



1 July 2020



Reference: OIA-2019/20-0554

Dear 

Official Information Act request relating to internal analysis relating to exit options from Alert Level 4

Thank you for your Official Information Act 1982 (the Act) request which was partially transferred to the Department of the Prime Minister (DPMC) on 29 May 2020. You requested:

"...internal analysis undertaken by officials, relating to the analysis of exit options from the current lockdown arrangement, including, specifically, information relating to the alternative exit arrangement."

Please find attached information that has been identified as relevant to the part of your request relating for copies of any internal analysis undertaken by officials. I have withheld some information under the following sections of the Act:

- section 9(2)(a) of the Act, to protect the privacy of individuals.
- section 9(2)(g)(i), to maintain the effective conduct of public affairs through the free and frank expression of opinion.

I note that we do not hold any internal analysis relating specifically to the exit arrangement articulated in the Dominion Post article (i.e. the plan b led by the Senior Lecturer in Epidemiology at Auckland University). Accordingly, I am refusing this part of your under section 18(e) of the Act, as the information requested does not exist.

Official cabinet papers and material on this matter were being handled by another agency but we note that the cabinet paper preparing to review New Zealand's level 4 status is publically available:

<https://uniteforrecovery.govt.nz/updates-and-resources/legislation-and-key-documents/proactive-release/>

More generally, we can note that we took a risk-based approach to the review of Alert Level 4 and the move to Alert Level 3. The all of government team drew on broad expertise across the public service. The conclusion we drew was that the costs of pursuing an elimination strategy were justified given the long-term social and economic benefits of saving lives and achieving elimination. The decision to move to Alert Level 3 from 27 April was recommended in order to provide certainty that we had cut off community transmission. We have been able to step-down through alert levels more rapidly than any other country. New Zealand is currently in a position of strategic advantage relative to other countries and life is returning to a new normal with fewer restrictions than elsewhere.

You have the right to ask the Ombudsman to investigate and review my decision under section 28(3) of the Act.

Finally, for your information, this response will be published on DPMC's website during our regular publication cycle. Typically, information is released monthly, or as otherwise determined. Your personal information including name and contact details will be removed for publication.

Yours sincerely



John Ombler
All of Government Controller

New Zealand's COVID-19 Strategy: Cover Note

Contact: *Peter Crabtree, All of Government Strategy and Policy Group* s9(2)(a)

1. Attached is a set of information and insights, drawn together by the all-of-government Strategy and Policy Group at the National Crisis Management Centre. It draws together input from across the public sector, including the Ministry of Health, economic and social agencies, and the Operations Command Centre.
2. This information is intended to inform Ministers' thinking about New Zealand's ongoing response to COVID-19.
3. The information provided covers an overview of the elimination strategy, the key choices ahead (prefaced on continuing with an elimination strategy), and then steps through:
 - How elimination sits alongside other strategic choices, from a health perspective. Elimination is preferred, but other choices may be needed in time (Slide 1)
 - The strengthening of public health fundamentals (Slide 2)
 - What the next 3 months might look like, in terms of alert levels (Slide 3)
 - How the transition from the current Level Four could look, including regional differentiation (Slide 4)
 - The key strategic indicators Ministers will need to support decisions now and in the future (Slide 5)
 - How these choices play out in terms of disease spread; public health; economy and society (Appendix).
4. The slides do not provide explicit advice for Ministers on decisions from here.
5. However, based on the information provided, preliminary advice from the all-of-government strategy and policy group is set out below. This is intended to be indicative only, to help navigate a rich set of information. Further advice, fully tested across agencies, will follow in the next few days.

Preliminary Thinking on Advice

Response Strategy

6. Elimination is the best strategy in terms of public health and if we succeed quickly, the best for the economy. The window to give this our best shot is now.
7. If elimination does not work, then the next best option is that stamping out the disease (reducing some restrictions, and responding quickly to outbreaks) is second best. But this will not be easy in practice. It may require lowering then raising restrictions in regions, with high costs and uncertainty.
8. If neither elimination or stamping out strategies work, then suppression (public health measures tightened and loosened in line with health system capacity) is the next best option. This is largely untried, and risky from a public health perspective.

Balancing Health Focus with Economic and Social Impacts

9. Ministers have been clear that saving lives is the priority, and the measures taken so far are worth it in terms of the costs to the economy and society.
10. However, these costs rise dramatically over time, and there are practical limits to what the economy can afford, and what society can bear.
11. The current restrictions (nationwide Alert Level 4) can be sustained for the initial four weeks. They will be much harder to sustain beyond six or eight weeks. Economic resilience will suffer. Social licence will likely start to erode, and with that, compliance will fall.
12. But it would be a mistake – in human, social and economic terms – to reduce restrictions, only to have transmission escalate, and then need to reinstate them again only harder.
13. This means that actions need to be taken to reduce these economic and social costs as far as possible, while not increasing public health risks. It also means that Ministers need to be assured that public health fundamentals (testing, tracing, quarantine and isolation) are strong.

Guiding principles from here

14. Thinking about the way forward from here, it is worth bearing in mind that Alert Levels are not set in stone concepts. Some calibrating of Level 4 will be important.
15. The levers the Government has to do this are:
 - a) The definition of essential services. We may need to take a wider view of essential services as time goes on (e.g. to provide for clothing for children), provided public health risks can be managed.
 - b) Constraints on business. To ensure economic resilience and recovery, some flexibility may be useful to keep businesses in operation.
 - c) Considering greater freedom of movement for some, provided testing and technology can provide assurance on the risks of community transmission. This will require use of technology and personal data for tracing.

This could be, for example, by reducing restrictions in some regions (effectively internal border controls that enable restrictions to be managed down progressively). The practicalities of this have been tested with Police and appear to be manageable.

- d) Maintaining solidarity, social licence and compliance through emphasising hope rather than fear.

