in their communities
- support CDEM groups to develop contingency plans to identify and deal with regional CDEM pandemic preparedness and response roles
- support the FMCG sector to develop plans to maintain the FMCG supply chain and retail operations
- develop a CDEM support plan for a pandemic response
- coordinate the CDEM welfare, infrastructure and lifeline utility aspects of a pandemic response.

Cross-references and supporting material

'Welfare arrangements' in Appendix B: Explanatory material

Welfare work stream

Agencies

Central government agencies

National Emergency Management Agency (lead), Ministry of Social Development, Ministry of Health, Health New Zealand, Whaikaha, Ministry for Primary Industries, Ministry of Business, Innovation and Employment, Accident Compensation Corporation (ACC), Te Puni Kōkiri, Ministry of Education, Ministry of Foreign Affairs and Trade, Inland Revenue Department, New Zealand Police, Oranga Tamariki

Other agencies

New Zealand Red Cross, Ambulance, Salvation Army, Victim Support, Insurance Council of New Zealand

Legislation

Children, Young Persons, and Their Families Act 1989

Civil Defence Emergency Management Act 2002

Injury Prevention, Rehabilitation, and Compensation Act 2001

Ministry of Maori Development Act 1991

Social Security Act 1964

Tax Administration Act 1994

Key documents

Individual welfare agencies' pandemic plans and guidelines

Director's Guideline for Civil Defence Emergency Management Groups and agencies with responsibilities for welfare services in an emergency [DGL 11/15] (MCDEM 2015a)

Framework for Psychosocial Support in Emergencies (Ministry of Health 2016b)

Websites

Ministry of Social Development: **www.msd.govt.nz**

National Emergency Management Agency: **www.civildefence.govt.nz**

Ministry of Health: **www.health.govt.nz**

Roles and responsibilities

Ministry of Social Development

The Ministry of Social Development is responsible for:

- continuing ongoing payments to existing clients
- providing financial assistance to new clients
- providing care and protection, youth justice and residential services
- working with other government agencies and non-government agencies to provide a coordinated welfare response
- activating a 0800 government helpline , if necessary, to provide immediate, coordinated information about the services and assistance available to people affected by the pandemic.

Health system

Within the welfare work stream, the health system's primary role is to:

- coordinate the provision of psychosocial welfare support at the national level
- promote evidence-based best practice and principles for psychosocial support interventions
- facilitate the coordination of planning and interventions during all phases (see Part B) between service providers, mental health services and other health and disability service providers.

The Ministry of Health is also responsible for working with National Welfare Coordination Group agencies to establish whether health and disability service providers and the public have a need for further information or guidance concerning welfare arrangements and psychosocial support issues.

National Emergency Management Agency

See information on the law and order management work stream above.

Ministry for Primary Industries

See information on the biosecurity work stream above.

Accident Compensation Corporation

The Accident Compensation Corporation's primary responsibility will be to maintain its activities in accordance with the Injury Prevention, Rehabilitation, and Compensation Act 2001. Its Influenza Pandemic Business Continuity Plan defines its activities from the first notification of human-to-human transmission of pandemic influenza to closure of ACC's businesses because staff are unable to continue their work.

It will, to the extent possible, ensure:

- people can continue to lodge claims
- clients can receive quality health and rehabilitation services
- clients continue to receive weekly compensation payments
- seriously injured clients are as well supported and cared for as possible
- health service providers are paid for the services they provide to ACC clients.

The Accident Compensation Corporation will also prioritise communication with clients and payments to staff. At the onset of a pandemic, ACC will form a pandemic response team to ensure all activities and available resources are coordinated and engaged to meet defined goals.

Ministry of Business, Innovation and Employment

See information on the border and workplaces work streams below.

In a pandemic, the Ministry of Business, Innovation and Employment's role is to act as a liaison point for the wider tourism sector, including by providing information to visitors about available support. The former Ministry of Tourism is now part of the Ministry of

Business, Innovation and Employment. The Ministry co-leads a shelter and temporary accommodation sub-function.

Te Puni Kōkiri

See information on the health work stream above.

Ministry of Education

As part of the welfare work stream, the Ministry of Education acts as a liaison point for the wider education sector (see information on the education work stream below).

Ministry of Foreign Affairs and Trade

See information on the external work stream below.

Inland Revenue Department

See information on the economy work stream below.

New Zealand Red Cross, Ambulance, Salvation Army, Victim Support, Insurance Council of New Zealand

Non-governmental agencies play an important role in the welfare work stream. Depending on the scale of the pandemic and the specific welfare arrangements in existence at the local level, such agencies perform both an advisory role at the national level and an operational role as part of welfare advisory groups and local welfare committees at a local level.

Ongoing work

The National Welfare Coordination Group, convened by NEMA, is a national, strategic welfare group that plans, supports and helps coordinate welfare activity when assistance or support is required at a national level. At the community level, welfare is planned for and delivered through the CDEM structure, which includes local welfare committees and welfare advisory groups. The NWCG supports the local and regional response through representation on these groups.

In pandemic planning, the objectives of the NWCG are to:

- coordinate the provision of an integrated government welfare response
- support government agencies to identify and address welfare issues such as the provision of accommodation, the delivery of food to vulnerable households, financial assistance and the care of children
- ensure welfare agencies continue to provide essential services during a pandemic.

