

Health Report

Advice on testing replacement maritime crew to further reduce the risk of COVID-19 transmission

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| To: | Hon Chris Hipkins, Minister of Health | | |

Contact for telephone discussion

| Name | Position | Telephone |
|-----------------------------|--|-----------|
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Action for Private Secretaries

Return the signed report to the Ministry of Health.

Date dispatched to MO:

Advice on testing replacement maritime crew to further reduce the risk of COVID-19 transmission

Purpose of report

This report responds to your request for further advice on testing replacement maritime crew to reduce the risk of COVID-19 transmission at the border.

Key points

- A recent case of COVID-19 transmission from the replacement of crew on a maritime vessel has highlighted the key role of maritime border settings in achieving New Zealand's COVID-19 Elimination Strategy, and "keeping out" the virus.
- While more comprehensive work is underway, it is appropriate to consider rapid and immediate changes to the testing settings, to reduce any risk of COVID-19 transmission at the border.
- This paper proposes three options:
 - **Option 1:** mandatory testing of all replacement maritime crew **arriving or departing** New Zealand, regardless of time spent in transit.
 - **Option 2:** mandatory testing of all replacement crew **arriving** in New Zealand – arriving crew are a subset of Option 1, and are likely to have higher risk of being COVID-19 positive than departing crew, who have been in effect isolated at sea for extended periods (**Ministry's preferred option**)
 - **Option 3:** mandatory testing for all replacement maritime crew who are transferring in New Zealand for a period of longer than 24 hours.
- It is important to note that any changes to the way we manage maritime replacement crews should be operationally feasible and considered in light of the following objectives:
 - Improving our surveillance of COVID-19 at the border, and helping to keep our border watertight, including identifying any sources of possible community transmission linked to the border
 - Reducing any residual risk of COVID-19 transmission to the New Zealand community
 - Ensuring changes are feasible for the maritime and shipping sector, and support the smooth operation of ports and global supply chains.
- Introducing a mandatory testing requirement for replacement maritime crew also carries a risk of legal challenge. This is because a mandatory testing regime needs to be justified and proportionate to the level of public health risk posed. We are seeking further legal advice from Crown Law on this issue.
- Alongside this advice, comprehensive work is underway to review overall settings at the maritime border and in the Elimination Strategy. This work is outlined in Appendix 1.

- If you wish to pursue any of these options, wider consultation with stakeholders is critical to ensuring that any policy change regarding replacement crew is viable, proportionate and properly balances multiple objectives identified with minimal disruption to port and shipping operations.
- If you indicate you would like to explore these options, we seek your agreement to engage with key stakeholders, such as unions, Maritime NZ, and shipping companies to design and operationalise any policy changes.

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Recommendations

We recommend you:

- a) **Note** that there is still a residual risk of COVID-19 transmission posed by replacement maritime crew. Yes/ No
- b) **Note** there is a range of medium and longer-term policy work currently underway to review and strengthen our current border settings. Yes/ No
- c) **Note** that additional testing of maritime replacement crew is one component of the comprehensive suite of COVID-19 border settings that can be enacted immediately and may help reduce risks at the border. Yes/ No
- d) **Note** that additional testing on its own may not make a material difference to risk of transmitting COVID-19, given the lag before test results are available, and that there may be costly impacts on economic activity if testing and quarantine rules slow shipping operations. Yes/ No
- e) **Indicate** your preferred option(s) for us to pursue further consultation on possible testing of maritime replacement crew:
- i) Option 1: Mandatory testing for all replacement maritime crew **arriving and departing** New Zealand, regardless of time spent in transit. Yes/ No
 - ii) Option 2: Mandatory testing for replacement crew **arriving** in New Zealand, regardless of time spent in transit (*Ministry of Health preferred option*). Yes/ No
 - iii) Option 3: Mandatory testing for all replacement maritime crew arriving in New Zealand for **longer than 24 hours**. Yes/ No
- f) **Agree** that we engage with key stakeholders to design and operationalise any policy changes on your preferred options. Yes/ No



Dr Ashley Bloomfield
Director-General of Health



Hon Chris Hipkins
Minister of Health

Date: 30/10/20

As discussed, I would also like the frequency of testing for high risk port workers to increase to weekly. Testing for those in MIQ for any length of time should be implemented ASAP. Testing for those who transit directly to a ship should be implemented after consultation.

