MANATŪ HAUORA
MINISTRY OF HEALTH

Memo

Priority Population Survey – Selection of Priority Population

Date:	31 October 2022
To:	Dr Andrew Old, Deputy Director-General, Te Pou Hauora Tūmatanui, Public Health Agency, Manatū Hauora
Copy:	Gill Hall, Chief Advisor, Strategy and Priority Population Survey Project Lead, Te Pou Hauora Tūmatanui Public Health Agency, Manatū Hauora Dr Nick Kendall, Lead COVID-19 Surveillance, Te Pou Hauora Tūmatanui Public Health Agency, Manatū Hauora Graham Bidois Cameron, Transitional Chief Advisor, Hauora Māori, Te Pou Hauora Tūmatanui Public Health Agency, Manatū Hauora Dr Corina Grey, Chief Clinical Advisor, Pacific Health, Te Pou Hauora Tūmatanui, Public Health Agency, Manatū Hauora Kirk Mariner, Programme Director, Equity, Te Whatu Ora Health New Zealand
From:	Dave Henderson, Interim Group Manager, Intelligence, Surveillance and Knowledge, Te Pou Hauora Tūmatanui Public Health Agency, Manatū Hauora
For your:	Decision

Purpose

1. This memo seeks your approval for choice of the priority population to be surveyed for the initial implementation of the 'Priority Population Survey'.

Background

2. As part of the COVID-19 Surveillance Strategy, work has commenced to develop Infection, Seroprevalence and Priority Population Surveys to understand COVID-19 prevalence and population immunity levels. This will be beneficial as passive surveillance techniques such as monitoring self-reported RAT results and the border post-arrival programme are currently providing incomplete data and may conclude entirely in the near future.
3. The Intelligence, Surveillance & Knowledge (ISK) directorate has been asked to focus on implementation of the Priority Population Survey ideally before the end of December 2022.
4. The main purpose of the Priority Population Survey is to collect information to enable targeted support and protection for populations who carry higher risk of infection and/or severe outcomes as well as those who have less engagement with healthcare providers. These populations are less likely to be represented in current and planned surveillance activities.

5. Improving our knowledge of the prevalence of COVID-19 and immunity levels among groups who have been disproportionately impacted by the virus (with a focus on Māori and Pacific peoples) will allow us to better support 'closing gaps' from an operational perspective and meet Te Tiriti o Waitangi (Te Tiriti) obligations.
6. More broadly, the surveys will provide a more accurate understanding of:
    a. how many people currently have COVID-19 (international evidence indicates potentially >50% are unaware they are infected[1])
    b. who has antibodies to SARS-CoV-2 (from previous infection and/or vaccination),
    c. the impact of any previous reported or unknown/unreported infections,
    d. the identification of the SARS-CoV-2 variants in the community over time.

Proposed Population & Rationale

7. It is proposed that the first Priority Population Survey focuses initially on Māori and Pacific populations in South Auckland.
8. This area has an underserved and highly urbanised population with relatively disproportionate levels of high deprivation compared to other parts of the country. Approximately 15% of the South Auckland population identifies as Māori and it is home to the largest Pacific population in the country (25%).
9. During the height of the pandemic, the largest outbreaks of COVID-19 have been in the Auckland region and, in particular, the Pacific community. Both the Delta and Omicron outbreaks had a significant impact in South Auckland.
10. South Auckland communities are located close to the border (Auckland Airport) and are often involved in border-related occupations, increasing exposure risk.
11. Māori and Pacific peoples overall experience significant disparities in severe outcomes from COVID-19 infection: Māori and Pacific peoples have both a hospitalisation risk and a mortality risk that is 1.9 times and 2.4 times, respectively, that of European and Other (refer to Trends and Insights Report, 28 October 2022).
12. Poor access to care is an important risk leading to severe COVID-19 outcomes. The survey will help to detect factors that might affect access, for example, disability.
13. Potential case under-ascertainment may mean this community is being undeserved by therapeutics and social/economic measures available for support if they have COVID-19. This is because testing and reporting allows access to the most effective pharmacological and non-pharmacological interventions.

14. There are several public health teams in Auckland who have experience working with the South Auckland community and have networks, processes, and staff who can work with the PHA to co-design and implement the survey.
15. The PHA is working with partners in Te Aka Whai Ora and Pacific Health to identify possible providers who are willing and able to form a collaborative effort to design the survey protocol and implementation approach. The Testing team, Outbreak response, Te Whatu Ora also hold strong relationships with potential community providers and have agreed to support the project.
16. The proposed survey methodology is outlined in Appendix 1 and may require improvement through discussion with partners and providers before being finalised.
17. South Seas Healthcare is a large Pacific health provider delivering a range of clinic, community and social services in South Auckland who have previously supported the COVID-19 response for their community and patient roll. Following discussion with Te Aka Whai Ora the PHA will initially approach South Seas Healthcare to gauge their level of interest in collaborating on the survey
18. Locations for subsequent Priority Population Surveys could then be expanded to West Auckland and the Central CBD area which has a large refugee population. It is suggested that other healthcare providers like The Fono, Te Whānau o Waipareira, Papakura Marae, Turuki Healthcare and Manurewa Marae are also approached.
19. The initial plan is to focus on urban settings but it will be important to scale the demonstration sites to that of a rural community and advice on this is currently being sought in relation to the Tairāwhiti region.
20. Procurement advice is being sought to enable an appropriate approach to procurement with providers.

Next steps

21. Guided by Te Aka Whai Ora and the Pacific Health team within the Public Health Agency the PHA will first approach South Seas Healthcare and subsequently, The Fono, Te Whānau o Waipareira, Papakura Marae, Turuki Healthcare and Manurewa Marae to enter the co-design phase for implementation of the Priority Population Survey.
22. A detailed implementation plan timeline will be prepared by 4th November 2022 once we have had steer from Te Aka Whai Ora regarding approaching possible providers. The PHA are meeting with Te Aka Whai Ora on the 1st November.

Recommendations

It is recommended that you:

1.	agree	to select South Auckland Māori and South Auckland Pacific community as the first populations for the Priority Population survey. to be implemented by the end of December 2022.	Yes/~~No~~
2.	note	timing of implementation will be subject to agreement with the nominated local provider	Noted
3.	note	additional Auckland providers will be approached to seek their level of interest in expanding demonstration sites.	Noted
4.	note	there are plans to scope a potential rural demonstration site which may require more time.	Noted

Signature_____ Date: 31 October 2022

Dave Henderson
Interim Group Manager
Intelligence Surveillance & Knowledge
Te Pou Hauora Tūmatanui | Public Health Agency

Signature_____ Date: 31 October 2022

Dr Andrew Old
Deputy Director-General
Te Pou Hauora Tūmatanui | Public Health Agency

[1] Subramanian, R, He Q, Pascual, M. "Quantifying Asymptomatic Infection and Transmission of COVID-19 in New York City using Observed Cases, Serology and Testing Capacity." Proceedings of the National Academy of Sciences, Feb. 10, 2021. https://doi.org/10.1073/pnas.2019716118.

Appendix 1

Outline of Approach to the Priority Population Survey

- The Priority Population Survey is a research study bound by ethics requirements. Participation is voluntary.; therefore, it must be made as simple as possible to participate, and every participant must complete an Informed Consent process.
- The Priority Population Survey uses a targeted population, not a randomly selected one, as outlined above.
- The most important aspect of the Survey is to obtain one or more biological specimens from participants (see draft process map below).
- The goal is to collect specimens from the highest possible proportion of the targeted group.
- We are seeking a local community provider or providers to co-design an implementation plan to target priority populations, ideally those that who are not currently well-served by the healthcare system. Ideally, the local provider would engage participants and collect specimens.
- At the point of enrolment in the study, participants will be asked to consent to participation, verify ethnicity (using standard Census questions) and report any COVID-19 symptoms.
- Protocols for support and protection will be developed in the event of participants testing positive for COVID-19.
- Data gathered as part of the study will be shared with Te Aka Whai Ora and Pacific Health to support detailed analysis, intelligence-generation and dissemination back to communities taking part in the survey.