Cross-references and supporting material

'Welfare arrangements' in Appendix B: Explanatory material

Education work stream

Agencies

Central government agencies

Ministry of Education (lead), New Zealand Qualifications Authority, Education Review Office, Teaching Council of Aotearoa New Zealand, Tertiary Education Commission, Careers New Zealand, Ministry of Health, Health New Zealand.

Legislation

Biosecurity Act 1993

Education and Training Act 2020

Education (Early Childhood Services) Regulations 2008 (and associated licensing criteria)

Education (Hostels) Regulations 2005

Education (Pastoral Care of Tertiary and International Learners) Code of Practice 2021

Key documents

Pandemic Planning Kit (Ministry of Education 2016), including

- a pandemic planning guide for schools, early childhood services and tertiary education organisations
- templates for: a pandemic plan for education organisations, an action plan for hostels, an action plan for international students, communications guidelines.

Internal Ministry of Education planning documents, including:

- the Ministry of Education Managers' Pandemic Planning Guide
- the Strategic Management Group Pandemic Response Plan
- pandemic management policy.

Websites

Ministry of Education: **www.minedu.govt.nz**

Roles and responsibilities

Ministry of Education

The role of the Ministry of Education in a pandemic is to coordinate the response for the education sector and ensure arrangements are publicised for:

- early childhood services

- schools
- tertiary education organisations
- education agencies (the Ministry of Education, the Education Review Office, the New Zealand Qualifications Authority, Careers New Zealand, the Teaching Council of Aotearoa New Zealand, the Tertiary Education Commission and Education New Zealand).

Ministry of Health and Health New Zealand

Within the education work stream, the role of the Ministry of Health and Health New Zealand is to provide information, guidance and resources to education providers as required.

Ongoing work

The education work stream coordinates pandemic planning and response for the education sector, including early childhood services, schools, tertiary education organisations and education agencies. This involves about one million people, including staff and students.

The objectives of the education work stream are to help education agencies and providers to:

- prepare suitable response plans
- incorporate their pandemic plans into their emergency management plans
- identify their essential services in a pandemic and take steps to ensure these services can be effectively carried out in a pandemic.

Cross-references and supporting material

'Closure of or restrictions on education institutions' in Appendix B: Explanatory material

Border work stream

Agencies

New Zealand Customs Service (lead), Ministry of Health, Health New Zealand, Ministry of Transport, Ministry of Business, Innovation and Employment, Aviation Security Service, Maritime New Zealand, Civil Aviation Authority, Ministry of Foreign Affairs and Trade, Ministry for Primary Industries, New Zealand Defence Force, New Zealand Police, The Treasury, Department of the Prime Minister and Cabinet

Legislation

Customs and Excise Act 2018

Epidemic Preparedness Act 2006

Health Act 1956

Health (Quarantine) Regulations 1983

Immigration Act 2009

International Health Regulations 2005 (WHO 2006)

Key documents

Responding to Public Health Threats at New Zealand Air- and Seaports: Guidelines for the public health and border sectors (Health New Zealand 2023b)

Regional and local airport action plans

Regional and local marine port action plans

The New Zealand Pandemic Plan

Draft Notice to Airmen (not for public release)

Websites

Ministry of Health 'Border health measures and controls': **www.health.govt.nz/our-work/border-health/border-health-protection/border-health-measures**

Aviation Security Service and Civil Aviation Authority: **https://www.aviation.govt.nz/**

Ministry of Business, Innovation and Employment, Immigration New Zealand: **www.immigration.govt.nz**

Maritime New Zealand: **www.maritimenz.govt.nz**

Ministry of Foreign Affairs and Trade: **www.mfat.govt.nz**

Ministry of Foreign Affairs and Trade, Safe Travel: **www.safetravel.govt.nz**

Ministry of Transport: **www.transport.govt.nz**

New Zealand Customs Service: **www.customs.govt.nz**

Roles and responsibilities

New Zealand Customs Service

The New Zealand Customs Service is the lead agency for many border functions and also provides secretariat for the inter-agency Border Executive Board. In general terms, its responsibilities in a pandemic are to provide information, enhanced assessment and facilitation based on risk and to implement restrictions on trade and travel.

In a pandemic, the New Zealand Customs Service will be involved in implementing such measures at airports and seaports. Many of the responses will be at the direction

of Cabinet and may involve a range of statutes, but certain powers under the Customs and Excise Act 2018 may also be used.

Ministry of Health

The Ministry of Health is responsible for national intelligence and planning, including liaison with the WHO and the other international bodies responsible for providing high-level advice and recommendations to national authorities; providing public information, including through 0800 advice lines and the internet; and facilitating public access to travel advisories that border control agencies produce.

Ministry of Transport

See information on the civil defence emergency management work stream above.

Ministry of Business, Innovation and Employment

See information on the civil defence emergency management work stream above.

Aviation Security Service

The Aviation Security Service will assist with operational aspects of a pandemic response at international airports by, for example, carrying out perimeter patrols and foot patrols and providing airside escorts to ensure aviation security is not compromised. The Aviation Security Service may assist the New Zealand Customs Service with other airport-related tasks if it has resources available.

Maritime New Zealand

Maritime New Zealand will perform its statutory functions and provide advice to border agencies on ship and port safety and security.

Civil Aviation Authority

In a pandemic, when a decision has been made to limit or halt international air traffic, the Civil Aviation Authority will issue Notices to Airmen as appropriate. It will also provide advice to health authorities on the ability of aircraft to use aerodromes if aircraft need to be redirected after their arrival in New Zealand.

Ministry of Foreign Affairs and Trade

See information on the external work stream below.

