Strategic COVID-19 Public Health Advisory Group

8 October 2021

Hon Dr Ayesha Verrall
Associate Minister of Health (Public Health)
Parliament Buildings
Wellington

Dear Minister

Strategy for a Highly Vaccinated New Zealand

Thank you for the commissioning that we received on the evening of 29 September. We noted that a response was requested by Friday 8 October. In this report we address the questions posed. The time constraint has meant that we have not been able to explore all issues in as much detail as we might have wished.

What public health objectives or strategy should New Zealand pursue, following the completion of the vaccination campaign?

1. Since early in the pandemic, New Zealand has been one of several countries pursuing an elimination strategy. This approach has served us extremely well. We have experienced less illness and fewer deaths (in relation to population) than most other countries, and our health system has not been seriously disrupted. Social and community life has flourished, despite the imposition of border restrictions. While some sectors, such as international tourism, have been badly affected by the pandemic, the economy has generally performed strongly.

2. The strategy was adopted at a time when the availability of vaccines was only a distant hope. Even 12 months ago, we were just starting to hear early results from clinical trials of the first vaccines that had been developed. It is remarkable that the world now has several highly effective and safe vaccines, and that 80 per cent of eligible New Zealanders have already received their first dose of one of the most highly rated products – the Pfizer-BioNTech vaccine.

3. Unfortunately the term “elimination”, as used by epidemiologists, continues to be misunderstood. In previous reports, we emphasised that elimination “does not necessarily mean zero transmission or incidence”. We endorsed the interpretation declared by the Director-General of Health, in April 2020, that the elimination approach focuses on zero-tolerance towards new cases, rather than a goal of no new cases. Yet commentators continually debate a goal of “Zero Covid”, which we have explicitly differentiated from the concept of elimination.

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4. The terms “elimination”, “suppression”, and “mitigation” are being used in so many different senses that they have become more of a hindrance than a help. In our report dated 10 June 2021, we recommended that the Government should choose a new name to describe New Zealand’s unique approach to controlling COVID-19.

5. Apart from semantic issues, there are several reasons for reviewing our strategy as we approach completion of the vaccine roll-out. Firstly, COVID-19 should now be a less serious threat to individuals, given that everyone aged 12 years or older has access to a vaccine that markedly reduces the risk of serious illness or death. Secondly, a phased re-opening of national borders will commence in the first quarter of 2022. Even with the precautions that we have discussed previously, incursions of the SARS-CoV-2 virus will occur fairly often. Thirdly, there is a wide consensus that the advent of vaccination should remove the need for prolonged lockdowns, save in exceptional circumstances.

The way forward

6. Some would advocate that we should now drop most restrictions, as implied by the cliché “living with the virus”. Experience in many other countries shows that this would impose serious burdens on our health system and community. We have previously compared New Zealand with Scotland, another nation with just over 5 million people. Obviously our experience up to now has been strikingly different: New Zealand has recorded 28 deaths from COVID-19, whereas Scotland has had about 11,000 deaths. But even today, nations like Scotland are seriously disrupted. In the week ending 26 September, there were 165 deaths from COVID-19 in Scotland. Currently there are about 1,000 patients in hospital, with 65 in intensive care units (ICUs). This is despite the fact that the Scottish population has extensive natural immunity, resulting from past infections, in addition to high vaccination coverage. More than 95% of people over 40 are fully vaccinated (with two doses), and some have already received booster shots.

7. New Zealand is particularly vulnerable, because years of frugality have left our health system ill-prepared for any large surge in demand due to COVID-19. What can only be described as a modest outbreak in Auckland put hospital services in our largest centre under serious strain, with health workers (including ICU nurses) being recruited from other regions. Extensive spread of COVID-19 throughout the country would quickly overwhelm primary care, emergency departments and other hospital services, as well as scarce ICU facilities. As a result, there would be poor outcomes for people needing treatment for many serious conditions (such as injuries or cancer), as well as COVID-19.

8. We believe that our objectives, in the context of border re-opening and the wish to avoid lockdowns, should be to minimise the occurrence of COVID-19 and to protect people as far as possible from the adverse effects of this disease – such as premature death, chronic illness (“Long Covid”), or

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disrupted health care for other conditions. Hence we would describe this strategy as **Covid minimisation and protection**.

9. Vaccination provides the most important tool for reducing the occurrence of COVID-19 and for protecting individuals. A high vaccination coverage, with no groups being neglected, is essential. After a slow start, there has been encouraging progress in recent months. In terms of first dose coverage of the total population, we have already passed the United States, Australia, and Germany. But far more needs to be done, especially in reaching important population groups such as younger people, especially Māori and Pasifika, and those living in certain geographical areas. Decisions will also be expected soon as to whether to offer a third dose to individuals who are significantly immunocompromised, as well as booster shots to older people and those who are vulnerable for other reasons.