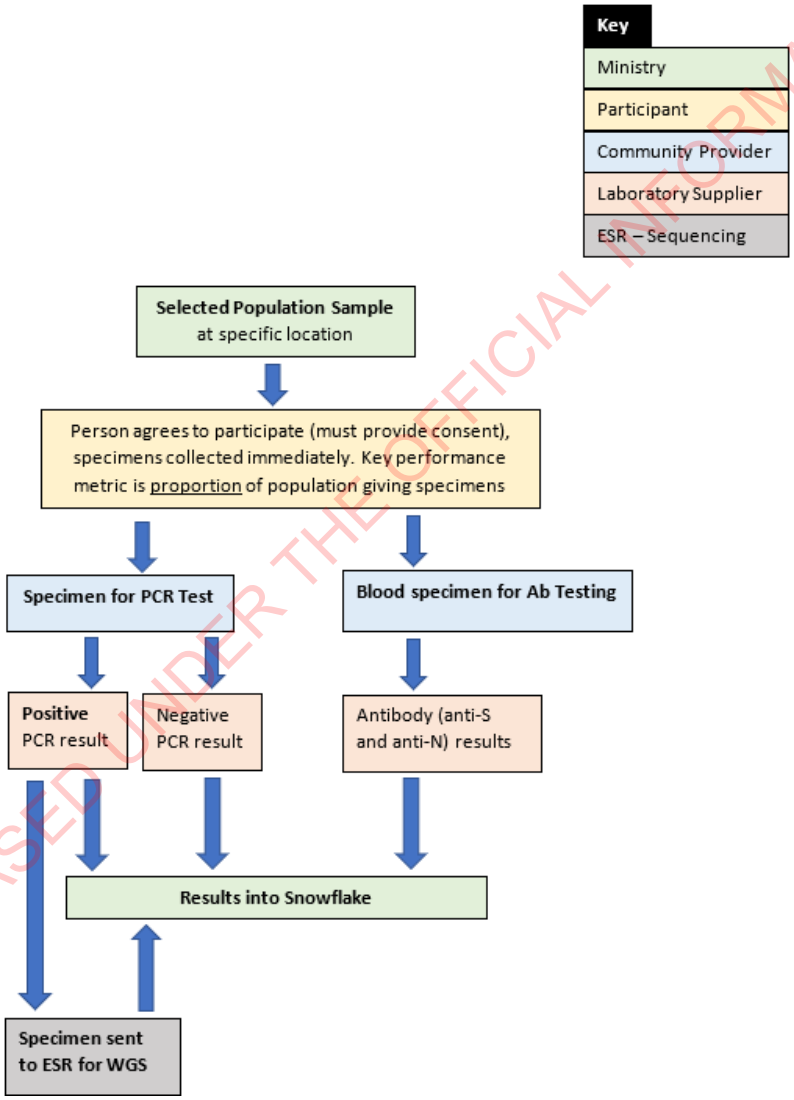
Note the draft process map will be used to initiate discussion and consult with the partners and community providers.

For Initial Consultation and to Begin the Co-Design Process - DRAFT Map for Priority Populations Survey Specimen Collection

Population: specific group/community, specific geographical area, or location

Collection Aim: obtain specimens for RT-PCR and Antibody testing from highest proportion of population possible

Collection Approach: trusted provider known to group, allow community provider to use their preferred collection method for PCR (nasal, oral, saliva) and blood (venous or capillary) specimens



Document 2

MINISTRY OF HEALTH
MANATŪ HAUORA

Briefing

Update on COVID-19 Infection Prevalence and Seroprevalence Surveys

Date due to MO:	11 November 2022	**Action required by:**	N/A
Security level:	IN CONFIDENCE	**Health Report number:**	20221586
To:	Hon Dr Ayesha Verrall, Minister for COVID-19 Response		

Contact for telephone discussion

Name	Position	Telephone
Dr Andrew Old	Deputy-Director General, Public Health Agency | Te Pou Hauora Tūmantanui	s 9(2)(a)
Dave Henderson	Interim Group Manager, Intelligence, Surveillance & Knowledge, Public Health Agency | Te Pou Hauora Tūmantanui	s 9(2)(a)

Minister's office to complete:

☐ Approved	☐ Decline	☐ Noted
☐ Needs change	☐ Seen	☐ Overtaken by events
☐ See Minister's Notes	☐ Withdrawn	

Comment:

Update on COVID-19 Infection Prevalence and Seroprevalence Study

Security level:	IN CONFIDENCE	**Date:**	11 November 2022
To:	Hon Dr Ayesha Verrall, Minister for COVID-19 Response		

Purpose of report

1 This report provides an update of the COVID-19 Infection Prevalence and Seroprevalence surveys (Study) being undertaken by Manatū Hauora, Ministry of Health (the Ministry) in partnership with Te Aka Whai Ora, Māori Health Authority and Te Whatu Ora, Health New Zealand. Together, these surveys will provide more comprehensive estimates of the amount of COVID-19 infection and immunity in the population of Aotearoa New Zealand (New Zealand). This report discloses all relevant information and implications.

Summary

2 The Study is a cross-health agency initiative, led by Te Pou Hauroa Tūmatanui, the Public Health Agency (PHA) in collaboration with Te Whatu Ora and Te Aka Whai Ora, with input from a wide range of key stakeholders with expertise in epidemiology, immunology, biostatistics, Māori health, Pacific health, equity, technology and data analysis.

3 A phased approach has now been agreed, with Phase 1 expected to commence in mid-February 2023, subject to, final discussions with Te Aka Whai Ora and ethics approval. This will be followed by a transition to Phase 2 as soon as possible after that. We expect this to be in place to inform winter planning 2023.

4 Key challenges for the Study are the innovative nature of the research in the New Zealand context, and the highly collaborative multi-agency implementation environment happening at a time of significant health reform.

5 Background

6 The purpose of the Study is to provide an:

a. estimate of point prevalence and period prevalence for COVID-19 infection using RT-PCR testing in random population samples, and

b. estimate the percentage of the population with antibodies to SARS-CoV-2 which will indicate population level immunity to COVID-19 infection, by testing the same random population samples as above.

7 The Study signals a move to active COVID-19 surveillance, making these surveys a key element of New Zealand's future surveillance approach. This is particularly relevant at this

point in the pandemic when other passive surveillance approaches such as the post-arrival border testing programme are being scaled down.

8 The Study methodology will enable analysis of COVID-19 infection and immunity levels by ethnicity, age, location and location. It is expected to identify undetected illness, as it will include random testing of asymptomatic individuals. This will further enhance understanding of the impact of COVID-19 on specific communities and inform the ongoing public health response, while also creating a need to ensure appropriate supports are in place for any cases identified in this way

9 There is currently no national-scale serological research being undertaken in New Zealand to enable an understanding of national immunity levels to SARS-CoV-2. This Study will provide a more accurate understanding of population levels of antibodies (from previous infection and/or vaccination), the impact of any previous reported or unknown/unreported infections, and identification of the SARS-CoV-2 variants in the community over time.

Variants of Concern

10 The *detection* of new SARS-CoV-2 variants in New Zealand and at the border, has been a focal topic particularly since the expiration of the COVID-19 Pandemic Notice on 20 October 2022 and subsequent removal of mandatory post-arrival testing, leading to a reduction in sequenced RT-PCR samples. This is different to the *monitoring* of circulating variants and subvariants in the community.

11 While no single community-based method of surveillance is sufficient to understand the national pandemic picture, the Study will contribute to the monitoring of COVID-19 prevalence and patterns of transmission of circulating variants and subvariants. All positive RT-PCR tests from the Study will be sent to the Institute of Environmental and Scientific Research (ESR) for whole genome sequencing (WGS).

12 An analysis plan is being developed which will incorporate variants data from the Study alongside wastewater results, to provide a more complete understanding of the prevalence and transmission of variants and subvariants in New Zealand.

Study Design

Methodology

13 The Study aims to obtain specimens for laboratory RT-PCR analysis from 1,000 randomly selected participants aged 5 years and over per week for a minimum period of 26 weeks.

