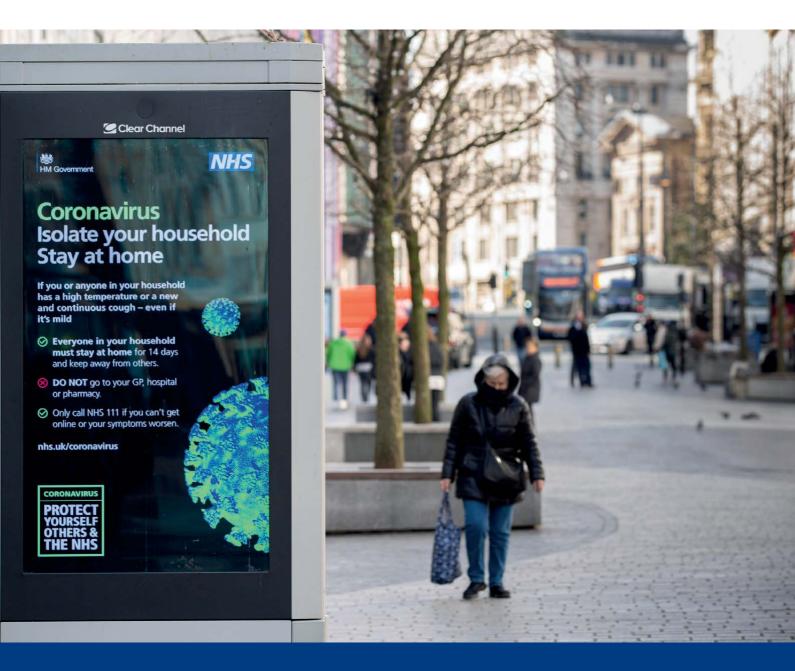


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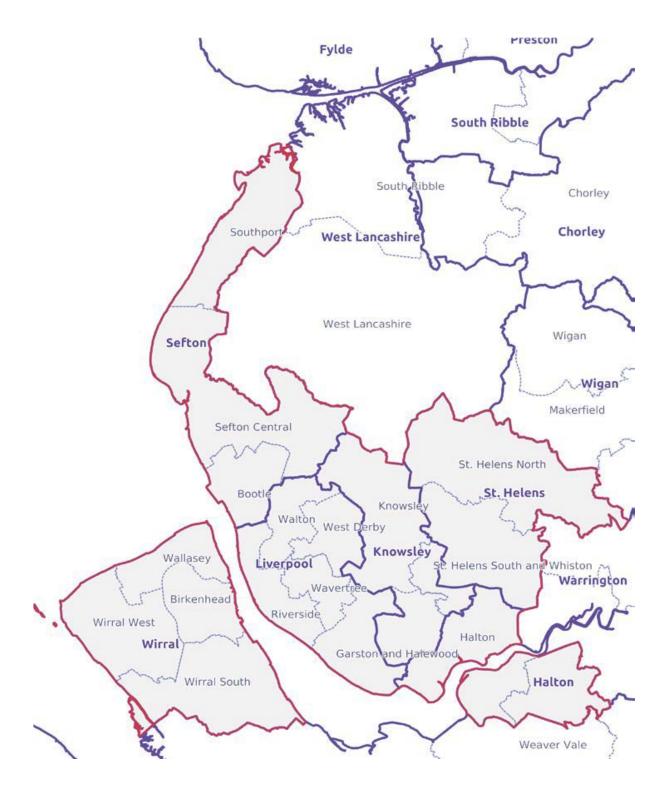


Responding to COVID-19 in the Liverpool City Region

Going Hard and Going Early in New Zealand: The "Team of 5 Million" Unites Against COVID-19

Dr Daniel Exeter, Dr Janine Paynter and Professor Chris Bullen

Map of Liverpool City Region Combined Authority (LCRCA) boundary (in red) and constituent local authorities



Data sources: Westminster parliamentary constituencies (December 2018 - ONS), local authority districts (December 2018 - ONS), and combined authorities (December 2018 - ONS)