Ministry for Primary Industries

See information on the biosecurity work stream above.

New Zealand Defence Force

See information on the law and order and emergency services work stream above.

New Zealand Police

See information on the law and order and emergency services work stream above.

The Treasury

See information on the economy work stream below.

Department of the Prime Minister and Cabinet

See information on the law and order and emergency services work stream above.

ESR

See information on the health work stream above.

Ongoing work

The border work stream is primarily focused on the Keep It Out phase. A range of border management options is possible. Priority will be accorded to responses at the air border first, followed by the sea border (which is considered more manageable).

The objectives of the border work stream are to:

- maintain and plan for possible border responses to a range of pandemic scenarios
- maintain a flexible suite of responses that can be used independently or in combination, to manage incoming (and potentially outgoing) flows of travel and trade to limit the spread and impact of pandemic illness
- consider decision-making processes, logistical issues, legislative powers or restrictions and the costs and implications of proposed responses
- identify trigger points and understand the roles of other responsible agencies.

Cross-references and supporting material

'Border management' in Appendix B: Explanatory material

External work stream

Agencies

Ministry of Foreign Affairs and Trade (lead), Department of the Prime Minister and Cabinet, Ministry of Health, Ministry for Pacific Peoples, New Zealand Defence Force, New Zealand Police, New Zealand Customs Service, Ministry for Primary Industries, Tourism New Zealand, Ministry of Education.

Legislation

Consular Privileges and Immunities Act 1971

Diplomatic Privileges and Immunities Act 1968

Key documents

External Communications Plan by Ministry of Foreign Affairs and Trade (not a public document)

Pandemic plans for New Zealand posts overseas by Ministry of Foreign Affairs and Trade (not public documents)

Websites

Ministry of Foreign Affairs and Trade: **www.mfat.govt.nz**

Ministry of Foreign Affairs and Trade, Safe Travel: **www.safetravel.govt.nz**

Roles and responsibilities

Ministry of Foreign Affairs and Trade

During a pandemic, the Ministry of Foreign Affairs and Trade is responsible for:

- reporting on international developments and liaising with other governments on pandemic response measures
- providing pandemic-related information to New Zealanders abroad
- providing consular assistance to New Zealanders abroad affected by the pandemic
- providing foreign missions in New Zealand information to help them provide consular assistance to their nationals during a pandemic
- facilitating New Zealand's contribution to international efforts to prepare for and respond to the pandemic, including by:
  - providing development assistance to partners to support preparedness for pandemics
  - responding to requests for assistance from developing countries, in conjunction with other countries and agencies.

Department of the Prime Minister and Cabinet

See information on the law and order and emergency services work stream above.

Ministry for Pacific Peoples

The Ministry for Pacific Peoples' role during a pandemic will be to provide appropriate agencies with advice and support to ensure key messages reach Pacific communities around New Zealand in a culturally responsive manner.

Ministry of Health, New Zealand Defence Force, New Zealand Police, Ministry for Primary Industries and New Zealand Customs Service

As part of the external work stream, the Ministry of Health, New Zealand Defence Force, New Zealand Police, Ministry for Primary Industries and New Zealand Customs Service provide advice and assistance as required to the Ministry of Foreign Affairs and Trade as the lead agency.

Ministry of Business, Innovation and Employment

As required, the Ministry of Business, Innovation and Employment can activate the Visitor Sector Emergency Advisory Group, which includes Tourism New Zealand, Tourism Industry Aotearoa, the Inbound Tour Operators Council, the Ministry of Business, Innovation and Employment (Major Events), the Ministry of Education (International Education), Sport New Zealand, the Ministry of Foreign Affairs and Trade (Economic) and the Ministry of Health (Communications). The role of this group is to assess the impact of the pandemic on the tourism and education sectors and to develop and disseminate targeted information to international visitors, intending visitors and the wider tourism sector network.

Ongoing work

The external work stream focuses on the international dimension of New Zealand's pandemic planning. Aided by reporting from New Zealand's foreign missions abroad, the group monitors international planning efforts, and in a pandemic will monitor the global spread of the pandemic and international efforts to respond to it. The work stream focuses on Pacific planning and coordinating New Zealand's international activities.

The objectives of the external work stream are to:

- develop a consular response for New Zealanders overseas
- prepare New Zealand posts overseas to respond to a pandemic
- develop an external communications strategy
- coordinate New Zealand's international activities in response to the pandemic
- facilitate New Zealand's contribution to international efforts to prepare for and respond to the pandemic, including by:
  - providing development assistance to partners to support preparedness for pandemics
  - responding to requests for assistance from developing countries, in conjunction with other countries and agencies.

Economy work stream

Agencies

New Zealand Treasury (lead), Reserve Bank of New Zealand, Inland Revenue Department, Ministry of Social Development, Ministry of Business, Innovation and Employment, Ministry of Foreign Affairs and Trade, State Services Commission, National Emergency Management Agency, Ministry of Health, New Zealand Customs Service

Legislation

Public Finance Act 1989 (section 25)

Key documents

Impacts of a Potential Influenza Pandemic on New Zealand's Macroeconomy (Douglas et al 2006)

Websites

Ministry of Social Development: **www.msd.govt.nz**

The Treasury 'Pandemic Issues':
http://www.treasury.govt.nz/publications/pandemic-issues

Roles and responsibilities

The Treasury

The Treasury is the Government's primary economic and financial advisor. Its pandemic influenza planning has included commissioning work looking at measures to mitigate the economic shock from a pandemic and encourage a rapid recovery, and contributing to working groups looking at more specific issues with significant economic implications.