16. The concept of low health risk and high pay off should be the guiding principle.

Upcoming Decisions

17. Ministers will need to take decisions in the next two weeks. The areas for decision are set out below, along with our very preliminary advice:

- s9(2)(g)(i) [REDACTED]
- Whether and how to expand testing [*preliminary view: yes; test as many people that meet the case definition now; and work towards introducing new technologies to allow disease monitoring*]
- When to change alert levels (or calibrate Alert Level 4) [*preliminary view: there is an emerging strong case to extend for 2 weeks nationwide. Beyond that, look to reduce restrictions in regions; with a transition pathway for expanding the number of essential businesses and greater freedom of movement with tracing*].

Our objectives

- The COVID-19 pandemic is the most serious public health and economic challenge for 100 years.
- The pandemic has sent the global economy plummeting into a deep recession, sparked border closures, disrupted supply chains and relationships, and cast doubts on internationalisation.
- Our objectives through this double crisis are to: (1) save lives, (2) minimise economic disruption and social harm, (3) sustain our international connections, (4) maintain public trust, and (5) empower the public.

Our response so far...

- We have “gone hard and gone early”. We don’t want to be Italy, Spain or the United States.
- We have implemented increasingly tough border measures and have put in place strong restriction measures (ie Alert Level 4) early, ie when confirmed cases were less than 200 and recorded deaths were zero.
- We have rapidly implemented large-scale economic response measures eg providing wage subsidies, changing business tax and freezing rent prices.

Strategy – elimination is our best shot and the window is now...

- Our strategy is to eliminate COVID-19 through wide-scale physical distancing (Alert Level 4) measures, widespread monitoring of COVID-19, rapid contact tracing, stringent quarantine, isolation and border measures.
- If we succeed, we can progressively lower the alert level to 1 and live free of restrictions – except for the border which is needed to keep it out until the pandemic ends.
- If we don’t succeed, we will aim to keep COVID-19 case numbers low through a “sustained stamp it out” strategy.
- However, this will mean maintaining Alert Level 2 and sometimes moving the alert level higher to get on top of the disease. This will create costs and uncertainty.
- Both strategies rely on minimising case numbers until vaccine availability which is not expected to arrive until January 2021 at the earliest.

Success is dependent on public health fundamentals – detection, testing, tracing and isolation...

- The total lack of population immunity and no vaccine are at the core of the COVID-19 challenge.

○ s9(2)(g)(i)

- If we do stay for an extended period in Alert Level 4, the ability of New Zealand’s economy and society to rebound and recover will be affected. Different measures would be needed to strengthen our resilience.
- Ongoing border restrictions and managed isolation is needed under both elimination and sustained stamp it out strategies.

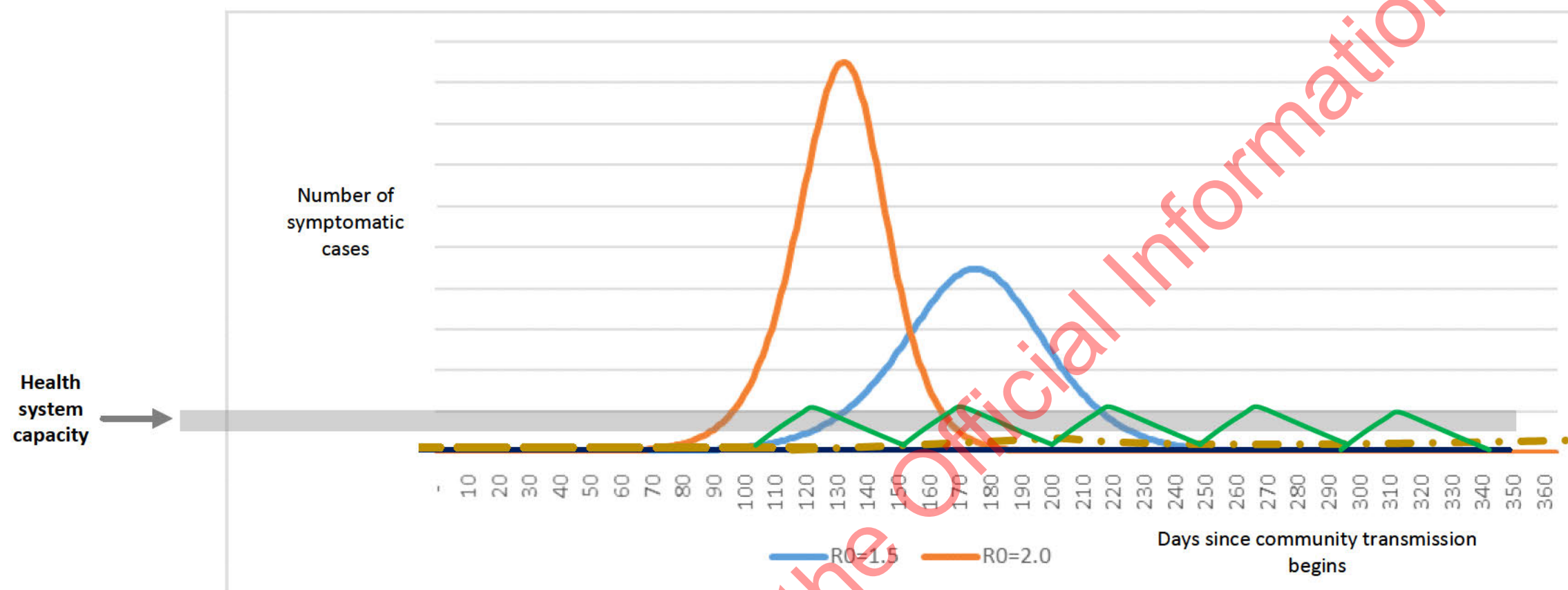
Key strategic choices in the short-term

- Options for reducing the economic and social impacts of Alert Level 4 centre on the scope of essential services, opening up certain businesses, and opening up some regions
- How long are we willing to remain at Alert Level 4 in an effort to eliminate COVID-19 in New Zealand (including effects on our economic and social resilience)?
- How much should government access citizens’ data to enable rapid contact tracing and thus reduce the Alert Level in almost any scenario?