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Key takeaways

- New Zealand (NZ) became the first country to reach 100 days free of community transmission of COVID-19. Although the demography of the coronavirus cases in NZ is broadly consistent with international experience – e.g. deaths are highest among those aged 60+ years – critical differences with other countries are apparent given the successful curtailment of transmission.
- 2. The NZ Government took early epidemiological modelling estimates seriously and adopted a "Go hard, and Go Early" strategy, which has (to-date) worked. This included the introduction of a four-level COVID-19 alert system, initially implemented nationally and more recently applied regionally following identification of the "August Auckland Cluster".
- 3. Clear, consistent communication has been vital to the NZ response; the "Team of 5 million" have united against COVID-19 was the simple slogan adopted by the Government, preferring sporting rather than warlike analogies to help create social cohesion. Additionally, explainers and cartoons have proven effective communication tools in reaching the public.
- 4. The NZ Government listens to the scientific advice it receives. However, their response times are sometimes slower than scientists would prefer. Examples include: the low uptake of COVID-19 tests in the community and the Government's under-capacity to contact trace at scale.
- 5. An economic support package from the Government, alongside their public health strategies, have led to a quicker recovery of the economy than some countries, although tourism remains problematic. Strong leadership, with clear messaging, and building a sense of unity, have been vital elements in NZ's largely effective response to COVID-19.

1. Introduction

New Zealand's (NZ) Government was quick to respond to the initial announcement by the World Health Organisation (WHO) in March 2020 that the COVID-19 outbreak was a pandemic. Their strategy was to "go hard and go early"; to be informed by scientific evidence and to ensure their approach was supported by a communication strategy that sought to engender high levels of public co-operation despite restrictive public health measures. New Zealand became the first country in the world to reach 100 days free of community transmission of SARS-CoV-2.

In this policy briefing, we first outline the demographic composition of COVID-19

cases in NZ, before highlighting the 4-level alert system adopted by the NZ Government in their management of the pandemic and the overarching strategy that underpinned their response. The critical role of effective communication and social cohesion is subsequently explored. The final sections then reflect upon the measures taken to mitigate the economic impacts of COVID-19 in NZ and offer some concluding reflections for the Liverpool City Region (LCR).

2. The demography of COVID-19 in New Zealand

The NZ Ministry of Health's website provides a comprehensive demographic profile of COVID-19 cases and tests.

Overall, the patterns are broadly consistent with international experience: most cases have been among those aged 20-59 years, and deaths among those aged 60+ years. Two-thirds were imported or close contacts of imported cases: 39% of cases (n=1,714 confirmed and probable as at 28 August 2020), were among people that had travelled internationally within 14 days of onset, and a further 28% were their close contacts. By June 8, when the last case in the first coronavirus wave was discharged from isolation, there had been 1504 cases and 22 deaths. There were 617 cases located within 16 significant COVID-19 clusters (defined as 10 or more cases linked to the same source) during the first wave. Overseas travellers provided the pathway into NZ for 10 of the clusters. A further Five of the clusters were located in aged residential care facilities, and most of the 22 deaths to date were linked to just two of these.

Internationally, there is evidence that some ethnic groups are especially vulnerable to COVID-19. Largely due to the fact that most cases were detected in travellers returning from China, the US and Europe, or their close contacts, rates of COVID-19 disease among Māori (the indigenous people of NZ) and Pacific Peoples were low (9% and 8% respectively). A shift in transmission to less privileged populations was curtailed by the rapid imposition of the Alert Level Four lockdown. This move also contributed to low hospitalisation rates. While there were proportionally fewer cases of COVID-19 among Pacific People and Māori, the rates per 1,000 of *tests* for COVID-19 were much higher among these groups, suggesting that communities took the public health messages about their vulnerability seriously and acted appropriately.

On 11 August, a household cluster of four new cases was confirmed in Auckland, the source of which is currently unknown. At present, this cluster comprises more than 100 cases largely among Pacific People and Māori.

3. Go Hard, and Go Early

The NZ Government's approach to manage the COVID-19 epidemic has been communicated as "Go Hard, and Go Early". On 3 February, NZ temporarily banned the entry of foreign visitors from, or those who had travelled through, mainland China. New Zealand citizens were exempt, but were required to selfisolate for 14 days on return to the country. Around the same time, the Government chartered an aircraft to enable over 150 citizens based in Hubei Province, China, to return, and on arrival were placed in a government-managed quarantine facility for two weeks. The first case of COVID-19 in Aotearoa NZ was notified to the Ministry of Health on 28 February, and the foreign travel ban was extended to include Iran (the origin of travel of the first case) followed by northern Italy and South Korea.