The Treasury's primary role in a pandemic will include the continued running of the Government financial system and advising on measures to mitigate economic impacts.

Reserve Bank of New Zealand

The Reserve Bank of New Zealand is responsible for providing physical currency (notes and coins) and operating the inter-bank settlement system that allows transactions between firms and households to be settled. It is also responsible for the conduct of monetary policy, foreign exchange intervention and supervision of the banking system. In a pandemic, the Reserve Bank will ensure that core systems are maintained, including, if necessary, by pre-positioning currency supplies outside of Wellington.

Inland Revenue Department

The Inland Revenue Department plays a key role in the economic and social wellbeing of all New Zealanders by ensuring revenue is available to fund government programmes and ensuring people receive the payments they are entitled to. Some normal compliance and information services may need to be suspended during a pandemic. However, to the greatest possible extent, the Inland Revenue Department will ensure that in the event of a pandemic revenue collection services are maintained and customers receive their entitlements.

Ministry of Business, Innovation and Employment

See information on the civil defence emergency management work stream above.

New Zealand Customs Service

The New Zealand Customs Service has a facilitation role in trade, and provides the second largest source of government revenue. Customs' duty deferment and payment schemes were small but key responses during the COVID-19 pandemic. Customs supports a resilient supply chain, works closely with importers and exporters and addresses non-tariff barriers in other jurisdictions.

Other agencies

Within the economy work stream, the Ministry of Social Development, the Ministry of Business, Innovation and Employment, the Ministry of Foreign Affairs and Trade, the Public Service Commission, the National Emergency Management Agency and the Ministry of Health will provide advice and assistance as required to the Treasury as the lead agency.

Ongoing work

The agencies in the economy work stream have looked at measures to mitigate the economic shock from a pandemic and encourage a rapid recovery. When required, these agencies also advise the Ministry of Health on specific pandemic planning measures, such as the purchase of pandemic vaccine.

The objectives of the economy work stream are to:

- protect the Government's financial system – this involves contingency planning to ensure that government payments keep running in a pandemic, and that the Treasury, the Inland Revenue Department, the Ministry of Social of Development and other agencies regularly update and review their business continuity plans
- maintain financial stability – the Reserve Bank of New Zealand is updating its business continuity plans and meeting with banks to discuss their preparedness and business continuity plans
- formulate macroeconomic policy – the Reserve Bank of New Zealand and the Treasury have examined the robustness of monetary and fiscal policy frameworks to withstand a potential shock of this nature and scale

- ensure firms' preparedness – including by working to assist firms with their preparedness to cope with disruptions to their supply chains and markets and other effects
- provide support to firms and households.

Infrastructure work stream

Agencies

Ministry of Business, Innovation and Employment (lead), Ministry of Health, Ministry of Transport, National Emergency Management Agency

Legislation

Civil Defence Emergency Management Act 2002

Energy (Fuels, Levies and References) Act 1989

International Energy Agreement Act 1976

National Civil Defence Emergency Management Plan Order 2015

Petroleum Demand Restraint Act 1981

Water Services Act 2021

Key documents

Guide to the National Civil Defence Emergency Management Plan 2015 (MCDEM 2015b)

Websites

National Emergency Management Agency: **www.civildefence.govt.nz**

Ministry of Business, Innovation and Employment: **www.mbie.govt.nz**

Roles and responsibilities

Ministry of Business, Innovation and Employment

In a pandemic, the Ministry of Business, Innovation and Employment will provide advice on measures to mitigate the impacts of the pandemic on energy and information and communication technology services.

Ministry of Health

In a pandemic, the Ministry of Health will work with the water regulator, Taumata Arowai, to advise on measures to mitigate impacts on the water and waste sectors.

Ministry of Transport

In a pandemic, the Ministry of Transport will advise on measures to mitigate impacts on transport services and activate its Transport Response Team to liaise with the transport sector about the status of critical transport infrastructure and services.

National Emergency Management Agency

In a pandemic, the National Emergency Management Agency will coordinate lifeline utilities in accordance with the arrangements outlined in the National Civil Defence Emergency Management Plan Order 2015 and the Guide to the National Civil Defence Emergency Management Plan 2015 (MCDEM 2015b).

Ongoing work

The Ministry of Business, Innovation and Employment is leading the infrastructure work stream across the energy, communications, transport and water and waste sectors to ensure that key infrastructure services continue to be provided during a pandemic with minimal disruption.

The objectives of the infrastructure work stream are to:

- raise awareness among infrastructure providers of the value of continuity planning, through central agencies where practical
- encourage infrastructure providers to strengthen their business continuity plans to take account of human resource matters
- provide information to infrastructure providers to assist with their continuity planning
- receive briefings from infrastructure providers on the state of their readiness
- maintain relationships with key infrastructure providers and central agencies.

Workplaces work stream

Agencies

Central government agencies

Ministry of Business, Innovation and Employment / WorkSafe New Zealand (lead), Public Service Commission, Ministry of Health, National Emergency Management Agency, The Treasury

Other agencies

Business New Zealand and key sector networks, New Zealand Council of Trade Unions and affiliated unions

Legislation

Employment Relations Act 2000

Health and Safety at Work Act 2015

Holidays Act 2003

Key documents

Ministry of Business, Innovation and Employment guides, presentations and other resources (accessible from WorkSafe New Zealand's website) to help employers and employees minimise the risk and impact of a pandemic, including:

- frequently asked questions
- information to assist with business continuity planning
- detailed workplace health and safety guidance, including advice on IPC and the use of personal protective equipment in workplace settings
- generic workplace scenarios illustrating possible control options by which workplaces can manage pandemic-related risks.