14 Following consultation with an external immunologist it has been determined that all participants will be offered both RT-PCR and antibody testing. It is expected that uptake of serology may be lower than RT-PCR, due to both the requirement of a blood sample for serology and/or cultural norms regarding tissue samples.

15 The Study has a strong emphasis on Māori and Pacific Peoples as priority populations. It will over-sample both groups in order to gather sufficient data to accurately estimate point and period infection prevalence, and seroprevalence in these communities.

16 The Study team is working with Te Aka Whai Ora to ensure the protocol design and implementation approach are equitable and appropriate for Māori. Advice is also being sought from subject matter experts in Pacific health. The Study design incorporates a variety of approaches to ensure responsiveness to Māori and Pacific Peoples' needs and aspirations.

This includes recruitment strategies, messaging and translations, practical access and support for participation, and culturally aware data and tissue management. Questions of data sovereignty and co-ownership are also being explored with Te Aka Whai Ora.

17 The Study also has a broader equity focus, as it aims to provide evidence and a clearer understanding of any groups within the population who are at greater risk of current and/or future COVID-19 infection or adverse outcomes. This data will be shared with health and social sector agencies and will enable a more equitable approach to policy development and protection of these groups going forward.

18 The Study team is also engaged with Whaikaha on how the research design can incorporate and respond to disabled communities' needs.

Ethics

19 The COVID-19 Ethics Committee was disbanded when the Pandemic Notice expired on 18 October 2022. Timelines for the Study have therefore been revised to fit the Health and Disability Ethics Committee (HDEC) meeting schedules, nothing that:

a. A minimum of 20 days turnaround is required for submission and decision from HDEC committees, and

b. All HDEC committees have an extended shutdown during the end-of-year period.

20 The Study team continues to liaise closely with the Ethics team at Manatū Hauora regarding the ethics application. The application is being developed in consultation with project partners including Te Aka Whai Ora, Pacific Health teams, Te Whatu Ora, and in discussion with key stakeholders including Whaikaha and other technical subject matter experts.

21 The final Study Method Protocol will be subject to external scientific review s 9(2)(a) s 9(2)(a) prior to submission.

22 The ethics application for the Study is planned to be submitted by the end of January 2023, however, meeting this date is contingent on availability and input from the stakeholders listed in paragraph 19 above.

Testing and laboratory providers

23 Two laboratory providers have been identified to undertake testing through an open tender process and contracts are expected to be signed once funding for COVID-19 testing is secured beyond December 2022. Te Whatu Ora is leading procurement and will manage the contracts with laboratory providers.

24 Finalisation of laboratory contracts is subject to Cabinet approval of health system budget allocations for the 2023 calendar year. It is understood these decisions will be taken in late November 2022.

25 The PHA will work in partnership with Te Whatu Ora to manage testing services for the Study, under a Memorandum of Understanding between agencies.

A Phased Approach

26 The Study will comprise two phases:

a. Phase 1: Validation and generation of evidence on optimal recruitment into active surveillance in New Zealand, using adults only

b. Phase 2: Full implementation of the National COVID-19 Infection Prevalence and Seroprevalence Study for participants aged 5 years and older.

27 Phase 1 aims to validate the overall proposed recruitment process and build evidence about optimal recruitment strategies for securing participation by diverse population groups.

28 Phase 2 aims to estimate national levels of COVID-19 infection and immunity, by ethnicity, age, location and geographical isolation through randomised sampling of the population, as described above.

Phase 1

29 A key risk identified for the Study is ensuring sufficient participation to provide meaningful data, particularly as active surveillance at a national level and at this scale is new to New Zealand. Phase 1 is designed to investigate the effectiveness of the overall recruitment process using digital communication, as well as identify optimal communication approaches for specific population groups, to achieve good participation rates throughout the Study.

30 Phase 1 will test combinations of differing modes of communication (email and SMS/text) and message content, using rapidly adapted technologies developed during the COVID-19 pandemic. The technology solution is co-led with Te Whatu Ora.

31 During Phase 1, the aim will be to secure 1,000 RT-PCR and blood samples each week, using digital recruitment methods only, targeting randomly selected adult participants. All participants will be invited to provide a sample at either a laboratory testing centre, or via use of self-collection kits (for saliva and capillary blood).

32 The intention is that Phase 1 will run for a four-week period, during which a range of recruitment and communications approaches will be actively tested. Participant data will be analysed by gender, age, ethnicity and geographical location, in order to understand the most effective communications approaches for recruiting specific population cohorts and achieving a representative sample.

33 Initial results from Phase 1 will allow the Study design to be refined and changes made before the implementation of future phases. There are options at this point, to either enhance or scale back, depending on factors such as uptake, participant experience with technology, access to laboratories and self-sample kits, and any other feedback received from communities.

34 Findings from the early phases of the Study are expected to provide useful and innovative evidence about effective recruitment methods for active surveillance in New Zealand. These findings may be used to inform the design and delivery of future surveillance initiatives of other communicable diseases.

Phase 2

35 Planning is already under way for Phase 2 of the Study. This phase will use a similar overarching design to Phase 1, but with several differences. These include:

a. Provision of a non-digital method of recruiting participants. This is anticipated to be required for about 20% of people. It means providing an "assisted channel" using phone calls in addition to the "digital channel" using email and/or SMS invitations, digital enrolment and informed consent, and online booking for testing Recruiting children between the ages of 5 and 16 years, who will require different consent/assent processes and may benefit from additional support to enable participation in the Study;

b. Inviting people who are unable or unwilling to use digital methods via traditional communication approaches; and

c. The use of existing COVID-19 technology and tailored for use in the Study. This includes the COVID-19 Population Identification Register (CPIR) and COVID-19 Immunisation Consumer Support (CICS) platforms used by Te Whatu Ora. Work will be undertaken by Te Whatu Ora to enable the use of these platforms for the purposes outlined in the Study design. It is expected that this stage will be completed in the first quarter of 2023.

36 Phase 2 is planned to run for a minimum of 26 weeks and obtain 1000 RT-PCR and blood samples from randomly selected participants each week. All participants will have the option to either attend a laboratory collection centre, perform at home self-collection, or attend a primary health service (including Māori and Pacific Health providers).

Indicative Timeline

37 An indicative timeline for the Study is below.

Task	Date
- Study design - Establish cross-health agency project team - Engagement with project partners incl. Te Aka Whai Ora, Pacific Health teams & PHA Equity - Preparation of Ethics application - Procurement of suppliers - Adaptation of COVID-19 tools & integration with testing supplier technologies	July – December 2022
- Submit ethics application	January 2023
- Ethics decision on Study design	Mid-February 2023
- Phase 1 begins (Testing recruitment, no public data reporting; digital recruitment only; adult participants only)	Late-February 2023
- Phase 1 ends	Late-March
- Proceed to Phase 2 incorporating changes, learnings and ultimately leading to implementation (noting additional ethics approval may be required)	From April (TBC)

38 Work is underway to complete detailed planning of Phase 2 in consultation with key stakeholders, particularly in relation to sampling of Māori and Pacific peoples. Noting that Phase 2 will be informed by the results of Phase 1, so will continue to be iterated to ensure success.

Opportunities, risks and mitigations

39 The Study is an innovative and ambitious research project and offers a significant opportunity to build a greater understanding of effective approaches to active surveillance in New Zealand and support the success of future initiatives.

40 The Study is designed to provide accurate data regarding COVID-19 in the New Zealand context. The platform, once developed, can be extended and used, in the surveillance of other respiratory diseases, such as influenza.

41 If the Study were to be expanded to include other respiratory diseases at this stage of the project, it would require additional budget and lead-in time to adapt the Study design ahead of winter 2023.

42 As noted above, the biggest implementation challenge identified is the lack of participant uptake in COVID-19 research. An additional challenge is the need to provide respiratory and blood specimens. This phased approach aims to mitigate this risk by generating evidence in the early stages of the Study that will support the successful implementation.

43 The Study is a complex project involving several agencies, stakeholders and external providers. The time required to design and implement this Study has been affected by challenges presented by COVID-19 and the significant health system reform. The reform has led to involvement of multiple agencies, reset of roles and responsibilities, governance, priorities and budgets which have all impacted on the timelines to-date. These changes are highly constructive but have had an impact on lead-in times for collaboration and consultation, which is vital for a successful roll out.

