

In confidence

Office of the Minister of COVID-19 Response

Office of the Associate Minister of Health

Cabinet

COVID-19 Minimisation and Protection approach – changes to testing, case investigation and contact tracing

Proposal

- 1 This paper outlines changes to COVID-19 testing, case investigation and contact tracing, which are being made to ensure that New Zealand is ready to transition from the elimination strategy to the minimisation and protection approach and seeks additional funding to support testing and contact tracing in 2021/22.
- 2 In October 2021, Cabinet invited the Minister of Health to report back on these matters in November [CAB-21-MIN-0421 refers].
- 3 This paper is designed to be read in conjunction with the following papers that were on the Social Wellbeing Committee agenda on 17 November:
 - 3.1 COVID-19: Care in the Community model (Ministry of Health)
 - 3.2 COVID-19: A whole of system welfare approach under the COVID-19 Protection Framework (Ministry of Social Development)

Relation to government priorities

- 4 This paper relates to the Government's response to COVID-19.

Executive Summary

- 5 On 18 October 2021, Cabinet agreed to replace the elimination strategy with the minimisation and protection approach and to replace the Alert Level Framework with the new COVID-19 Protection Framework [CAB-21-MIN-0421].
- 6 Under the new approach – and with increasing vaccination rates – many systems and processes, which were designed with the goal of getting to zero COVID-19 cases in the community, must now be adjusted to reflect the new goals of minimising the spread of COVID-19 in the community and protecting those most vulnerable to the disease.
- 7 This paper outlines key changes to COVID-19 testing, case investigation and contact tracing which have been made, or are currently being made, to implement and support the minimisation and protection approach, including:

- 7.1 the development of a new approach to COVID-19 testing, under which the kind of testing that will be prioritised will change based on the COVID-19 Protection Framework setting for an area, with a high focus on symptomatic testing and surveillance testing in vulnerable communities at Red or Orange, and greater focus on surveillance testing at Green to rapidly identify clusters of cases and prevent further transmission;
 - 7.2 a revised approach to COVID-19 contact tracing and case management, to ensure that the contact tracing system is scalable, fit for purpose and does not impose unnecessary burdens or restrictions on positive cases and contacts; and
 - 7.3 a commitment to working with Māori and Pacific communities and complex groups to promote equity. This will include commissioning evaluations and reviews to inform understanding about which initiatives work best to increase the testing rates of groups and improving contact tracing (for example use of mobile technologies, iwi-led testing sites, working with other marginalised communities leadership to access their members for testing).
- 8 This paper also seeks funding of \$983.143 million, comprising:
- 8.1 \$788.643 million to enable ongoing COVID-19 testing through to 31 March 2022; and
 - 8.2 \$194.500 million for case investigation and contact tracing services, including resourcing for Public Health Units (PHUs), to 30 June 2023.

Background

- 9 On 18 October 2021, Cabinet agreed to replace the elimination strategy with the minimisation and protection approach and to replace the Alert Level Framework with the new COVID-19 Protection Framework [CAB-21-MIN-0421].
- 10 While the vaccines available now are effective at reducing the risk of serious illness and death from COVID-19, they are not sufficiently effective at reducing the risk of transmission to achieve and maintain elimination in the context of the Delta variant.
- 11 This means that although high rates of vaccination in the eligible population will help to significantly reduce the harm caused by COVID-19 and the continuation of current preventative measures (such as the use of personal protective equipment (PPE) by health care workers and patients), there remains a need for complementary public health measures alongside vaccination to minimise transmission as much as possible and protect the most vulnerable.
- 12 A central element of the public health response to COVID-19 has been the test, trace, isolate and quarantine (TTIQ) system. This system – comprising contact tracing, case management, COVID-19 testing and isolation or quarantine arrangements for community cases – has been a key set of tools underpinning the sustained success of the elimination strategy throughout most of 2020 and 2021.
- 13 The TTIQ system will need to play a different role to support the minimisation and protection approach. Under the new approach, the TTIQ system will be used to:

- 13.1 minimise the spread of COVID-19, and enable outbreaks to continue to be stamped out, where practical to do so; and
- 13.2 protect the most vulnerable communities and individuals from the disease, identify cases early to enable early treatment and prevent hospitalisations.
- 14 Separate work is underway to ensure the health system has sufficient capacity and capability to support communities and protect the most vulnerable, and in doing so, protect all New Zealanders who rely on the health system from significant harm.
- 15 Across the whole TTIQ system, processes and system are changing to prioritise resources where there is the greatest public health benefit from their use.
- 16 This will help to ensure that our response to the ongoing pandemic is proportionate, sustainable and feasible.
- 17 This paper outlines specifically what changes being made to some aspects of the TTIQ system are, including:
- 17.1 the development of a new approach to COVID-19 testing, under which the kind of testing that will be prioritised will change based on the COVID-19 Protection Framework setting for an area. It will have a high focus on symptomatic testing, strategic restrictions for testing according to testing capacity, and surveillance testing in vulnerable communities at Red or Orange, and greater focus on surveillance testing at Green to rapidly identify clusters of cases and prevent further transmission; and
- 17.2 a revised approach to COVID-19 contact tracing and case management, to ensure that the contact tracing system is scalable, fit for purpose, locally tailored and does not impose unnecessary burdens or restrictions on positive cases and contacts.
- 18 Our response to the pandemic will need to remain flexible, adaptable and agile in order to respond to rapid changes in circumstances. We must be prepared for an ongoing high degree of uncertainty and a lack of many suitable international models for our response or comparators for our situation.

Home isolation and quarantine

- 19 Since October, approximately 5000 cases in Auckland have been self-isolating rather than being in a quarantine facility and this approach is being rolled out across New Zealand as appropriate.
- 20 To support this change, the Northern Region Health Coordination Centre (NRHCC) developed and is continuing to refine, with support from the Ministry of Health (the Ministry), a “home isolation” model called COVID-19 Care in the Community that aims to integrate clinical pathways, public health, and wellbeing support for COVID-19 positive cases at home.
- 21 Further details on the model are outlined in the papers on COVID-19 Care in the Community (led by the Ministry) and Managing COVID-19 in the Community (led

by the Ministry of Social Development), which was discussed at the Cabinet Social Wellbeing Committee meeting on 17 November 2021.

- 22 The COVID-19 Leave Support Scheme (LSS) and the COVID-19 Short-Term Absence Payment (STAP) also assist with home isolation, by helping employers pay employees who need to self-isolate. The Ministry of Social Development and the Treasury will work with the Ministry to ensure settings for these supports are aligned to the new case management and testing approach.
- 23 It is critical to the public health response that the model of home isolation adopted in New Zealand is effective at preventing onwards transmission, and thereby reducing the total number of cases in the community. Should this not be achieved, it is probable that other elements of our response will be compromised.

Other matters being dealt with separately

- 24 Other aspects of the transition to the minimisation and protection approach – including vaccination, vaccination certificates, face covering requirements and changes at the international border – have also been, or will be, dealt with in other papers.
- 25 Further, the Minister for COVID-19 Response will bring forward a separate paper to Cabinet on 13 December 2021 concerning the future of MIQ. This paper will seek agreement to a business case for longer term investment in infrastructure and a workforce for MIQ.

Impact of COVID-19 on Māori and Pacific communities

- 26 Vulnerable and marginalised communities have been especially hard hit by the current outbreak of COVID-19 in and around Auckland. For example, as at 15 November, Pacific peoples have accounted for 30% of all cases in the community since August 2021, and 40% of all hospitalisations. Māori are now over-represented among current cases. Other groups where there has been a disproportionate impact or that have posed particular challenges include people in transitional or insecure housing and drug users.
- 27 Currently Māori and Pacific communities also face a greater risk from COVID-19, due to the lower vaccination rates.. Across New Zealand, only 77% of eligible Māori have had a first dose of a COVID-19 vaccine, while 61% have had two doses. This is significantly lower than 90% of eligible New Zealanders who have had a first dose, and the 81% who have had two doses.
- 28 As a result, there needs to be a continued focus on Māori and Pacific needs in the public health response to the pandemic. Given the current lower vaccination uptake in Māori and Pacific communities, all health services need to anticipate that these groups will be over-represented across different elements of the health system response, including testing, isolation and contact tracing.
- 29 The health system is and continues to work with Māori and Pacific providers in a responsive and agile way to ensure the needs of Māori and Pacific communities are met locally. This includes contracting Māori and Pacific providers and working with

iwi to provide services across public health, primary care, welfare and cultural support.

