COVID-19 community deaths in two patients overseen by Community Supported Isolation and Quarantine (C-SIQ) in November 2021

INVESTIGATION REPORT

23 November 2021

INDEPENDENT PANEL MEMBERS

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Dr Penny Andrew, Clinical Lead of Quality, and Director of the Institute for Innovation and Improvement, Waitematā DHB

Dr Ramon Pink, Medical Officer of Health/Public Health Physician, Community and Public Health, Division of the Canterbury District Health Board

Selah Hart, CEO, Hāpai Te Hauora

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E tangi ana ki o taatou mate taaruuruu mate o te waa.

Ko koutou ngaa Ika aapiti ki ngaa mate o te tau ka huri.

E kore rawa raa koutou e maahea i ngaa whakaaro onte hunga kua mahue iho nei i a koutou.

Hoki atu raa koutou ki te kaakarauri okioki o Hinenui-te-poo.

Moe mai ra koutou te hunga whakaihu waka o te ao ora.

EXECUTIVE SUMMARY

The Community Supported Isolation and Quarantine System (C-SIQ) was established to meet the needs of a rapidly growing number of patients with COVID-19 and their whānau. Given the speed of change and the complexity of the system, it is remarkable that so much has gone well.

The review panel has investigated the first two community deaths, and has also reviewed the current C-SIQ system. The panel wishes to thank the C-SIQ teams who met with us and engaged with the review at short notice. Watching the moving parts "at the coalface" in real time was invaluable, as were the insights of those who are leading the response.
The panel acknowledges that changes to the C-SIQ systems are being introduced daily, informed by the issues that are arising. We are acutely aware that even in the few days of the review period, some of the recommendations we will make are becoming a reality. This report will serve to reinforce the changes.

The report documents a detailed investigation of the two patients who died, and provides specific findings in relation to those deaths. The panel considers that both deaths were potentially preventable. There were missed opportunities that contributed to a tragic outcome for two Maori men.

There are significant opportunities now to rapidly strengthen the capability, safety, equity and patient focus of the C-SIQ system and the care pathway overall. The panel has identified specific findings and made recommendations.

There are four key themes to our recommendations:

1. Rapid assessment of clinical safety, welfare needs and mental wellbeing should be the priority from the outset for C-SIQ. Operational protocols, support systems and staff skill mix should collectively prioritise making an initial urgent clinical assessment and determining those at patients and whānau at high risk. Decisions on a preferred pathway of care must be informed by that risk. Clinical support decision making tools should be embedded in the systems being used for screening of both inbound and outbound calls. The clinical software should have question sets that determine the severity of symptoms and lead to an appropriate disposition, with the ability to escalate to a higher level of response if necessary. Public health interview and investigation does not capture clinical risk, and re-prioritising timing of public health interview needs consideration.

2. Connectivity between all parts of the system is essential. Clinical, welfare and other information that informs risk should be visible by the whole system from a common source. Supporting IT systems must be rapidly made fit for purpose with a focus on assessing and meeting clinical and welfare risks and needs. Rigorous escalation pathways and increased clinical oversight are needed to enable intervention in deteriorating patients. Handover processes for key information need to be robust.

3. Equity and cultural safety must be integral to the redesign and improvement of C-SIQ. Standard operating procedures and the IT and other systems that support them must ensure Māori particularly are not further disadvantaged. Patients and whānau must be at the centre of and actively participate in the redesign and improvement of the system.

4. Clinical Governance should be established to ensure adequate reporting systems and rapid informed review of adverse events, along with ensuring clinically informed performance metrics are defined, monitored, audited and acted on. All participating agencies should be contributing and engaged in these governance processes.

There is a unique opportunity in a rapidly evolving model of care to embed positive change and ensure that the rest of New Zealand benefits from these learnings.