Websites

Ministry of Business, Innovation and Employment: **www.mbie.govt.nz**

WorkSafe New Zealand: **www.worksafe.govt.nz**

Roles and responsibilities

Ministry of Business, Innovation and Employment

The Ministry of Business, Innovation and Employment / WorkSafe New Zealand, in consultation with key government agencies and stakeholder groups (in particular, Business New Zealand and the New Zealand Council of Trade Unions), has prepared employment relations and health and safety guidance material for workplaces to help them to plan for, prepare for, respond to and recover from a pandemic.

In a pandemic, the Ministry of Business, Innovation and Employment / WorkSafe New Zealand will be responsible for:

- reviewing and maintaining the currency of key messages to employers on responding to a pandemic
- responding to enquiries and complaints from workplace participants.

Public Service Commission

The Public Service Commission is responsible for overseeing, managing and improving the performance of the state sector of New Zealand and its organisations. It advises agencies on pandemic-related issues; in particular, on:

- attendance in the workplace, including an employee's refusal to work during a pandemic and remote working arrangements (usually working from home)

- leave arrangements and salary payments during a pandemic
- coordinating staff to provide wider support during a pandemic to help maintain essential services, by undertaking alternative duties
- approaches to take if a medical officer of health closes the workplace.

Ministry of Health, National Emergency Management Agency, Ministry of Business, Innovation and Employment and the Treasury

Within the workplaces work stream, the Ministry of Health, the National Emergency Management Agency and the Treasury will provide advice and assistance as required to the Ministry of Business, Innovation and Employment / WorkSafe New Zealand as the lead agency.

Ongoing work

The workplaces work stream aims to provide general workplace health and safety and employment relations information to workplace participants about the risks associated with a pandemic, as well as generic guidance about managing those risks. This guidance includes supporting material for Ministry of Business, Innovation and Employment staff about pandemic issues and a business continuity plan to ensure the maintenance of key delivery services to workplaces by the Ministry of Business, Innovation and Employment during a pandemic.

The objectives of the workplaces work stream are to:

- facilitate the ability of workplace participants to take a planned and flexible approach to a pandemic that is tailored to their particular workplace situation
- assist employers, employees and other workplace participants to work together to develop effective risk management approaches to the impact of a potential pandemic
- ensure that workplace participants use legislative and regulatory frameworks to guide their planning, rather than adopting legalistic approaches
- ensure that the options adopted by workplace participants during a pandemic are directed towards the best possible recovery from the event.

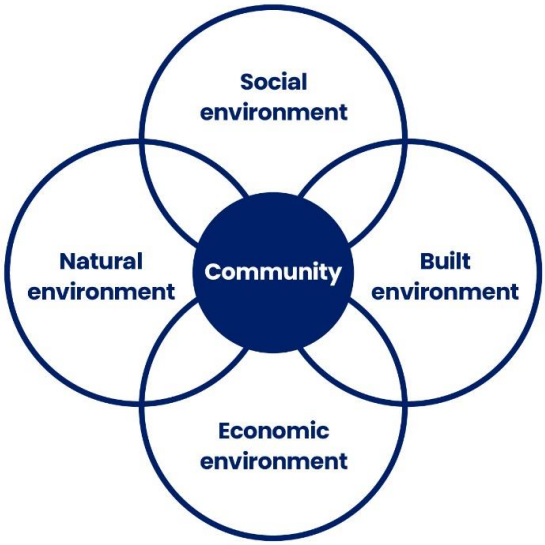
Appendix D: Recovery

Cornerstones of recovery

Recovery has eight cornerstones, as follows.

1. Recovery is a short-, medium- and long-term process.
2. Recovery starts on day one of the response and can continue in many ways on a long-term basis: possibly for years or even decades.
3. Recovery is an integral part of the four Rs (reduction, readiness, response and recovery) to be applied across all hazards and risks.
4. Recovery addresses the management of all hazards as consequences of emergencies that affect communities. This means planning and activation should be designed around managing the consequences or effects of given events, rather than planning for the event itself.
5. Recovery encompasses the community and social, natural, economic and built environments (see Figure 5). This interaction must involve members of the community and be supported by local, regional and national structures.
6. Recovery must be planned and evaluated.
7. The unique nature of a pandemic means there may be several waves of infection. Recovery activities should continue throughout subsequent waves but may be combined with response activities.
8. Recovery is a process of regeneration. In practice, this means that life after a pandemic is likely to be different in many ways. The long-term impacts will affect different people and communities in different ways and contribute to inequities.

Figure 5: Integrated and holistic recovery



Source: *Focus on Recovery: A holistic framework for recovery in New Zealand – Information for the CDEM sector [IS 5/05]* (MCDEM 2005a).

Cross-references and supporting material

Focus on Recovery: A holistic framework for recovery in New Zealand – Information for the CDEM sector [IS 5/05] (MCDEM 2005a)

Recovery Management: Director's guidelines for CDEM groups [DGL 4/05] (MCDEM 2005b)

Director's Guideline for Civil Defence Emergency Management Groups[11] (MCDEM)

National recovery management structure

The National Civil Defence Emergency Management Plan Order 2015 and the Guide to the National Civil Defence Emergency Management Plan (MCDEM 2015b) set out arrangements for national recovery activities.