- 30 The Ministry will convene a forum of Māori and Pacific providers to review lessons identified and learned to date during the response to the pandemic and consider how these can be incorporated in policy and practice going forward to better serve Māori and Pacific communities.

COVID-19 testing

- 31 The Ministry has multiple workstreams underway to adapt and improve testing to support the transition to a minimisation strategy. These workstreams are described below and summarised in **Appendix 1**, which sets out a roadmap for these interventions.

COVID-19 Testing Strategy

- 32 The Ministry is currently finalising a new COVID-19 Testing Strategy, which is aligned to the COVID-19 Protection Framework. The Strategy provides principles to guide providers to the best approach to testing in each level of the COVID-19 Protection Framework. This will allow each region to develop an approach to testing that best fits the local circumstances and to direct resources toward actions that best protect vulnerable communities, including but not limited to the prioritisation of testing. The Ministry will continue to provide national leadership.
- 33 Different test modalities have different purposes and are useful in different settings. The choice of modality and/or sample can be specific to the testing scenario and reason the test is undertaken. The laboratory testing network use PCR for both surveillance and diagnostic purposes, utilising a nasopharyngeal, oropharyngeal swab or saliva sample type. In efforts to preserve laboratory PCR capacity in the future for targeted testing, surveillance testing will be pivoted to using RATs and saliva PCR through private providers.
- 34 The Ministry has now revised its position and saliva testing is available as a single sample, diagnostic test. As a result, the frequency of testing in certain situations, eg border workforce, has reduced from two tests to one test a week. This has contributed to a slight reduction in the volume of PCR demand for this cohort on the laboratory network. Saliva sample collection is non-invasive and can be self-collected. This provides opportunity for testing of vulnerable peoples and in regional and rural settings.
- 35 The table below sets out some of the principles about how the approach to testing will change at different levels of the COVID-19 Protection Framework.

Table 1 – Testing approach under the COVID-19 Protection Framework

Red	<ul style="list-style-type: none"> • The aim of testing is to prioritise diagnosis of those at risk of serious illness and identify those in critical roles who may be infectious to protect vulnerable people and essential systems. • Symptomatic people will be tested by PCR¹ and Rapid Antigen Testing (RAT) can be performed to provide a rapid result, if recognised to be helpful based on the specific setting. • When a region is at the Red setting and there are very high levels of prevalence, symptomatic individuals could be tested first by RAT, with positive RAT results confirmed by PCR. • Where necessary, processing of samples should be prioritised according to vulnerability of the setting, for example, cases from Healthcare and Aged Residential Care settings being prioritised ahead of those from the wider community (although there will remain a need for all tests to be processed in a timely way). • Regular surveillance testing of workers in roles that bring them in to contact with vulnerable people, to protect those they work with, their families and communities. RAT and or other modalities to be used as fits the context.
Orange	<ul style="list-style-type: none"> • The aim of testing is to minimise onwards transmission to prevent escalation of outbreaks. • Diagnosis of those at risk of serious illness is prioritised, and identification of those in critical roles who may be infectious to protect vulnerable people and essential systems and minimised transmission. • Symptomatic people will be tested by PCR, but RAT could also be performed to provide a rapid result, if helpful. • Regular surveillance testing of workers in roles that bring them in to contact with vulnerable people, to protect those they work with, their families and communities. RAT and or other modalities to be used as fits the context.
Green	<ul style="list-style-type: none"> • The aim of testing is to quickly find clusters of cases to contain outbreaks and enable a public health response. • Symptomatic individuals and those at greater risk of exposure to COVID-19 are the focus of testing. • Symptomatic people will be tested by nucleic acid amplification testing PCR. • PCR also used for focussed surveillance testing, of individuals in contact with people known to have COVID-19 or those who are symptomatic where there are additional risk factors such as poor ventilation. • RAT will not be in widespread use as part of the public health response, due its unsuitability for low prevalence areas.

36 Equitable access to and options for testing are central to the testing strategy, in alignment with Te Tiriti o Waitangi. Rapid Antigen Testing (RAT) is a key addition to this strategy, which has not been a part of previous testing plans. This will help to

¹ The Testing Strategy refers to nucleic acid amplification testing (NAAT), of which PCR is one type

support access to testing, potentially including self-testing, which is consistent with the principle of Tino rangatiratanga.

- 37 The RATs currently approved for use in NZ are performed on a nasal sample. Since 15 November, options for tests using a saliva sample are being evaluated against the evaluation framework, as approved by the COVID-19 Testing TAG. Saliva-based PCR for diagnostic testing is currently going through the latter stages of approval, which also improves the options available, as it avoids the need for a nasopharyngeal confirmatory PCR.
- 38 The Ministry is finalising the COVID-19 Testing Strategy, which is expected to be provided to the Director-General of Health on 22 November 2021. This will incorporate input and sign-off from the Testing Technical Advisory Group, input from the Public Health Technical Advisory Group, and feedback from consumers and focus groups, which is currently being sought. Relevant Ministers will be briefed on the final strategy.

Current capacity for testing

- 39 The current laboratory capacity for COVID-19 PCR testing is around 16,000 tests per day, whereas current demand is around 28,000 tests per day. While the national laboratory network is capable of surge capacity of up to 50,000 tests per day, as was demonstrated in August 2021, when a single day testing peak of more than 49,000 was reached, this was not sustainable and significantly impacted turnaround times. This surge can only be maintained for 2 to 3 days.
- 40 By pooling samples, we have a capacity of around 45,000 tests per day, however, the benefits of pooling diminish as the prevalence of COVID-19 in the community increases. Therefore pooled capacity of 45,000 is unlikely to be available when community prevalence is high.
- 41 Consequently, approximately 65-70% of tests can be processed and reported in under 24 hours (67% as of Friday 12 November) against a benchmark of 80%. Urgent work is underway to improve capacity and utilise new testing modalities to address this issue and improve testing turnaround times, as outlined in the following sections.

Future testing capacity

- 42 The additional measures we are taking to increase capacity and move surveillance to a different modality where appropriate will bring our surge PCR capacity to 55,000 - 60,000 per day by mid-December 2021.
- 43 Work is ongoing to ensure that there will be a standing capacity to provide 60,000 PCR tests per day in Q1. The Ministry is engaged in discussions with the laboratory network to identify areas of financial support requirements in the procurement of additional laboratory equipment and securing national reagent supplies.

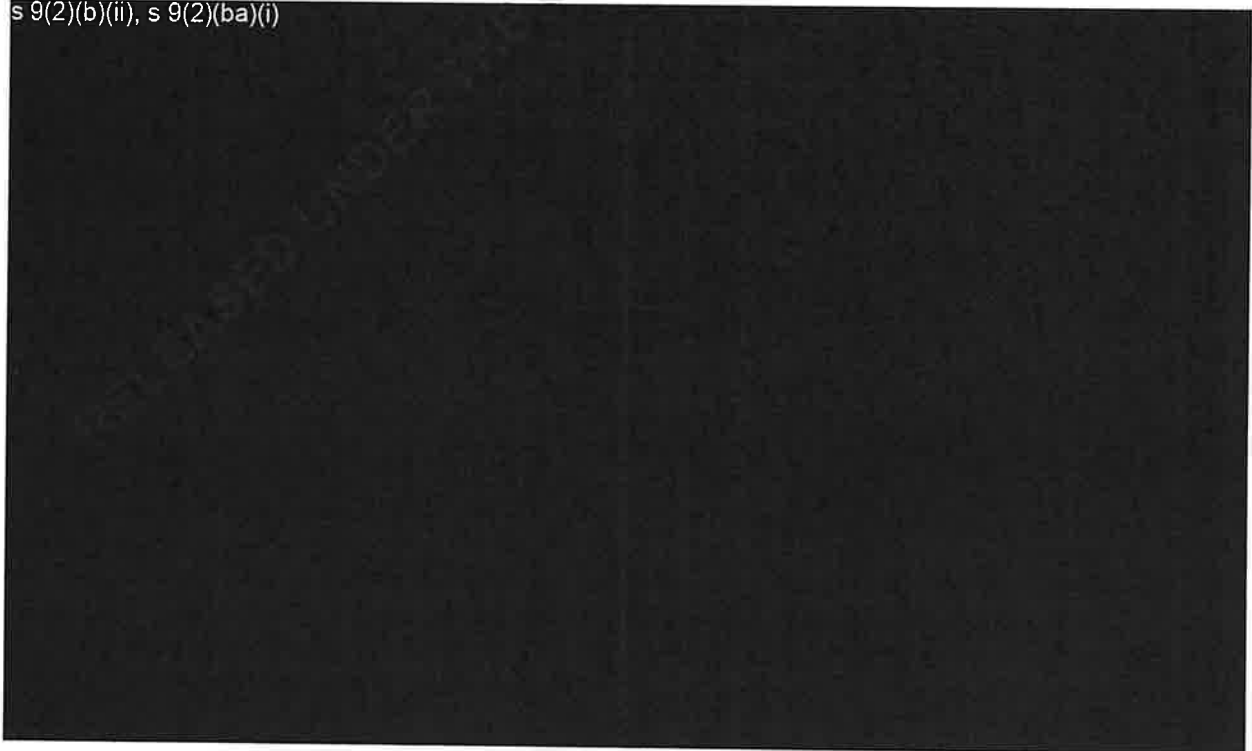
Table 2 – Future Testing Capacity by Modality

