

Staying safe from COVID-19 over summer and beyond: The need for more NZ Government action

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Aotearoa NZ has responded very successfully to the COVID-19 pandemic by achieving elimination and the lowest death rate in the OECD. But there are ongoing risks - which may even be increasing with larger numbers of infected returnees in border facilities. In this final blog of the year we detail the critical actions needed to lower the risk further, with these measures being largely the responsibility of the NZ Government. We also highlight the importance of ensuring the huge investment in the COVID-19 response generates lasting benefits for NZ.

Aotearoa/NZ has achieved elimination of community transmission of COVID-19 with the lowest death rate in the OECD [1, 2]. The massive economic rebound at a 14% rise in GDP for the third quarter [3], is also highly favourable. Indeed, a preliminary analysis of IMF data suggests that countries like NZ using the elimination strategy have performed better economically than those using a suppression strategy [4].

A key success factor for NZ was undoubtedly the political decision to follow expert science advice and to adopt an elimination strategy - with its border control and stringent lockdown components [5]. The strong political leadership in NZ has been recognised by the top science journal *Nature* when it featured Prime Minister Ardern as a “crisis leader” [6]. Very effective communication also came from other health officials and politicians eg, Dr Ashley

Bloomfield and Minister Chris Hipkins. The NZ public were also supportive and followed rules well, and media reporting was responsible and informative (with some high quality investigative reporting exposing system weaknesses [7, 8]). It was also critical having a science and technology sector that could undertake disease modelling, scale up mass testing capacity, and roll-out genomic testing [9].

But risks persist and are probably growing

The border remains NZ's greatest risk to its successful COVID-19 elimination status. It clearly needs to be strengthened given the problems identified with border control failures and rule breaking in recent months ie, 8 border failures identified since early August [10] and 76 rule breaches in MIQ facilities [11]. The rule breaking by a recent cricket team was particularly notable [12], and the mistakes with a shipping crew are also problematic [13]. The Simpson and Roche review also highlights multiple problems with the national response [14], although action is underway to address some of these and extra funding is being allocated [15]. Some strengthening of MIQ facility related processes has also recently occurred (eg by the NZ Defence Force [16]) but there are fundamental intrinsic problems with having so many infected people in MIQ facilities. These are all converted hotel facilities that were never designed for isolation and quarantine (ie, they have problems with ventilation and shared spaces).

The reasons why the risks of COVID-19 outbreaks in NZ might be increasing are as follows:

- The intensification of the pandemic globally, particularly in Europe and the Americas, has created a pattern of relatively more infected travellers arriving in NZ in recent months.
- Continuing evolution of the SARS-CoV-2 virus is, not surprisingly, creating selective pressure favouring more infectious variants, as are being reported in the United Kingdom at present. Introduction of such variants into NZ could make outbreaks here more difficult to control.
- There are signs of growing complacency by the Government – as suggested by their reduced communication frequency around COVID-19 (recently abandoning daily reporting on the COVID-19 situation). There appears to be inadequate concern about the recent border failures and rule breaches in MIQ facilities (eg, there are no investigation reports of any of these 8 border failures available on the Ministry's website). The success internationally with vaccine development might also be creating a false sense of reassurance and yet it might be 6 months or more before there is adequate vaccination coverage of New Zealanders to protect against outbreaks here.
- There is potentially also growing public complacency with a decline in country-wide levels of testing over the past 4 weeks (as reported routinely [17]). Also, media reports and our personal observations suggest minimal scanning of QR codes and very low prevalence of mask wearing on buses (outside of Auckland).

The currently emerging COVID-19 outbreak in Sydney is a vivid example of NZ's current vulnerability. This outbreak was first detected on 16 December and by 20 December had expanded to 68 known cases, resulting in a vigorous, but highly disruptive, public health response.

What still needs to be done by the NZ Government

1. **Reducing the risks of infected travellers arriving in NZ.** This has to be the biggest priority and there is an urgent case for pre-flight testing and a period of

quarantine for those from “red zone” countries [18, 19]. These processes may need to be supervised by NZ officials in countries with reliable testing systems (eg, NZ embassies/consulates in the US and the UK). It might also mean it is wise to limit returnees from these “red zone” countries to only NZ citizens (until vaccination in these countries builds up). We also consider there is an ethical obligation to take this approach so that other people do not get infected on incoming flights (given we know mask use can’t be perfect on these flights as people will be drinking and eating).

- **Improving the quality of hotel-based MIQ facilities.** There has been a lost opportunity not to develop dedicated facilities at an air force base (eg, using mobile homes etc) [20]. But the Government can still: (i) close MIQ facilities in Auckland (to protect such a key economic centre) or reserve Auckland-based MIQ facilities to very low risk travellers (eg, those from Australia states with no community transmission); (ii) eliminate shared space use until at least the first test returns a negative result (ie, exercising in rooms only); (iii) eliminate shared use of smoking areas (where people obviously can’t use masks continuously).
- **Improve the out-dated Alert Level system.** If a border failure occurred we need a more scientifically-informed Alert Level system that maximises risk reduction while minimising economic damage. This would mean for example, mandated mask use in all indoor public settings (outside the home) at say an Alert Level 1.5. It could also mean a strong focus on specific high risk settings at a revised Alert Level 2 eg, closure of gyms, pubs/bars, restaurants, night clubs and churches. There is a need to learn from the “science of superspreading” [21] and how such settings have contributed to recent deterioration of disease control in countries such as Japan and South Korea.

The most important 3 things that citizens still need to do:

1. **Stay home if you have cold or flu symptoms and get tested.** This is a critical responsibility of all NZ citizens to protect those around them and support early detection of COVID-19 outbreaks – even for those who have no obvious links to the border or to travellers.
2. **Download the NZ COVID Tracer app and enable Bluetooth.** This action assumes you have a smartphone, otherwise record visits manually. The app has improved with the Bluetooth function and could now start to help significantly with outbreak control. The QR code scanning aspect of the app is still of limited value – but given that it is now very easy to use and takes only a few seconds of time, its use is recommended.
3. **Buy a reusable mask and use it when required.** Mass masking is a key method for limiting COVID-19 transmission so all New Zealanders should own a reusable fabric mask and know when to use it. Currently, masks are only required during air travel and on public transport in Auckland, but we need to be ready to greatly expand use during outbreaks.

Making the NZ COVID-19 response more strategic and sustainable

NZ is investing billions of dollars in its COVID-19 response. It makes sense to ensure these investments are shifting us from the initial reactive response to a highly strategic one. Part of doing this is to ensure each investment decision considers factors such as: (a) cost-effectiveness (ie, is this approach the most efficient way to achieve the necessary level of protection for NZ?), (b) long-term strategic benefit (ie, is this investment building the infrastructure that will help NZ manage future threats beyond COVID-19?), and (c) co-benefits (eg, is this choice helping to build a thriving research and development sector,

scientifically literate population, and transparent and inclusive government?).

We have previously identified actions we think would support these goals [22], notably:

- Establish a high-level COVID-19 science council,
- Develop a well-resourced research and development strategy,
- Enhance the quality and transparency of science information,
- Evaluate the response through an official inquiry,
- Establish a national public health agency to deliver the COVID-19 response.

In summary, given the ongoing (and probably increasing) risks of COVID-19 outbreaks in NZ, the Government needs to further improve border controls and the Alert Level system. Citizens also need to do their bit, but this is primarily a systems problem and the NZ Government is ultimately responsible for that. There are opportunities for NZ to further enhance its science-informed COVID-19 response by taking a highly strategic approach that could generate lasting benefits for the country.

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