Further advice on testing replacement maritime crew to further reduce the risk of COVID-19 transmission at the border

Background

1. On 16 October 2020, a New Zealand-based maritime engineer tested positive for COVID-19. On 21 October, two workplace contacts of the port worker tested positive and are now in quarantine at Jet Park Hotel.
2. Genomic sequencing has been completed on the first case and shows that the case is not related to the genome lineage for any of the New Zealand community clusters.
3. This case is the first instance where it is suspected that a community case has arisen as a result of interactions with those arriving via the maritime border. Although not yet confirmed, the Ministry believes it is likely that the maritime worker contracted the virus while carrying out work onboard a vessel, *Sofrana Surville*. The vessel is currently anchored offshore in Australia, and we are awaiting test results for the replacement crew.
4. Australian authorities are attempting genomic sequences of the cases. While these results are preliminary and further serology and genome sequencing will be undertaken, it lends support to this vessel and/or its crew being the most likely source of the port worker and his colleague's infection.
5. The current case was identified and isolated quickly and the worker was subject to regular surveillance testing. While this indicates that current maritime border restrictions are working, it is a timely reminder to review the settings and practice to ensure that this incident is a one-off.

Measures to reduce the risk of COVID-19 transmission at the maritime border

6. Current border settings are designed to significantly reduce the risk to the New Zealand community, while balancing the important economic and wellbeing factors relating to the maritime sector.
7. The COVID-19 Public Health Response (Maritime Border) Order (No 2) 2020 (Maritime Border Order) came into force on 6 September 2020 and introduced strengthened measures to prevent the transmission of COVID-19 by overseas maritime crew.
8. The Maritime Border Order reduces the risk of importing cases of COVID-19 via the maritime border by specifying that:
 - a. all arrivals to New Zealand from the maritime border have completed 14 days isolation (either onboard ship or in a managed isolation facility) before entering the New Zealand community.
 - b. where a person wishing to enter the New Zealand community has completed their 14 days isolation onboard ship, all crew members of that ship must meet the low-risk indicators before any person is able to disembark to enter the community

- c. disembarking overseas crew members and port-facing maritime workers boarding ships are required to wear PPE and maintain physical distancing, and guidelines have been developed to give effect to these requirements.
9. The COVID-19 Public Health Response (Required Testing) Order 2020 (the Testing Order) introduces routine mandatory testing of border workers as part of the COVID-19 Surveillance Plan and Testing Strategy. This includes staff working at Managed Isolation and Quarantine Facilities, airports receiving international passengers, and staff at maritime ports.

Current requirements for transfer and testing of maritime overseas replacement crew