Next Steps

44 Discussions will continue with Study partners to ensure the methodology is responsive and appropriately designed to secure participation of Māori, Pacific Peoples and other priority groups.

45 The focus will be on implementation of Phase 2 prior to winter 2023.

46 You will continue to receive weekly updates on the Study from the Deputy Director-General-Public Health Agency. Additional reports or updates are available on request.

Recommendations

We recommend you:

a) **Note** the phased design and implementation approach outlined for the COVID-19 Infection Prevalence and Seroprevalence Surveys (Study). **Noted**

b) **Note** the opportunities, risks and mitigations identified for the Study. **Noted**

c) **Note** ongoing consultation and collaboration with partner agencies, key stakeholders and external experts and providers. **Noted**

Dr Andrew Old
Deputy Director-General
Public Health Agency | Te Pou Hauora Tūmantanui
Manatū Hauora
Date: 15 November 2022

Hon Dr Ayesha Verrall
Minister for COVID-19 Response
Date: 16/11/22

MANATŪ HAUORA
MINISTRY OF HEALTH

Memo

Setting the future direction for the Prevalence Surveys

Date:	20 December 2022
To:	Dr Andrew Old, Deputy Director-General, Te Pou Hauora Tūmatanui | Public Health Agency
Copy to:	Nigel Chee, Deputy Chief Executive, Systems, Strategy and Transformation, Te Aka Whai Ora | Māori Health Authority
From:	Graham Cameron, Lead Chief Advisor, Hauora Māori, Te Pou Hauora Tūmatanui | Public Health Agency (Chair, on behalf of COVID-19 Prevalence Surveys Steering Group)
For your:	Decision

Purpose of report

1. This memo seeks your approval to explore an adjustment of the previously agreed direction and scope for the COVID-19 Infection Prevalence and Seroprevalence Surveys.[1]

2. Contingencies and operational consequences, while important, are not in scope of this paper, and will be explored in greater detail in a business case, once a change in direction has been approved.

    a. The form that the survey(s) will take and how they will be carried out – for example, whether a bespoke infectious disease survey will be established, or existing sentinel systems will be expanded to fill data gaps – is then left for the subsequent discussion and development.

Background and context

3. As part of the COVID-19 Surveillance Strategy it was agreed that Manatū Hauora, the Ministry of Health (the Ministry) would carry out COVID-19 Infection and Seroprevalence Surveys, outlined in 'Ministry of Health COVID-19 Surveillance Plan Overview' [refer to HR20220545, signed 8 April 2022].

[1] Noting that the term 'serosurveillance' refers to estimating immunity in a population by testing antibodies against infectious diseases. It complements surveillance, notification of cases, and immunisation coverage data. Serosurveillance can be done in different populations, and often utilises opportunistic blood donor samples, pregnancy screening samples, clinical samples collected during the course of care, or in a selected random sample of the target population.

4. An 'Update on COVID-19 Infection Prevalence and Seroprevalence Surveys' [refer HR20221586, signed 11 November] was provided on the progress of the surveys to date and outlined a high-level timeline for the rollout of a phased approach. A key next step outlined in this paper, was the need to engage more fully in discussion with key project partners, which has resulted in the standing up of a project Steering Group.
5. The COVID-19 Infection and Seroprevalence Survey Steering Group, comprised of cross-agency representatives and technical experts, met on 23 November 2022 for an inaugural meeting to guide development of the survey and enabling capabilities.
6. This first meeting focused on reviewing the priority and approach for the surveys, along with the proposed role for the Steering Group.
7. The outcome of the meeting was a request for further consideration and advice regarding the value of carrying out the surveys at this point in the pandemic, as the COVID-19 environment has significantly changed.
8. This paper provides:
    a. the shared view of Te Aka Whai Ora – the Māori Health Authority, Public Health Agency (PHA), external technical experts, (collectively forming the Steering Group) on a revised way forward
        i. a summary was presented at the COVID-19 Technical Advisory Group on 2 December on the value and costs of infection and/or seroprevalence surveys.

Summary of meeting

9. A workshop was held on 6 December 2022 and the following attendees were present: Te Aka Whai Ora (Kadin Latham), PHA (Gill Hall, Fiona Callaghan), external technical expert advisors (immunology, biostatistics, public health medicine and epidemiology) and an independent Chair (Daniel Hirst, Te Whatu Ora) facilitated the meeting.
10. The meeting discussed:
    a. brief outline of the COVID-19 Infection Prevalence and Seroprevalence survey
    b. an integrated perspective on the opportunities and challenges of proceeding with the COVID-19 Prevalence survey (input from external advisors, COVID-19 Technical Advisory Group and PHA) – see **appendix 1**
    c. identification of the possible 'go-forward' options for this workstream
    d. alignment of a preferred option and justification for the value of the way forward
    e. key considerations for successful delivery and governance were raised, including an emphasis on ensuring equity.
11. The workstream and balance of this paper refers to a designed COVID-19 Infection Prevalence and Seroprevalence survey and the platform which enables it. Here, the *platform(s)* is the operational system and includes the overarching research design, digital solution, laboratory testing and data analysis and sharing, for both the infection and seroprevalence survey(s).

12. In post-workshop discussions, the Steering Group noted several additional points.

    a. the over-arching goal of the surveys is to improve the surveillance of notifiable diseases including, but not limited to, COVID-19 and other influenza-like-illness (ILI). The surveys will fill data gaps related to those diseases that pose the greatest threat to Aotearoa New Zealand's health, in order to improve public health response.

    b. an infection survey would strengthen our existing ILI surveillance by:

        i. gaining a representative surveillance sample for ILI (e.g., the highest risk populations in South Auckland are not currently included in sentinel ILI surveillance)

        ii. integrating COVID-19 into ILI surveillance efficiently

        iii. creating an agile surveillance system that can be quickly expanded to other respiratory diseases (e.g., via multiplex testing) and pivot to respond to new pandemic threats (e.g., by increasing the frequency of testing).

    c. the goal of the serosurveys was to measures the level of immunity or 'protection' in the population for diseases that pose the most risk to New Zealanders and where the level of protection is unknown (e.g., COVID-19, measles, polio, or others). The choice of target disease for the serosurvey would be determined by a process of consultation with a range of stakeholders. The details of this process are yet to be determined and are outside the scope of this document.

13. Additionally, in post-workshop discussions, the Steering Group stressed the importance of considering how infection and seroprevalence surveys fit in with existing surveys of other infectious diseases, such as WellKiwis (https://www.wellkiwis.co.nz/) or Flulab (https://www.nzdoctor.co.nz/article/undoctored/university-auckland-leads-project-combat-rsv-flu-applying-covid-19-lessons). A new study should aim to fill existing data gaps.

    a. Further discussion emphasised the beneficial difference between time- and population-bound studies, and the increased utility of ongoing national, population-scale surveillance.

Options analysis

The group identified 3 possible options for consideration:

- Option 1: **Stop now:** cease work on the current COVID-19 surveys and appropriately decommission any work underway by project partners
- Option 2: **Continue with COVID-19 focus:** continue building targeted platform to roll out COVID-19 Infection and Seroprevalence Surveys. Due to design requirements, it would likely be delivered ~6 months from any decision to proceed
- Option 3: **Reset focus to carry out infection and serosurveillance for multiple pathogens, establishing a comprehensive, multipurpose platform:** with a view to roll out surveys in 2023. This may include examples such as:
    - integration of ILI, COVID-19, and other respiratory surveillance

- and/or a serosurvey to estimate seroprevalence of measles and other vaccine preventable diseases
- enable the platform to be agile to estimate prevalence for emerging infectious diseases with epidemic potential (e.g., avian influenza) and outbreaks of novel diseases (e.g., new variants of COVID-19).

Option 1: Stop now (not preferred)

14. Survey roll-out would be discontinued. The incomplete platform build would shift to close-out activities and the project team would shift to finalise work including documenting lessons learned.

15. The group agreed that the (partially built) platform has value as a surveillance tool for infectious disease and did not support an option that saw this capability discontinued.

