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New Zealand races to eliminate the coronavirus – again

At the start of this month, New Zealand was an exemplar for how swift and decisive action can stifle the spread of the coronavirus. No locally acquired cases of COVID-19 had been reported since the beginning of May. But the emergence of a cluster of cases — numbering 69 as *Nature* went to print — has caught the nation by surprise, and is a blow to the government's strategy to eliminate the virus. Amanda Kvalsvig, an epidemiologist at the University of Otago in Wellington, has been assisting with the country's COVID-19 response. She spoke to *Nature* about the rapid response to the new cases, and whether an elimination strategy is still possible.

How has the mood in New Zealand changed?

The new cases have been a shock. When they were announced, New Zealand had experienced more than 100 days with no identified community transmission, despite extensive testing. The country was at its lowest alert level, which allows near-normal activities, albeit with strict controls requiring travellers from overseas to remain in a quarantine facility for two weeks. There was a general feeling that we had beaten the virus — although government officials and public-health experts were warning against complacency.

Now, there's widespread anxiety, with long lines of people at COVID-19 testing stations and some people panic-buying in supermarkets.

What has been the public-health response to these new infections?

The response has been swift, backed up by decisive government action. The Auckland region, where the cases were identified, is now at Alert Level 3 — the second-highest of four levels — with people instructed to stay at home except for essential movement. The rest of the country is at Alert Level 2, which includes physical distancing measures and limits on mass gatherings.

People with COVID-19 are being tested, and their contacts traced. The government is now also recommending the use of face masks, and people with COVID-19 in the community will spend their isolation period in dedicated facilities instead of at home.

Population-wide mask use could help the country to avoid future lockdowns.

What is known about the original source of the outbreak?

The new cases came to light when a person in their fifties developed symptoms and presented for testing. Following that original positive test, their household and other

contacts were tested, identifying further cases.

All of the new cases seem to be part of the same cluster, but that hasn't been linked back to its point of introduction into the country. That is concerning because we don't yet know how long this outbreak has been propagating. Ideally, investigations will allow the public-health system to 'backwards trace', identifying each source of the known cases, and then 'forwards trace' to identify other close contacts of that source.

Authorities are exploring the possibility that the virus arrived on packaging in cold storage. That's worth exploring, but global experience with COVID-19 outbreaks so far suggests that it is more likely to have originated from person-to-person close contact.

What could genomics tell us about this latest outbreak?

Genomic epidemiology is a powerful tool for tracing outbreaks back to the source, so it's particularly relevant to the current situation, where the original case is still unknown. If all of the Auckland cases turn out to be from one cluster, that will be good news for outbreak control. If there's more than one cluster, it will suggest more widespread transmission.

New Zealand has adopted an elimination strategy. Does this latest outbreak suggest that isn't possible?

We know that elimination is possible because New Zealand eliminated community transmission before. We expect to move in and out of elimination for the foreseeable future. The goal is to maintain zero community spread but this country will always be under threat from infections being introduced through the borders.

We've been fortunate to have outstanding political and scientific leadership. This has generated rapid and decisive action to protect population health. A key element of New Zealand's response has been excellent communication with the public about what is happening and what is expected of them.

Interview by Dyani Lewis

This interview has been edited for length and clarity.



Restrictions have been reintroduced in New Zealand after a new coronavirus outbreak.

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