As the number of COVID-19 cases increased rapidly during March, early modelling estimates reported a worsecase scenario in which over 60% of NZ's population would have symptomatic illness, of whom 146,000 would require hospitalisation, 36,600 would require critical care and 27,600 would be expected to die (Wilson 2020). Another study explored the impact that either a mitigation or a suppression strategy would have on the incidence of COVID-19 cases and more importantly its impact on Intensive Care Unit (ICU) beds across the country (James et al. 2020). The mitigation approach assumed that the pandemic would continue in the community at a controlled rate, while ensuring healthcare systems were not at peak demand and, over time, herd immunity would develop and the virus would stop circulating. This strategy used a combination of low-level control (e.g. household quarantine and case isolation) combined with periods of greater restriction (as required) to ensure healthcare settings are kept below capacity.

By contrast, the suppression strategy included a series of controls designed to

progressively reduce the basic reproduction number (R_0) from 2.5 with no intervention to 0.75 if schools/universities closed; cases were isolated and affected households quarantined; and physical distancing was universal. The suppression scenario therefore aimed to minimise the occurrence of new cases of COVID-19 for as long as possible, and required effective controls to be implemented early (James et al. 2020).

Implementing alert levels nationally

The NZ Government took these modelling estimates seriously. Their response was to introduce a four-level alert system (Te Kawanatanga o Aotearoa New Zealand Government 2020a), which introduced a range of restrictions according to the likelihood that SARS-Cov-2 virus was being transmitted within the community – see Figure 1.

Figure 1. New Zealand COVID-19 Alert Levels Summary

Alert Level	Risk Assessment
Level 4 – Lockdown Likely the disease is not contained	 Sustained and intensive community transmission is occurring Widespread outbreaks
Level 3 – Restrict High risk the disease is not contained	 Multiple cases of community transmission occurring Multiple active clusters in multiple regions
Level 2 – Reduce The disease is contained, but the risk of community transmission remains	 Limited community transmission could be occurring Active clusters in more than one region
Level 1 – Prepare The disease is contained in NZ	 COVID-19 is uncontrolled overseas Sporadic imported cases Isolated local transmission could be occurring in NZ

Source: Adapted from New Zealand COVID-19 Alert Levels Summary

Supermarkets, petrol stations, health care facilities and utilities were deemed essential services and remain open at all Alert Levels. The NZ Prime Minister, Jacinda Ardern, also mandated that the

Tooth Fairy and the Easter Bunny were considered essential services. However, in a media statement she acknowledged that due to supply chain issues, the Easter

Bunny may not be able to visit every house.

The NZ Government implemented the Alert Level system rapidly, moving into Alert Level 2 on 21 March, Level 3 on 23 March, and Alert Level 4 on 25 March 2020. At that time, there were 155 active cases being managed in isolation and around 40-60 new cases were being announced per day. By 27 April, when NZ moved back from Alert Level 4 to Level 2, the total number of cases and deaths was 1469 and 19, respectively, but the number of new cases had reduced significantly to about 5 per day. The return to Alert Level 1 on 8 June coincided with the last known case (at that time) being released from isolation.

Regionalising alert levels implementation

New Zealand was the first country in the world to be free from COVID-19 in the community for 100 days. While there still remained a trickle of new cases on most days, all were among citizens returning home at the border on arrival or soon after while in quarantine facilities. However, upon confirmation of an emerging Auckland Cluster on 11 August, the Government regionalised the Alert Levels, with the Auckland region (comprising approximately 1.6 million residents) moving to Alert Level 3, and the rest of the country into Alert Level 2. People living in aged residential care units across the country were moved to Alert Level 4, given their heightened risk of succumbing to COVID-19 if infected.

It is worth noting that a regional approach to lockdown was proposed by the National Crisis Management Centre (NCMC) during the first wave of COVID-19. The NCMC proposed using the existing 16 civil defence regions (broadly consistent with council boundaries (cf. unitary authorities in England), along with 84 "control points" such as road intersections, which could be used to restrict travel between regions. The initial proposal was rejected by the NZ Government, as the regional lockdowns would be logistically complex to administer and would have substantial

adverse economic impacts. Furthermore, there was a risk that a regional approach would risk diminishing the widespread strong public support.

The current "August Auckland Cluster" is largely connected to a single household. and predominantly contained within the Auckland region, with a handful of close contacts based in the neighbouring Waikato region. For these reasons, a regional approach to lockdown was deemed appropriate. The Auckland region is home to a third of NZ's population, many of whom are extremely mobile. For example, while the origin of this cluster is in South Auckland, subsequent cases reported having visited shops or used public transport more than 20km away. "Going hard, and going early", and restricting the movement of Aucklanders, was deemed to be a pragmatic response: the cluster could be contained while the remainder of the economy could continue.