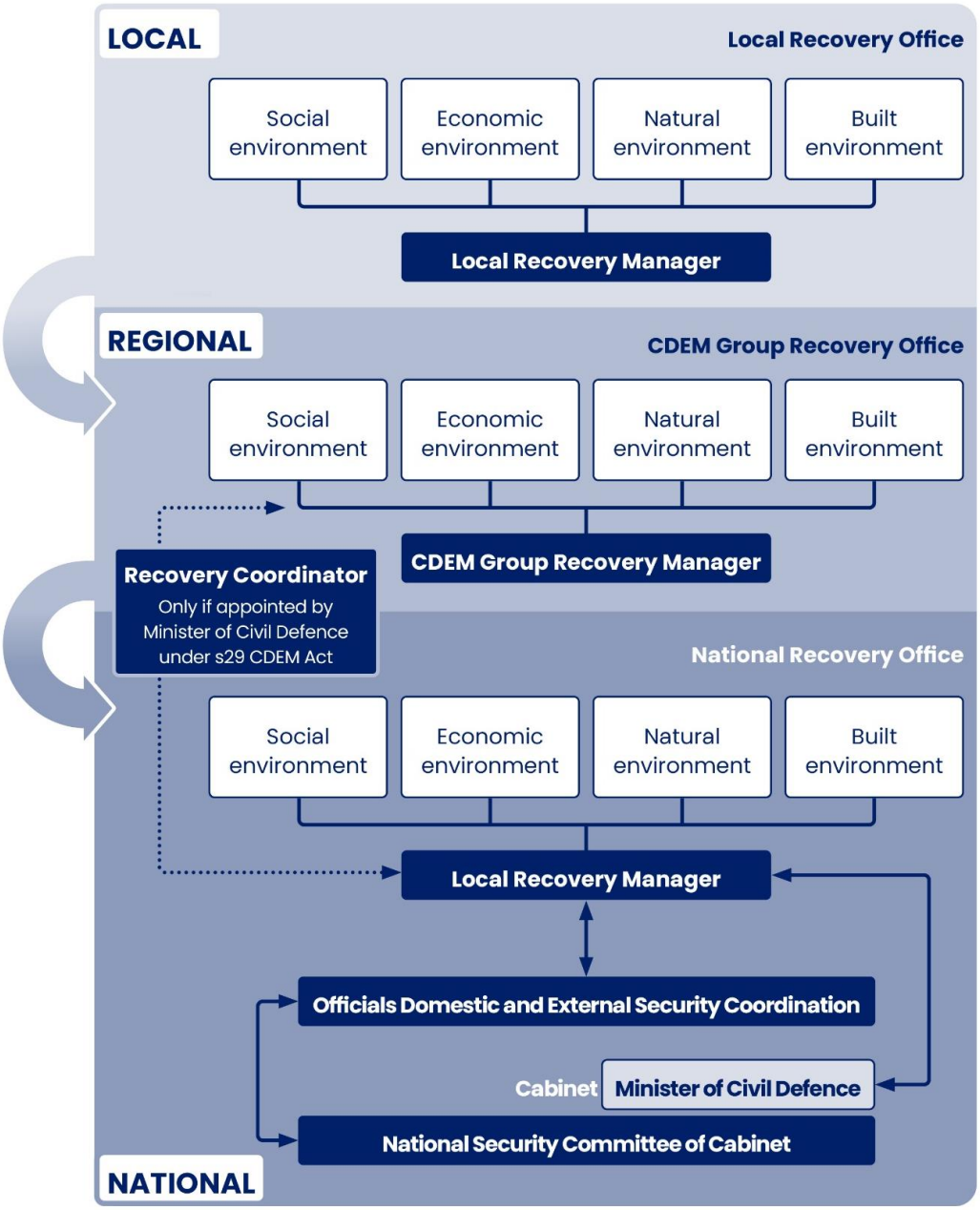
National recovery management procedure applicable to a pandemic is based on a structure of multi-agency task groups paralleled at local, regional and national levels (see Figure 6), aimed to ensure that recovery activities in the immediate, medium and long term are coordinated. Agencies should work together in the Plan For It phase to ensure their recovery arrangements will provide a coordinated and timely response.

[11] **https://www.civildefence.govt.nz/cdem-sector/guidelines**

In a moderate to severe pandemic, which will be by its nature widespread, it is likely that the ODESC would convene to provide strategic coordination and recovery prioritisation. This committee would then advise the Cabinet Committee on Domestic and External Security Coordination of the national direction of recovery activities and the possible establishment of a national recovery office coordinated by a national recovery manager or recovery coordinator: such a position can be established under the provisions of the National Civil Defence Emergency Management Plan Order. The national recovery office would then coordinate an all-of-government approach after a pandemic event.

The Government expects that health coordinators, medical officers of health and CDEM group controllers will collaborate to manage response at a regional level (see 'Coordination arrangements nationally and locally' in Part A). Decisions should be made jointly as much as possible within this partnership. Joint decision-making processes in the recovery stage should follow the national approach, including the likely decision to appoint a regional recovery manager and establish a regional recovery office. All recovery plans should take a 'system level' approach across all health entities and ensure that the delivery of any recovery activities at the local level are determined by local arrangements and recovery plans and reflect the regional and national recovery management structure.

Figure 6: Possible national recovery management structure in a pandemic



Source: *Guide to the National Civil Defence Emergency Management Plan 2015* (MCDEM 2015b).