10. Both mathematical modelling and the experience of many other places, such as Scotland, show that vaccination on its own will not be enough. There will be a continuing need for a range of public health and social measures. These may include physical distancing, mask wearing, ventilation of internal spaces, restrictions on gatherings, detection and isolation of cases, and tracing and quarantining of contacts.

11. There will be a clear need for zero-tolerance towards COVID-19 in some settings, such as aged-care facilities. An important question is whether it will be practicable to have different *degrees* of minimisation in particular regions. It will continue to be optimal to extinguish outbreaks wherever it is practicable to achieve this, without the social and economic disruption of intense lockdowns. Let us suppose that, even after the vaccination roll-out, there is a significant and growing outbreak in Auckland or in some other region (such as the Queenstown-Lakes District). Would the rest of the country necessarily follow suit? Or would it be possible to use internal travel restrictions – for example, by requiring rapid antigen testing before people cross a regional boundary or travel between the North and South Islands? As seen in Wellington recently, it is certainly possible to extinguish small outbreaks caused by the Delta variant.

12. It is possible that some iwi may be committed to preventing or stamping out the occurrence of COVID-19 in their own rohe, by a combination of vaccination and other measures.

13. A major advantage of our proposed strategy of **Covid minimisation and protection** is that it will continue to limit the damage done by this virus, to both health and society, until we have better population immunity and more effective treatment. It will also leave us in a stronger position if the Delta virus is supplanted by another variant that causes more severe disease or that can evade vaccine protection.

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Given the answer to the first question, what should future case-based measures be?

14. We have been informed that you are asking here about activities relating to individual cases and their contacts – such as testing, tracing, isolation, and quarantine (TTIQ).

15. Such measures have played an important role in extinguishing outbreaks and controlling COVID-19 in other countries. We believe they will be an essential adjunct to vaccination, if we are to achieve **Covid minimisation and protection**. This is abundantly clear from modelling, both by Te Pūnaha Matatini and by overseas groups such as the Doherty Institute in Australia.

16. We need to learn from the experience of many countries where testing in a non-targeted way, without a proper plan, has led to overwhelmed test and trace systems, so that contact tracing has been largely abandoned. With COVID-19, testing and isolation of cases alone (without contact tracing) is relatively ineffective as a public health control measure. This is because the virus is already likely to have been transmitted by the time the case has been diagnosed.

17. Testing strategies need to be carefully designed, and a well-resourced contact tracing system should be maintained and strategically applied. We have previously recommended (in our letter dated 24 June) that the contact tracing capacity of public health units should be reviewed again and probably strengthened.

Testing and contact tracing

18. Asymptomatic cases (if they do not later become symptomatic) are much less likely to transmit the virus to their contacts than symptomatic cases. Hence we recommend that the testing strategy should be focused on symptomatic individuals in the community and on asymptomatic individuals in particular groups. Apart from travellers arriving in New Zealand, these groups should include people who are at high risk of exposure to SARS-CoV-2 or who are dealing with vulnerable populations. Examples would be border workers, health care workers and people attending certain health care facilities, residential aged care workers, and schoolteachers (especially as younger children currently cannot be vaccinated).

19. There is a danger that availability of relatively cheap rapid antigen tests could lead to rather pointless testing of asymptomatic individuals in some settings. The design of the overall testing strategy should take account of the different roles of testing in situations where a significant outbreak may or may not be present.

20. For testing symptomatic individuals, a PCR test is currently recommended. We believe that people should be given the option of sampling either by a nasopharyngeal swab or by saliva collection. It now seems clear that a saliva PCR test is just as reliable in this context.

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21. Rapid antigen tests may be appropriate for surveillance of some asymptomatic populations. In other situations, a rapid PCR test will be preferable. The new Testing Technical Advisory Group (chaired by Professor David Murdoch) is well placed to advise on these matters.

22. You have recently asked us to advise on possible innovations for contact tracing that could increase our chances of stamping out community transmission. We would like to obtain more information about the experience of the many countries that have supplemented manual contact tracing with digital systems, using smartphone apps based on technologies such as Bluetooth. The so-called "pingdemic" in the United Kingdom, where many businesses and other organisations were disrupted because so many people were asked to self-isolate, illustrated the need for careful design of such systems – especially in a largely vaccinated society.

Isolation and quarantine

23. In future it will not be practicable or appropriate for infected people (cases) to be isolated in MIQ facilities. Self-isolation at home should become the norm, both for the isolation of cases and the quarantining of their contacts.