At the time of writing (28 August 2020), there had been a total of 1714 cases: 1363 confirmed (the number reported to the WHO) and 351 probable cases of COVID-19 in NZ, of whom 1561 had recovered, and 22 had died. There were 131 active cases, 11 of which were in hospital.

4. Communication and social cohesion

Clear and consistent messaging by the Prime Minister, the Director General of Health, and researchers was critical to gaining public support for the NZ Government's strategy for managing COVID-19. At the outset, the communications strategy was not to gather recruits to wage war against coronavirus, but to create social cohesion, with a simple slogan: "Unite against COVID-19". Recognising that many New Zealanders are passionate about sport, the Government also adopted sporting analogies, referring to our country as the "Team of 5 Million".

On 11 August, when the Prime Minister announced that Auckland was moving to Alert Level 3 while the rest of the country remained at Level 2, the unity of our team came into question from the media. The Prime Minister's team analogy continued, commenting that not all players are on the field at the same time, and that "1.5 million New Zealanders in our biggest city are carrying a heavy load for our team of 5 million right now" (Cheng 2020). Following comments on social media making malicious claims about people in the current COVID-19 cluster, the Director-General of Health responded with a statement that aptly summarises the Government's approach to addressing issues: "there is no blame or shame in having COVID-19. The virus is the problem, not the people".

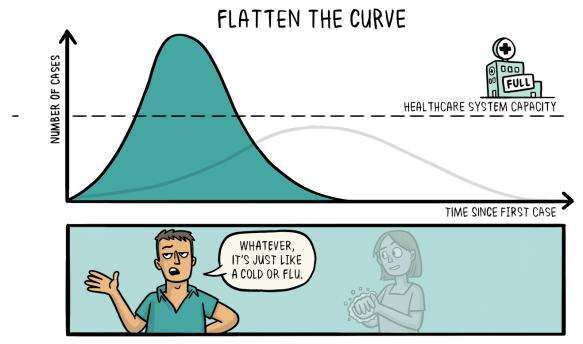
Key public health messages (wash hands, stay home, physical distancing) have been widely advertised across the media (SiteSafe Te Kaitiaki o Haumaru 2020; Te Kawanatanga o Aotearoa New Zealand Government 2020b). Each message also reminded the public to be kind. Kindness to others and our collective wellbeing were reiterated at the daily televised press briefings in which the Prime Minister and Director General of Health would update the country with the new COVID-19 related statistics. On a regular basis, the Prime Minister would recognise a particular group (doctors or nurses, lab testing staff, the New Zealand Sign Language interpreters, and cleaners etc) and thank them for their service.

Additionally, a number of very simple, effective tools have been developed over time, either to communicate different

aspects of the Government's strategy of eliminating COVID-19, or to relay key evidence-based messages. For example, "the bubble" analogy was devised initially with people living with disabilities in mind in order to protect them from wider community exposure (Franks 2020). The messaging was clear: to build your bubble, decide who is in it (i.e. your household, carers, support workers) and be sure to let them know; keep the size of the bubble as small as practicably possible; and, to prevent the virus from spreading, make sure that you don't pop the bubble (i.e. avoid physical interaction with people outside of your bubble).

Since March, microbiologist Associate Professor Siouxsie Wiles and cartoonist Toby Morris have collaborated to create a series of COVID-19 explainers. Based on the latest international evidence, their articles have been instrumental in conveying key messages simply and in an engaging way. Their first collaboration, introducing readers to epidemic curves and why flattening the curve is vital for reducing demand on healthcare facilities, went viral on social media – see Figure 2. Subsequent explainers and cartoons have included descriptions of COVID-19 symptoms; why face masks are critical in reducing community transmission; how vaccines are made; and, most recently, the difference between close and casual contacts. Their graphics have been translated into te reo Māori, a number of Pacific and other languages, and have been adapted internationally by governments and organisations as part of their own official pandemic communications.

Figure 2. "Flatten the Curve" by Toby Morris and Siouxsie Wiles, for the spinoff.co.nz



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'ADAPTED FROM @DREWAHARRIS, THOMAS SPLETTSTÖßER (@SPLETTE) AND THE CDC' CC.BY-SA

The Ministry of Health and Ministry for Business, Innovation and Employment websites have been key sources of reliable health and business-related information, and updated on a regular basis. In addition, other government agencies, industry and commercial organisations (e.g. construction, Unions, airlines, and supermarkets) have been active in promoting key messages – while adapting their processes and procedures – to their members and customers.