Appendix E: Glossary

The following definitions and abbreviations apply for the purposes of this document. Words in bold in the definitions are defined elsewhere in the glossary.

ACC	Accident Compensation Corporation
agencies	Bodies including: • government agencies such as public service departments, non-public service departments, Crown entities and offices of Parliament • non-government agencies • **lifeline utilities**
alert codes for health	A set of codes used by the health and disability sector to disseminate information and trigger a series of actions (as outlined in the National Health Emergency Plan). The four codes are: • Code White – information/advisory • Code Yellow – standby • Code Red – activation • Code Green – stand-down/recovery
Cabinet Committee on Domestic and External Security Coordination	A Cabinet committee the Prime Minister chairs that includes ministers responsible for the departments that will play essential roles in domestic and external security events. Central government uses this committee to manage significant crises or security events in which impacts of national significance warrant the coordination of a national effort
case	A person infected with a pathogen, whether symptomatic or not
CBAC	**community-based assessment centre**
CDEM	civil defence emergency management
CIMS	**Coordinated incident management system**
Civil defence emergency management (or CDEM) group	A committee of elected representatives from local authorities that integrates civil defence emergency management planning and responds to and manages adverse effects of emergencies within a region

Community-based assessment centre	A capability or facility that may be set up by **Health New Zealand** during an emergency; commonly used in instances of mass evacuations, infectious disease outbreaks affecting many people and mass casualty incidents
contact	A person who has, or may have, been exposed to a pathogen, and who has not yet developed, or may not develop, symptoms
Coordinated incident management system	An organisational structure that allows the multiple **agencies** involved in an emergency to work together to manage it systematically, under a coordinated operational response. The system involves common terminology and operating structures, integrated communications and other shared management processes
Coronavirus	A large family of viruses that cause a range of respiratory infections, including the common cold and more severe diseases such as Middle East respiratory syndrome (MERS) and severe acute respiratory syndrome (SARS).
COVAX	A multilateral effort co-led by Gavi (the Vaccine Alliance), the Coalition for Epidemic Preparedness Innovations, the World Health Organization and UNICEF from 2020 until 31 December 2023. During the COVID-19 pandemic, COVAX aimed to accelerate the development and manufacture of COVID-19 vaccines and to support fair and equitable access to vaccines for every country in the world
COVID-19	A disease caused by the virus SARS-CoV-2
disinformation	False or modified information knowingly and deliberately shared to cause harm or achieve a broader harm
Domestic and external security coordination system	A system comprising the **Cabinet Committee on Domestic and External Security Coordination**, the **Officials' Committee for Domestic and External Security Coordination** and the Officials' Group
Domestic and External Security Coordination system emergency	A situation that: • is the result of a happening, whether natural or otherwise, including, without limitation, any explosion, earthquake, eruption, tsunami, land movement, flood, storm, tornado, cyclone, serious fire, leakage or spillage of any dangerous gas or substance, technological failure, infestation, plague, epidemic, failure of or disruption to an emergency service or a lifeline utility, or actual or imminent attack or warlike act • causes or may cause loss of life or injury or illness or distress or in any way endangers the safety of the public or property in New Zealand

	• cannot be dealt with by emergency services alone, or otherwise requires a significant and coordinated approach under the Civil Defence and Emergency Management Act 2002
epidemic	A disease affecting or tending to affect an atypically large number of individuals within a population, community or region at the same time
ESR	Institute of Environmental Science and Research Ltd
FMCG	Fast-moving consumer goods
four Rs	An expression that stands for: • reduction – identifying and analysing long-term risks to human life and property from natural or non-natural **hazards**; taking steps to eliminate these risks if practicable; and, if not, reducing the **likelihood** and the magnitude of their impact and the **likelihood** of their occurring • readiness – developing operational systems and capabilities before a civil defence emergency happens, including self-help and response programmes for the public and specific programmes for emergency services, **lifeline utilities** and other **agencies** • response – actions taken immediately before, during or directly after a civil defence emergency to save lives and property and to help communities recover • recovery – the coordinated efforts and processes used to bring about the immediate, medium-term and long-term holistic regeneration of a community after a civil defence emergency
H1N1 2009	A strain of the influenza A virus that caused a **pandemic** in 2009
H5N1	High pathogenicity avian influenza
hazard	A source of potential harm that may cause, or contribute substantially to, the course of an emergency
health emergency	An emergency that presents a serious threat to the health status of a community; or when the usual resources of a service or **provider** are overwhelmed or have the potential to be overwhelmed; or when there is a loss of services

Health New Zealand (Te Whatu Ora)	An independent statutory entity that leads the day-to-day running of the health system across New Zealand, delivering functions at local, district, regional and national levels. It manages all health services, including hospital and specialist services, and primary and community care
Health New Zealand emergency management team	A national emergency management team which, depending on the nature of the emergency, will lead, support or monitor the operational health sector response at the national, regional or district levels
Health New Zealand National Controller	Under the CIMS structure, the person with overall responsibility for coordinating a national emergency response
influenza	A contagious viral disease of the respiratory tract characterised by fever, headache, cough, myalgia, prostration, coryza and sore throat
IPC	Infection prevention and control
isolation	The process of separating sick people with a contagious disease from people who are not sick
lead agency	The organisation with the legislative or agreed authority for control of an incident
lifeline utility	A service or network that provides the necessities of life (eg, power and gas, water, sewerage, petrol, roading, transport of essential supplies, radio, television, air travel and shipping)
likelihood	A general description of probability range or frequency used in risk management
local	describes a designated population or a provider group working in a specific geographical area. The Health New Zealand locality has overall responsibility for providing health and disability services in an **emergency** to a local population. However, local provider groups also have obligations to provide services in an emergency
medical officer of health	An officer designated by the Director-General of Health under section 7A of the Health Act 1956
MERS	Middle East respiratory syndrome
misinformation	Information that is false or misleading, though not created or shared with the direct intention of causing harm
national coordinator	The person who leads the Ministry of Health **National Health Coordination Team** and has overall responsibility for coordinating **emergency** response at the national level