10. Replacement crew arrive by air or sea, and are either transferred to a MIF if the ship they are joining is not scheduled to depart as soon as is reasonably practicable (this is not time bound, but is generally considered to be up to 24 hours), or are transferred directly to the vessel.
11. The Maritime Border Order requires any maritime crew who will be remaining in New Zealand must complete a full 14 days of managed isolation before transferring to their ship. This means that crew are required to enter managed isolation for 14 days if they will be fishing in New Zealand (or the exclusive economic zone).
12. A large contingent of Russian and Ukrainian replacement crew for fishing vessels arrived in New Zealand on 16 October 2020. The crew were required to receive testing prior to departure from Russia and to spend 14 days in a managed isolation facility in New Zealand. However, most replacement crew will immediately depart New Zealand and do not pose the same level of risk to the community. Approximately 12% of this group have tested positive for COVID-19 while in MIQ. If extrapolated, we can assume that around 10% of all replacement crew would be positive for COVID-19.
13. The majority of replacement crew are departing New Zealand. For the month of September 2020, a total of 326 replacement crew arrived or departed New Zealand. Of this number, 142 replacement crew arrived in New Zealand and 184 replacement crew left New Zealand. At any given time, 60 beds are ringfenced in our MIQ network for holding replacement crew. Recent trends have shown an increase in the proportion of replacement crew staying in MIQ while awaiting transit, and this is likely to mean we need to rethink the number of spaces needed for replacement crew. Any changes to policy settings to require testing is likely to put further strain on MIF demand and may require additional investment in the MIQ network.
14. Most replacement crew will stay in MIQ while they are waiting for their ship to depart (approximately 80%). The New Zealand Defence Force oversees transfers for those in MIQ and those transferring directly. However, there is currently no legal requirement to test replacement crew or for crew to remain at the managed isolation facility until they receive a negative test result.

Improving surveillance and reducing the risk of COVID-19 transmission at the maritime border

15. As the prevalence of COVID-19 grows overseas, there is a greater risk of people in the community coming into contact with people who are COVID-19 positive, for example while carrying out work on international vessels or while replacement crew are transferring between the airport and their intended vessel.
16. While we have strong measures in place to reduce the risk of COVID-19 transmission at the maritime border, recent events have made apparent that there is still a residual risk of COVID-

19 transmission from replacement crew. This risk is greater for replacement crew arriving by air when compared to non-disembarking crew arriving by sea. This is because replacement crew arriving by sea would have already been isolated at sea for some time and it is likely some crew members would have become symptomatic if COVID-19 was circulating.

We are reviewing our policies affecting crew transfers to minimise any residual risk of COVID-19 transmission

17. The maritime border involves multiple government, local government and private sector entities and is currently regulated through a complex set of control measures designed to mitigate the risks of COVID-19 entering the community. The Ministry of Health is taking this opportunity to review these settings to ensure that all possible risks of COVID-19 entering the community are mitigated as much as possible.
18. While any significant change to policy settings at the maritime border awaits the outcome of the case investigations, these cases do provide a prima facie case for reviewing relevant maritime border settings.
19. Medium and longer-term work is underway to review and strengthen our current border settings and is outlined in more detail in Appendix 1. This work includes:
 - a. Review of the risk framework for arrivals to New Zealand
 - b. Cross-government review looking at the future of border settings
 - c. Pre-departure testing for arrivals coming to New Zealand and day zero testing for arrivals
 - d. Reviewing the frequency of routine border testing to ensure it remains fit for purpose and in line with the latest evidence
 - e. Review of public health and infection prevention control guidance for maritime border workers
 - f. Review of operationalisation of maritime border restrictions to ensure requirements are fit for purpose and workable.
20. We are aware that the Ports of Auckland and Tauranga have already taken interim steps to protect their port workers, by asking shipping companies to potentially quarantine incoming replacement crew for up to 14 days. We will discuss this with them to understand how that is working and what impacts that might create.

Options to test replacement maritime crew to reduce the risk of COVID-19 transmission

21. In addition to the medium and longer-term work underway looking at our current border settings, we have identified three options in the immediate term to mitigate the risk posed by maritime replacement crew.
22. It is important to note that any changes to the way we manage maritime replacement crews should be operationally feasible and considered in light of the following objectives:
 - a. Improving our surveillance of COVID-19 at the border, and helping to keep our border watertight, including identifying any sources of possible community transmission linked to the border
 - b. Reducing any residual risk of COVID-19 transmission to the New Zealand community
 - c. Ensuring changes are feasible for the maritime and shipping sector, and support the smooth operation of ports and global supply chains.