Option 2: Continue with COVID-19 focus (not preferred)

16. Survey and platform design, build and implementation continue as planned, but with a sole focus on COVID-19.

17. The group agreed that both COVID-19 seroprevalence and incidence studies were unlikely to be useful in changing approach to the COVID-19 response in the context of a scaled back governmental response to COVID-19, with fewer public health 'levers' available. This option was not supported. Other issues considered included:

    a. It is not possible to accurately measure the immune protection that has been built up in the national population over 2022. Given that infection-specific antibodies wane over an approximately 3-month period, and given that the first seroprevalence survey would not be able to be operationalised until at least early 2023, it is not possible to capture the cumulative immune protection of Aotearoa.

    b. the relatively low underlying incidence of COVID means that a survey would require a large sample size with high response rates, preferably sustained over an extended period of time. This would involve significant expense, for potentially minimal benefit, given the public health levers applicable at this point in the pandemic

Option 3: Reset focus to a comprehensive platform (preferred)

18. The scope of the survey capability shifts and expands to one which would enable a more adaptable national surveillance of infectious diseases.

19. The platform, once established, would be a robust, multipurpose surveillance tool that would enable rapid surveying of priority pathogen/s, including the opportunity for multiplex testing.

    a. This platform would be designed and implemented to support equitable population sampling, participation, and operational delivery.

20. The group agreed that a sustainable, multipurpose tool would have value as component of the Public Health Surveillance Strategy and overall pandemic preparedness.

21. **The group agreed on option 3 being the preferred way forward.**

Considerations for successful delivery:

22. The 6 December workshop identified key topics for further consideration:
    a. Option 3 relies upon a **co-design and co-governed** approach
    b. An early priority for decision-makers will be to ensure alignment on project scope, approach, funding and pace.
23. The platform, once established, will require **stress-testing** before being scaled up to a national level. The focus of any stress-test will be jointly agreed.
24. Once built and tested, future decision(s) will need to be made regarding whether the platform will be used as a reactive tool during pandemic/endemic outbreaks, or as a more frequent, or ongoing proactive surveillance tool.
25. The group noted that '*survey*' implies a time-bound study whereas the intended redirection of this workstream is towards a '*surveillance*' tool/capability, which entails an ongoing effort that informs gaps in knowledge and public health response.
26. The platform, as a surveillance tool, provides a tangible initiative for the health system partners to put **reforms into action.**

Next steps:

27. Refresh and implement the project communications plan to reflect agreed direction and/or change in focus of this workstream.
28. Stand-up a joint project and broader governance model to establish a revised high-level scope, agreed funding, priorities and pace for any next stage of work, by late February 2023.
29. Ensure this workstream is properly integrated with a National Public Health Surveillance Strategy.
30. Once the above is agreed, establish an agreed business case for the project by ~April 2023.
    a. Development of the business case will include engagement with Australian health surveillance colleagues and the identification of data gaps, in collaboration with partners including ESR (Institute of Environmental Science and Research).

Recommendations

It is recommended that you:

1.	approve	the cessation of work on the COVID-19 Infection Prevalence and Seroprevalence Survey (in its current format)	Yes/No
2.	approve	approve option 3 as directionally correct, conditional on approval of a next stage business case (~April 2023)	Yes/No
3.	approve	agree (with Te Aka Whai Ora) to mobilise a joint project team and governance environment which would prioritise a high-level project plan and business case for the redirected surveillance platform	Yes/No
4.	note	continued viability of option 3 is contingent on re-confirmation of funding	Noted
5.	note	the project team will refresh the project stakeholder and communications plan to ensure any revised way forward is communicated effectively	Noted

Signature Date:19 December 2022

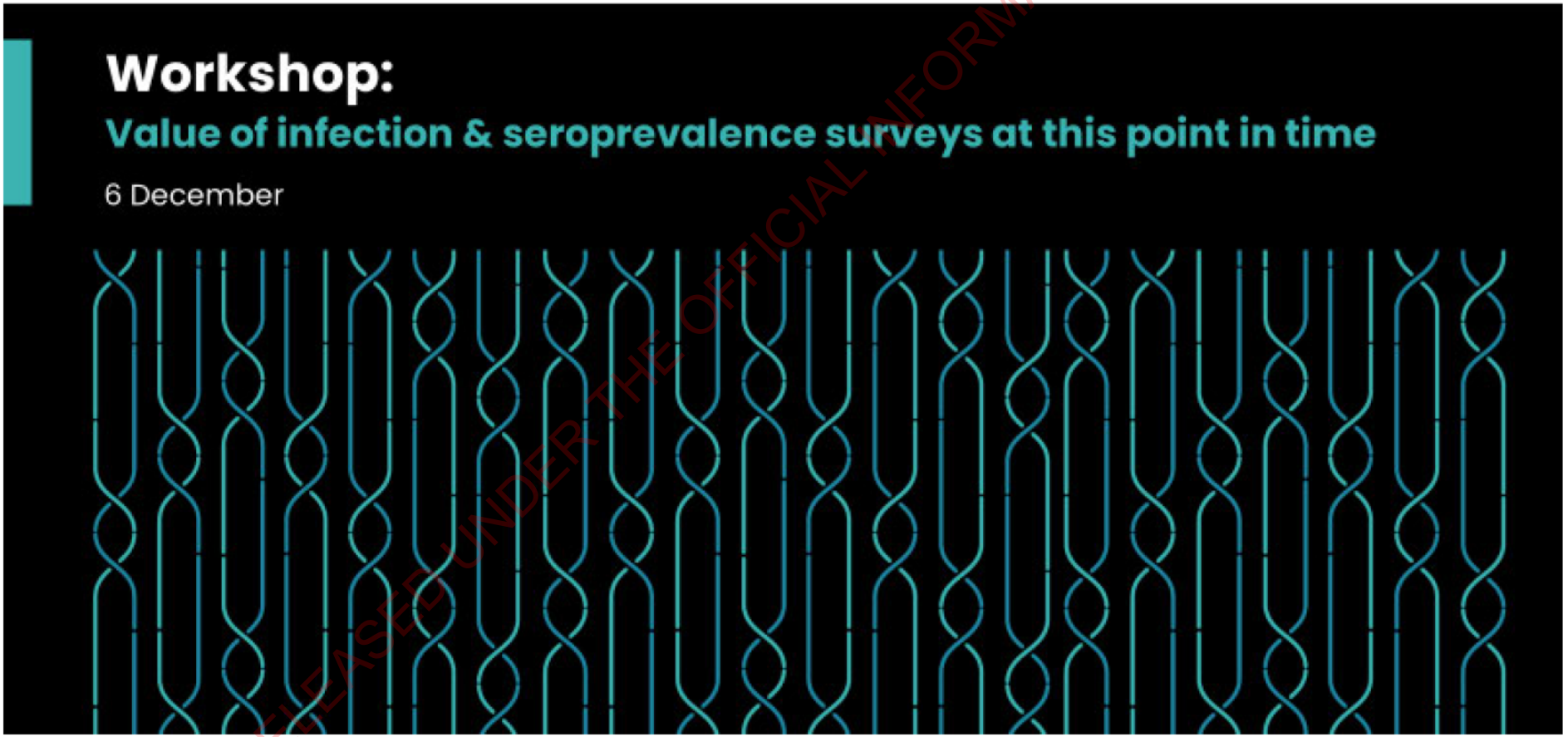
Graham Cameron
Lead Chief Advisor, Hauora Māori
Te Pou Hauora Tūmatanui | Public Health Agency
On behalf of the Steering Group

Signature _____ Date: 22 December 2022

Dr Andrew Old
Deputy Director-General
Te Pou Hauora Tūmatanui | Public Health Agency

Appendix 1

Te Kāwanatanga o Aotearoa
New Zealand Government



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Proposed agenda

Will this allow for alignment on next steps? (What will our next SG paper say?)