BACKGROUND

The re-emergence of COVID-19 in Auckland in August 2021 brought challenges to the existing systems and processes set up to manage patients who become infected. As case numbers rose rapidly in October, capacity at the managed isolation and quarantine MIQ facilities was exceeded, and options for community self-isolation became imperative and urgent.

Existing structures, organisations and care pathways were collectively brought together, harnessed and rapidly repurposed to provide assessment, decision making and clinical oversight of patients with COVID-19 and their whānau isolating in the community. The speed of change mandated by the rapid rise in cases cannot be over-emphasised, with consequences including confusion and delayed response.

Similarly the rapid increase in the number of patients requiring the service far exceeded planning and expectations. Capacity in the newly evolving C-SIQ system was initially overwhelmed. At the time of writing (11 November) the C-SIQ system was supporting 1,255 patients with Covid, and their whānau and close contacts (altogether 2,835 people in 885 households). At the beginning – only weeks ago - one participating organisation reported being asked to support only 50 families at the commencement of the programme.

Clinicians, administrators, public health teams and community organisations have all worked around the clock to stabilise and improve the system. The panel acknowledges this mahi and the commitment staff have had to the patient and community.

Changes are being made daily in all aspects of the C-SIQ programme. The review panel acknowledges that even in the few days of the review period, some of the recommendations we will make are already becoming a reality. This report will serve to reinforce these changes.

It is the panel's view that under these extraordinary circumstances it has been difficult for the system to ensure the necessary connectedness and to build personal and organisational relationships. Supporting systems such as IT have suffered from being unable to be either linked or effectively reconfigured to meet the priority needs.

Most importantly the system design has not developed with equity at its heart. The combination of lower vaccination rates in Māori and Pasifika, and the spread of COVID-19 in low socio-demographic and marginalised communities has meant that the burden of COVID-19 has fallen disproportionately on Māori and Pasifika communities. There is a risk that the current C-SIQ system could further magnify this inequity.

The report of a further death during the period of this review emphasises the urgency to embed improvements and avoid erosion of public confidence in the community isolation system.

FINDINGS FROM CASE REVIEWS

CASE A's - FINDINGS

1. There were significant complex clinical and personal factors that importantly raised Case A's risk, including living alone, and being unvaccinated.

2. The initial phone assessment by the public health team was prompt (<4 hours after swab result reported), but Case A's clinical background was not available to the interviewer to fully assess risk, due to an inability to access the regional electronic records in "Clinical Portal".

3. The template for the public health interview is not structured to give emphasis to clinical risk and safety. For example, there is no prompt about the risk linked to obesity, and no framework for assessing clinical acuity.

4. The public health interview and the supporting template are not intended as a clinical assessment, and are not undertaken by interviewers with clinical assessment skills. 'Red flags' (such as Case A unable to continue a short phone conversation due to severe pain), were not identified.

5. There was a five day delay in COVID Healthline making the first attempt at phone contact (to undertake the clinical assessment by a registered health professional) with the patient. The reasons for the delay were due to the volume of patients entering the pathway, multiple parties being involved in the process and the "allocation system" operating for calls at that time. This system was not the usual operating model for COVID Healthline, and became overloaded.

6. An appropriate escalation pathway to Manaaki Services was not followed when the patient did not answer contact calls from COVID Healthline. Initially the escalation pathway failed due to a spelling error (on 30/10), but subsequently the reasons for lack of escalation when the patient failed to respond to contact calls, remain unclear (on 31/10, 1, 2, and 3/11). At the time, referrals for Manaaki team input were made by email without any prioritisation or urgency, and the number of emails was overwhelming.

7. Case A's whānau were not contacted when Case A failed to respond to the attempts to contact him.

8. Written contact with Case A's last known GP was not made until 1/11 (eight days after the swab was reported positive).

CASE B – FINDINGS

1. The information about Case B's discharge against medical advice, and his clinical condition at discharge (including low oxygen saturations), was not available to the COVID Healthline team, either at the first clinical contact by the RN or subsequently. This was despite it being stated by the hospital team on the written referral form.