National Crisis Management Centre	The National Crisis Management Centre (NCMC) is the central government emergency management operations centre. It is designed for many agencies and for any type or level of emergency
National Health Coordination Centre	A virtual or physical emergency operations centre established to lead the national response to a health emergency, or if required, to a significant sub-national emergency.
National Health Coordination Team	A team within the Ministry of Health, comprising members of all Ministry directorates and other agencies/organisations as required, that coordinates the national emergency response in a health-related emergency
National Health Emergency Plan	A Ministry of Health umbrella plan (Ministry of Health 2015) that incorporates health emergency-specific action plans, such as the New Zealand Pandemic Plan and the Multiple Complex Burn Action Plan. The National Health Emergency Plan provides guidance for the New Zealand health and disability sector for emergency management
National Public Health Service (NPHS)	The service within Health New Zealand responsible for operational public health within New Zealand; it functions at national, regional and locality levels
National reserve supplies	National reserve supplies have been developed to ensure that as far as is possible, health services have continued access to specific critical supplies during large or prolonged emergencies.
National Welfare Coordination Group	An all-hazards, multiagency group, convened by the National Emergency Management Agency to coordinate multi-region or national welfare support before, during and after emergencies
NPHS Emergency Management Team	The team that coordinates public health responses and public health input to other health emergencies
ODESC	**Officials' Committee for Domestic and External Security Coordination**
Officials' Committee for Domestic and External Security Coordination	A committee of government chief executives charged with providing strategic policy advice to ministers. It provides support to the **Cabinet Committee on Domestic and External Security Coordination** and oversees the areas of emergency readiness, intelligence and security, terrorism and maritime security. Activation of ODESC is at ministerial request
pandemic	An **epidemic** that becomes very widespread and affects a whole region, a continent or the world

personal protective equipment	Equipment used by clinical and non-clinical staff to protect them from **hazards** (eg, gloves, masks, eye protection, respirators, gowns and footwear)
Planning and intelligence team	The team responsible for collecting, evaluating and disseminating information related to an incident
primary health care	Care and services that general practitioners, nurses, pharmacists, dentists, ambulance services, midwives and others provide in the community
primary health organisation	A grouping of primary health care providers that provides primary health services either directly or through its contracted providers, funded by Health New Zealand
provider	An organisation or agency providing health and disability services (eg, a Health New Zealand locality, a primary health organisation, a Māori health provider, a non-governmental organisation or an ambulance service)
public health services	Refer "national public health service" above
public information management	The collection, analysis and dissemination of information to the public in a timely manner
public health emergency of international concern	A formal declaration by the WHO of an extraordinary event determined to constitute a public health risk to other countries through international spread of disease and to potentially require a coordinated international response
quarantine	A process to separate and restrict the movement of people who have been or may have been exposed to a contagious disease
rapid antigen test	A diagnostic test suitable for self-testing or point-of-care testing that produces a result within 5 to 20 minutes
recovery	The coordinated efforts and processes undertaken to effect the immediate, medium-term and long-term holistic regeneration of a community after an emergency
regional coordination team	A body that coordinates the regional emergency response in a health-related emergency
risk	The possibility of a negative outcome or harm as a consequence of a hazard; often specified in terms of an event or circumstance
SARS	Severe acute respiratory syndrome
secondary care	Treatment by specialists to whom a patient has been referred by **primary health care** providers

situation report	A report (commonly called a SitRep) of an incident that is usually given at regular intervals. This report provides a snapshot of the situation and the response. There is a template for this report in the emergency management information system, to ensure standardisation
standard operating procedure	An approach an agency has documented that provides the clear directions and detailed instructions needed to perform a specific task or operation consistently and efficiently
support agency	Any government **agency** that helps the **lead agency** during an emergency. Support agencies are determined by the potential consequences of the emergency
Te Aka Whai Ora (Māori Health Authority)	An independent statutory entity that was established under the Pae Ora (Healthy Futures) Act 2022. In updating this interim plan the Ministry consulted with Te Aka Whai Ora to ensure its statutory functions were appropriately incorporated. On 30 June 2024 Te Aka Whai Ora was disestablished and its functions transferred to the Ministry of Health (policy and monitoring) and to Health New Zealand, Hauora Māori Services (service commissioning, planning and delivery)
tertiary health care	The treatment given in a health care centre that includes highly trained specialists and often advanced technology
triage	The sorting or classification of casualties according to the nature or degree of illness or injury
Whaikaha (Ministry of Disabled People)	A ministry set up in partnership with the community and Māori to improve outcomes for disabled people, reform the wider disability system and coordinate the Government's disability policies
WHO	World Health Organization

References

These references are current as of 1 December 2023. Note that over the life of this plan, some publications and resources may be updated, or their web references modified. Go to the website of the government agency concerned for updates.

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