1. Karakia, open & welcome
2. Session objective - Dan Hirst
3. The purpose of the survey/s & progress to date – Gill Hall
4. Outline PHA perspective on Opportunities & Challenges- Fiona Callaghan
5. Agree next steps
6. Close & karakia

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Original Intent of Surveys - recap

Purpose:

- Infection Prevalence: estimate of point prevalence and period prevalence for COVID-19 infection using RT-PCR testing in random population samples, and
- Seroprevalence: estimate the percentage of the population with antibodies to SARS-CoV-2 which will indicate population level immunity to COVID-19 infection,

Surveys proposed to help us better understand:

a. how many people currently have COVID-19 over time and by ethnicity, including those without symptoms,
b. who has antibodies to SARS-CoV-2 (from previous infection and/or vaccination),
c. the impact of any previous reported or unknown/unreported infections,
d. contribute to identification of the SARS -CoV-2 variants in the community over time.

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Platform – progress to date

- Digitally enabled using: COVID-19 Population Identification & Registration (CPIR) & CICS (COVID immunisation communication support)
- Assisted Channel using CICS for those unable to access via digital methods
- Two national lab providers (selected through open tender) perform specimen collection and analyses
- Data sharing and linkage back to PHA & Te Aka Whai Ora – insights generated and disseminated

Active Public Health Surveillance Platform

4

Random Population Sample (CPIR) – ISK/PHA & HNZ
Three Frames – General, Māori, Pacific People

Invitation & Enrolment (CPIR) – ISK/PHA & HNZ
Informed Consent, Ethnicity, Symptoms

LABS run Bookings and Locations to Collect Specimens using:
Lab collection centre, Self-collection, Health provider collection

LABS Analyses
Results transfer to surveillance database

Data sharing and analyses – ISK & Partners
Interpretation and publication

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Carrying out surveys in the next 6 months

Does this look correct? Any critical challenges missing?

Challenges	So what
• Ensuring **equity** in design and response rate	• What can be done to better this? • What can be done with the data to ensure an equitable response/action?
• Significant resource and **financial** commitment to develop a robust study design	• Is this commitment going to be outweighed by the value of the study data and the lives this information could save?
• **Timing**: The earliest go live would likely be 4-6 months from now	• Will this study still be worth doing with this timeline?
• Unable to estimate prevalence accurately when **incidence is low**	• Would this impact the value of using the platform for other CD's with low incidence?
• Antibody measures of seroprevalence are detectable for a finite time, e.g., 3 -6 months	• Cumulative levels of exposure may not be able to be estimated – is finite 'protection' adequate?

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What could the COVID -19 landscape look like in the next 6 -12 months?

- Potential trends in the next 6-12 months:
  - Move from mandates to guidance (**isolation mandates** removed)
  - Transmission increases, at least in short-term
  - Non-endemic, **unpredictability and higher disease burden** remains (e.g., compared to flu)
  - **Vaccination** and variant-specific vaccines, remain as 'lever'. ***Data required for decision makers.***
  - **Multiple variants** co-circulating
  - **Higher levels baseline transmission**, fewer waves (?)
  - Higher risk of **reinfection**
  - Focus moves to Long COVID
  - Ongoing unpredictability and (small) chance of a **new variant** that causes significant cases/disease burden
  - **Pandemic preparedness**, next epidemic
- Surveillance:
  - No/low **RATs**; no/limited epicurve
  - Surveillance **similar to ILI**
  - Reliance on **laboratory data**, hospitals, GP clinics
  - More **PCR** and rapid POC PCR
  - **WGS**, but less with greater reliance on rapid/POC PCR
  - **Wastewater** for infection trends (quantitation), variants

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Carrying out surveys in the next 6 months

Any critical opportunities missing?

7

Opportunities	So what
• The **infrastructure** of infection surveys enables surveys to be quickly stood up for **other infectious disease** epidemics in future, e.g., bird flu	• This will be a huge advantage **in pandemic preparedness. Particularly valuable early on in a new outbreak**
• Calibration of **wastewater** results to stand in for an infection **epidemic curve**, and Reff estimate	• Enabling accurate case rate monitoring in the absence of self-reported testing
• Case rate trends for service planning, health system burden etc.	• Allow for public health measure decision-making and surge planning
• Insights into prevalence and load in **under-served communities, usually also provide early warning**	• Allows for better targeted support to these communities
• Measure of level of **protection and hybrid immunity** in the community	• Assess the 'protection' levels of the population to guide policy, **immunisation** cadence and guidance, behavioural advice and preparedness
• Allow for the **evaluation** of the effectiveness of interventions, public health advice, immunisation, pre- and post-exposure prophylaxis/therapeutics etc	• Data would inform which measures are most effective, and where. This would hugely benefit the public health system in targeting resource
• **Timing** would align with winter preparedness and monitoring of other CD's and respiratory illnesses	• Preparedness and winter planning
• Having an accurate estimation of prevalence would enable better modelling of **Long COVID** prevalence in future	• This information will enable adequate support, resource delegation and research into Long COVID care
• Data would improve **modelling** predictions	• Improve preparedness for waves and winter pressure on healthcare system

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Considerations:

- How does it change our response?
  - To COVID-19
  - As a surveillance tool
- Would this tool be valuable if started in 4 -6 months? If not for COVID-19 surveillance, then should we start working now to adapt this platform to the active surveillance of other CD's
  - Triplex testing for Winter?
  - Funding
- Significant proportion of the work and planning has already been done for COVID -19 Infection and Seroprevalence, contributing significantly into the adaptable platform as a whole
- Huge opportunity for PHA and Te Aka Whai Ora to create a partnership on a project with significant value
  - Co-ownership of the platform
  - Data sharing

So, which way forward?

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Te Kāwanatanga o Aotearoa
New Zealand Government

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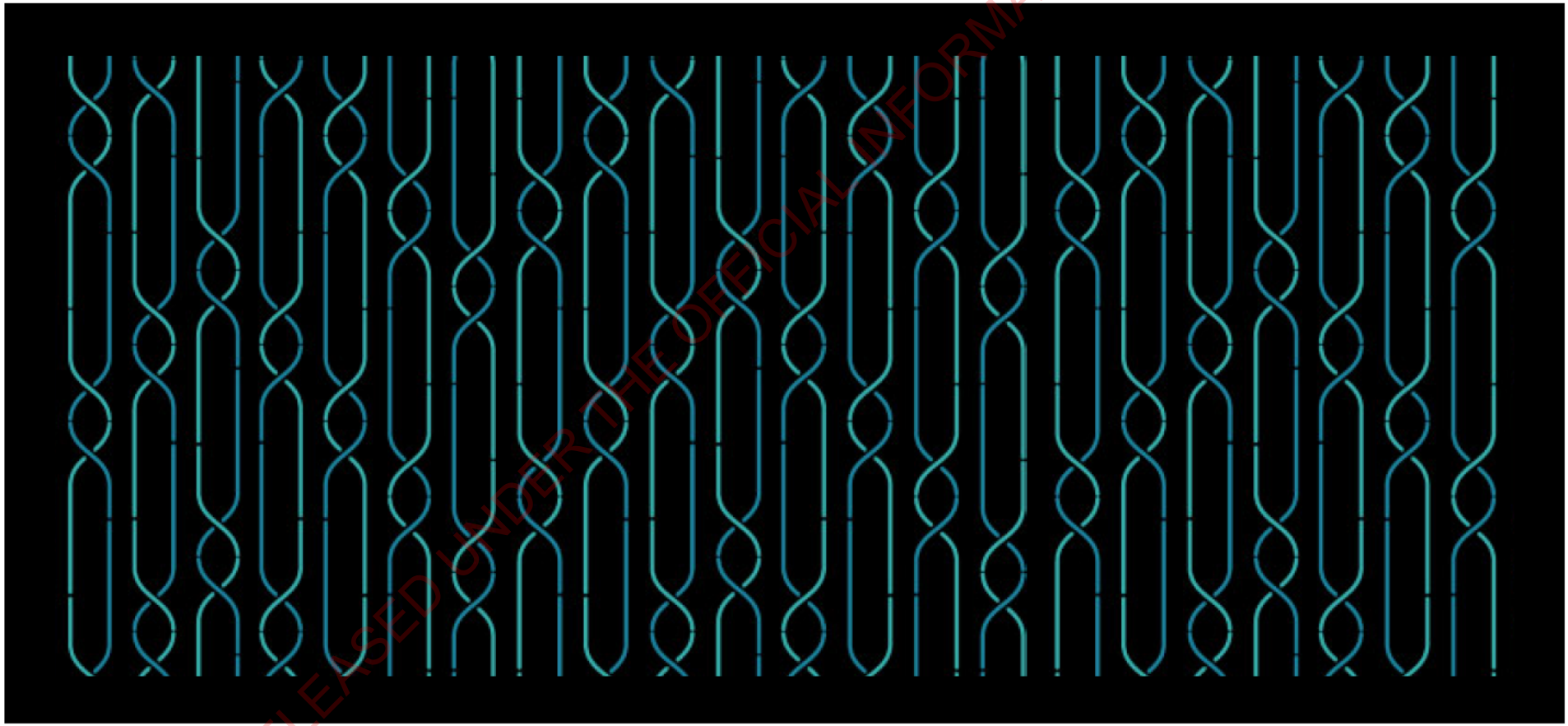