Community Testing Volumes	
Modality	Daily standing capacity
Forecast capacity PCR (nasal swab)	60,000
Forecast Usage RAT (Carestart)	8,000
Forecast Usage RAT (Panbio)	8,000
Forecast Usage RAT (SD Roche)	8,000
Forecast Usage Saliva (PCR)	15,000
Forecast Usage Serology	500
Total	99,500

Contracting additional suppliers

- 44 The Ministry has ongoing active engagement with all of the private providers of COVID-19 laboratory testing in New Zealand. This could add 24,000 additional tests per day to the national capacity. Further detail on this is provided in **Appendix 2**.

s 9(2)(b)(ii), s 9(2)(ba)(i)



s 9(2)(b)(ii), s 9(2)(ba)(i)

Expanding the laboratory workforce

- 50 The availability of a skilled workforce is likely to be a key constraint on testing capacity scaling up rapidly.
- 51 In the short-term, laboratories are ‘up-training’ other personnel and on-boarding skilled workers that are not Medical Laboratory Scientist certified to support all non-resulting processes such as manual ordering, specimen processing, loading instruments or similar tasks. The Medical Science Council has approved unregistered staff working in labs to support this initiative.
- 52 Medium-term support would come from bringing trained laboratory workers from other countries, which will become more feasible moving in to 2022 as settings at the border change. In the long-term, collaboration with universities including sharing workforce forecasting and developing approaches to attracting people into laboratory careers will help enhance the workforce to provide a more robust system for future scenarios.

Adding more equipment to the lab network

- 53 Work is already underway to bring in additional equipment to the laboratory network. Canterbury DHB is increasing capacity by up to 11,000 tests per day by mid-November through the introduction of new laboratory analysers and automation. Learnings from the implementation in Canterbury will inform the laboratory network. s 9(2)(b)(ii), s 9(2)(ba)(i)
- 54 The Ministry is in discussion with Northland DHB to set up new equipment and a facility in Whangārei. This will help to address the current issue of the lab receiving more samples than it can process within acceptable turnaround times. At present this is being managed through re-distribution of samples to other labs, but a local solution is being sought to build readiness which will be required as cases increase and re-distribution is no longer an option.

s 9(2)(b)(ii), s 9(2)(ba)(i)

- 56 The NRHCC currently has a request for proposal process underway for the acquisition of additional laboratory analysers, which will help to increase the laboratory capacity within the Auckland region. The expression of interest to supply COVID-19 test equipment was facilitated through Health Source NZ and closed on 22 October 2021. The Ministry is also actively working with other DHBs to identify their need for additional equipment as part of their readiness planning.

Rapid antigen testing

- 57 With COVID-19 in the community, RAT has increased utility as a screening tool in situations where a rapid result is needed to inform risk assessment in workplace health and safety settings, to protect the healthcare workforce from potentially infected hospital visitors and to screen recent travellers at their point of arrival into New Zealand. RAT is a key component of the new Testing Strategy in development, as set out above, and as a new modality it can greatly increase the capacity of the number of tests that can be performed. RAT is not a replacement for PCR symptomatic testing but has utility for regular surveillance testing.
- 58 There are two scenarios where the use of RAT will be useful in the public health response to COVID-19. The first is where there is a highly vaccinated population and controlled setting and RAT can be used for regular surveillance testing. This includes health care settings, aged residential care and border workers. The second is in rural communities where, in the event of an outbreak, they need to have the ability to use RATs as a screening tool, followed by a confirmatory PCR test.
- 59 The Ministry has secured an additional two million RATs for the public health response and is actively communicating with suppliers to ensure there is enough in country volumes to support the roll out beyond the public health response. The Ministry will adopt the same/similar principles of supply for rapid antigen tests as those used for the supply of Personal Protective Equipment (PPE) and Critical Medical Supplies, as these principles are transferrable and have been largely successful in managing supply chain and distribution issues for PPE. Access for use outside the public health response will be privately funded. Discussions are underway to establish supply through the Pharmacy distribution model.
- 60 The rollout of RAT in a number of settings has been accelerated, and options are being investigated to move cohorts subject to surveillance testing requirements to RAT rather than PCR testing, in order to release some PCR testing capacity in the short term.
- 61 Three pilots using rapid antigen testing at the three Auckland metro DHBs for patients and visitors have recently been completed. The Ministry is now overseeing a phased roll-out of rapid antigen testing over three phases:
- 61.1 **Phase one**, which is underway, involves piloting point of arrival testing and working with the 29 businesses as part of the MBIE business charter as well as a roll-out of patient testing to the wider health sector including to the aged residential care sector. RAT is also now in use in MIQs where the day 5/6 PCR test result is not available on day of departure.

- 61.2 **Phase two** includes rollout in high-risk healthcare settings for the healthcare (including aged residential care) workforce and vulnerable people and a wider roll-out to all businesses and government agencies and is currently expected to take place from 1 December 2021. Information, advice and guidance will be made publicly available so that public and private entities can make informed decisions about the utility of rapid antigen testing in their settings
- 61.3 **Phase three** involves community use of approved RAT by the end of December 2021, as part of implementing the new COVID-19 Protection Framework for controlling the ongoing Delta outbreak. Preparation work to support the community phase of the rollout is being completed in parallel to work supporting phase two, with a view to moving forward the timeframe if possible. High risk and vulnerable populations will be prioritised in this phase.
- 62 The Ministry is also urgently investigating options to accelerate the timing of this phased approach and will report back to the Associate Minister of Health on this matter. This report back will also include:
- 62.1 advice on the scope of Phase three;
 - 62.2 advice concerning the availability of RAT to the general public or through controlled channels, such as pharmacies. The use or importation of such tests is currently prohibited under the COVID-19 Public Health Response (Point-of-care Tests) Order 2021, except for persons authorised by the Director-General of Health or for tests which are subject to an exemption; and
 - 62.3 advice on the use of RAT in the public health response, for example in detecting outbreaks in isolated communities.
- 63 This phased roll out of RAT is building to a new approach, which involves a re-defined regulatory environment, facilitating the approval of new test kits, wider use amongst business, government agencies and other organisations. The Ministry will continue to manage the authorisation for importation and distribution of testing kits. The Ministry will also provide guidance about best use and how to self-test.
- 64 There are further opportunities to utilize RAT, such as deploying it as the methodology used for border worker surveillance testing. Work is underway to capture and record the results of RATs, which would allow for its use in a mandatory testing regime, such as the testing of border workers under the COVID-19 Public Health Response (Required Testing) Order 2020. A shift in testing modalities would allow for laboratory capacity to be utilized for other tests, notably symptomatic testing.
- 65 A much greater scale of and a wider spread of use is expected, with RAT becoming a tool for a rapid indication if an individual is positive in settings where there is urgent need for a result to inform patient management while awaiting a PCR test result, in settings where rapid PCR is not yet available. It may also have a role as a regular surveillance test in some scenarios

- 66 The NRHCC has already developed a plan for using RAT as a surveillance test for healthcare workers and expanding its use for patients. The Ministry will explore with key agency partners, including the Ministry of Business Innovation and Employment, how quickly RAT could be established as a testing option for border workers.
- 67 51,000 rapid antigen test kits have already been dispatched to MIQFs and northern region DHBs. 403,105 more kits are available in the Ministry's warehouses and 231,448 additional kits have been ordered and are incoming. As the time taken for delivery of an additional shipment of RAT kits is between three and ten days, supply is carefully monitored to ensure that enough is available.
- 68 The Ministry continues to expand its supply of RATs for supporting use in healthcare settings, including aged residential care. The mechanisms for DHBs accessing supply of RAT kits will mirror the process for ordering PPE and critical medical supplies.
- 69 The COVID-19 Testing Technical Advisory Group have approved the selection and evaluation framework for new point of care tests, which will be implemented to review the applications that will increase supply and distribution networks. It will also facilitate review of new tests that could be added to the list of approved tests for use in New Zealand. This will strengthen supply and access as we roll out the use of RAT through phases two and three.