1. Elimination is our preferred strategy

AOG COVID-19 Strategy and Policy, 4 April 2020

- **Unmitigated spread** – ie do nothing or very little to slow spread Less desirable
— **Mitigated spread** – some public health measures implemented to slow spread, ie Alert Levels 2/3 for 5-6 months, then recovery
— **Suppression** – public health measures tightened and loosened periodically to manage case numbers within health system capacity
- - - **Sustained stamp out** – intense focus on testing, contact tracing and quarantining; Alert Level mostly set at 2 (possibly higher for short periods) for duration of crisis
— **Elimination** – maximum and highly effective public health measures (including testing, contact tracing and quarantining) to reduce locally-acquired cases to zero More desirable



Each strategy requires different uses of control measures, ie different Alert Levels

Elimination allows us to reduce to Alert Level 1, if it is achieved

All three
require tight
border controls

Unmitigated spread

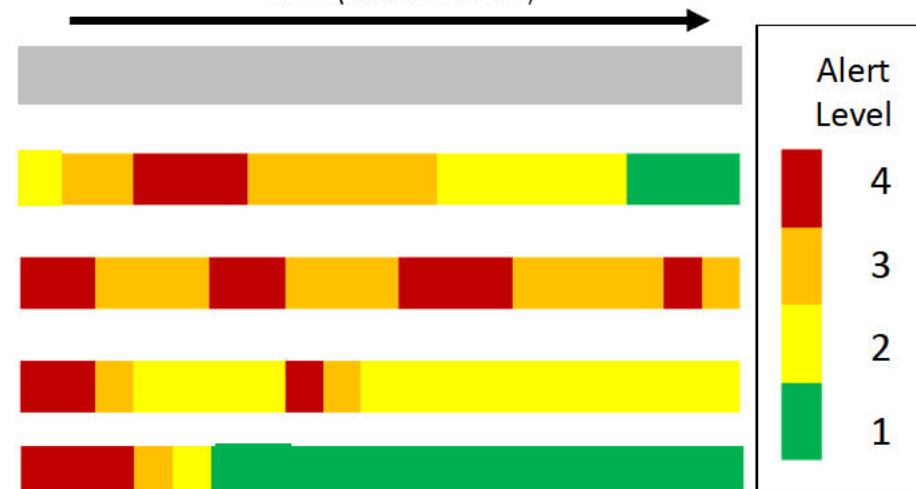
Mitigated spread

Suppression

Sustained stamp-it-out

Elimination

Time (next 18 months)



Current situation

Immediate priorities

Where we are headed

Testing and monitoring

- ☐ Testing is necessary for the identification of infected individuals and to provide intelligence on the outbreak at a national and regional level.
- ☐ The case definition for testing has recently and is now quite broad, no longer requiring connection to overseas travel, a known case, or having a fever. As a result the number tested on Friday 3 April (3631) was the largest to date and about double the rate in the week prior to change in case definition.
- ☐ New Zealand has been successful at scaling up national testing capacity. Current indications are that this capacity will continue to grow, although some risks remain if overseas suppliers were to reduce New Zealand's relative allotment as our case numbers fall. We are working to address this by a shift to a wider range of generic suppliers.
- ☐ Overall, with the change in case definition New Zealand is in the top-tier of countries for the rate of testing per capita and for the low rate of positive tests.
- ☐ In terms of monitoring we are currently relying largely on data from ESR's EpiSurv system. This is critical but insufficient.

- ☐ Our immediate priority is to ensure that a high proportion of those meeting the case definition are tested. Unfortunately, we do not know how large this group actually as these symptoms are reasonably common. However, if we can test nearly all people within the case definition, we will be in a very good place. Given that we have good national capacity, our priority should be:
 - ☐ ensuring symptomatic people are engaging with the health system (and getting tested where appropriate) including through improved public information,
 - ☐ getting a better understanding of the on the ground testing realities at a regional level to address any barriers where they exist.
- ☐ Efforts for both should be prioritised in areas near major clusters, but will need to be undertaken everywhere.
- ☐ For monitoring, we will begin linking all existing information sources about the disease including from testing, hospitalisation and ICU.

- ☐ Even where we have excess capacity, using current testing methods to test asymptomatic people is likely to be of low value in most cases due to s9(2)(g)(i) very low numbers.
- ☐ If we achieve elimination, the focus of testing will shift to broad monitoring. This will likely come within the height of flu and cold season, creating a very large number of people with COVID-like symptoms, alongside an extremely small number of COVID cases. We will need broader, but also faster testing.
- ☐ Solutions may include an expanded version of the existing Sentinel system for flu monitoring, although the current system serves a very different purpose than what would be required here.

Contact tracing

- ☐ Contact tracing is vital to contain the spread of COVID-19.
- ☐ Speed is of the essence to alert contact of their exposure, and ensure they self-isolate.
- ☐ The National Close Contact Centre was stood up on 24 March 2020 and has traced 5,000 contacts since then, with most contacted within 48 hours.

- ☐ Embed processes and ensure capacity to copy with an increasing number of cases and contacts. Our new operating model is scalable.
- ☐ Connectivity with National Health Index to improve ability to trace people.
- ☐ Explore benefit of technology including apps.

- ☐ Ability to rapidly scale up if required, and adapt processes.
- ☐ Improving ability to work remotely.
- ☐ Ability to forecast demand to allow for rapid flexing.
- ☐ Technology and process improvement to speed up tracing to ensure contact within 24 hours.

Quarantine

- ☐ Screening is mandatory for all people entering New Zealand. Passengers with symptoms are tested, treated, and required to quarantine for 14 days.
- ☐ We have 221 rooms available for quarantine in addition to the rooms available for managed isolation. 63% of rooms are occupied.
- ☐ 43 people are in quarantine as either confirmed cases or awaiting test results. 96 people are in the quarantine facility who have had a negative test for COVID-19 and are awaiting transfer.