MINISTRY OF HEALTH
MANATŪ HAUORA

Briefing

Setting the Future Direction of the Prevalence Surveys

Date due to MO:	17 February 2023	**Action required by:**	N/A
Security level:	IN CONFIDENCE	**Health Report number:**	H2023019508
To:	Hon Dr Ayesha Verrall, Minister of Health		

Contact for telephone discussion

Name	Position	Telephone
Dr Andrew Old	Deputy-Director General, Public Health Agency | Te Pou Hauora Tūmatanui	s 9(2)(a)

Minister's office to complete:

☑ Approved	☐ Decline	☐ Noted
☐ Needs change	☐ Seen	☐ Overtaken by events
☐ See Minister's Notes	☐ Withdrawn	

Comment:

Setting the Future Direction of the Prevalence Surveys

Security level:	IN CONFIDENCE	**Date:**	17 February 2023
To:	Hon Dr Ayesha Verrall, Minister of Health		

Purpose of report

1. This briefing provides an update on the direction and scope for the COVID-19-focused Infection Prevalence and Seroprevalence Surveys.[1] We seek your approval on this change in direction. This report discloses all relevant information.

Summary

2. Aotearoa's response to COVID-19 has changed, due in part, to high rates of vaccination and prior infection. The country has now passed the emergency stage (with significantly reduced legislation and mandates) of the COVID-19 response.

3. This change in the COVID-19 environment has made infection and seroprevalence surveys, at this point in the response, less valuable.

4. Manatū Hauora, Ministry of Health (the Ministry) in partnership with Te Aka Whai Ora (Māori Health Authority) agree that a shift beyond COVID-19 to build a multipurpose surveillance tool is now recommended.

5. This shift, if agreed, will enable improved monitoring of communicable diseases by filling gaps in the current surveillance system[2] and will result in a broadening of scope for this project, from single-use COVID-19 focused prevalence surveys to a sustainable and multipurpose communicable disease surveillance tool.

6. Future surveillance tool will aim to improve data gaps for those communicable diseases that pose significant risk to Aotearoa, such as measles or COVID-19. It could also be used to provide early data on new emergent threats in the future, such as the potential risk from avian influenza or a variant of COVID-19 with substantially increased severity. As such, it can form part of pandemic/epidemic preparedness more generally.

[1] Sero-surveillance refers to estimating immunity in a population by testing antibodies against infectious diseases. It complements broader surveillance activities, notification of cases, and immunisation coverage data.
[2] This 'surveillance tool' includes operational capabilities such as: the overarching research design, digital solutions, laboratory testing, data management practices.

Recommendations

We recommend you:

a) **Approve** the shift in focus for the infection and seroprevalence surveys from COVID-19 *only*, to a tool which enables the surveying of a broader range of communicable diseases (as agreed). **Yes/No**

b) **Note** an update can be expected in Q2 2023, upon the completion of a business case, to be jointly agreed with Te Aka Whai Ora and informed by Te Whatu Ora and other key stakeholders. **Noted**

Dr Andrew Old

Deputy Director-General

Te Pou Hauora Tūmatanui | Public Health Agency

Date: 17 February 2023

Hon Dr Ayesha Verrall

Minister of Health

Date: 21/2/23

Setting the Future Direction of the Prevalence Surveys

Context

1. As part of the COVID-19 Surveillance Strategy, it was agreed that the Ministry would carry out COVID-19 Infection and Seroprevalence Surveys, outlined in 'Ministry of Health COVID-19 Surveillance Plan Overview' [refer to HR20220545, signed 8 April 2022].

2. An 'Update on COVID-19 Infection Prevalence and Seroprevalence Surveys,' was provided on the progress of the surveys and outlined a high-level timeline for the rollout of a phased approach [refer HR20221586, signed 11 November]. A key next step outlined in this paper, was the need to engage more fully in discussion with key project partners, which has resulted in the standing up of a project Steering Group (appendix 1).

3. The Steering Group, comprised of representatives from Te Aka Whai Ora, Public Health Agency (PHA) and external technical experts, were supportive of the need for a national surveillance tool, but strongly recommended expanding the focus from COVID-19 to a range of communicable diseases.

A directional shift for the prevalence surveys

Background and original purpose

4. The purpose of a COVID-19 infection and seroprevalence survey is to help us understand:

    a. **How many people are infected over time**, with or without symptoms. In addition, the survey can potentially be used to gain infection rates by demographic characteristics including ethnicity, age, and region. Because a person tests positive for COVID-19 for a short period of time, this kind of surveillance must be performed routinely and frequently (e.g., weekly) to generate data on the infection rates over time.

    b. **How many people have been exposed either through vaccination or prior infection**, by detecting a person's antibodies to SARS-CoV-2. Due to the fact that antibodies can only be detected reliably for approximately 3 months following infection or vaccination, this kind of surveillance needs to be performed quarterly, and evaluated cumulatively over time, to estimate the total number of people with prior exposure.

        i. It is important to note that a seroprevalence tool *cannot* be used to estimate how many people currently have protection from COVID-19. This is because, at this time, antibody levels cannot be interpreted in terms of clinical levels of protection (i.e., there remains no 'correlate of protection' for SARS-CoV-2). In addition, antibody levels are not the only component of the immune system that can provide protection.

that's incorrect use of exposed. = seropositive

5. The original COVID-19 infection and seroprevalence surveys sought to create a rapid and pro-active survey, which would inform the wider public health response. To be effective, particularly for seroprevalence, any survey would need to have begun *earlier* in the pandemic, to have time to gain 'snapshots' of the levels of recent infection in the population and to inform further the immunisation strategy.

6. Standing up the surveys took longer than first anticipated. A reset of the health authorising environment, new data, and technology practices, alongside the breadth of stakeholders required to inform a robust and ethical design, all played a role in this delay. In addition, some infrastructure (now possible) that would help to facilitate the surveys was not available until later in the pandemic (e.g., e-ordering of laboratory testing).

Changing COVID-19 landscape and reduced utility of an infection survey

7. A seroprevalence survey can identify people exposed to the virus or the vaccine in the previous 3-6 months, approximately. However, with the vast majority of first infections likely having occurred during 2022, the projected **sero-survey (then expected to launch Q2 2023) would likely *not* be able to reliably estimate the number of people in New Zealand with prior infection.**

8. There is now limited potential to use the results of a COVID-19-focused infection and seroprevalence survey to adapt and develop the Government's response to the pandemic. The country has now also passed the emergency stage (significantly reduced legislation and mandates) of the COVID-19 response.

    a. There are very few valid public health levers available at this stage of the pandemic, as we move to align the response to COVID-19 with that of other infectious disease burdens, such as influenza. Therefore, **it is unclear what public health actions the data from either an infection or sero-survey might inform,** over and above the current surveillance tools available.

    b. The current strategy for COVID-19 is to mitigate any impact and protect the health of New Zealanders. In turn, this informs the surveillance strategy, which enables action to protect the health of citizens. This contrasts with earlier phases of the pandemic when the goal was first to *eliminate* (when vaccines were not available), and then *reduce* overall levels of transmission (as vaccines were rolled out, and to protect the healthcare system from becoming overwhelmed) when monitoring the levels of infection played a larger role in informing the response to COVID-19. The current goal of surveillance is **to monitor the impact of COVID-19 on the health of New Zealanders and the healthcare system**, rather than estimating levels of transmission in the community per se.