23. If you wish to introduce mandatory testing for replacement crew, further consultation with stakeholders is critical to ensure that any policy change regarding transferring crew is viable, proportionate and properly balances the objectives identified with minimal disruption to port and shipping operations. Shipping companies and ports have similar incentives to keep infected people from boarding and spreading COVID-19 on their ship, which is likely to cause significant delays and disruptions to their business operations. For this reason, we do not recommend waiting for crew to return a positive test as this may lead to significant delays to operations.
24. We seek your direction on your preferred option and seek agreement to discuss these options and how they could be implemented with key stakeholders, including Maritime New Zealand, Ministry of Transport, ports, and unions. These options include:
 - a. Option 1: Mandatory testing for all replacement maritime crew **arriving and departing** New Zealand, regardless of time spent in transit
 - b. Option 2: Mandatory testing for replacement crew **arriving** in New Zealand, regardless of time spent in transit.
 - c. Option 3: Mandatory testing for all replacement maritime crew in New Zealand for **longer than 24 hours**.
25. Introducing a mandatory testing regime for replacement maritime crew carries a risk of legal challenge. This is because a mandatory testing regime is needs to be justified and proportionate to the level of public health risk posed. We are seeking further legal advice from Crown Law on this issue.
26. The pros and cons of each option are explored in more detail below. We are seeking agreement to discuss these options and with key stakeholders immediately, including exploring how they could be implemented urgently.
27. We will provide you with further advice next week on options for strengthening measures to reduce the risk of transmission for transit passengers and air crew.

Possible benefits of testing replacement maritime crew across the three options

28. All three options that test maritime replacement crew have similar benefits in terms of the three objectives of any policy change. These benefits include:
 - a. Increasing the likelihood of early identification of COVID-19 cases amongst port-facing maritime workers, allowing for early contact tracing and for other ports to be notified to prevent future transmission
 - b. Providing an additional layer of surveillance to detect any instances of COVID-19 transmission at the border
 - c. Monitoring and assessing the effectiveness of other infection protection and prevention control measures already in place for border workers, including whether guidelines are sufficient and working as intended
 - d. Protecting the health and safety of workers (occupational health and safety of port-facing maritime border workers)
 - e. Contributing to knowledge of transmission of the disease by surveillance, including the identification and matching of genomic sequences to identify the source of possible community outbreaks. This is particularly important for making the link between community cases and the border and informs our advice relating to moving alert levels. If we can quickly identify the source of a community case, it puts us in a better position to assess whether the outbreak is sufficiently contained.

*Option 1: Mandatory testing for all replacement maritime crew **arriving and departing** New Zealand, regardless of time spent in transit*

29. This option would involve testing all replacement maritime crew arriving and departing New Zealand, regardless of time spent in transit. It would have similar benefits to those outlined above, with the added benefit of providing additional surveillance across all replacement crew arriving and departing New Zealand, regardless of how long they are in the country.
30. As such, this option substantially increases the number of crew tested compared to Option 2 which focuses primarily on replacement crew arriving in New Zealand.
31. However, there are a number of operational complexities and trade-offs relating to testing all replacement maritime crew. These are briefly outlined below.
 - a. Impact on MIQ capacity. For the month of September, approximately 326 replacement crew arrived or departed New Zealand. New Zealand has an international obligation to quarantine overseas crew that test positive for COVID-19 for 14 days. If we assume around 10% of replacement crew will test positive for COVID-19 (based on rates among the Russian and Ukrainian fishermen cohort), we would need around 50 MIQ spaces to be made available for the 14 day quarantine period that will reduce the number of spaces available for other groups, such as returning New Zealanders and critical workers.
 - b. Impact on ports and global supply chains, including logistical and operational challenges associated with testing, including the timing of testing. If we are required to quarantine replacement crew that test positive for 14 days, this will impact seafarer welfare (delays in replacement crew relieving existing crew), and also delay the operation of global shipping routes. It is of critical importance for New Zealand's economic recovery that exporters continue to have access to overseas markets and goods continue to flow inward.
 - c. Logistical and operational challenges associated with testing crew who are transiting for less than 24 hours. A test too soon after exposure is unlikely to give a reliable result.
 - d. Potential that crew will return a positive test as a result of historical infection, leading to unnecessary delays in crew exchanges as crew wait for follow up serology testing (around 2-3 days). A single test at a point in time does not conclusively determine whether a person has contracted COVID-19, and the number of historical infections presenting as positive COVID-19 tests is increasing. Given the increasing prevalence of COVID-19 overseas, it is likely that many replacement crew will have antibodies from historical infections which may increase the rate of false positives and also put pressure on MIQ spaces.
 - e. Testing does not mitigate immediate risks to port-facing maritime workers, as contact with foreign maritime crew is likely to occur before test results are returned (typically results are returned within 48 hours).
 - f. Potential for complacency and lower compliance with existing infection prevention and control requirements among replacement crew and maritime port workers.
 - g. There are also privacy implications relating to the handling of personal medical information and notification of test results for foreign nationals. Under the