2. The referral system to C-SIQ did not provide the option for a clinical handover from the inpatient team.

3. The public health team were also unaware of the circumstances of the self–discharge, the patient's clinical wellbeing or the concerns of the inpatient clinicians.

4. The role of Dexamethasone in creating an artificial sense of patient wellbeing was not considered in the initial or follow-up clinical and non-clinical assessments

5. The patient received an oximeter at the hospital, and was provided with training in its use, but still had difficulty using it, and oximetry data was not able to be integrated into the assessment on 4/11.

6. The follow-up contact and assessment on 4/11 was undertaken by a non-clinical COVID Healthline staff member, and was escalated for urgent medical review, but due to software design issues at the time the system was backlogged and allocation for escalation did not occur prior to Case B's death.

FINDINGS FROM REVIEW OF C-SIQ SYSTEMS and PROCESSES

1. The initial patient phone contact following a positive swab in the community is from a delegated public health unit. The emphasis in the initial interview is on establishing key public health information, including contact tracing.

   This is not a clinical assessment, may not be undertaken by clinically trained staff, and is not supported by documentation that is structured to focus on clinical risk and immediate safety.

2. Essential clinical background and information that would inform a risk assessment and ongoing community follow-up contacts is currently not available to either the delegated public health unit, the COVID Healthline team, or the Manaaki team.

   This lack of information poses a high risk and impedes accurate assessment of patient safety to follow a community self-isolation pathway. Key information is readily available to northern region DHB-employed clinical staff through the regional patient Clinical Portal, but that is not accessible to others at present. Patient information held by general practitioners in their practice management systems is not accessible to others at present.

3. The current Northern Managed Facilities referral management protocol document does not contain a well developed and clear tool to assess safety, acuity, clinical risk and other risk factors around suitability to self-isolate including support on location.

   The panel is aware of the ongoing work on a clinical acuity assessment tool which has been reviewed and endorsed this week by the regional Clinical Technical Advisory Group. The panel considers it urgent that the tool be implemented.

4. The triggers for escalation are unclear and appear contradictory (eg: differences between the referral management and patient information documents in regard of oximetry readings).

5. Escalation pathways did not occur or function as planned, either for unclear reasons or due to software design issues. COVID Healthline escalate to Manaaki if a call is unanswered after three attempts. Manaaki are then responsible for activating a face-to-face assessment. For Case A from the period of 30th October to time of death at least three calls were made each day and each call was unanswered. This was likely due to capacity or availability / access 24/7 to this service. Escalation to the Manaaki team was via an email which was not stratified by risk or urgency of need. Whānau were not contacted when a patient failed to respond.

6. On receipt of the initial information when passed to COVID Healthline there is a discrepancy in which days are being referenced e.g. Day 1 when the COVID Healthline clinician will undertake the first assessment, could in fact be day 5 from when Public Health first entered the patient into their record. The timeline needs to be consistent and reflect the time entered into the pathway, and the time since swab/symptoms because this has clinical relevance regarding risk of deterioration.

7. There is an emphasis on supporting technology, (SMS, website-based information links, Doxy.me video conferencing, home oximetry) some of which is not in use

(Doxy.me) and which patients may find challenging or be unable to access (eg: no data plan or limited connectivity).

No second contact details for the patient are obtained to act as a "buddy" if contact cannot be made for whatever reason. Health Literacy is poor for some and an expectation that all patients are able to support self-care and assess their own clinical needs, cannot be assumed.

8. The format, level of language and expectation of understanding in the current "welcome pack" documents does not meet the needs of most patients. Emphasis in the pack needs to be on clear instructions on how to obtain clinical help. Co-design of new materials with consumers is suggested.

9. The choice to use the Border Clinical Management System (BCMS) software platform resulted in lack of familiarity to COVID Healthline staff, and loss of well-established "failsafe" features in the normal COVID Healthline platform. The COVID Healthline clinical decision software has been adapted for telephone consultation and the inability to use their familiar software (Odyssey) reduces the efficacy of the triage.