Rapid PCR testing

- 70 Rapid PCR is already in use around New Zealand, with the instruments in use including Cepheid GeneXpert, Abbott ID Now, Roche Cobas Liat, and BioFire. These are mainly deployed in hospitals, for use specifically in Emergency Departments and pre-surgery, to make rapid assessments for situations where the risk of a false negative result is high.
- 71 There are many advantages of rapid PCR. It is highly sensitive and specific, equivalent to full-scale diagnostic laboratory performance, but able to produce results within an hour, and positive results in as little as 20-30 minutes. The devices currently in use are, however, very low throughput with most only able to analyse one sample at a time meaning there is insufficient capacity to screen all admissions in a large emergency department.
- 72 Additionally, there is a global supply shortage for reagents used by most rapid PCR instruments. Purchasing and deploying rapid PCR for non-critical use would create further reagent supply issues for hospitals where they are currently being used. Some reagents are produced in New Zealand, but there is a limit to the extent that this can be scaled up, given that the constituent components would need to be imported.

s 9(2)(b)(ii), s 9(2)(ba)(i)

Identifying new and emerging testing technologies

- 74 The Ministry is working with expert groups to monitor and assess future testing innovations on a regular basis. Criteria are being developed of the characteristics of the test and research regarding the test that would be required before an evaluation would be undertaken. Any evaluation undertaken would include test performance, independent research, feasibility, clinical utility, cost, need and equity among other things.

eOrdering national rollout

- 75 The Ministry's Data and Digital team has also been rolling out eOrdering to community testing centres and general practices. This improves the efficiency of sample registration, using technology solutions including barcode scanning to replace manual data entry at the laboratory and can help improve the speed of test processing in laboratories resulting in improved turn-around-times for delivery of a test result.
- 76 eOrdering has been rolled out to community testing centres in 15 out of the 17 regions throughout New Zealand with permanent CTCs. One more region is going live in the week commencing 22 November and the final region is in the configuration stage. Additionally, at least another 45 pop-ups across the country will be pre-configured by the end of 2021 in preparation for testing surges.
- 77 Work is also underway to bring the eOrdering system to general practice in Auckland as a priority before a further rollout nationwide. Four general practices are live currently, which will increase to 12 by the end of November 2021. This work is particularly important given the context that two thirds of all COVID-19 samples are collected by general practice and most testing takes place in Auckland.
- 78 eOrdering enables automated negative text result messaging as soon as the result is available in the system which further improves turn-around-time of a result reaching the person who was tested.

Tailoring approaches to testing across regions

- 79 As noted above, the new testing strategy will allow for a different approach to testing and how it is applied in each region depending on the COVID-19 Protection Framework level, and based on local factors including rurality, demographics and local rates of vaccination. The testing services provided by CTCs, DHBs and GPs, however, will remain consistent.
- 80 Each DHB has a testing surge plan in place to inform its response as and when new clusters of cases are identified in that region. Testing approaches for aged residential care facilities, prisons and other high risk facilities are tailored to each facility (including high risk residential housing). Each DHB is responsible for being flexible to ensure this testing happens appropriately.

- 81 Throughout this outbreak, innovation has been led by the NRHCC, who have analysed data to characterise transmission risk by time, person and place and then targeted these settings for sample collection. They have deployed several different tactics included extending testing centre hours, opening pop-up community testing centres, dedicated community testing centres in churches, schools and workplaces and mobile swabbing teams. These mobile swabbing teams have provided in-house testing at residential facilities such as aged residential care facilities, correctional facilities, emergency housing, transitional housing, boarding houses, motels, and community housing providers located close to other facilities with positive cases.
- 82 This learning has been shared with other DHBs, including Waikato DHB when the outbreak was detected in their region. Additionally, building on this experience, Lakes DHB has employed a mobile testing van for the contacts of a case in Taupō and have extended testing centre hours.
- 83 Taranaki DHB has utilised rapid PCR in its hospital lab for critical tests and has organised the sending of other samples three times per day to Wellington, which has been used as a short-term solution. The Ministry has engaged with Taranaki DHB to see how it can support establishing a solution that meets the local need as it has done with Northland DHB. The same support will be provided to other regional hospitals who have the same need.
- 84 Further support from the Ministry is likely to be required to assist some DHBs to operationalise this response.

Case investigation and contact tracing

- 85 As we transition to the minimisation and protection approach, case investigation and contact tracing will adjust alongside other settings to ensure that public health resources are directed to those activities that minimise the impact of community transmission and protect the health and wellbeing of cases and contacts.
- 86 This paper outlines the changes the system has already made and is actively making to ensure case investigation and contact tracing continues to be an integral part of managing COVID-19 outbreaks.
- 87 Previously, contact tracing for COVID-19 within Aotearoa has taken a cautious approach in line with our elimination strategy. To date, this has meant that during an outbreak response, there have been a significant number of contacts identified and managed through the system, with the aim of minimising transmission and providing assurance that cases are not going undetected. This included a large number of contacts with very low-risk exposures.
- 88 As we transition to the COVID-19 Protection Framework, we expect to see significantly higher case and close contact numbers than the system has managed previously.
- 89 Adapting to this context has meant two things:

- 89.1 reviewing our case and contact categorisation and management processes to ensure they align with the latest evidence and the strategic goals of the minimisation and protection approach; and
- 89.2 targeting case investigation and contact tracing services, consistent with the degree of concern about impact on health system sustainability against each level in the COVID-19 Protection Framework. This is likely to result in different approaches in different regions where the goal may be different, for example, tight suppression as opposed to trying to extinguish an outbreak.
- 90 The focus of contact tracing (and testing) efforts will instead be directed towards reducing onwards transmission - particularly in vulnerable communities - and minimising the impact on the wider health system, including minimising hospitalisation rates.
- 91 The availability of antiviral medicines that, if given early, reduce hospitalisations (e.g. Paxlovid) is yet another reason to maintain a high-performance contact tracing system. Cases that are identified via contact tracing are diagnosed much earlier than unlinked cases. This offers the potential to introduce antivirals early to vulnerable contacts who test positive.
- 92 Changes are being made to enable differentiated contact management according to need. For many, a “lighter touch” model will be appropriate, utilising digital communication tools for contacts who are at lower risk, such as those who are vaccinated, and/or able to readily access the necessary public health information and have lower requirements for support.
- 93 A key focus for the contact tracing system is to ensure that vulnerable communities that have lower vaccination rates and carry the greatest risk including high complexity health needs are prioritised within the system. Lessons learnt from the Delta outbreak are being incorporated into case investigation and contact tracing processes, including development of a triage tool to prioritise allocation of cases. This means that cases who are estimated to be of higher public health complexity (e.g., unvaccinated, not registered with a GP, known to live in transient housing, Māori or Pacific) are managed by the local health system where there are local providers involved to engage with cases and wraparound services. Call centre providers have adapted a manaaki / whakawhanaungatanga approach first to build trust and rapport with cases and contacts. Continuous insight and learning will remain important to ensure contact tracing is delivered in a way that connects with communities.

Public Health Unit response

- 94 PHUs continue to be an integral part of outbreak control, case investigation and contact tracing activities, drawing on highly trained, specialised and experienced staff. As New Zealand transitions from an elimination to a protection framework, it is imperative that PHU capacity is directed to those areas that require specialist knowledge and oversight. Smaller PHUs will need to be supported to analyse the quantity of data required to guide local action.