- ☐ Identify and establish an additional quarantine facility in Auckland.
- ☐ Manage flow of people from quarantine who have been cleared of COVID-19 to a managed isolation facility specifically for these people.
- ☐ Identifying available health staff for newly established facilities.

- ☐ Border measures will need to be maintained even when Alert Levels change. Otherwise we may eliminate local transmission only to risk re-introduction of the virus from overseas. This means that even with lower Alert Levels, there will continue to be a need for quarantine facilities for the coming months (not weeks).
- ☐ Cabinet is considering a parallel paper with a plan for the long-term future of quarantine, managed isolation and self-isolation facilities and processes.

Isolation

- ☐ The entire country is currently self-isolating, other than to get essentials for life like groceries, or do essential work. New Zealand moved to this phase a lot sooner than other countries. Specific self-isolation guidelines have recently been issued by MOH.
- ☐ Everyone who enters the country is required to self-isolate for 14 days at their port of entry. Police are monitoring the location of returning New Zealanders using text messages. If people do not have a suitable place to isolate, this is being provided by the Government (referred to as "managed isolation").
- ☐ 1,638 rooms are currently available for Managed Self-Isolation in Auckland. Of these 271 rooms are yet to be staffed and activated for immediate use. 876 rooms are being occupied by 1,071 people. Of the staffed and activated rooms there is an occupancy rate of 63%.

- ☐ Requiring everyone entering New Zealand to go into managed isolation for 14 days will improve our chances of containing the disease, given the proportion of cases still linked to international travel. However, this comes at a significant cost both financially (to secure accommodation) and in terms of human resources (to monitor and support isolation).
- ☐ We are also working to increase capacity for managed isolation, to accommodate everyone returning to New Zealand. This includes locating facilities near international airports, and providing welfare support at scale for people in managed isolation.
- ☐ Forecast figures show we can expect an average of 200 incoming passengers per day under current settings as New Zealanders and residents abroad continue to return (there are approximately 26,000 New Zealanders who remain abroad).

- ☐ Our current border restrictions, which only allow New Zealanders to enter New Zealand, are likely to be required as long as we pursue an elimination strategy, regardless of Alert Level. This means in terms of border entry, managed isolation will continue to be required for New Zealanders returning home, rather than tourists or other temporary visitors.
- ☐ If there is widespread transmission, there could be more locally-driven demand for managed isolation, eg for those in transient or unsuitable housing, or to provide separate accommodation for a bubble if one member has been infected. We are therefore working to identify facilities for large-scale managed isolation.

Outbreak and cluster management

- ☐ 44% of confirmed and probably cases are linked to a household (384 cases).
- ☐ There have been 19 outbreaks reported and about 37% of cases are linked to an outbreak. PHUs are currently managing each outbreak in order to limit spread.

- ☐ We are ensuring all outbreaks prior to 26 March 2020 are fully contained with very minimal spread limited to households.
- ☐ We are improving cross-DHB outbreak management and fast identification of contacts.

- ☐ Future scenarios require very rapid identification of clusters and outbreaks.
- ☐ Centralised outbreak control could be considered.
- ☐ Analysis of current outbreaks may identify social events with highest risk.

The focus for the next 1-3 months is to eliminate and stamp out the virus. Eliminating the virus is ambitious, but it is achievable with decisive and effective action.

To be successful we need our basic public health response measures.

Confidence in testing, contacting tracing, quarantine and isolation will reduce our time spent in Alert Level 4.

If either of our best case strategies do not succeed, we will end up with high levels of hospitalisations and deaths.

Hence we need to continue to develop surge capacity (including workforce, ICU capacities, PPE) in the health system.

The alert levels framework provides a set of measures, based on physical distancing, to respond to risks associated with COVID-19.

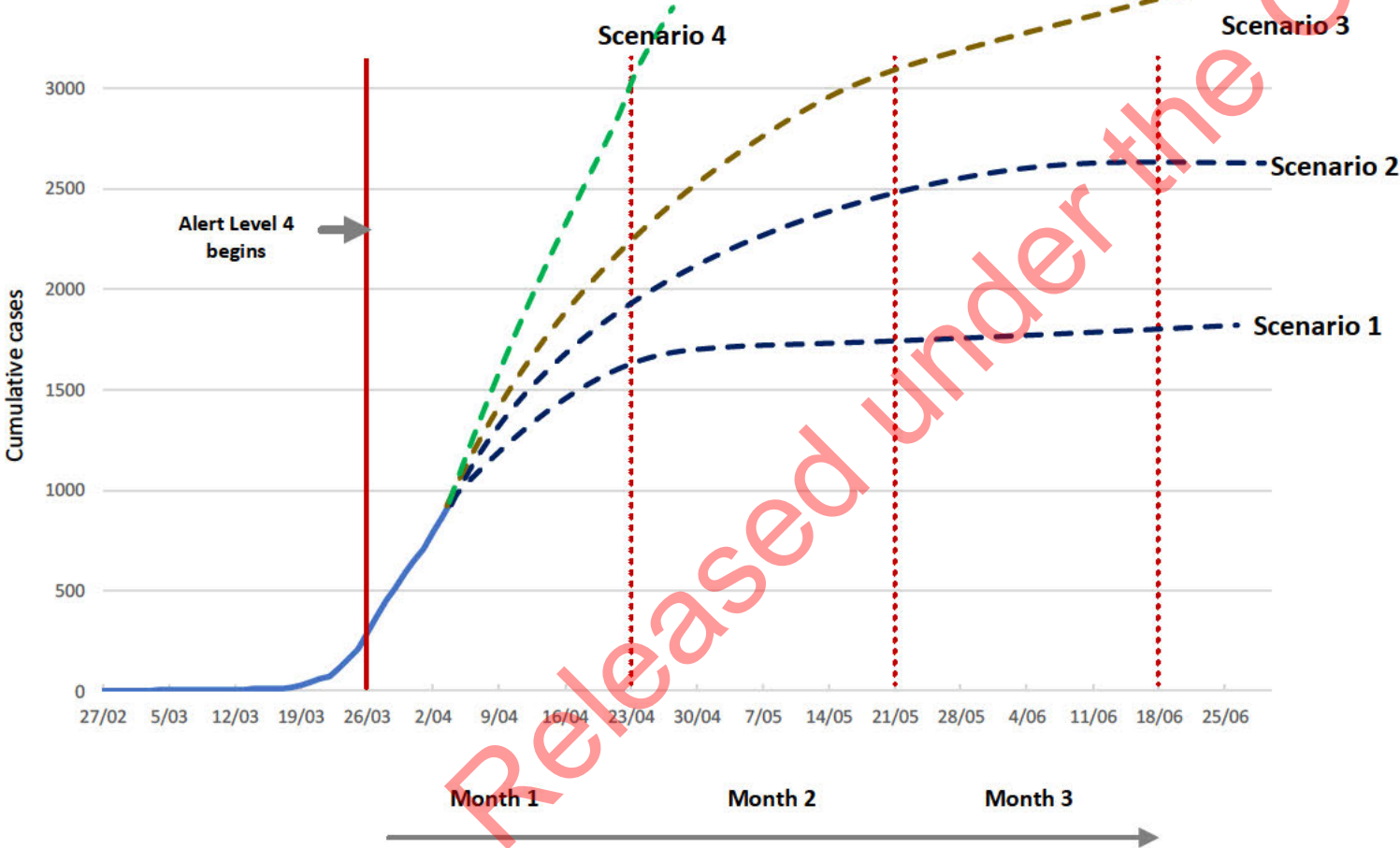
We suggest the following **criteria be applied for moving between alert levels**:

1. The spread of the disease in New Zealand (case numbers, community transmission, rates of change, location of cases and clusters)
2. The degree of confidence in our testing regime, contact tracing, quarantine/isolation and border measures
3. The degree of preparedness of the health system, including workforce, ICU capacities and PPE
4. Effects on economic and social resilience
5. Compliance and public attitudes to the measures.

The application of these criteria will depend on our overall strategy. For example, if we have a mitigated spread strategy, the threshold for moving to Alert Levels 3 and 4 will be much higher in terms of COVID-19 cases.

Ministers will need to signal their **decision on the Alert Level by April 16** (one week prior to April 23).

The chart below illustrates possible trajectories for COVID-19 in New Zealand, and the tables on the next page show how the alert system could be adjusted in response.



Scenario 1: extend Alert Level 4 two more weeks	
What this looks like on April 20	<ul style="list-style-type: none">• Clear decline in cases unrelated to international travel for the past 7-10 days• Increased confidence in testing regime, tracing and border measures compared to beginning of April
Summary	We are clearly on the right path to achieving elimination, but are not quite there yet. We need to hold on at Alert Level 4 for another two weeks.
Description	<p>We need two more weeks to get better intelligence from our enhanced monitoring and testing. The testing system is unlikely to be functioning at required level to achieve a high degree of confidence by 16 April 2020.</p> <div><div><div>4</div><div>3</div><div>2</div><div>1</div></div><div>Month 1Month 2Month 3Month 4Month 5Month 6Month 7</div></div> <p>On 23 April 2020, extend Alert Level 4 for a further two weeks, then drop to Alert Level 3 with a four-week transition. At all levels, maximum border restrictions need to be maintained. Isolated imported cases may still occur.</p>
Scenario 2: extend Alert Level 4 for longer period, but some regions drop over time	
What this looks like on April 20	<ul style="list-style-type: none">• Some decline in new cases unrelated to international travel for the past 7-10 days• Regional variation: some regions may have no community transmission for the past 7-14 days• Increased confidence in testing regime, tracing and border measures compared to beginning of April
Summary	We are moving in the right direction – some regions have no community transmission, others have
Description	<p>Elimination could succeed after some time, with high degree of confidence (eg in testing).</p> <div><div><div>4</div><div>3</div><div>2</div><div>1</div></div><div>Month 1Month 2Month 3Month 4Month 5Month 6Month 7</div></div> <p>Regions with a low risk level could reduce Alert Level sooner, while others remain at Alert Level 4 for 3 months. Maximum border restrictions would still need to be maintained. Isolated imported cases may still occur.</p>
Scenario 3: move to sustained stamp out strategy after 3 months	
What this looks like on April 20	<ul style="list-style-type: none">• May see some declines in community transmission, but community spread persists• Social licence for maintaining Alert Level 4 waning resulting in lower compliance• Economic and social costs mounting
Summary	It is taking too long to eliminate the disease, and public support for Level 4 is waning. We need to drop to Level 3.
Description	<p>We would no longer pursue elimination, but instead contain and control outbreaks until a vaccine.</p> <div><div><div>4</div><div>3</div><div>2</div><div>4</div><div>3</div><div>2</div></div><div>Month 1Month 2Month 3Month 4Month 5Month 6Month 7Month 8Month 9</div></div> <p>We anticipate a 12-18 month period of intense surveillance and tracing as the disease is still present in New Zealand.</p>
Scenario 4: tighten Alert Level 4	
What this looks like on April 20	<ul style="list-style-type: none">• Significant increase in number of new cases (well into the thousands), with community spread even increasing.• May not have high degree of confidence in control measures or compliance.
Summary	Elimination and stamping out isn't working. Need to strengthen enforcement and the measures (eg narrowing down essential services, cutting all public transport and limited households' trips outside)
Description	<p>If elimination isn't working because of compliance issues, we need to further tighten our Level 4 measures. If there is no social licence for further restrictions, we need to continue our Level 4 measures.</p> <div><div><div>4</div></div><div>Month 1Month 2Month 3</div></div> <p>Public sentiment will be affected by the length of time in Alert Level 4. However, the more fatalities and serious cases there are, the greater the justification for continuing Level 4 restrictions. As long as elimination and sustained stamp out are the dominant strategies, stepping down from Level 4 is not compatible with a significant increase in disease transmission locally.</p>

Under all scenarios, border control measures are maintained.