10. The COVID Healthline team normally use a clinical decision software called Odyssey. The Odyssey question set is used for in bound calls only and doesn't work with C-SIQ as its primarily used as an overall screening tool for Covid19 status for all calls. There is no clinical decision software in BCMS that looks to assess the severity of symptoms for patients with Covid19. The team have subsequently updated their scripts and using some of the questions from Odyssey in the screenings. The key risk is that the clinical decision software is not embedded into the BCMS system, and it should not be used for the call backs.

    The BCMS queue management system doesn't automatically transfer details across to the nurses call back queues, so this has to be manually reviewed and therefore poses a risk that call-backs could be missed.

11. BCMS does not record ethnicity or have culturally appropriate pathways to better address clinical risk factors. All care pathways should be explicitly designed in an equity framework.

12. There is an absence of connectivity between the organisations providing different care and assessment functions (public health units, COVID Healthline, DHB hospitals, the Manaaki team and primary care). This results in both lack of contact and duplication with no flow and sharing of information. Each agency is 'blind' to information in the other agencies systems. Key risk factors are not shared across agencies and the patients assume that this information has already been passed across and become confused by the lack of continuity of care. Case B for example was called by the clinician for assessment on the assumption the patient was self-isolating at home when he was in fact still an in-patient on the ward.

13. Primary care providers are not integrated into the early clinical assessment and care response to patients self isolating in the community. Specialist and multidisciplinary advice is not sought in the ongoing care of the patients. COVID Healthline are aware that many patients are not registered with a GP particularly in the lower socio-economic group.

14. There is a lack of engagement and integration of Māori health providers in the care pathway. For vulnerable groups such as Māori and Pasifika, COVID Healthline have found there is reluctance culturally, to accept help and certainly virtual support would not be the most effective way to provide advice and care during acute illness. Māori health providers who can deliver face to face support alongside other agencies, would provide a more holistic approach.

15. There is a lack of robust clinical governance supporting the C-SIQ system, including no clear processes for reporting and investigation of adverse events, quality systems improvement and quality assurance, consumer engagement and workforce oversight and education.

    Each organisation will have their own Clinical Governance framework but given the many providers engaged with this programme a more integrated framework would identity gaps and address emerging risks and trends more quickly.

16. It is unclear where the accountability and "line of sight" are for all patients being managed under the C-SIQ system. The overarching governance and reporting lines for the component organisations participating in C-SIQ is also unclear to the panel from the information provided.

17. Rapidly evolving systems in the implementation of the C-SIQ system led to uncertainty and lack of clear pathways and protocols for all organisations involved. There were gaps in developing a common understanding of pathways and protocols.

18. The emerging C-SIQ system was not able to address the rapid increase in the volume of patients, resulting in significant and clinically detrimental delays, and an inability to prioritise those at highest risk.

RECOMMENDATIONS

1. **Initial assessment – timely, relevant and people focused**

    a. Clinical (Taha Tinana)
        i. Prioritise clinical safety, with rapid assessment of acuity of the illness and clinical risk completed at the start of contact with patients, with urgency.
        ii. First patient phone contact following a positive swab should be from an appropriately skilled clinician within <24 hours, and response time should be monitored with escalation if it is not met.
        iii. Strict protocols to fully assess immediate clinical risk and acuity should be developed and used in all cases, with the same clinical risk assessment used at each health check.
        iv. All prior health information currently in the regional Clinical Portal and in primary care (general practice) clinical records should be immediately accessible to the clinicians and other teams undertaking an initial assessment and ongoing health checks.
        v. Establish a reliable means to communicate and ensure that calls and contact can be made and a second contact be noted on the record who is a trusted friend / relative / contact person who can assist if calls are unanswered.
        vi. Actively engage whānau in establishing reliable communications and backup contacts
        vii. Consider allowing the COVID Healthline team to utilise their own triage tools and software for the clinical assessments including their telephony platform for improved call-back monitoring. In doing so, the information recorded by COVID Healthline must be integrated with, and accessible to, teams managing C-SIQ patients.
        viii. Engage with community health providers including primary care to ensure connected clinical assessment