- 95 Additional contact management and case investigation capacity is being established through existing telehealth providers that will be available nationally to support outbreaks in any part of New Zealand. This will enable PHUs to delegate work to and free up capacity for high value outbreak control and complex case investigation work focused on complex settings, such as aged residential care, and vulnerable communities, including people in transitional or temporary accommodation.
- 96 In areas where cases have occurred during this outbreak, there has been a need for increased input from the wider health and social sector, including provision of welfare coordinated through other local and national agencies, referrals to other providers (such as Māori and Pacific providers) for engagement and follow up of contacts during their isolation period.
- 97 As part of the health system readiness work, DHBs are being asked to provide plans outlining coordination of services and providers including Māori and Pacific stakeholders.
- 98 In the Auckland metro region, the NRHCC has contributed considerable capacity that will not necessarily exist to the same extent elsewhere in the country. Work continues to coordinate local health and broader welfare resources across each DHB to prepare local health systems for increased cases and contacts. The national “care in the community model” will coordinate pathways of care for cases and household contacts.
- 99 Funding provided in 2020/21 and in 2021/22 has been allocated to PHUs to support increased capacity in case investigation and contact tracing and additional staff have either been recruited to increase baseline capacity and/or trained as a local surge workforce.
- 100 There will continue to be a need to bolster the capacity of PHUs to respond to the pandemic over the next twelve to eighteen months (see ‘Financial Implications’ in this paper for further detail).
- 101 The PHU funding will maintain capacity across PHU case investigation and contact tracing services. This will continue to be a need throughout 2022/23 irrespective of health system reforms.
- 102 All PHUs are being utilised and contributing to the current response. Case investigation and contact tracing work is being delegated across the country, with all services being delivered remotely to support the outbreak.

Updates to case and contact management

- 103 Contact categories and the testing and isolation requirements have been revised to reflect an increasingly vaccinated population and the other public health measures in place to minimise transmission. Appendix 3 outlines the key changes that were implemented from 15 November 2021 following approval by the Director-General of Health and the Director of Public Health.
- 104 The changes are based on sound evidence and international best practice and align with the minimisation and protection approach, reduce the burden on employers and

individuals, while remaining effective at reducing the onwards transmission of COVID-19.

- 105 Isolation or quarantine is known to have a significant adverse impact on individual wellbeing and employment, and a disproportionate impact on vulnerable communities. Ensuring that the impost of isolation and quarantine requirements is proportionate to the risk and reflects our most up to date understanding of how the virus spreads is therefore a priority.
- 106 Key changes to contact categories and management protocols include:
- 106.1 discontinuing the recording of Casual Plus and Casual exposure events in the National Contact Tracing Solution and ceasing the publication of corresponding locations of interest, except for use in relation to school and workplace settings where face-covering protocols are in place;
 - 106.2 reducing quarantine and isolation requirements from 14 days to:
 - 106.2.1 10 days for fully vaccinated, immunocompetent COVID-19 positive persons;
 - 106.2.2 10 days for household or household-like close contacts irrespective of vaccination status, and for other partially vaccinated or unvaccinated close contacts; and
 - 106.2.3 7 days for non-household close contacts who are fully vaccinated.
 - 106.3 adopting revised risk assessment categories for a variety of indoor and outdoor settings, in part based on the vaccination status of people present.
- 107 The contact identification and management process is supported by comprehensive guidance, enabling an assessment of risk (see **Appendix 3** for further details).

Management of special settings

High risk settings

- 108 Certain settings such as health care, aged residential care settings, correction and compact residential environments (such as halls of residence or apartment blocks) present a greater risk of transmission and require particular and timely management to ensure quick isolation of cases and contacts.
- 109 A national outbreak response toolkit for aged residential care has been developed which outlines key activities and roles and responsibilities when a case occurs in an aged residential care setting. Work is underway to extend this approach to develop national guidance for other higher risk settings by the end of 2021. This will include consideration of other changes which might further reduce the risk of transmission within or into aged residential care settings.
- 110 This work will continue alongside guidance within low-risk settings (see below). The Ministry is in contact with colleagues in New South Wales who have

implemented a similar approach developing incident management plans for specific settings.

National telehealth case investigation service

- 111 The Ministry has established a case investigation service within an existing telehealth provider.
- 112 An initial workforce of 175 people, including clinical and allied health professionals, have been trained to complete case investigation. This provider prioritises recruitment of Māori and Pacific staff to enable ethnicity matching of caller to cases and contacts.
- 113 This workforce operates under clinical governance with cultural competence and necessary escalations processes in place to ensure the service delivers equitable outcomes.
- 114 As at 9 November 2021, the service is now performing a national allocation and triage function to assess the public health complexity of a case before referring medium to high complexity cases (such as Māori, Pacific, unvaccinated, not registered with a GP or persons living in transitional housing) to a PHU to manage. The service will complete case investigations for cases that are defined as low public health complexity using the referral and escalation pathways that have been developed.
- 115 Final details are being worked through and it is expected that this service will operate independently by the end of November 2021. In the meantime, case investigation staff from the provider are working within ARPHS case and contact management teams.
- 116 Whilst this service will be first utilised to support cases in the Auckland metro region, it is intended that this service will operate nationally, managing cases across the country.
- 117 Currently, 175 people have been trained in case investigation and a further 300 people will be trained by the end of November 2021. Within the existing trained workforce of 175 people, we have additional capacity to manage approximately 150 cases per day through this service. This is in addition to the capacity across PHUs who are currently managing between 160 – 200 cases per day meaning national capacity for case investigation is between 300 – 400 cases per day.
- 118 Bolstering national telehealth services for case investigation will provide a workforce of 475 trained case investigators by early December 2021 which significantly increases the existing capacity within PHUs.
- 119 The Ministry has worked with the provider to develop scaling plans to enable an additional 500 people to be trained over the next four weeks through to 20 December 2021. This means that by this point, there will be capacity to manage 1,000 cases per day which will be delivered through a retained workforce of approximately 900 people. Actual capacity will increase each week over the next four weeks as cohorts of people are trained and begin working within the service.

- 120 Additional funding is being sought for this service with assumptions outlined in the financial implications section of this paper.

The contact tracing model in light of the COVID-19 Protection Framework

- 121 Within the current outbreak, as we transition from an elimination strategy the contact tracing system has adapted to prioritise capacity to focus on ensuring individuals are isolating in a timely manner. As local models for community isolation are developed, it is anticipated that the clinical care and welfare assessment of cases and their households will shift from case investigation into primary care and regional hubs. Once in place, this mean that case investigation providers will focus primarily on assessing and investigating the public health risks, allowing more cases to be managed. The streamlined model is currently in development as part of establishing the Caring for COVID-19 in the Community model.
- 122 Under the Protection Framework, the contact tracing system will have less unintended consequences than previously as contact categories have been revised to take into account the evidence from the large Delta outbreak (e.g. removal of the Casual Plus category for general use) and the additional public health measures to minimise risk in settings, (e.g. face coverings, physical distancing and capacity restrictions within indoor settings).
- 123 In addition, revised guidance and toolkits are being developed for workplaces and education settings to assure these settings that it is highly unlikely they will be advised to close if a case visited their premise during their infectious period, or that high volumes of close contacts will be identified that may have an impact on their ability to continue to remain open (e.g. staff categorised as close contacts). Workplaces and schools are highly unlikely to be listed as a Location of Interest as contacts will be able to be identified by other means. This model will ensure public health resources and expertise are utilised most effectively, and empower individuals and communities to protect themselves from the disease.
- 124 Technology enhancements are underway to enable a digital pathway for cases and contacts if they are able to access technology and engage with the system in this way, for example an electronic portal for a case to record their exposure events, upload contact details, provision of information via email and use of electronic surveys to monitor symptoms (contacts only). Cases will also be able to trigger their digital diary and Bluetooth tracing key uploads rather than relying on case investigation staff to prompt this.
- 125 It is expected these options will be in place by early December 2021. Digital pathways for cases are expected to reduce call load thereby increasing case investigation capacity while also improving accessibility for cases and contacts who find the phone-based system difficult (such as deaf and hearing-impaired individuals). It is anticipated traditional methods will continue to be used with individuals who do not have access to digital tools and/or prefer more personal contact and additional support (for example, mobile testing and/or manaaki services). The following table describes the contact tracing activities under the phases of the COVID-19 Protection Framework.