Moving down from Alert Level 4

Alert Level 4 → Alert Level 3

Triggers under an elimination strategy

Targeted, population-based testing shows minimal or zero community transmission

High confidence in our testing, contact tracing, quarantine, self-isolation and border measures

Triggers under a sustained stamp out strategy

Testing shows low levels of community transmission

High confidence in our testing, contact tracing, quarantine, self-isolation and border measures

A change to another strategy can also be a trigger for moving to Alert Level 3

What this means

Under our best case strategies, community transmission is under control or even eliminated

What does stepping down to Alert Level 3 look like?

- Stepping down from Alert Level 4 to 3 in a gradual manner, so as not to threaten the gains we have made.
- We were previously only at Level 3 for two days, and while facing an imminent move to Level 4. This means Level 3 restrictions will not be familiar or ingrained in society.
- Communication of the transition in advance is important to enable business to start to plan how to start to gear up.

Businesses

Businesses that can maintain physical distancing, and infection control can operate. Everyone who can work from home should do so. A staged approach could involve:
First: allow online and contactless delivery or pickup and payment of essential and non-essential goods
Later: allowing retail to open provided they can maintain physical distancing and infection control.

Education

Ministry of Education input required

Mass gatherings

All mass gatherings remain cancelled, i.e. gatherings above 20 people (also applies to retail, supermarkets as the exception). Recreational sport banned. Bars, restaurants and public venues remain closed.

Transport

Public transport remains restricted

Alert Level 3 → Alert Level 2

Triggers under an elimination strategy

For at least four weeks, there are no new cases related to community transmission, or unlinked to other cases.

Triggers under a sustained stamp it out strategy

For at least two weeks, there are no new cases related to community transmission. Localised clusters are under control.

A change to another strategy can also be a trigger for moving to Alert Level 2

What this means

Community transmission is not occurring, but limited risks still remain

What does Alert Level 2 look like?

- Level 2 has limited impact on the daily lives of New Zealanders. We can go about our daily lives largely unimpeded, but are discouraged from travelling around the country. However, high-risk people are advised to stay at home.

Businesses

No businesses are required to close, but employers should continue alternative ways of working if possible

Bars, restaurants and cafes can open, but physical distancing measures advised

Education

Ministry of Education input required

Mass gatherings

All mass gatherings with more than 100 people cancelled. Recreational sport allowed.

Transport

Physical distancing on public transport advised
Essential travel only advised

Managing regional variations in Alert Levels

It is likely we will see regional variation in risk profiles based on the five criteria. In order to make a determination for regional de-escalation, we would need to consider the ability to enforce travel restrictions.

Advantages of regional approach

- Being at Alert Level 4 is causing significant economic and social disruption. Continuing at this level could cause long-term harm and degrade public confidence in the response effort. Where the risk to public health is low, the controls should be loosened
- We can protect unaffected areas and concentrate resources on areas with higher risk

Defining regions

- Practical considerations such as public transport and economic activity within these localities are important
- We recommend defining regions based on a combination of natural land barriers (such as sea, rivers, mountains) and local government areas
- Health information and practical considerations will determine definitions
- Health information is unlikely to be available at very granular levels of detail, such as neighbourhoods or suburbs. Also very granular areas, such as suburbs, are not practical as they cannot be secured easily
- It is not necessary for regions to align with DHB boundaries, because travel for essential health reasons will always be allowed between regions

Enforcing movement

- A restricted region (ie one with a higher alert level) can be geofenced, with Civil Defence alerts to inform people they are approaching an internal border. Physical road closures and barricades could also be used (optional: checkpoints).
- Travel to and from a restricted region will only be allowed for essential reasons (eg health emergencies, essential work, repatriation).
- Essential work entries can be supported by a registration process when entering a restricted region (eg to deliver produce to a supermarket), with a strict time limit on how long they can spend within the restricted region. Registration can happen via a link sent through the Civil Defence alert on entry into a restricted region.
- Police have provisionally assessed feasibility of regional borders and have some confidence if set at the right size and location

5. Strategic indicators needed to support decisions now and in the future

In order to chart the best course for New Zealand, we need to know on a regular basis how we are **tracking against our strategic options**. We also need to prepare for **upcoming decisions**, such as changes to the alert level or a deliberate switch in our strategic approach.

To aid these decisions and to provide important contextual information, Ministers will receive regular monitoring information. The All-of-Government Strategy and Policy Coordination Unit will coordinate these products, working closely with relevant agencies. A **strategic information report** will be provided weekly to Ministers.

Cycle of monitoring reports

Monday Cabinet	Strategic information report	
Tuesday COVID-19 Ministers	Daily overview dashboard	Social impacts dashboard
Wednesday CBC	Daily overview dashboard	
Thursday COVID-19 Ministers	Daily overview dashboard	Economic impacts dashboard
Friday COVID-19 Ministers	Daily overview dashboard	Strategic information report

COVID-19 Ministers will also receive a health system preparedness dashboard twice weekly, days TBC.