    b. Family/Social (Taha whānau)
        i. Assessment of manaaki needs should be concurrent with the clinical safety assessment.
        ii. Confirm that the handover of a request when face to face intervention required is robust and that this operates 24/7.
        iii. Referrals to the manaaki team should be made in a framework of risk and priority to inform the urgency of response, and the nature of that response.

    c. Mental wellbeing (Taha hinengaro)
        i. Ensure this is included in the initial assessment.
        ii. Check level of health literacy and the patient's ability to assess their own needs and how to recognise deterioration with examples given.

    d. Public health interview and assessment should be deferred if there are clinical or safety concerns.

    e. Complex cases or those with high risk should be considered for a multidisciplinary approach to assessment and initial placement decisions,

engaging public health, primary care and specialists, and where relevant community Māori health providers. Consider a "virtual ward round" model for the highest risk.

f. Where patients live alone and have vulnerabilities, consideration should be given to these cases being moved into MIQ to provide closer oversight and the opportunity for face-to-face assessment and engagement.

g. A review of the criteria for those who should be cared for in MIQ should be undertaken with urgency.

2. Supporting the patient and whānau journey

a. Regular contacts should be focused and coordinated, with all agencies having visibility and understanding of how, when and why they are contacting the patient, and what the outcome of that contact was.

b. A single central record should be utilised which is continuously updated and visible across the system.

c. Use of communications and clinical technology should be individualised to meet patient needs. Alternatives should be available.

d. Educational material and instructions should meet the needs of all patients. This includes correct use of technology were necessary.

e. Primary care and Māori and Pasifika community providers should be linked in early in the patient journey to optimise support and connectivity.

f. Welfare needs.
These should be an integral part of a holistic, people centred, seamless approach. Features of any approach should include:
    i. co-design and delivery of wraparound services that ensures individual and whānau self-isolating have access to the full range of health and welfare services they need to keep them safe and supported.
    ii. a strong coordinated assessment and triage process that gives equal importance to people's health and wellbeing
    iii. a service model where health, social wellbeing and cultural needs provide equity in individual and whānau experiences.
    iv. a strong risk assessment and referral process.
    v. an early intervention and clear time framed escalation processes.

3. Identifying and escalating the deteriorating patient

a. Clear trigger points and pathways for escalation should be standardised for all involved agencies. These should be simple and well understood by non-clinical teams.
b. Adequate clinical support is required. A suggestion of one doctor (contracted locum with primary care experience) overseeing 250 COVID-19 community isolating patients is made, based on the NSW "inTouch" experience.

c. A robust escalation that is informed by clinical and welfare risk is needed for "non-contactable" patients. That may require a multi-agency view including police and ambulance services depending on the risk attributed to a lack of response.

4. Cultural safety and equity

a. All clinical assessment tools, support systems and escalation pathways need to integrate the higher risks for Māori /Pasifika patients.
b. Māori community providers, and those of other such groups as Pasifika and culturally and linguistically diverse (eg: refugees, migrants) should be engaged early.

5. Clinical Governance

An integrated Clinical Governance framework should be developed involving all agencies and providers and include previous service users if possible. The panel is aware that a proposal for a clinical governance group was presented on 10/11, during the course of this review.