Table 3 – Contact tracing approach under the COVID-19 Protection Framework

Red	<ul style="list-style-type: none"> • No focus on source attribution • Focus on regaining control of the outbreak and minimising hospitalisations and fatalities by prioritising notification to cases and referral to appropriate services (management or community isolation where health status will be closely monitored) • Cease recording and publication of low-risk locations of interest • Light touch approach within workplaces and education settings where public health measures are in place to minimise transmission • Potential use of text messages to notify cases • Focus investigation of exposure events to higher risk settings
Orange	<ul style="list-style-type: none"> • Focus shifts from intense source attribution to cluster control, and spread prevention with individual cases and contacts. • Prioritise contact tracing capacity to focus on ensuring individuals are isolating in a timely manner • Light touch approach within workplaces and education settings where public health measures are in place to minimise transmission • Limit investigation of exposure events to higher risk settings • Ceasing recording and publication of low-risk locations of interest
Green	<ul style="list-style-type: none"> • Focus on assertive source identification and spread prevention • Extensive contact identification and monitoring to control transmission • Recording and publication of all locations of interest

- 126 From 1 December 2021, we have planned capacity to manage up to 6,000 - 7,000 initial calls to contacts per day (to inform the person they are a contact) and up to 40,000 – 65,000 follow-up communications through daily monitoring calls or emails. The level of communication and touch points can vary significantly based on the complexity of needs (such as welfare support, general awareness of public health measures, language barriers, peer support, access or suitability of digital self-check in). Therefore, the exact number of calls within the workforce capacity can fluctuate. The service is designed to scale in accordance with needs and demand and at pace that considers learnings from previous outbreaks, latest modelling and public health risk assessment, all while ensuring effective and efficient management of available funding.
- 127 There is further scalability within call centre provider contracts and their workforce, as well as opportunity to utilise the digital pathway and provide information electronically for low-risk contacts.
- 128 Additionally, given the low risk of transmission from casual contacts, casual locations of interest will only be published in areas where health authorities are seeking to stamp out the virus. This will significantly reduce the impact of low-risk exposure events on businesses and individuals who may be required to self-isolate.
- 129 In early 2021, the Ministry undertook a large system update to the National Contact Tracing Solution, which included a review of the COVID-19 Disease Indicators used to measure the timeliness of the contact tracing service as well as the wider public health response.
- 130 The review was completed in June 2021. Consideration may be given to a further review of the current COVID-19 Disease Indicators when a definitive end to the outbreak is reached.

Digital contact tracing

QR codes

- 131 Information from the QR code system has had good usage through this outbreak, and usage of the system by the public has been sustained at a high level since the mandatory recordkeeping policy was announced. Currently approximately 10-20% of cases each day upload their digital diary. During the current outbreak, over 65,000 people have been notified that they have been exposed at a location of interest.
- 132 QR code scanning provides a standardised way of referring to venues, and a fast and scalable way of notifying attendees of exposures. There is significant value in this system, even when only used for higher-risk exposure events.
- 133 Future possibilities enabled by this technology at higher levels of prevalence of the disease in the community include:
- 133.1 automated cluster detection – identifying where many cases were at the same place at the same time, which may be an early indicator of a superspreading event; and
 - 133.2 assisted risk assessment – making public health risk assessment faster by adding time spent in a location and surfacing venue information.

Bluetooth tracing

- 134 Bluetooth tracing allows for anonymous notification of close contacts, as detected by proximity between two devices.
- 135 Bluetooth tracing has good uptake from the public. Over two million devices have Bluetooth tracing running, representing approximately half of all New Zealand adults. It has only had occasional usage during this outbreak, due to a variety of factors such as socio-economic status of cases and their households often sharing one phone. The same underlying technology has been used in other jurisdictions to generally good effect, including jurisdictions with significantly lower public uptake.
- 136 It is expected that Bluetooth will have value, particularly in areas with lower numbers of cases that are less likely to result in a “pingdemic” where high numbers of contacts are identified without taking into account public health protections in place, for example PPE in a health care setting.
- 137 It is anticipated that the case investigation digital self-service tool, which will enable cases to trigger Bluetooth tracing code uploads themselves, will result in higher activation rates of the technology rather than relying on this being done by a case investigator.
- 138 Future possibilities for this technology include:
- 138.1 automatic distribution of Bluetooth tracing upload codes to positive cases; and

138.2 enhancements to the experience for recipients of Bluetooth tracing alerts – for example reminders to get tested on the recommended number of days after exposure.

Equity

- 139 This outbreak has affected a number of vulnerable communities, where culturally appropriate and timely access to support is vital to ensure the associated risk to individuals is managed.
- 140 Prioritising efforts to improve vaccination rates for Māori, including engagement and funding of iwi and local providers is a key priority area to address this risk.
- 141 The unvaccinated will be overrepresented in cases therefore processes are in place to ensure the system is responsive to those with barriers to access, alternative health beliefs or a history of interactions with state institutions that have undermined trust. This includes scaling of mobile services such as the Pae Ora model within the Northern Region to focus on appropriate engagement with Māori, as well as strong connections to Māori and Pacific providers, many of whom provide integral manaaki (welfare) services to cases and contacts.
- 142 The national case investigation service has been developed with an ‘equity-first’ approach meaning that there are clear pathways to ensure cases affecting vulnerable communities are prioritised as well as diversity of workforce and culturally competency of callers to support individual needs.
- 143 The PHUs and the National Investigation and Tracing Centre will continue to use ethnicity as a measure of prioritisation, ensuring Māori and Pacific populations receive priority care from the public health service. This is alongside prioritisation of unvaccinated people and marginalised communities, such as persons known to reside in transitional housing. A triage allocation tool is currently used to prioritise allocation of cases to either:
- 143.1 a local PHU, for those deemed higher complexity and therefore more likely to need access to local, higher intensity pathways; or
 - 143.2 to a PHU outside of the region where a case lives, for those deemed low to medium complexity.
- 144 Whakarongorau, a telehealth provider for the contact tracing service, have boosted the diversity of their workforce by over 200% in the past year to ensure they are able to offer culturally supported services to Māori, Pacific and other populations.
- 145 Ensuring effective and meaningful engagement with the local communities, as well as protecting the privacy of individual information are both key components of building trust in the contact tracing system.
- 146 Contact tracing services, including communications to individuals, are all enabled to be delivered remotely, with a focus on ensuring both phone and email options are available to best serve the individual i.e., those in remote or rural settings.

Operational planning

- 147 An overview of the key steps for operationalising changes to COVID-19 testing, case investigation and contact tracing to support the minimisation and protection approach is at **Appendix 3**.
- 148 The Ministry has reviewed infection prevention and control measures in light of the minimisation and protection approach. Noting there are multiple layers of protection, imagined as Swiss cheese slices that block the spread of SARS-CoV-2. No layer is perfect; each has holes, and when the holes align, the risk of infection increases. But several layers combined in a prevention and response mode – social distancing, standard and transmission precautions such as face coverings, particulate respirators and PPE (health care workforce), hand washing, testing, contact tracing, ventilation, vaccines and government messaging – significantly reduce the overall risk and response.
- 149 Aged residential care facilities as an example have both preventative actions in place applying standard transmission in times of lower Alert Levels that provides operational procedures and protocols such as if a resident has been discharged from a hospital within a Red zone or heightened Alert Level setting requires a negative PCR test before returning to the facility. Patients are isolated for a period not dissimilar to MIQ settings.
- 150 As part of any prevention mechanism within operating contexts, RAT could be utilised with health care workers and visitors. In an instance of a positive case that is a resident or healthcare worker, facilities isolate residents and adapt transmission precautions such as the use of P2/N95 particulate respirators, testing strategies across residents and isolate workers and residents within facilities.
- 151 Corrections have modelled their processes on the operating guidelines for MIQ. The Ministry has enabled supply of RAT kits effective Friday 12 November. Standard and transmission protocols are applied readily.