International Health Regulations, New Zealand has an obligation to notify the infected person, master of the vessel, flag state, and the next port if known.

*Option 2: Mandatory testing for all replacement maritime crew **arriving** in New Zealand*

32. This option is narrower in scope than Option 1. It would involve only testing replacement maritime crew arriving in New Zealand, regardless of time spent in transit. Most replacement crew stay in MIQ before being transferred (approximately 80%). Only around 20% transit within 24 hours, and do not require an MIQ stay. Under Option 2, both groups would be tested.
33. It is important to note that there may be some operational complexities involved with testing replacement crew who are transiting to ships within a very short timeframe. This includes issues around where testing will take place and that it is likely test results will come back after the vessel has left New Zealand waters.
34. The benefits and cons are similar to those outlined in Option 1, including improving our ability to identify and to make the link at the border in the event of a community outbreak. However, there are several benefits compared with Option 1:
 - a. Less of an impact on MIQ capacity. The vast majority of replacement crew are departing rather than entering New Zealand. In the month of September, only 142 replacement crew arrived in New Zealand while 184 replacement crew left New Zealand.
 - b. More targeted and effective use of testing capacity. The public health risk to the community posed by replacement crew entering New Zealand is higher than replacement crew leaving. This is because there is a higher likelihood of possible interactions between arriving crew and the wider New Zealand community (e.g. port-facing maritime workers). Additionally, replacement crew departing New Zealand are likely to have spent time on a ship isolating at sea and if COVID-19 is circulating on board, it is likely that some crew members would have presented as symptomatic.

Option 3: Mandatory testing for all replacement maritime crew arriving in New Zealand who are in transit for longer than 24 hours

35. This option involves introducing mandatory testing for all replacement maritime crew arriving in New Zealand who are in transit for longer than 24 hours and are waiting for transit in a MIQ facility. Under Option 3, around 80% of replacement crew would be tested as they are in New Zealand for longer than 24 hours.
36. The overall benefits to testing are similar as to those outlined earlier in the paper. However, this option:
 - a. Would likely lead to slightly lower demands on testing capacity, as 20% of replacement crew transfer directly to their ship or plane and would take up less MIQ capacity than Option 1 or 2
 - b. Make it easier to implement a testing requirement as there is existing health and testing capability within MIQ facilities.

Discussion of options and recommended approach

37. We recommend Option 2, if you wish to prioritise:
 - a. improving surveillance at the border, including identifying the sources of any possible community cases, and

- b. minimising the risk of transmission by replacement crew.
38. This option takes a more targeted approach to managing risk through only testing replacement maritime crew arriving in New Zealand where we consider the risk of transmission to the community is greatest, and balances competing demands on MIQ capacity.
39. We do not recommend:
- a. Option 1, as it diverts testing capacity to maritime replacement crew who are shortly departing New Zealand and therefore pose a considerably lower risk to the community
 - b. Option 3, as it only provides surveillance across approximately 80% of replacement crew who will enter MIQ, with the 20% in transit still posing a risk of infection.
40. However, it is important to note that when considering these options that many vessels are likely to have left the port before the test result is returned, which limits our ability to reduce exposure to port-facing maritime workers in NZ.