The Clinical Governance framework should include:

i. A reporting function and central database for adverse events, incidents and complaints. These should be reported upon and reviewed by a panel of clinical representatives from each agency and recommendations made. Reviews should be rapid an inform changes at the earliest opportunity

ii. Outcomes and KPIs should be defined, tracked and reported on. These should include all SAC events, readmissions to hospital, timeliness of clinical contact and escalation among others.

iii. Rapid consumer and staff feedback mechanisms should be in place

iv. Regular audits of the C-SIQ performance should be completed and disseminated.

v. Consideration should be given to having national collective oversight and reporting to ensure consistency as this model is implemented in other regions. The panel is aware the Health Quality and Safety Commission is considering a potential role in this.

APPENDICES:

APPENDIX 1: TERMS OF REFERENCE

COVID-19 community deaths in two patients overseen by Community Supported Isolation and Quarantine (C-SIQ) in November 2021

Major Incident Review - Terms of Reference (8 November 2021)

Two patients suffering from COVID-19 who were self-isolating in the community died in November 2021. Both patients were under the oversight of the developing metro-Auckland C-SIQ process.

The deaths have been referred to the Coroner.

The NRHCC in consultation with the Ministry of Health initiated this review following the first death. The second death followed very shortly after. Although the circumstances of the second death are substantively different, review of that adverse event has been added to the primary review as both patients were under C-SIQ oversight. Auckland DHB is also undertaking an internal review of the hospital care provided to the second patient and will link with this review.

1. Purpose

The purpose of the investigation is to:

- Understand the circumstances around how care was provided to the two patients by the C-SIQ process (and where relevant other providers) in the period between their initial diagnosis of Covid-19 and their death.
- Review and assess relevant policies, protocols and processes in place under the C-SIQ process, including those relating to:
    1. Clinical and Public Health Risk Assessment
    2. Handover of information between groups and agencies
    3. Monitoring of clinical and personal wellbeing
    4. Identification of trigger points for escalation
    5. Escalation process
    6. Support for self-isolation in the community
    7. Cultural safety
- Review the context of the deaths in the timeline of development of the C-SIQ process
- Identify any systems issues that come to light as part of the review process that may have contributed to gaps in the provision of safe health care in C-SIQ
- Identify and make recommendations about improvements that could help prevent similar incidents from happening again
- Identify any systems that could assist continuity of care and record sharing
- Provide a report as a record of the investigation process

2. Exclusions

The review will not seek to determine the cause of death for either patient, as that is part of the Coronial process.

The review of the second patient will not review the inpatient care at ADHB

3. Process

- An adverse events framework will be used to undertake the investigation
- The panel will interview relevant people as necessary
- The panel may consider other reports into the incidents and other information it considers relevant to inform its investigation
- The review will follow best practice and good clinical governance methodology that align with the principles set out by the Health Safety Quality Commission of NZ

4. Timeframe

Preliminary findings and recommendations will be presented by COB Friday 12 November.

5. Panel membership

- Dr Jonathan Christiansen, Chief Medical Officer, Waitemata DHB, Chair
- Dr Penny Andrew, Clinical Lead of Quality, and Director of the Institute for Innovation and Improvement, Waitematā DHB
- Dr Ramon Pink, Medical Officer of Health/Public Health Physician, Community and Public Health, Division of the Canterbury District Health Board
- Selah Hart, CEO, Hāpai Te Hauora
- Anne Stevenson, MSD
- Norma Lane, Telehealth and Community expertise

6. Panel Support (if required)

- Sarah Murray, Complaints and Adverse Events Manager, Quality and Risk I Waitematā DHB

The investigation will be confidential until released by the Chair of the panel members to the Lead CEO, NRHCC with accountability to for C-SIQ.

APPENDIX 2: "inTOUCH" MODEL OF CARE, WESTERN SYDNEY, NEW SOUTH WALES

The review panel would like to thank Professor Golo Ahlenstiel for his generous input. The Western Sydney "inTouch" system successfully provided community-based care for >11,000 covid positive patients, with over 4000 cases at it peak.

Prof Ahlenstiel has shared the Model of Care, which is attached here. The panel found aspects of this model to be helpful in considering improvements to C-SIQ.