Domain	Example of strategic questions	Indicators
COVID-19 in New Zealand	<input type="checkbox"/> Is our chosen strategy and alert level having the intended effect? <input type="checkbox"/> Do we need to change our testing strategy? <input type="checkbox"/> Do we need to move alert levels?	<input type="checkbox"/> New cases by location <input type="checkbox"/> New cases of community transmission by location <input type="checkbox"/> Rate of change of cases
Health system preparedness	<input type="checkbox"/> What's our capacity to do wide scale testing and contact tracing? <input type="checkbox"/> How much confidence do we have in our testing and contact tracing? <input type="checkbox"/> How much do we need to scale up hospital capacities? <input type="checkbox"/> How much can we rely on a vaccine?	<input type="checkbox"/> Testing capacity <input type="checkbox"/> Tracing capacity <input type="checkbox"/> Workforce <input type="checkbox"/> Vaccination <input type="checkbox"/> ICU beds <input type="checkbox"/> Ventilation capacity <input type="checkbox"/> PPE
Physical distancing and people movement	<input type="checkbox"/> How effective are the measures in the current alert? <input type="checkbox"/> Do we need to tighten restrictions or increase enforcement? <input type="checkbox"/> To what extent are people staying at home and complying with distancing requirements? <input type="checkbox"/> Are new arrivals complying? <input type="checkbox"/> How much risk do foreign nationals and their movement pose? <input type="checkbox"/> Are essential workplaces following safe practices?	<input type="checkbox"/> No. of essential workers <input type="checkbox"/> Aggregate, anonymised mobile phone movement based on movement between suburbs (DataVentures) <input type="checkbox"/> Light traffic volumes <input type="checkbox"/> No. of breaches identified by Police <input type="checkbox"/> No. of new arrivals at risk of non-compliance <input type="checkbox"/> Foreign national outflows [uncertain] <input type="checkbox"/> WorkSafe checks of essential workplaces [uncertain]
Public sentiment and social licence	<input type="checkbox"/> What is the public's willingness to move alert levels and to comply? <input type="checkbox"/> Trust and mutual respect vs resentment, discrimination and mistrust? <input type="checkbox"/> What is the level of trust and confidence in government and civil institutions? <input type="checkbox"/> What is the public's appetite for more intrusive methods of monitoring and contact tracing if it will speed up elimination?	<input type="checkbox"/> Polling data <input type="checkbox"/> Social media sentiment
Economic impacts	<input type="checkbox"/> Are the economic costs becoming unacceptable? <input type="checkbox"/> Can businesses spring back? <input type="checkbox"/> Are commercial and employment relationships intact? <input type="checkbox"/> Are otherwise sound businesses going out of business?	<input type="checkbox"/> Unemployment payments (job seeker benefit) <input type="checkbox"/> Wage subsidy payments <input type="checkbox"/> Business confidence <input type="checkbox"/> Business insolvencies [uncertain] <input type="checkbox"/> Number of business loans being called in by banks [uncertain] <input type="checkbox"/> Changes to GDP <input type="checkbox"/> Government debt and projected debt
Social impacts	<input type="checkbox"/> How is social capital / social cohesion holding up? <input type="checkbox"/> Is this likely to erode? <input type="checkbox"/> Are the social costs becoming untenable?	<input type="checkbox"/> Family violence <input type="checkbox"/> Suicide/mental health calls to police and support lines <input type="checkbox"/> Calls to financial support helplines <input type="checkbox"/> Hardship payments <input type="checkbox"/> Bankruptcies

Strategic information report for Ministers

These indicators will be provided to Ministers every Friday in a 'strategic information' report.

The report will focus on the critical information required to: (1) monitor the success and continued feasibility of the chosen strategy and (2) inform decisions regarding changes in alert levels or strategic approach. Interpretation of indicators will be supported by modelling.

Where possible, we will break this report down by region with a heatmap showing risk e.g. hotspots for COVID-19 in New Zealand, regions where the health system is less well prepared, regions where people movement is higher/lower etc.