    c. In this context, monitoring clinical cases and hospitalisations are of primary importance. In turn, **levels of infection and reported cases are useful to monitor *only* to the extent that they correlate to outcomes, such as hospitalisations**.

        i. While case ascertainment has declined over time (fewer infections are tested and reported as cases) reported cases remain a useful part of the surveillance

for COVID-19, continuing to correlate in terms of trends with hospitalisations, with a lead time of a few days.

d. Any new surveillance tool must be evaluated in the context of the other surveillance systems currently used and fill any potential knowledge gaps. **Other surveillance measures *are* available to monitor trends in levels of infection in the community.** In particular:

   i. Wastewater quantitation monitors levels of virus circulating in the community and correlates with overall levels of infection and transmission. Wastewater also provides some lead time for the impact on hospitalisations. Similarly, trends in test positivity, can indicate increases or decreases in infection rates.

   ii. Influenza like illness (ILI) surveillance such as Flutracker and calls to Healthline, also can provide information on trends of respiratory cases in the community, whether due to COVID-19 or another respiratory disease.

e. Pragmatically, as case numbers decline, it becomes more difficult to estimate weekly prevalence using a randomized infection survey. Even a large weekly sample, such as 1000 people every week with prevalence of 0.5-1%, would likely mean only a small number of positive tests (~5-10) would be collected each week. A response rate of less than 100% would reduce these numbers further. This would yield a small amount of data on COVID-19 and the estimate of prevalence would be highly uncertain.

9. In parallel, the COVID-19 landscape has changed rapidly as the virus enters an endemic state. Accordingly, the pandemic strategy has moved from reducing overall transmission in the community to protecting the most vulnerable New Zealanders from severe disease.

   a. Vaccination rates are very high, particularly in the elderly and those with underlying health conditions, who are most vulnerable to severe disease. Seroprevalence data is unlikely to inform immunisation strategy decisions at this stage of the pandemic. Other jurisdictions have moved or are moving to long-term vaccination strategies such as annual or biannual vaccination drives, or recommendations to stay 'up-to-date' by receiving a dose within a previous interval. Levels of prior infection would not likely inform either of these vaccination strategies.

   b. As levels of immunity have increased in the community, from prior infection and vaccination, the relationship between infection and severe outcomes (such as hospitalisation and death) has changed. This also means that, compared to earlier in the pandemic response, monitoring infection levels are of lesser importance compared to monitoring clinical cases and hospitalisations.

10. From an equity perspective, the existing data and trends have shown that the burden of COVID-19 is significant for Māori and Pacific peoples and that Māori are experiencing approximately double the death rate for COVID-19 compared to patients of European ethnicity, after adjusting for a range of factors including age and vaccination status. Robust data enabling the estimation of vaccination coverage by ethnicity shows vaccination rates are lower in some regions for Māori. Therefore, there is sufficient

surveillance data capturing the impact of COVID-19 on Māori to take actions to address inequities, and public health action should be prioritised over further surveillance.

Recommended way forward

11. The Steering Group concluded there was diminished value of carrying out COVID-19-focused surveys at this point in the pandemic and discussed alternate ways forward.[3]

12. As a result, the Steering Group advised that broadening the scope of any tool, to make it *adaptable* for any communicable disease, will help to strengthen the broader surveillance landscape, enhance existing ability, and fill any gaps in infectious disease surveillance more generally.

    a. This would be a multipurpose surveillance tool that would enable rapid surveying of priority pathogen/s, including the opportunity for multiplex testing.

    b. The group noted that '*survey*' implies a time-bound study whereas the intended redirection of this workstream is towards a '*surveillance*' tool/capability, which entails an ongoing effort that informs gaps in knowledge and public health response.

    c. The group agreed that a sustainable, multipurpose tool would have significant value as a component of the Public Health Surveillance Strategy and overall future pandemic preparedness.

13. The shift will safeguard the future value of this tool and ensure utilisation of any progress made to date.

14. The early rationale for broadening the scope includes:

    a. The platform will enable better understanding of the burden of *all winter respiratory diseases*, through annual surveillance. This information provides an appropriate context to intervene positively towards COVID-19 management for Māori.

    b. There is robust data on hospitalised cases for COVID-19 and other ILI, but less reliable data on symptomatic disease burden is available in the community and in the outpatient setting. This is an important component of estimating burden for any disease and can serve as a predictor for hospitalisations. A surveillance or survey tool focussed on the community may help to address this gap.

    c. Correlation of community wastewater levels with more robust community case numbers (establishing accurate, reliable baseline) would provide a more accurate estimate of the number of cases. This ability would also encourage and support the use of wastewater monitoring for other communicable disease pathogens in an ongoing surveillance strategy nationwide and utilises the infrastructure developed during the COVID-19 pandemic.

[3] The option to cease work on the surveys was considered. However, this option was not preferred as a national surveillance tool will be fundamental to any Surveillance Strategy.

d. Included in the next-stage discovery phase, is the potential to expand and enhance an existing surveillance tool to avoid duplication of efforts and strengthen existing coverage, instead of creating a completely new tool.

e. Benefits of broadening the scope and the potential to leverage any current ability will be tested and validated by a business case due Q2, 2023.

Strategic fit

15. Once established, this new or enhanced multipurpose tool will form a foundational element of the National Public Health Surveillance Strategy.[4]

    a. By creating an agile surveillance tool that can be quickly adapted to other communicable diseases (e.g., via multiplex testing), this tool will have the ability to pivot to respond to new pandemic threats (e.g., by increasing the frequency of testing).

16. The design of this tool and any new surveys will take into consideration existing surveillance, to ensure any gaps are filled and there is no duplication of effort.

Equity

17. A co-design and co-governance approach with Te Aka Whai Ora and key internal and external stakeholders, will provide new data and improve existing insights, to inform better decision making for at-risk populations.

    a. Future surveys will be designed and implemented in partnership with Te Aka Whai Ora, to ensure equitable outcomes with at-risk populations at the centre.

18. The new surveillance tool will be implemented to support equitable population sampling, participation, and operational delivery. The data and insights collected will be used to inform policy and operationalise equitable public health responses.

Business case considerations

19. The business case will consider alignment of agency roles, responsibilities, and sources of funding, to ensure any new ways of working continue to endorse and embed the outcomes sought by the health reforms.

20. The choice of communicable disease to be targeted by any individual survey would be determined by a process of consultation with agreed stakeholders and through surveillance governance arrangements, which are still to be confirmed.

21. The design of the surveillance tool, and any operational aspects, will be explored within the business case. For example, whether a bespoke infectious disease survey will be established, or existing sentinel systems will be expanded to fill data gaps.

Next steps

22. Following your approval, we will:

[4] The National Surveillance Strategy is currently being scoped.

a. Establish a joint health agency business case in partnership with Te Aka Whai Ora and informed by Te Whatu Ora and other key stakeholders by Q2, 2023.

b. Provide a further briefing to you following the outcome of the business case in Q2, 2023.

ENDS

Appendix 1

Steering Group Membership

Graham Cameron (Chair), Chief Advisor, Hauora Māori, Public Health Agency

Dave Henderson, General Manager, Intelligence, Surveillance and Knowledge

Dr Corina Grey, Chief Clinical Advisor, Pacific Health, Public Health Agency

Dr Fiona Callaghan, Lead Science Advisor, Intelligence, Surveillance and Knowledge, Public Health Agency

Dr Gerard Sonder, Pacific Perspectives, Public Health Physician and Epidemiologist

Dr Ian Town, Chief Science Advisor, Ministry of Health

Dr Rawiri Jansen, Chief Medical Officer, Te Aka Whai Ora - Māori Health Authority

Kadin Latham, Lead for Outcome and Knowledge Systems, Te Aka Whai Ora - Māori Health Authority

John McCarthy, Group Leader, Health Intelligence and Surveillance, ESR

Professor Thomas Lumley, Biostatistics, Auckland University

Note:

Member expertise also includes immunology.

Te Aka Whai Ora sought separate expert epidemiological and public health advice.