Next steps

41. If you wish to pursue any of these options, wider consultation with stakeholders is critical to ensuring that any policy change regarding replacement crew is viable, proportionate and properly balances multiple objectives identified with minimal disruption to port and shipping operations. However, if you opt for option 2, we envisage this consultation is likely to be more straightforward than for options 1 and 3.
42. If you indicate you would like to explore these options, we seek your agreement to engage with key stakeholders, such as unions, Maritime NZ, and shipping companies to design and operationalise any policy changes. If you agree, we will provide you with further advice on options following stakeholder engagement.
43. We recommend that any changes to testing requirements be given effect through amendments to the Maritime Border Order that make explicit testing requirements for replacement crew. We will provide you with further advice following consultation with key stakeholders.

Appendix 1 Current policy work underway on border settings

| Topic for review | Next steps |
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| Cross-government review of future border settings | The Ministry will progress more detailed work on the future of border settings with other Government agencies. This responds to the direction by Cabinet on 5 October 2020 for “the Ministry of Health and Ministry of Business, Innovation and Employment (MBIE) to undertake an urgent review of the evidence about incubation period and whether to require extended isolation periods for some new arrivals into New Zealand based on an assessment of risk, and to report with recommendations back to the Prime Minister, Minister of Housing (MIQ) and Minister of Health at the earliest opportunity” [CAB-20-MIN-0462 refers]. |
| Pre-departure testing for arrivals to New Zealand and day zero testing for arrivals to New Zealand | Currently New Zealand does not generally require pre-departure testing for any arrivals to New Zealand. The recent incident with Russian and Ukrainian fishing crew having negative pre-departure tests but testing positive on their arrival in New Zealand shows the fallibility of these tests. Officials keep this issue under active review and can provide separate advice on this issue. |
| Review of frequency of mandatory border testing | Testing frequency for border workers under the COVID-19 Public Health Response (Required Testing) Order 2020 is determined by the risk setting of each occupational group and each work setting, with workers in higher risk occupations and in higher risk work settings being tested more frequently than workers in lower risk occupations and work settings [HR 20201513 refers]. Officials are currently working on an interim review of the Required Testing Order, due to be completed by the end of October 2020 [HR 20201513 refers]. This review will include analysis of whether the testing frequencies for border workers remain fit for purpose, based on public health advice and Bill of Rights Act 1990 considerations. We will provide you with advice on the results of the interim review and any proposed next steps in early November 2020. |
| Review of public health and infection prevention control guidance for maritime border workers | Interim advice will be provided on the public health and infection control measures currently in place at the maritime border. |
| Review of operationalisation of maritime border restrictions | Customs and Maritime New Zealand have raised concerns that parts of the current Maritime Border Order may not be practical. The Ministry is currently liaising with stakeholders to identify concerns and discuss next steps. |
| Review of refit and refurbishment rules | Work is currently underway to review the rules for vessels allowed to enter New Zealand for the purposes of refit or refurbishment. The aim is to provide more clarity on the criteria for entry and will likely require more information from applicants We are due to provide you with advice on this in early November. |

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| <p>Review of the risk framework for arrivals to NZ</p> | <p>Work is being progressed by the Ministry of Health, MBIE and the COVID-19 All-of-Government Response Group on border settings. This work is in response to the direction made by Cabinet on 5 October to undertake an urgent review of the evidence about incubation periods, and whether to require extended isolation periods for some new arrivals to New Zealand, based on an assessment of risk [CAB-20-MIN-0462 refers]. In the longer term, this work may have implications for management of the maritime border.</p> |
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