	Disease spread	Public health impacts	Economic impacts	Social impacts	Likelihood/comment
Unmitigated spread	<ul style="list-style-type: none"> COVID-19 is left unimpeded to spread throughout New Zealand Estimates: Infections: 3.2-4.5 million; Hospitalisations: 30,000-220,000; ICU admissions: 10,000-60,000; Deaths: 15,000-70,000 Disproportionate toll highly likely on Māori and Pacific communities due to underlying health status (could be 5-7 times greater) 	<ul style="list-style-type: none"> BAU suspended leading to increased sickness, deaths and disability Severe overwhelming of health system could lead to tens of thousands of additional deaths Testing, contact tracing and quarantining not a priority Population immunity to COVID-19 achieved 	<ul style="list-style-type: none"> Severe impacts on economy during peak of epidemic (1-2 months) due to absenteeism [Treasury to provide estimate] Recovery of economy can begin immediately after epidemic, but would be slow and difficult due to the loss of life Border remains unaffected during crisis 	<ul style="list-style-type: none"> Severe trauma and grief experienced across all parts of New Zealand society Trauma, grief, plus heightened sense of fear of contracting the disease likely to result in increased acute mental health, and drug and alcohol issues Significant and disproportionate impact on Māori and Pacific populations, exacerbating existing inequalities and racial tensions Health workforce placed under extreme strain and have higher death rate 	<ul style="list-style-type: none"> This option is useful for providing a counterfactual perspective Extremely unlikely New Zealand society would accept an approach that led to such major loss of human life Some countries with limited health system capacities and Brazil are heading down this path
Mitigated spread	<ul style="list-style-type: none"> New Zealand experiences a COVID-19 wave over a 3-5 month period Some public health measures implemented to slow spread, eg Alert Levels 2-4 for 5-6 months Estimates: infections: 0.6-2.2 million; hospitalisations: 6,000-22,000; ICU admissions: 2,000-6,000; deaths: 2,000-9,000 Disproportionate toll highly likely on Māori and Pacific communities due to underlying health status 	<ul style="list-style-type: none"> BAU suspended leading to increased sickness, deaths and disability Increasing health system capacity, especially ventilation/ICU would lower death rates Health system still significantly overwhelmed for several months leading to additional deaths Investment needed in surveillance, testing, contact tracing, quarantining and border Partial population immunity to COVID-19 achieved 	<ul style="list-style-type: none"> Spread is slowed, but economy probably does not go into lockdown (if it does, would be for short period of 1-2 months) Economy significantly affected during peak of the wave (3-5 months) (costs of these Alert Levels may be up to 10% of GDP) Significant absenteeism during the epidemic wave Economic recovery can begin immediately after epidemic 	<ul style="list-style-type: none"> Significant trauma and grief across many parts of New Zealand society Significant and disproportionate impact on Māori and Pacific populations, exacerbating existing inequalities and racial tensions Health workforce under significant strain from high rates of hospitalisations Some impact on people connected to sectors economically affected 	<ul style="list-style-type: none"> This is the traditional approach of “flattening the curve” Countries are discovering the health system is very quickly becoming overwhelmed with the COVID-19 epidemic Some countries have adopted this approach eg the US, UK and Sweden
Suppression	<ul style="list-style-type: none"> The number of COVID-19 cases in New Zealand is managed so as not to exceed the capacity of the health system Requires longer and stronger public health measures, ie mostly Alert Levels 3-4 for 12 months, but some regions could be in Alert Level 2 for periods Estimates: infections: up to 400,000; hospitalisations: 6,000-9,000; ICU admissions: 1,000-3,000; deaths 400-800 	<ul style="list-style-type: none"> Increased ventilation/ICU capacity might allow slightly more time in lower alert levels Precise intelligence required on cases: Major investment needed in surveillance, testing, contact tracing, quarantining and border Risk that each peak may exceed health system capacity; planning would affect BAU Risk that alert level is raised too late resulting in overwhelming of health system Majority of population may still remain susceptible to COVID-19 until a vaccine as infection rate of population low 	<ul style="list-style-type: none"> Major ongoing cost to the New Zealand economy through being in high alert levels for sustained periods Cost of sustaining high alert levels could reduce annual GDP by 25% Rolling disruptions creates widespread uncertainty and risk aversion 	<ul style="list-style-type: none"> Prolonged period of heightened societal anxiety and uncertainty as we move between alert levels, with people's capacity to cope reducing over time Disproportionate burden and lasting impact on people who are already disadvantaged Significant impact to people connected with sectors experiencing industry downturn, likely to create new socially disadvantaged groups 	<ul style="list-style-type: none"> Theoretical answer to the problem COVID-19 poses to the “flattening the curve” approach Has not yet been implemented anywhere Difficult to implement as would require flexing of alert levels Raising Alert Level too early risks losing public support and imposing unnecessary costs; raising Alert Level too late would lead to overwhelming of health system Regulation and compliance would need to be managed for duration of crisis
Sustained stamp out	<ul style="list-style-type: none"> Sporadic cases or clusters pop up but are quickly stamped out Alert Level would vary for duration of crisis between 2-4, with regional variation likely Stringent border measures required for duration of crisis Estimates: depends on scale and effectiveness of contact tracing 	<ul style="list-style-type: none"> Health system does not become overwhelmed Deaths and hospitalisation would remain very low or minimal Major investment needed in testing, surveillance, contact tracing, quarantining and border Sophisticated testing strategy required, eg random testing, pooled testing, expansive surveillance, broad case definitions New Zealand population remains susceptible until a vaccine developed 	<ul style="list-style-type: none"> Economic costs limited as New Zealand should remain mostly in low alert levels, after a short period in Alert Level 4 while testing and tracing capacities are ramped up and approaches modified (each month at Level 2 may reduce annual GDP by 1%) Some resources need to be diverted to the key stamping out tasks for duration of the crisis Rolling disruptions creates widespread uncertainty and risk aversion 	<ul style="list-style-type: none"> Prolonged heightened societal anxiety and uncertainty as we move between alert levels, with capacity to cope reducing over time Acute impacts of substantial disruption to selected communities during break-outs Stringent border protection will adversely impact people's capacity for connection with family and friends overseas People connected to sectors economically effected will experience some social impacts from industry downturn, likely creating new socially disadvantaged groups 	<ul style="list-style-type: none"> Successful approach of Taiwan, Singapore and South Korea Success depends on the effectiveness of testing, surveillance, contact tracing, quarantine and infection control Next month is critical to establishing effective methods for the above
Elimination	<ul style="list-style-type: none"> COVID-19 is eliminated from New Zealand following maximum and highly effective public health measures (i.e. Alert Levels 3/4 required until elimination is successful) Maximum border measures are required throughout, including after elimination to keep COVID-19 out COVID-19 infections depend on how quickly elimination succeeds. Infections and deaths almost certainly would be the lowest of any strategy. 	<ul style="list-style-type: none"> Before disease eliminated, major investment needed in testing, surveillance, contact tracing, quarantining and border Sophisticated testing strategy required, eg random testing, pooled testing, expansive surveillance, broad case definitions Zero loss of life and no hospitalisation from community transmission once disease is eliminated Least increase to health inequalities New Zealand population remains susceptible until a vaccine developed 	<ul style="list-style-type: none"> Economic cost depends on time taken at Alert Level 4 (each month is estimated to reduce annual GDP by 3%) People movement across the border would need to be closed or heavily restricted until crisis internationally ends (each month of border closure is estimated to reduce annual GDP by 1%) New Zealand economy could function without movement restrictions internally if disease eliminated 	<ul style="list-style-type: none"> Stringent border protection will adversely impact people's capacity for connection with family and friends overseas Depending on time taken to eliminate, people connected to sectors economically affected will experience significant to severe social impacts from industry downturn, likely creating new socially disadvantaged groups and long-term health impacts 	<ul style="list-style-type: none"> More feasible for island nations Best opportunity to succeed at early stages of global pandemic Probability of success dependent on effective measures for Alert Level 4, high levels of compliance (public support may decline over time), effective monitoring and widespread surveillance, effective contact tracing and quarantine

Notes:

- Modelling estimates are from the University of Otago and Te Punaha Matatini. Figures are rounded.
- Analysis for suppression, sustained stamp out, and elimination assumes these strategies need to be sustained for one year (ie until a vaccine is available).

- All of the strategies could protect high-risk groups and priority populations through various measures.
- Population immunity may be achieved with infection rates above 60%.