These examples highlight many of the successful interventions that have been implemented and led to NZ's enviable position internationally. However, it would be remiss not to stress the Government's slow adoption of evidence-based recommendations at times. Examples include: the low uptake of COVID-19 tests in the community and the government's under-capacity to contact trace at scale. A more recent example relates to the Government's delayed promotion of wearing face masks. Indeed, the current guidance (as of August 24) for Alert Level 3 is that individuals are strongly encouraged to wear a face covering (e.g.

masks, scarves and bandanas) when outside their home and in a place where it's hard to stay 2 metres away from others, like on public transport or in a shop. While the NZ Government's current guidance aligns with a recent WHO statement on face masks, calls for widespread masking were made by local medical professionals and scientists in June (Kvalsvig et al. 2020).

5. Mitigating the economic impacts of COVID-19

The first sustained period of lockdown had immense adverse economic impacts. The Minister of Finance, Grant Robertson, initially announced a NZ \$12 Billion economic recovery package, later expanded to \$50 Billion, as part of the 2020 Budget. Some of the initiatives in the recovery package included increasing the core government welfare benefits by \$25 per week, and doubling the winter energy payments (targeted at older people to encourage them to heat their homes). Businesses were supported through changes to business tax, as well as a

government-sponsored finance scheme, which provides small and medium enterprises a term loan or revolving credit facility for cash-flow, capital assets and projects responding to, or recovering from, the impacts of COVID-19.

The most significant contribution was a wage subsidy scheme, in which employers who met specific criteria receive a bulk payment to cover 12 weeks of subsidy for each employee in their workforce. In addition, targeted relief packages have been provided to various sectors (construction, tourism, health, aviation) and community groups (e.g. Māori, Pacific Peoples, NGOs providing essential support services, and sports organisations).

The future of the NZ economy hinges on the speed with which businesses can return to their pre-COVID levels of activity. While agricultural production and the technology sectors are flourishing, income from tourism – previously a major revenue earner for NZ – has fallen precipitously, and with it rising unemployment and the threat of poverty and widening inequality, all drivers of long-term adverse health impacts.

6. Concluding thoughts, plus reflections for the Liverpool City Region

New Zealand's approach to managing the COVID-19 pandemic has attracted global interest. Following the recent resurgence of community transmission, it appears that the Go Hard, and Go Early strategy is once again proving to be successful. Recent restrictions enforced in Liverpool, such as the suspension of care home visits, cancellations of public events and gatherings and the closure of community buildings following the most recent outbreak of COVID-19, are comparable to those associated with Alert Levels 3 and 4 in NZ. We hope that these measures, together with physical distancing, wearing face coverings and regular hand-washing can help suppress the virus in the LCR.

Building community cohesion against COVID-19 is vital. Some of the approaches we have outlined above are applicable to contexts such as the LCR. What key reflections can be drawn out from our experience for the LCR? First, use a slogan or slogans that builds community strength against COVID-19, and identify high-profile "Team Liverpool" residents to spread the message, as was done in NZ. The key here is to remind Liverpudlians (and all those living and working within the City Region) that the virus is the issue, not the person who gets the illness.

Second, encourage everyone (especially Government officials AND the media) who talks about COVID-19 to use affirmative language when referring to cases. Consider a situation when you need to test a vulnerable community. To "target" that group is to (inadvertently) lay blame or an element of mistrust toward them. By contrast, the use of empowering or inclusive language, such as "protect" or "support", and being respectful of the demographic will likely be more effective at encouraging the uptake of testing among the community.

Third, the LCR is home to numerous experts in medicine, epidemiology, public health, vaccinology, psychology and geography. Engaging a group of scientists to ensure that the latest scientific evidence is accessible to both LCR decision-makers and the community, can help build trust and confidence in the strategy being adopted, and ensure its long-term effectiveness – the COVID-19 Policy Briefs series being a case in point.

Strong leadership, with clear messaging, and building a sense of unity upon a foundation of support for each other through tough times, have been vital elements in NZ's largely effective response to COVID-19. It is important to note, however, that there have been several matters for concern along the way, such as those highlighted above. The NZ Government's response to each bump in the road is to adopt a "learning by doing" approach. As the Prime Minister stated at

a recent media briefing: "that there are constantly things that we can and should be improving with our COVID response...and when we have identified gaps or issues we have moved at speed to fill them" (Cheng 2020b).

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COVID-19 Policy Briefs can be accessed at: www.liverpool.ac.uk/heseltine-institute