Financial Implications

- 152 This paper also seeks funding of \$983.143 million to enable COVID-19 testing, case investigation and contact tracing, to be a call against the COVID-19 Response and Recovery Fund. This comprises:
- 152.1 \$788.643 million to enable ongoing COVID-19 testing through to 31 March 2022; and
 - 152.2 \$194.500 million for case investigation and contact tracing services, including resourcing for PHUs, to 30 June 2023.
- 153 The cost of COVID-19 testing during the remainder of this financial year and the 2022/23 financial year will be driven primarily by key policy decisions in the coming weeks. As such, these costs are currently uncertain, and it is not feasible to accurately forecast the cost of delivering these systems over the medium term.
- 153.1 For example, forecasting the cost of COVID-19 testing through to June 2023 on the basis of current testing volumes, produces an unrealistically

high additional cost of around \$2.517 billion. However, this cost is very unlikely to ever be realised, due to both the limited capacity of testing laboratories to undertake this volume of work over a prolonged period and because future policy decisions may significantly reduce demand for testing.

Table 4: Community Testing

	Testing start date	Forecast end date	Average number of tests per day	Number of testing days	Average cost per test \$	Costs incurred \$ million
Funding agreed 2021/2	1/07/2021	30/06/2022	5,500	365	121	242.908
Incurring as follows:						
Actual Usage	1/07/2021	7/11/2021	17,827	130	102	236.386
Forecast Usage	8/11/2021	30/06/2022	25,000	235	102	599.250
Additional Funding required						592.729

Table 5: Lab Testing

	Testing start date	Forecast end date	Average number of tests per day	Number of testing days	Average cost per test \$	Costs incurred \$ million
Funding agreed 2021/22	1/07/2021	30/06/2022	7,000	365	64	163.520
Incurring as follows:						
Actual Usage	1/07/2021	7/11/2021	19,011	130	64	158.172
Forecast Usage	8/11/2021	30/06/2022	26,000	235	64	391.040
Additional Funding required						385.692
Total Community testing request						1,523.479
Total Lab testing request						993.052
Total						2,516.530

- 154 For this reason, funding of \$788.643 billion for testing is sought on a short-term basis, in order to continue the current response to the pandemic and implement policy decisions made by the Government in relation to the transition to the minimisation and protection framework.
- 155 Once key policy decisions driving these costs have been made, a further paper will be brought back to Cabinet concerning funding beyond March 2022. This is expected to be in the first quarter of 2022.
- 156 Funding of \$194.500 million for contact tracing and case investigation services is sought for the period to 30 June 2023.

- 157 The funding sought in the paper does not include funding for MIQ, which will be dealt with separately.

Need for funding for COVID-19 testing and laboratory services

- 158 Additional funding for COVID-19 testing and laboratory services is required due to the substantial escalation in costs arising from the response to the outbreak of COVID-19 which began in August 2021.
- 159 For the 2021-22 financial year, the Ministry was funded at a level that would allow for an average of 5500 tests per day across New Zealand. Currently, around 27,000 tests per day are being completed, which has depleted funds available for the remainder of the financial year.
- 160 The additional cost is partially offset by a lower unit cost per test of \$102 (rather than the budgeted \$121), based on actual costs last financial year.

s 9(2)(b)(ii), s 9(2)(ba)(i)



Need for funding for case investigation and contact tracing

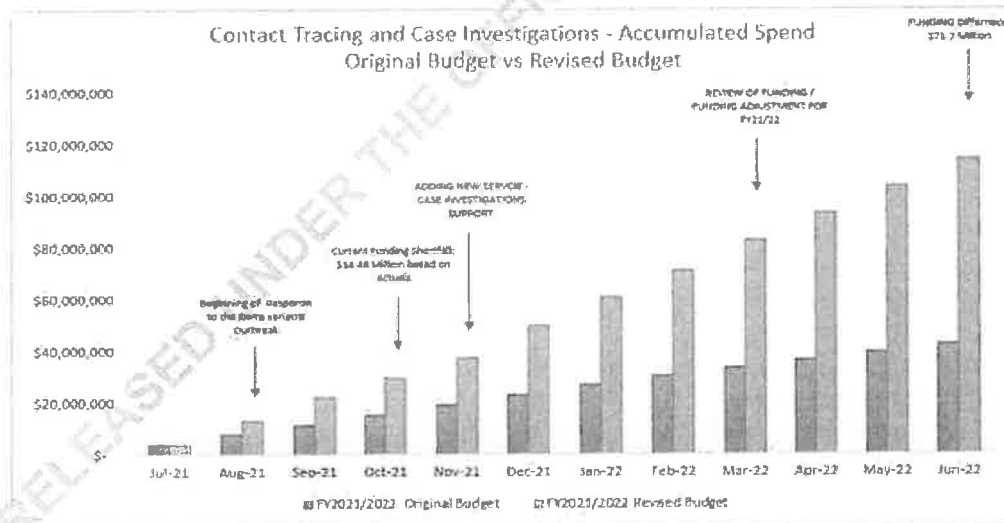
- 161 Additional funding is required for continuity of our contact tracing service, including contracted call centre providers, PHUs and their Māori partners seeking assurance of funding to 30 June 2023.
- 162 Significant effort and investment has been made to establish the partnerships and capability across existing workforce and inability to provide certainty increases risk of losing this workforce. Short-term commissioning carries risk including staff turnovers, loss of productivity which in turn impacts the efficient delivery of the contact tracing service.
- 163 We propose allocating a total of \$194.500 million to contact tracing services including case investigation services. This funding will enable us to provide a level of commitment to commission services to 30 June 2023.
- 163.1 **Contact tracing Current Shortfall (\$14.4 million)** – this funding is needed to cover the increased spend on contact tracing since August 2021 to date.
- 163.2 **Contact tracing (\$32.4 million)** – this funding is needed to enable increased baseline workforce in order to mobilise a large workforce within short period of time and ensure sufficient funding is available to continue to deliver the contact tracing service through to 30 June 2022.
- 163.2.1 The assumptions that underpinned existing contracts were based on pre-Delta modelling and did not reflect the high volumes of contacts that have been identified during this outbreak. In order to ensure there is a greater capacity to manage increased volumes of contacts, funding is being sought to increase the workforce available within a short period of time (increasing baseline capacity to make 2,000 - 3,000 calls within the first 24-48 hours to 7,000 - 8,000 calls).
- 163.2.2 This will mitigate the risk of not being able to manage large volumes of contacts in a timely manner when a case is identified in a region that does not yet have community transmission and fewer restrictions are in place which mean there may still be large volumes of contacts identified and required to self-isolate despite updates to contact categories and management protocols.
- 163.2.3 Most of the funding allocated to 30 June 2022 has been exhausted through the recent response to the August COVID-19 Delta variant outbreak and the ongoing support needed to date. The original budget was set prior to the Delta Variant.
- 171.3 **National Case Investigation service (\$55.7 million)** – this funding is needed to provide additional capacity to complete case investigations

through our telehealth providers. This includes a clinically trained workforce to oversee case investigations ensuring timely referrals are made in order to minimise whānau health and wellbeing. Timely investigations increase our ability to isolate contacts at risk quickly to minimise public health risk. Funding estimates are based on an average of 150 case investigations completed by this service per day from 1 December 2021 to 30 June 2022 (with a lower number around 75 per day during the last half of November 2021). However, the actual demand for case investigations will be peaky, with greater demand in certain periods to contain outbreaks, and lower demand in others. This means that a relatively greater number of case investigators will need to be trained, in order to manage periods of high demand.

163.4 **Contact tracing and case investigation services for 2022-23 (\$92.0 million)** – this includes \$40 million for distribution to PHUs and local providers to maintain and enhance case investigation and contact tracing capacity, and \$52 million for continuation of call centre services and technology enhancements.

164 The recent modelling suggests an exponential growth of cases in the community which has a direct impact on contact tracing and case investigations demand.

Figure 1 – contact tracing and case investigations budget projections



Legislative Implications

165 There are no immediate legislative implications of the changes outlined in this paper. However, it is likely that some elements of these changes will, in due course, be implemented through secondary legislation.

166 In particular, changes to arrangements for testing and isolation are likely to be reflected in future orders made under section 11 of the COVID-19 Public Health

Response Act 2020. Any such orders would be subject to the consultation requirements set out in that Act, including consultation with key Ministers.

- 167 It is not anticipated that changes to primary legislation will be required to implement any of the changes outlined in this paper.

Impact Analysis

Regulatory Impact Statement

- 168 The changes outlined in this paper do not require a Regulatory Impact Statement.