24. The Ministry of Health should be asked to convene a group of epidemiologists and public health practitioners to advise on details such as the times to be spent in isolation and quarantine, in the light of the most recent evidence about the Delta variant and its effects. But this will be only one of the aspects of design that is needed. There also must be consultation with the groups in the community most likely to be affected, to work out how to provide food and other support so that the arrangements for self-isolation at home are practicable and culturally appropriate. It is important to have a model for isolation and quarantine that does not discourage people from getting tested in the first place. A "one size fits all" approach is unlikely to be successful.

What is the Group's feedback on the draft "traffic light" framework?

25. We have been invited to comment on the paper considered by Cabinet on 4 October. This proposes that, after achievement of a high vaccination coverage, the existing Alert Level system should be replaced by a new Traffic Light Response Framework, with three levels: Green (Prepare), Amber (Control), and Red (Reduce). At all levels of the new framework, businesses and schools would remain open. An aim would be to avoid returning to Alert Level 3 or 4 lockdowns.

26. We see the need to revise the Alert Level system under current circumstances. One of the strengths of the current system is that most people understand clearly what is required at each level. It is essential that any new system provides similar clarity.

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27. By moving from four levels to three, the new system reduces the scope for a graded response. The Green level is described as "a baseline level *similar to pre-pandemic normal life*, but with widespread surveillance testing". Given the possible evolution of the current outbreak, it may be unlikely that any part of the country would be at the Green level for a prolonged period. Hence that would essentially leave only two levels for managing the epidemic in New Zealand.

28. The highest (Red) level is said to be "pitched at about Level 2.5". We are doubtful whether this will be adequate to achieve **Covid minimisation and protection** in every situation. Given the fragility of the health system in New Zealand, especially in regional areas, health services could quickly be overwhelmed in some areas. Hence we question whether it is realistic to declare that "at all levels of the new framework, businesses and schools remain open, and people are not required to stay home".

29. The paper sets an objective of ensuring that "our hospitals and public health system are well equipped to care for cases if and when they do arise". It is stated that officials are "working on the approach to investing in the health system for the shift to the new approach". While some steps can be taken fairly quickly, much investment will take several years to be effective, as it will require capital projects and workforce recruitment and training.

30. There is also an objective to "maintain equity in health and economic outcomes". The document acknowledges that "the virus has had a disproportionate health impact on Māori and Pacific communities", and expresses the "need to ensure that the next phase of our approach does not exacerbate these inequities". Unfortunately it is inevitable that the new approach proposed in the paper will widen the gap in health equity that already exists. The lower vaccination coverage among Māori and Pasifika is widely recognised and is an important challenge. But there are also two further reasons why these groups are more at risk of serious illness. Firstly, as explained in our report dated 24 June, factors such as crowded housing and cultural practices mean that an even ***higher*** proportion of people in these groups would need to be vaccinated in order to achieve the same degree of community protection. Secondly, as the paper acknowledges, Māori and Pacific people have higher rates of co-morbidities and barriers to accessing health care.

31. Efforts to achieve clarity, to allow for control of serious outbreaks, to protect health services, and to minimise the widening of health disparities, will partly depend on the detailed arrangements specified for each level of the new system. We have only been able to briefly review the measures proposed. Some aspects surprise us: for example, why is symptomatic testing in the community included at the Amber and Red levels, but not at the Green level? We recommend that the Ministry of Health should be asked to convene a workshop of public health practitioners (including people who have been involved in management of the current outbreak), together with epidemiologists and key stakeholders, to develop detailed advice about measures that should be incorporated at each level. Despite the rhetorical

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appeal of a traffic light system, the number of levels should also remain open for discussion.

How do we transition to the new approach described above, noting the possibility of a concurrent community outbreak?

32. It is difficult to answer this question, until we know more about (a) how the current outbreak will evolve over the coming weeks, and (b) details of the measures to be available for different levels of the new response framework under consideration by the Government.

33. The modelling summarised in the Cabinet paper shows that very high levels of (double-dose) vaccination will be needed for any transition to be contemplated. We note that, even with 85% of people aged 12 and over fully vaccinated, and with baseline public health measures and a "full" testing, tracing and isolation performance, the point estimate of the effective reproduction number (R) is 1.16.

34. Another point is clear. If we are to transition to a new approach that achieves **Covid minimisation and protection**, we must avoid the kind of blowout of cases experienced in New South Wales and Victoria. Only seven weeks ago, on 18 August, the seven-day average number of new cases in Victoria was 27. Today they are announcing 1,838 new cases, with 115 patients in ICUs. This has occurred despite the fact that Melbourne has been in lockdown continuously, and has rising vaccination coverage. The testing, tracing and isolation that are so vital, could not be sustained if there were such a rapid escalation of infections in New Zealand.

Yours sincerely

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