Population Impacts

- 169 The likely population impacts on health and economic outcomes from the transition to the minimisation and protection approach were detailed in CAB-21-MIN-0421, which was considered by Cabinet on 18 October 2021.
- 178 The changes outlined in this paper are necessary measures to support and implement the minimisation and protection approach, and therefore contribute to the same population impacts. A formal evaluation of the effectiveness of how PHUs/ DHBs have served Māori, Pacific, remote and marginalised communities is planned and will assess the way they have worked with NGOs and community service providers. Recommendations made from the evaluation will be incorporated into the next iteration of testing, case investigation and contact tracing programmes. This will include understanding what initiatives work best to increase the testing rates of group eg mobile, iwi lead testing stations, working with gang leadership to access members for testing.

Treaty implications

- 179 The Crown has an active duty to protect Māori health outcomes. In developing the detailed design of this new approach, we will engage with Māori to ensure that the efficiencies proposed around testing and case management do not have a disproportionate negative impact on Māori outcomes.
- 180 Māori rangatiratanga can be enabled in the provision of community-led wellbeing support under the new COVID-19 Protection Framework. We understand that officials are working with relevant Māori groups to ensure Māori are appropriately supported and funded to provide this sort of support. Access to testing modalities such as RATs will not be dissimilar to the supply of PPE. Distribution and access for Māori Health providers and Iwi will be equitable, fair and transparent. All Māori Health providers have access to the centralised portal for access to RATs. Local iwi know and understand how best to support and provide access to their communities. The Ministry of Health will enable access to testing modalities that best meet the needs of Māori and do Māori.
- 181 In addition, a review of the Ministry of Health equity response to the August 2021 COVID-19 Delta outbreak, has recently been commissioned. Historically pandemic responses have preferentially advantaged non-Māori, and failed to protect whānau,

hapū, iwi and Māori communities from the worst outcomes^(c). Other populations the COVID-19 Delta variant poses an elevated risk to is the Pacific community (a community that has experienced high number of positive cases in the early weeks of the Delta variant outbreak) and disabled people. These groups bear a disproportionate burden of health and social risk-factors too that makes them more susceptible to contracting COVID-19. The review will seek community-driven experiences to provide insight into the health outcomes for populations or priority groups at higher risk during the COVID-19 epidemic. These experiences will inform the Ministry to inform effective planning and action for future responses, so greater equity is achieved in the future.

Human Rights

- 182 The changes outlined in this paper have no immediate impact on human rights, beyond those outlined in relation to the minimisation and protection approach [CAB-21-MIN-0421 refers].

Consultation

- 183 The following agencies were engaged in the development of this paper, the Department of the Prime Minister and Cabinet, Treasury, Ministry of Business, Innovation and Employment, Ministry for Social Development, Te Arawhiti, Te Puni Kōkiri, Ministry for Pacific Peoples and the Ministry of Transport.

Communications

- 184 Some operational communications within the health system has already taken place to allow changes outlined in this paper to be implemented. This includes updating guidelines around the use of home isolation and periods of isolation and quarantine, which have been distributed to DHBs, PHUs and other health service providers.
- 185 All-of-government communications in relation to the implementation of the COVID-19 Protection Framework will be considered separately by Cabinet.

Proactive Release

- 186 It is intended that this paper will be proactively released, following Cabinet consideration.

Recommendations

The Minister for COVID-19 Response and Associate Minister of Health recommend that Cabinet:

1. **note** that in October 2021, Cabinet agreed that the Minister of Health would report back in November on updated strategies for testing, contact tracing and isolation to support the transition to the minimisation and protection framework [CAB-21-MIN-0421 refers];
2. **note** that an effective testing, tracing, isolation and quarantine system is critical to the success of the minimisation and protection framework;

3. **note** that the focus of testing that will be prioritised will change based on the COVID-19 Protection Framework setting for an area, with a high focus on symptomatic testing for all if possible, strategic restrictions for testing according to testing capacity, and surveillance testing in vulnerable communities at Red or Orange, and greater focus on surveillance testing at Green to rapidly identify clusters of cases and prevent further transmission;
4. **note** that work is underway to expand the use of Rapid Antigen Testing, where appropriate, including a current trial with businesses;
5. **note** that that the final COVID-19 Testing Strategy will be provided to the Director-General of Health on 22 November, and relevant Ministers will be briefed;
6. **note** that COVID-19 testing capacity will be increased to 60,000 tests per day, and that increases beyond this level would require further investment in equipment and workforce;
7. **note** that work is underway to expand the capacity for COVID-19 testing, including through contracting additional laboratories for the public health response;
8. **note** that the Ministry of Health will work with Immigration New Zealand to explore options for changes to border settings that might allow the recruitment of skilled laboratory workers from overseas;
9. **note** the new approach to case investigation and contact tracing, under which resources will be focussed on protecting vulnerable communities and individuals, and the approach taken in different areas will vary depending on the nature of the outbreak;
10. **note** the changes to managing cases of COVID-19 and contacts, including reduction in periods of isolation and quarantine from 14 days to 10 days generally, and to 7 days for vaccinated non-household close contact;
11. **note** that with the additional funding sought within this paper, the scalable national case investigation capacity will increase to manage up to 1,000 cases per day by 20 December 2021;
12. **note** that with the additional funding sought within this paper, there is capacity to manage 6,000-7,000 initial communications to contacts per day as well as 40,000 – 65,000 follow-up communications (via phone and email) per day;
13. **note** that the ongoing nature of the pandemic and the need to maintain our response pillars, including the capacity to manage outbreaks, means additional funding is needed for the COVID-19 health system response in 2021/22 and 2022/23;
14. **agree** to additional funding of \$983.143 million over 2021/22 and 2022/23 to support the on-going health system response to COVID-19 as a call against the COVID-19 Response and Recovery Fund, as follows:

15. **agree** to increase expenditure to provide for costs described in recommendation 14 above, with the following impacts on the operating balance and net core Crown debt:

	\$m - increase/(decrease)				
Vote: Health					2025/26 &
Minister of Health	2021/22	2022/23	2023/24	2024/25	Outyears
Minister for COVID-19 Response					
Operating Balance and Net Core Crown Debt Impact	-	-	-	-	-
Operating Balance Only Impact	891.143	92.000	-	-	-
Net Core Crown Debt Only Impact	-	-	-	-	-
No Impact	-	-	-	-	-
Total impact	891.143	92.000	-	-	-

16. **approve** the following changes to appropriations to provide for the decision in recommendation 14 above:

	\$m - increase/(decrease)				
	2021/22	2022/23	2023/24	2024/25	2025/26 &
					Outyears
Vote: Health					
Minister for COVID-19 Response					
Multi-Category Expenses and Capital Expenditure: National response to COVID-19 across the health sector					
MCA					
Non-departmental Output Expense:					
COVID-19 Public Health Response	891.143	92.000	-	-	-
Total Operating	891.143	92.000	-	-	-
Total Capital	-	-	-	-	-

17. **agree** that the changes to appropriations in recommendation 16 above for 2021/22 be included in the 2021/22 Supplementary Estimates and that, in the interim, the increases be met from Imprest Supply;
18. **note** that the \$788.643m for testing is based on an illustrative costing scenario of 60,000 tests per day through to 31 March 2022;
19. **note** that the funding for testing could support funding beyond 31 March 2022 depending on actual testing volumes and the mix of testing types used;
20. **invite** the Associate Minister of Health to report back in December with further information on the costings and assumptions underlying the National Case Investigation service and the ongoing funding for PHUs in 2022/23;
21. **invite** the Associate Minister of Health to report back in December with an update on the testing strategy, including a forward six month plan of testing costs, broken down by volumes of different testing methods over that period;
22. **note** that the appropriation Minister and the Minister of Finance agree that any movement of amounts between categories in the above multi-category appropriation must reflect any changes in the agreed approach taken to address the COVID-19 public health response and cannot be applied to any other Health related initiatives;
23. **authorise** the drawdown of additional funding from the COVID-19 Response and Recovery Fund to cover additional costs due to increased demand for testing in the 2021/22 financial year to the Prime Minister, the Minister of Finance, the Minister for COVID-19 Response and the Associate Minister of Health; and
24. **agree** that the Minister of Health reports back to Cabinet by 31 March 2022 on future funding requirements for the Ministry of Health and the sector to continue to meet the Government's health system response to COVID-19 beyond 31 March 2022.

Authorised for lodgement

Hon Chris Hipkins
Minister of COVID-19 Response

Hon Dr Ayesha Verrall
Associate Minister of Health